Document Control No._____

EG&G MOUND-25-02-10-02--9508150110

Environmental Restoration Program

# OPERABLE UNIT 5
# OPERATIONAL AREA PHASE I INVESTIGATION
# NON-AOC FIELD REPORT

**MOUND PLANT**
**MIAMISBURG, OHIO**

**VOLUME II - APPENDICES A-G**

**June 1995**

**Final (Revision 0)**

**U.S. Department of Energy**
**Ohio Field Office**

EG&G Mound Applied Technologies

**CHANGE PAGE INSTRUCTIONS**
**Issued June 1995**

**for the**

**Operational Area Phase 1 Investigation**
**Non-AOC Field Report**
**Final (Revision 0)**

**Volume I**

1. Remove and discard the cover, spine, title page, text, and Plate 2 from the binder.

2. Insert the new cover and spine [FINAL (Revision 0)] on the outside of the binder. Insert the new title page and revised text into the binder. Insert Plate 2 into the holder.

**Volume II**

1. Remove and discard the cover, spine, and title page. Replace with the Final (Revision 0) cover, spine, and title page.

1. In Appendix A.1, locate the "Non-AOC FIDLER logbook" and replace the appropriate logbook pages with those included in this packet. Also in Appendix A.1, locate the "Building 61 FIDLER logbook (located after the Non-AOC FIDLER logbook) and replace the appropriate logbook pages with those included in this packet.

2. In Appendix B, replace the following pages: 3,4,11, and 12.

3. In Appendix E, insert the NERI report pages included in this packet betweem the text and plates.

4. In Appendix G, replace the following pages: iii,iv, 12,13, 84-89.

**SPECIFIC COMMENTS:**

Comment #1: Volume I, Section 2.1.1.1, Page 2-3, Paragraph 1 and Volume, Appendix A.1 throughout:
As the Ohio EPA and Mound have discussed recently, the calculation for standard deviation mentioned in this paragraph (and performed throughout Appendix A.1) was not performed correctly due to an error in the Site-Wide Quality Assurance Project Plan. Mound is currently determining any impact on data. We request that we be informed once Mound determines its course of action and that any affected data be revised and/or reevaluated.

Response #1: The calculations for standard deviation have been corrected for this report and the text revised appropriately. Change pages for the text and appendixes will be issued for the FINAL report.

Comment #2: Volume I, Section 2.2.5.3, Page 12, Paragraph 1:
That some releases into the Non-AOC appear to have occurred no later than 1992 is indicated by comparison of this soil survey with the results from a 1992 survey. (Comment only).

Response #2: Comment noted.

Comment #3: Volume I, Section 2.5, Page 49, Paragraph 1:
The monitoring well installation procedures and construction diagram have been reviewed and are found to be in compliance with SOP's. The screened interval in the sand and gravel is found to be adequate for monitoring fluctuations in the water table. (Comment only).

Response #3: Comment noted.

Comment #4: Volume II, Appendix B, Page 4, Table 1, #30:
Why is no sampling recommended in Volume I, Section 3 for Warehouse 15? Because it is part of Area 7? If so, perhaps the "D" in the comment column should be changed to "B" in Table 1.

Response #4: This area was investigated as part of Area 7. The "D" in the comment column will be changed to "B".

Comment #5: Volume II, Appendix B, Page 11, Table 1, #105:
The Test Fire Residual Storage (#105) is recommended for "future guidance" ("H" in the comment column) yet is not included under Recommendations at the end (page 17) of Appendix B. Retort (#106), however, is included with the recommendations. Why should #106 be treated differently than #105?

Response #5: The Test Fire Residual Storage (#105) should not have been included as part of the OU5 investigation. This area is within Building #2 and was not considered a RCRA storage area but was used as a waste accumulation area. No unexploded devices were placed in this area. If any devices went through testing without exploding, they would be disassembled to establish why they did not function properly. Because of this, the "H" in the comments column in Table 1 will be changed to an "E", indicating that no sampling was required for the OU5 investigation. Retort (#106) will remain recpmmended for additional sampling.

Comment #7: Volume II, Appendix E, Page 2:
As a result of the soils gas survey, SAIC and NERI recommend future quantitative testing of soil and groundwater in determining the environmental significance of elevated levels. (Comment only).

Response #7: Comment noted.

## GENERAL COMMENTS:

Comment #1: How are the Phase I Investigation results from the various areas going to be used when developing the work plan for the Phase II investigation? Will a single work plan for OU5 be prepared, versus individual work plans for each Area of Concern?

Response #1: The results from the Phase 1 investigation will be used to develop a single work plan for OU5 for the Phase 2 investigation of the Non-AOC. An additional, or a series of additional work plans, could be generated for the Areas of Concern depending on Phase I results and the approach/budget available from DOE.

## SPECIFIC COMMENTS:

Comment #1: Section 1 Introduction
Page 1-1, Paragraphs 3 and 4
It is not clear from the report why AOCs 8, 9, 10, and 12 were differentiated from the other AOCs within OU5? Are these AOCs going to be investigated individually, or only within the scope of the Non-AOC investigation? Some explanation of this should be provided in the text.

Response #1: The text will be revised as follows:

"Though the Non-AOC geographically includes the areas designated as AOCs 8, 9, 10, and 12, a thorough investigation of these areas as AOCs was outside the objectives of this Phase 1 investigation. AOCs 8, 9, 10, and 12 are to be investigated individually during future studies conducted by the D&D Program at Mound.

Sampling (radiological and soil gas surveys) was conducted in the areas designated as AOCs 8, 9, 10, and 12 as part of the Non-AOC investigation. However, sampling was minimal and did not constitute a complete investigation of each AOC. Sampling results for these areas will be presented although no comparison with historical data will be done for this report."

Comment #2: Section 2.1.1.1 FIDLER Survey
Page 2-3, Table II.1
Background station locations Stake 3N4 (used two days) and Stake 20N6 (used one day) are in areas that contain elevated FIDLER survey readings, with Pu-238 surface soil concentrations between 25-50 pCi/g. Readings compared to these background locations are suspect. Background station locations Stake 1N16 and Stake 12N27 are not shown as survey points on the figures.

Response #2: The locations of the background stations are referenced to a stake as a point of reference only and does not mean that backgrounds were measured exactly at the stake location. Based on a reveiw of the background values for the Non-AOC study, the values used on 6/20/94, 6/21/94, and 6/27/94 do not appear to be elevated and are consistent with background values determined at other locations. The elevated FIDLER readings were detected at the stakes and not at the background locations. Based on this information, the background values are not considered to be elevated and the data compared to the background values are considered to be valid.

Environmental Restoration Program

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# APPENDIX A
# FIELD LOGBOOKS

A.1 FIDLER LOGBOOKS
A.2 SITE MANAGER LOGBOOK
A.3 SOIL GAS LOGBOOKS
A.4 SEEP LOGBOOK
A.5 SAMPLE MANAGER LOGBOOK
A.6 BUILDING 24 SOIL BORING LOGBOOK
A.7 WELL W410 LOGBOOK

A.1

## A.1 FIDLER LOGBOOKS

EG & G MOUND

OUT OPS AREA

PHASE I

FIDLER

LOGBOOK

NON-ROC

# FIDLER
# 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:** 6-20-94
**END DATE:**

TABLE OF CONTENTS FIDLER

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE PROJECT NO: 34896


| PAGE | FIELD LOG | PAGE | FIELD LOG |
|---|---|---|---|
| 1 | Activity Log Sheet - 6/20/94 | 31 | No Entry |
| 2 | " " " | 32 | |
| 3 | " " " | 33 | |
| 4 | " " " | 34 | |
| 5 | Activity Log Sheet - 6/21/94 | 35 | |
| 6 | " " " " | 36 | |
| 7 | " " " " | 37 | |
| 8 | " " " " | 38 | |
| 9 | Activity Log Sheet - 6/22/94 | 39 | |
| 10 | Activity Log Sheet - 6/23/94 | 40 | |
| 11 | Activity Log Sheet - 6/27/94 | 41 | |
| 12 | Activity Log Sheet - 6/28/94 | 42 | |
| 13 | Activity Log Sheet - 6/29/94 | 43 | |
| 14 | Activity Log Sheet - 6/30/94 | 44 | |
| 15 | Activity Log Sheet - 7-6-94 | 45 | |
| 16 | Activity Log Sheet - ~~7-21-94~~ SBOP 7/7/94 | 46 | |
| 17 | Activity Log Sheet - 7-21-94 | 47 | |
| 18 | No Entry | 48 | |
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PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE PROJECT NO.: 34896

| PAGE | FIELD LOG | PAGE | FIELD LOG |
|---|---|---|---|
| 61 | No Entry | 91 | No Entry |
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| 66 | | 96 | |
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| 78 | | 108 | |
| 79 | | 109 | |
| 80 | | 110 | |
| 81 | | 111 | |
| 82 | | 112 | |
| 83 | | 113 | |
| 84 | | 114 | BLANK PAGE |
| 85 | | 115 | FIDLER SURVEY DATA |
| 86 | | 116 | |
| 87 | | 117 | |
| 88 | | 118 | |
| 89 | | 119 | |
| 90 | | 120 | |

**TASK TEAM ACTIVITY LOG SHEET** FIDLER

PG 1

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE TASK NO.: 34896

Date (mm/dd/yy): 6-20-94 TIME: 9: : 23 PAGE 1 OF 4

Task Team Members:

SALLY BROWN

CRAIG PATTERSON

Narrative (include time and location): 3400 INSTRUMENT 3611 PROBE (#2)

BATTERY ~~1,840 ≈ 85%~~ 184 KV ≈ 92%

HV ~~1,200~~ CP CP 300 COUNTS/MINUTE

BACKGROUND ~~300~~ CP 6/20/94 1: 75 CP COUNTS/MINUTE $\bar{X}$=84

(PARKING LOT ~~320~~ CP 2: 90 COUNTS/MINUTE SD= 5

BY SAIC TRAILER) 3: 80 COUNTS/MINUTE 8.4

CHANNEL 1 4: 85 COUNTS/MINUTE x 3

~~NEAR 3N4W~~ CP 9/19/94 5: 90 COUNTS/MINUTE $\bar{X}$+25.2

PU 238 STD CHECK 15 AT X100 1500 COUNTS/MINUTE $\bar{X}$=84 sd=9.16 3xsd=27.48 111.48 4/28/95 109.2

Th STD CHECK 40 AT X10 = 400 COUNTS/MINUTE

BACKGROUND 1: 4400 COUNTS/MINUTE $\bar{X}$=4400

(PARKING LOT 2: 4300 COUNTS/MINUTE SD= 5

BY SAIC TRAILER) ~~NEAR 3N4W~~ 3: 4500 COUNTS/MINUTE SD=440

CHANNEL 2 CP 9/13/94 4: 4300 COUNTS/MINUTE x 3

AT X10 5: 4500 COUNTS/MINUTE 1320

PU 238 STD CHECK 50 AT X100 = 5000 COUNTS/MINUTE 5720

Th STD CHECK 55 AT X100 = 5500 COUNTS/MINUTE 4/28/95

9:23 - 1st Sta BKGD CHECK NEAR SAIC TRAILER x=4400

10:20 - MOVE to trailers near 3N4 sd=66.3 3xsd=198.99

4598

Daily Weather Conditions: A.M. HOT SUNNY HUMID 90°F

P.M. NA

Recorded By CRAIG PATTERSON QA Checked By Juletta Humpert

PG2

**TASK TEAM ACTIVITY LOG SHEET** — **FIDLER**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 6/20/94 TIME: 10 : 27 PAGE 2 OF 4

Task Team Members:

CRAIG PATTERSON

SALLY BROWN

Narrative (include time and location): FIDLER #2

IN BETWEEN 3N4 & 4N4 BY TRAILERS & ROCK

BACKGROUND CHANNEL 1: 1: 85 CPM, 2: 75 CPM, 3: 70 CPM, 4: 80 CPM, 5: 70 CPM

$\bar{X} = \frac{76}{5}$ ~~.05~~ 7.6

sd = 8.71, 3xsd = 26.15 +76 = 102.15

~~$\bar{X}$ + 22.8~~

CHANNEL 2: 1: 5000 CPM, 2: 5500 CPM, 3: 5000 CPM, 4: 5500 CPM, 5: 5000 CPM

~~98.8~~

$\bar{X} = \frac{5200}{5}$ ~~.05~~ 520

~~$\bar{X}$ + 1560~~

6760

WALKING SURVEY
100 FT IN 5 MIN
OUT CHANNEL
6-12" OFF THE GROUND

$\bar{X}$ = 5200
sd = 72.11
3xsd = 216.33
+5200 = 5416.33

10:30 - take std bkgd chk.
11:40 - Start taking readings
12:20 - go in to trailer for lunch
12:50 - return to feild by contractor's gate & start taking readings

Daily Weather Conditions: A.M. HOT, HUMID

P.M. NA

Recorded By CRAIG PATTERSON QA Checked By Juletta Humpert

PG3

**TASK TEAM ACTIVITY LOG SHEET** — FIDLER

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 6-20-94 TIME: ~~8:~~ SAB 6-20-94 11:10 PAGE 3 OF 4

Task Team Members:

SALLY BROWN
CRAIG PATTERSON

Narrative (include time and location):

FIDLER #1 - #3712 PROBE #3713
BATTERY CHECK 90% HV = 1.2
CHANNEL 1 STD BKGD - ① 110 cpm (in parking lot)
② 90 cpm NEAR 3N4W
③ 80 cpm x = 87
④ 70 cpm sd = 9.32 3xsd = 27.98
⑤ 85 cpm 27.98 + 87 = 114.98
Contamination Crit = ~~113.1 cpm~~ JH 4/28/95
$Pu^{238}$ STD CHECK 3000 cpm
Th STD CHECK 2000 cpm

(PARKING LOT) NEAR 3N4W
CHANNEL 2 STD BKGD - ① 60 / x 100 SAB 6-20-94 cpm Contamination
② 50 / x 100 SAB 6-20-94 cpm Crit =
③ 70 / x 100 SAB 6-20-94 cpm ~~JH 80.60~~ / x 100 cpm JH 4/28/95
④ 70 / x 100 SAB 6-20-94 cpm JH 12/5/94
⑤ 60 / x 100 SAB 6-20-94 cpm
$Pu^{238}$ STD CHECK - 6000 cpm x = 6200
Th STD CHECK - 10,000 cpm sd = 7.87 3sd = 23.62
~~23.62 + 62 = 85.62~~ JH 4/28/95
= 6436

Daily Weather Conditions: A.M. HOT, HUMID, CLOUDY 90's
P.M. ~~Hot, Stormy, Lightning~~ SAB 6-20-94

Recorded By SALLY BROWN QA Checked By Juletta Hungerford

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**TASK TEAM ACTIVITY LOG SHEET** **FIDLER**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** **TASK NO.: 34896**

Date (mm/dd/yy): 6/20/94 TIME: 1 : 00 PAGE 4 OF 4

Task Team Members:

SALLY BROWN

CRAIG PATTERSON

Narrative (include time and location):

1:00 pm - 04W01 - levels on 'out channel' switch tend to be lower on gravel or blacktop, as opposed to vegetation

4:20 pm - 01W03 - called in on Lightning Alert
- stay in for the day.
- read up on the SOP.
- 20 stakes done 6 to 7 completed

Last Entry

Daily Weather Conditions: A.M. rainy, lightning, hot

P.M. ↓ ↓ ↓

Recorded By Sally Brown QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** FIDLER

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** **TASK NO.: 34896**

Date (mm/dd/yy): 6/21/94 TIME: 7:25 PAGE 1 OF 4

Task Team Members:

CRAIG PATTERSON

SALLY BROWN

Narrative (include time and location): 3400 INSTRUMENT 3611 PROBE (#2)

IN BETWEEN BATERY 1.8 kV 90%

3N4-4N4 BY HV 300 CPM

TRAILERS & ROCK BACKGROUND CHANNEL 1

PU 238 STD CHECK 1: 100/x1 = 100

70/x10 = 700 2: 105/x1 = 105

3: 105/x1 = 105

Th STD CHECK 4: 120/x1 = 120

210/x1 = 210 5: 100/x1 = 100

$\bar{X}$ = 106 SD = ~~106~~ 10.2 / 5 = ~~10.6 x 3 = 31.8~~ 10.6 x 3 = 31.8 JH 4/20/95

31.8 JH 4/20/95

~~137.8~~ 3 x sd = 30.8 + 106 = 136.88

BACKGROUND CHANNEL 2

PU 238 STD CHECK 1: 50/x100 = 5000

50/x100 = 5000 2: 50/x100 = 5000

3: 50/x100 = 5000

Th STD CHECK 4: 50/x100 = 5000

55/x100 = 5500 5: 50/x100 = 5000

WALKING SURVEY $\bar{X}$ = 5000 ~~SD = 5000/5 = 500 x 3 = 1500~~ JH 4/20/95

100 FT IN 5 MINUTES 1500 JH 4/20/95

OUT CHANNEL ~~6500~~ sd = 70.7 3xsd = 212.13

6-12" OFF THE GROUND 5212.13

Daily Weather Conditions: A.M. SUNNY MODERATELY HOT

P.M. NA

Recorded By CRAIG PATTERSON QA Checked By Juliette Humpert

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**TASK TEAM ACTIVITY LOG SHEET** — FIDLER

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 6-21-94 TIME: 8 : 45 PAGE 2 OF 4

Task Team Members:
Sally Brown
Craig Patterson

Narrative (include time and location):

FIDLER #1

CHANNEL 1 STD BKGD ① 140 — $Pu^{238}$ 3500
② 110 — Th - 500
BATT - 90% ③ 115 — $\bar{x}$ = 117 sd = 10.81 3xsd = 32.43
HV - 1.2 ④ 110 — 32.43 + 117 = 149.43
⑤ 110 — ~~5|585 - 117 351 152.1~~ JH 4/28/95
117

CHANNEL 2 STD BKGD ① 6500 — $Pu^{238}$ 4000
② 6500 — Th 10000
Out ③ 7000 — $\bar{x}$ = 6500 sd = 80.62 3xsd = 241.86
Channel ④ 6500 — 6500 + 241.86 = 6741.86
⑤ 6000 — ~~5|325.00 + 195 520.00~~ JH 4/28/95
65.00
~~$\bar{x}$ = 6500 .5 = 650 X 3 = 1950~~
5
6500
~~8450~~ JH 4/28/95

7:25 - start STD BKGD GHK. ~~NEAR~~ 3N4
8:15 - Start taking readings flat surface, grassy
10:20 - move to into wooded area between Area 2 & 2 and overflow pond so take new BKGD GHK - 16WN1 very tall weeds, hard to walk through
12:00 - go in to trailer for lunch
12:30 - go back to woods

Daily Weather Conditions: A.M. Sunny, Moderately Hot
P.M. NA

Recorded By Sally Brown QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET FIDLER

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE TASK NO.: 34896

Date (mm/dd/yy): 6/21/94 TIME: 10:28 PAGE 3 OF 4

Task Team Members:

SALLY BROWN

CRAIG PATTERSON

Narrative (include time and location): #2 FIDLER

CHANNEL 1 STD BACKGROUND

1: 140

2: 125 $\bar{X}$ = 138 sd = 11.74

3: 145 3xsd = 35.22

4: 145 138 + 35.22 = 173.22

5: 135

~~138.0 + 3.8 x 3 41.4~~ 4/28/95

41.4

179.4 4/28/95

CHANNEL 2 STD BACKGROUND

1: 8000 x = 8400

2: 8000 sd = 91.65

3: 8500 3sd = 274.95

4: 8500 8674.95

5: 9000

8400 ~~840x3 2520~~

~~2520~~

10,920 4/28/95

#1 FIDLER

STD BKGD CK CH 1

1 150 $\bar{X}$ = 162 sd = 12.72

2 135 3xsd = 38.16 200.16

3 190

4 150 STB 6/21/94

5 185 ~~162 x3 486 48.6 + 162 210.6~~ 4/28/95

Chan 2 STD BKGD

1 10000

2 9000 x = 9400

3 9000 sd = 96.95

4 9500 3xsd = 290.85

5 9500 9690.85

~~9400x3 28,20~~

~~+ 2820~~

~~12,720~~ 4/28/95

RECHECKED STD BACKGROUNDS for ~~new~~ wooded area. NEAR KOWN 1

Daily Weather Conditions: A.M. HOT, HUMID, IN THE WOODS,

P.M. HOT, HUMID, SHADED IN WOODS

Recorded By SALLY BROWN

CRAIG PATTERSON

QA Checked By Juletta Humpert

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**TASK TEAM ACTIVITY LOG SHEET** — **FIDLER**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 6/21/94 TIME: 1 : 50 PAGE 4 OF 4

Task Team Members:
SALLY BROWN
CRAIG PATTERSON

Narrative (include time and location):

1:50 - NO OUT CHANNEL SWEEP DONE BETWEEN 18WSN and 17WSN. PATH BLOCKED BY 7ft pile of DEAD TREES. TOO WIDE TO GO AROUND, TOO HIGH TO SAFELY GO OVER.

2:10 - 17WSN - FIDLER #1 GIVES INACCURATE NON-USEABLE READINGS. RETURN TO TRAILER TO CHECK IT.

~~4PM~~ 2:30 - GO BACK TO FIELD WITH ONLY FIDLER #2

4:45 - RETURN EARLY DUE TO BAD WEATHER AND LIGHTNING.
- work on log book in trailer
- CHANNEL 2 READINGS NOW RECORDED ~~AS~~ IN CH2 X 1000.
- 55 stakes done - 21% of survey completed

Last Entry

Daily Weather Conditions: A.M. HOT, HUMID, STORMS LATER IN DAY
P.M.

Recorded By SALLY BROWN QA Checked By Juletta Humphrey

**TASK TEAM ACTIVITY LOG SHEET** — FIDLER

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 6/22/94 TIME: 7 : 15 PAGE 1 OF 1

Task Team Members:

SALLY BROWN

CRAIG PATTERSON

Narrative (include time and location): FIDLER #2 2W 8N 1W 8N BY FENCE grassy area

7:15 STD BKGD CKS BAT - 90% HV - 1.25

CH 1 - 175, 200, 200, 210, 190 - ~~5975 - 195~~ 13 ~~585 195~~ 9H 4/28/95

$Pu^{239}$ = ~~400~~ 900 SAB 6/22/94 Th = 330 $\bar{x}$ = 195 sd = 13.96 3xsd = 41.88 236.88 253.5

7:45 - start taking readings along fence along Mound Rd. stakes knocked down - most pt are estimate

CH 2 - 9.5, 9.5, 9.5, 10, 9.5 - ~~5148 - 9.6~~ x3 ~~28.8~~ - ~~5.3~~ 12.48 9H 4/28/95

$Pu^{238}$ = 9.0 X = 9600 sd = 98 9894 Th = 9.5 $\bar{x}$ = 9.6 sd = 3.09 3sd = 9.29 + 9.6 = 18.89 9H 5/24/95

PARKING LOT BY SAIC TRAILER - 9:00 am work in parking lot asphalt

STD BKGD CKS CH 1 - 90, 90, 75, 100, 90 X = 89 sd = 9.43 3xsd = 28.29 117.29 ~~89 8.9x3 26.7~~ 9H 4/28/95

STD BKGD CKS CH 2 - 5.0, 5.0, 4.5, 4.5, 4.5 ~~4.7~~ X = 4700 + 205 = 4905 ≈ 4.9 ~~11.1~~

10:50 - Move to new area slightly wooded. ~~$\bar{x}$ = 4.7 3xsd = 6.48~~ ~~sd = 2.16~~ ~~11.18~~ 5/24/95 6.11 4/28/95

NEW BKGD CHK - 8W 4N - 11:00 a.m. 42.6 6/22/94

CH 1 - 140, 150, 140, 140, 140 - ~~142.3~~ CP ~~144.2~~ CP 184.6 9H 4/28/95 $\bar{x}$ = 142 3sd = 35.73 177.73

CH 2 - 9.0, 8.5, 9.5, 9.0, 9.0 - ~~7.7~~ = ~~13.6~~ CP 11.7 9H 4/28/95 $\bar{x}$ = 9 3sd = 9 18.0 9H 5/24/95

12:30 - in for lunch 13:00 - go back out to field 6/22/94

WOODED BKGND - 11W 8N - 1:00 pm. $\bar{x}$ = 9000 sd = 95 x 3 = 285 + 9000 = 9285 ≈ 9.28

CH 1 - 200, 100, 140, 140, 180, ~~1820~~ x3 ~~1640~~ - ~~492~~ - ~~213.2~~ 202.4

CH 2 - 10.0, 10.0, 10.0, 10.5, 10.0 - ~~50.5~~ - ~~10.1~~ - ~~3.08~~ ~~13.08~~ ~~13.08~~ 6/22/94 CP ~~12.13~~ 9H 4/28/95

$\bar{x}$ = 10,100 sd = 100 x 3 = 300 + 10,100

4:25 - go into trailer - 53 stakes done - 3 to survey completed

4:30 - ~~Ran~~ SAIC TRAILER - RUN CHECKS ON FIDLER #1 → = 10,400 cpm ≈ 10.4 kcpm

SAB 6/22/94

DECIDE TO TAKE OUT TO TEST TOMORROW

Daily Weather Conditions: A.M. SUNNY, MILDLY HUMID, HOT

P.M. HOT, SUNNY, SHADED BY WOODS

Recorded By SALLY BROWN & CRAIG PATTERSON QA Checked By Jolitta Humpert

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**TASK TEAM ACTIVITY LOG SHEET** — FIDLER

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 6/23/94 TIME: 7 : 45 PAGE 1 OF 1

Task Team Members:
SALLY BROWN
CRAIG PATTERSON

Narrative (include time and location): FIDLER #2

BATTERY CHECK - 87% HV - 1.24 PARKING LOT BY SAIC TRAILER

CHANNEL 1 STD BKGD - 90, 110, 80, 90, 100 - ~~94 x3 = 28.2 + 94 = 122.2~~ SAB 6/29/94 NEAR 8N 2W

$Pu^{238}$ - 600 Th - 1000 $\bar{x}$=94 sd=9.69 3xsd=29.07 +94 = 123.07

CHAN 2 STD BKGD - 5.0, 4.5, 4.0, 4.0, 4.0 - ~~4.3 x3 = 12.9 + 4.3 = 5.59~~ SAB 6/29/94

$Pu^{238}$ - 5.0 Th - 19.0 ~~$\bar{x}$=4.3 sd=2.07 3sd=6.21 + 4.3 = 10.51~~ SAB 6/29/94

8:20 - Start taking readings ~~$\bar{x}$=4300 sd=65.5 x3 = 196.5 + 4300 = 4496 cpm ≈ 4.49 ≈ 4.5 Kcpm~~

11:10am - 5W 11N - no marker found buildings 78, 77, 97 on map do not exist.

~~SAB 6/29/94~~ readings taken from 100 ft N of 5W10N (approximated)

BKGD CHK - ~~SAB 6/23/94 NEAR 26W 8N~~ NEAR 23W 9N

CH 1 - 100, 115, 110, 90, 120 - ~~107 x3 = 321 + 107 = 134~~ SAB 6/29/94 SAB 6/29/94 $\bar{x}$=107 sd=10.3 3xsd=31.0 138.03

CH2 - 7.0, ~~10.5~~ 7.5, 7.0, 7.0, 7.0 - ~~7.1 213 + 7.1 = 9.23~~ SAB 6/29/94 ~~$\bar{x}$=7.1 sd=2.10 3sd=6.3 + 7.1 = 13.4~~ SAB 6/29/94

SAB 6/22/94 $\bar{x}$=7100 sd=84 x3 = 252 + 7100 = 7352 cpm ≈ 7.35 Kcpm 7.99 + 7.1 = 15.09

12:30 - LIGHTNING ALERT CALLED, HEAVY STORM & RAIN

WORK ON LOG BOOKS IN TRAILER

3:30 - RAIN STOPS. BACK IN FIELD

BKGD CKS - CH 1 - 120, 115, 105, 100, 110 - 550 - ~~110 x3 = 330 + 110 = 143~~ SAB 5/1/95 $\bar{x}$=110 sd=10.48 3sd=31.44 + 110 = 141.44

CH 2 - 5.0, 5.0, 5.5, 5.0, 5.0 - 25.5 - 5.1 ~~x3 = 15.3 + 5.1 = 6.63~~ SAB 5/1/95 ~~$\bar{x}$=5.1 sd=1.77 3sd=5.31 + 5.1 = 11.87~~ SAB 5/1/95

4:30 - COULD NOT LOCATE 26W9N & 25W9N; 26W8N ~~BEHIND~~ UNDER WATER

5:00 - come in to trailer - 36 stakes done 1/6 % survey completed SAB 6/23/94

Daily Weather Conditions: A.M. SUNNY, HOT, 80's (upper)

P.M. STORMY, LIGHTNING; DRIED UP, HOT

$\bar{x}$=5100 sd=71 x3 = 213 = 5313 cpm ≈ 5.3 Kcpm

Recorded By Sally BROWN QA Checked By Joletta Hampest

**TASK TEAM ACTIVITY LOG SHEET** — FIDLER

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 6/27/94 TIME: 7:45 PAGE 1 OF 1

Task Team Members:

SALLY BROWN

CRAIG PATTERSON

Narrative (include time and location): FIDLER #2 CP 6/27/94

BATERY - 86% HV - 1.22 NEAR 20 N 6 W

CHANNEL 1 STD BACKGROUND - 105, 115, 145, 150, 165 136 ~~3.6~~ 40.8 3

Th - 1800 Pu 238 - 17.0 $\bar{x}$ = 136 sd = 11.66 3sd = 34.98 34.98 + 136 = 170.98 176.8 40.8

CHANNEL 2 STD BACKGROUND - 7.5, 7.0, 6.5, 6.5, 7.0 6.9 2.07 3

Pu 238 - 7.5 Th - 21.0 $\bar{x}$ = 6.9 sd = 8.62 3sd = 7.76 ~~14.76~~ 8.97 2.07

$\bar{x}$ = 6900 sd = 83 x 3 = 249

(EPI) - STANDS FOR EPICENTER 6900 + 249 = 7149 cpm = 7.14 Kcpm

~~*~~ 7W - 6.7W at 19N range from 45 to 10 w/ BKGD on out channel ground was very wet & location is a steep hillside went 25' S of 7W19N & 5' N of 7W19N.

100 (EPI) = 45 CH1 - 325 CH2 - 20.0 19N7W 130

| | CH1 | CH2 | |
|---|---|---|---|
| ~~*~~ 20 N W6 (EPI) | 375 | 32 | CP 6/27/94 W 6.1 E 5.9 N 20.1 S 19.99 |
| ↖ BY WELL | | | OUT CHANNEL 250 TO 300 DROPS TO 100 |

20 N W 6.2 4 FT DIAMETER OUT CHANNEL 200

STEEP HILLSIDE 20 N W 6.8 (EPI) OUTCHANNEL 450 6.7E 7.0W AT 425 AT EDGE OF WOODS

OUR GUESS IS CONTAMINATION FOLLOWS S,N HILLSIDE SLOPE

1300 - By 26N5W - STD BKGD CHN 1 - 125, 120, 125, 115, 100 117 ~~3sd = 117 152.1~~ x=117 3xsd = 32.43 149.43

CHAN 2 - 6.5, 6.5, 6.5, 7.0, 6.0 ~~7.0 x 3 195 + 6.5 = 8.25~~ CP 6/27/94

~~$\bar{x}$ = 6.5 sd = 3.25~~ 3sd = 7.62 + 6.5 = 14.12 SDB 6/27/94 6.5 8.45 $\bar{x}$ = 6500 sd = 80 x 3 = 240

12W18N - unable to find, so location is an estimation = 6740 cpm ~ 6.74 Kcpm

1700 - go in to trailer - work on books - 59% completed - 45 stakes done

Daily Weather Conditions: A.M. Cool, breezy, wet ground

P.M. warmer, & sun out, ground dry.

Recorded By Sally Brown QA Checked By Juletta Humpert

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**TASK TEAM ACTIVITY LOG SHEET** — FIDLER

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 6/28/94 TIME: 7 : 30 PAGE 1 OF 1

Task Team Members:

SALLY BROWN

CRAIG PATTERSON

Narrative (include time and location): FIDLER #2

STD BKGD CHKS NEAR BATTERY 84% HV-320 Th = 850

CHN 1 - 80, 105, 110, 105, 100 - 100 ~~+3 = 300 100~~ 5/1/95 ~~130~~ $Pu^{238}$ = 4700

CHN 2 - 5.0, 5.0, 5.0, 5.0, 5.0 = 5.0 ~~+3 = 15 5.0~~ 5/1/95 ~~6.5~~ $Pu^{238}$ = 5.5 Th = 16.0

$\bar{X}$ = 100 3×sd = 30 sd = 10 130

~~$\bar{X}$ = 5 sd = 2.30 ~~ ~~$\sqrt{sd}$ = 6.69 + 5 = 11.69~~

$\bar{X}$ = 5000 sd = 70 × 3 = 210 210 + 5000 = 5210 cpm ≈ 5.21 Kcpm

7:30 - 8:00 : wait for security guard - at guard post 2

12:25 - 12:50 : wait for permission from supervisor of Building to enter chained off area behind building - permission was granted

1:00 - take readings in area

1510 67 stakes completely

SB 8/15/94 ~~3:10~~ - move to security area w/ bunkers above the overflow pond.

16:00 - Security guard's shift over. must leave security area. take missed readings around secure areas.

17:00 - in to trailer.

78% of survey completed - 67 stakes done

Daily Weather Conditions: A.M. Cool & damp

P.M. hot, humid, overcast

Recorded By Sally A Brown QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — FIDLER

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 6/29/94 TIME: 7 : 55 PAGE 1 OF 1

Task Team Members:

Sally Brown
Craig Patterson

Narrative (include time and location): NEAR 14N27W

FIDLER #2 STD BKGD CHKS BATTERY = 82% HV = 1.25

CHN 1 = 120, 115, 120, 135, 115 = 605/5 = 121 ~~x3 = 363 + 121 = 57.3~~ Th = 1200 $Pu^{238}$ = 10,000

CHN 2 = 6.0, 6.5, 7.0, 6.5, 6.5 = ~~3.25~~ ~~x3 = 9.75 + 4.25 = 4.225~~ Th = 7.5 $Pu^{238}$ = 18.0

CH1 x = 121 sd = 11 6.5 6.5 SB 6/29/94

3xsd = 33 + 121 = 154 1.95 3 19.5

8.45

CH2 = x = 6.5 sd = 2.54 3xsd = 7.62 + 6.5 = 14.12

CH2 x̄ = 6500 sd = 81 x 3 = 243

6500 + 243 = 6743 cpm ≈ 6.74 kcpm

9:30 - 26W 8N - Location is in the water, measurements taken from the side wall

11:30 - Explosive Operations Fragment Area - Do Not Enter
- Locations 21W11N & 22W11N are inside this area
- need permission to access

13:15 - 24N10W - in the middle of building 98 across the access road
- actual location is being worked on by large construction machines

14:00 - 14:10 - rain; delay work

14:10 - back to work, area slightly damp due to rain

16:00 - go to trailer for day.

48 stakes done

91% completed

Daily Weather Conditions: A.M. Sunny, Breezy, cool, grasses damp

P.M. Hot, Humid, little rain

Recorded By Sally A Brown QA Checked By Juletta Humpert

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**TASK TEAM ACTIVITY LOG SHEET** — FIDLER

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 6/30/94 TIME: 8 : 35 PAGE 1 OF 1

Task Team Members:

Sally Brown
Craig Patterson
Eric Saylor

Narrative (include time and location): NEAR AREA 22 (3N13W)

FIDLER #2: STD BKGD CHKS · BATTERY - 80% HV - 1.25 x=131 sd=11.44 3sd=34.32 (165.32)

CHN 1 - 145, 150, 135, 125, 100 - 1.55 · 131 x3 ~~39.3 + 131 = 170.3~~ 9/14 5/95 Th - 1.000 $P_U^{238}$ - 7000

CHN 2 - 7.5, 7.5, 7.5, 7.5, 7.0 - 7.4 x3 ~~22.2 sd = 8.16 + 7.4 = 15.56~~ ~~7.4 + 15.56 = 22.96~~ 9/14 5/95 (9.72) Th - 20.0 $P_U^{238}$ - 6.0

x=7400 sd=86 x 3 = 258 + 7400 = 7658 ≈ 7.65 Kcpm

7:30 - 8:20 - downtime waiting for HP, miscommunication

8:30 - meet HP & then start background check 9:00 Start readings

10:00 - SALLY LEAVES DUE TO BACK PROBLEMS

ERIC TAKES OVER FOR SALLY

12:00 - LUNCH

12:30 - BACK TO FIELD. START READINGS.

~~5:00~~ 17:00 - GO IN FOR THE DAY. 26 staked - completed 98%

Last Entry

Daily Weather Conditions: A.M. Sunny, dewy, warm

P.M. NA

Recorded By Sally J. Brown QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** FIDLER

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** **TASK NO.: 34896**

Date (mm/dd/yy): 7-6-94 TIME: 9 : 30 PAGE 1 OF 1

Task Team Members:

SALLY BROWN
CRAIG PATTERSON

Narrative (include time and location):

STD BLKG CHK NEAR 8N22W IN WESTON Construction area 9:30

CH1 - 90, 100, 90, 80, 90 - 450 ÷5 = 90 ×3 ~~= 27.0 + 90 = 117.0~~ 118.44 x̄ = 90 sd = 9.48 3sd = 28.44 90+9 = 118.0 JH 5/31/95

CH2 - 7.0, 6.5, 7.0, 6.5, 6.5 - 33.5 ÷5 = 6.7 ×3 ~~20 + 6.7 = 8.71~~

~~x̄ = 6.7 sd = 2.58 3sd = 7.74 + 6.7 = 14.44~~ JH 5/24/95

x̄ = 6700 cpm sd = 82 x 3 = 246 + 6700 = 6946 ≈ 6.94 Kcpm

9:30 gain permission from Keith McMahon to enter Weston construction area. Near Building 34.
gather readings from stakes in the area.
10:00 - start taking readings only need 3
11:45 - in for lunch done in NON AOC for the day

- took a long time to locate the points because the area has been dug up, leaving no stakes, and they were 2nd stakes before Area 3 making it difficult to estimate their location. All 3 stakes were estimate locations.

Last Entry

Daily Weather Conditions: A.M. HOT, HUMID

P.M. NA

Recorded By Sally A Brown QA Checked By Juletta Humpert

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**TASK TEAM ACTIVITY LOG SHEET** — **FIDLER**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 7-7-94 TIME: 12 : 27 PAGE 1 OF 1

Task Team Members:

Sally Brown
Craig Patterson

Narrative (include time and location): NEAR 11N22W

STD BKGD CHK SB 8-2-94 ~~NEAR~~ FIRE EXSPOSIVES AREA BUILDING 27 - 12:27

CH1 - 70, 65, 65, 55, 60 = 335 ÷5 = 67 x3 - 201 5/1/95 = 87.1 x̄ = 67 sd = 8.18 3sd = 24.54 91.54

CH2 - 4.5, 4.5, 4.5, 4.5, 4.5 = 4.5 x3 ~~1.5 + 4.5 = 5.85~~ x̄ = 4.5 sd = 2.12 3sd = 6.36 + 4.5 = 10.86 5/15/95 x̄ = 4500 sd = 67 4.7 kcpm

Get ~~per~~ Previous Permission to enter Explosive's Fragment Operations Area.
Can enter when yellow ~~SP~~ SB 8-2-94 warning ropes are down.

12:27 - take bkgd check.

SB 8-4-94 ~~1:00~~ 12:59 - start taking readings
- take 3 needed readings and leave area.
go to AOC J.
Last Entry

Daily Weather Conditions: A.M. NA
P.M. Hot, Sunny, Humid

Recorded By Sally Brown QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** FIDLER

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY; EXTENDED PHASE** TASK NO.: 34896

Date (mm/dd/yy): 7-21-94 TIME: 10 : 33 PAGE 1 OF 1

Task Team Members:

Sally Brown
Craig Patterson

Narrative (include time and location):

STD BKGD CHK - Between Build. NEAR 11N 16W ~~69~~ 59 & 63 (outside of fence) CP 9/13/94

CH1 - 160, 130, 145, 135, 135 - 705 ÷5 = 141 x3 ~~= 423 PH 5/1/95~~ (183.3)

CH2 - 8.0, 9.0, 8.5, 8.5, 8.5 - 42.5 ÷5 = 8.5 x3 ~~PH 5/1/95 25.5 + 8.5 = (11.05)~~

10:33 - TAKE BKGD CHK OUTSIDE FENCE VERY CLOSE TO STAKE.

8/~~9~~/94 SB 11:10 ~~11:15~~ - TAKE ONE READING DONE WITH ACCESSABLE NON-AOC.

11:15 - GO TO AOC 13 CH1 $\bar{x}$ = 141 sd = 11.8 3sd = 35.61 + 141 = (176.61)

Sort Entry CH2 $\bar{x}$ = 8.5 sd = 2.91 3sd = 8.73 + 8.5 = (17.23) ~~PH 5/24/95~~

$\bar{X}$ = 8500 sd = 92 x3 = 276 + 8500 = 8776

≈ 8.77 Kcpm

Daily Weather Conditions: A.M. sunny, warm, humid, wet grass

P.M. NA

Recorded By Sally Brown QA Checked By Juletta Humpert

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| Ø1WØ1 | 6/20/94 | 113 | 8060 | 80 cpm | ~~320/x10 cpm~~ 3.2 | SB 5/24/94 / | |
| Ø2WØ1 | ~~6/20/94~~ 6-20-94 CP | ~~113~~ SB | ~~8060~~ SB | ~~70~~ 130 cpm SB | ~~80/x100 cpm~~ 8.0 | SB 5/24/94 / | |
| Ø3WØ1 | 6/20/94 | 113 | 8060 | SB 6-20-94 110 cpm | ~~80/x100 cpm~~ 8.0 | SB 5/24/94 / | CH1 CC = 114.98 9H |
| Ø4WØ1 | 6/20/94 | 113 | 8060 | 75 cpm | ~~70/x100 cpm~~ 7.0 | SB 5/24/94 / | CH2 CC = 6.436 |
| Ø5WØ1 | 6/20/94 | 113 | 8060 | 100 cpm | ~~80/x100 cpm~~ 8.0 | SB 5/24/94 / | |
| Ø6WØ1 | 6/20/94 | 113 | 8060 | 90 cpm | ~~75/x100 cpm~~ 7.5 | SB 5/24/94 / | |
| Ø7WØ1 | 6/20/94 | 113 | 8060 | 40 cpm | ~~35/x100 cpm~~ 3.5 | SB 5/24/94 / | |
| Ø8WØ1 | | | 9H 5/1/95 | | | | Not Staked / NOT ON MAP |
| Ø9WØ1 | | | | | | | Not Staked / NOT ON MAP |
| 1ØWØ1 | | | | | | | Not Staked / NOT ON MAP |
| 11WØ1 | | | | | | | Not Staked / NOT ON MAP |
| 12WØ1 | | | | | | | Not Staked / NOT ON MAP |
| 13WØ1 | | | 9H 5/1/95 | 9H 5/1/95 | | | Not Staked / NOT ON MAP |
| 14WØ1 | 6/20/94 | 113 | 8060 | 120 cpm | ~~90/x100 cpm~~ 9.0 | SB 5/24/94 / | CH1 CC = 114.98 CH2 CC = 6.43 9H 5/1/95 |
| 15WØ1 | 6/20/94 | 113 | 8060 | 105 cpm | ~~90/x100 cpm~~ 9.0 | SB 5/24/94 / | NOT STAKED / NOT ON MAP |
| 16WØ1 | 6/21/94 | 210.6 | 12.22 | 130 | 9.0 | / | NOT STAKED / NOT ON MAP |
| 17WØ1 | 6/21/94 | 210.6 | 12.22 | 135 | 9.0 | / | CH1 CC = 200.16 CH2 CC = 9.69 9H 5/1/95 |
| 18WØ1 | 6/21/94 | 210.6 | 12.22 | 120 | 9.0 | / | NOT STAKED / NOT ON MAP |
| 19WØ1 | 6/21/94 | 210.6 | 12.22 | 135 | 9.0 | / | |
| 2ØWØ1 | SB 6/21/94 ~~6/21/94~~ | 9H 5/1/95 | 7.65 | 9H 5/1/95 | | SB 6/21/94 | Not Staked / NOT ON MAP |
| 21WØ1 | 6/21/94 ~~6/21/94~~ | 165.32 ~~210.6~~ | ~~9.69~~ | 110 | 7.5 | SB 6/21/94 2 | ~~(AP)~~ TAKEN BY FENCE / TURNSTILE |
| 22WØ1 | 6/21/94 | ~~210.6~~ 200.16 | ~~12.22~~ 9.69 | 135 9H 5/1/95 | 7.0 | / | |

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| 23WØ1 | 6/21/94 | ~~210.0~~ JH 5/1/95 200.16 | ~~12.22~~ 9.69 | 145 | 7.0 | 1 | |
| 24WØ1 | | | | | | | Not Staked / NOT ON MAP |
| 25WØ1 | | | | | | | Not Staked / NOT ON MAP |
| 26WØ1 | | | | | | | Not Staked / NOT ON MAP |
| 27WØ1 | | | | | | | Not Staked / NOT ON MAP |
| | | | | | | | |
| | JPH 11/2/94 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Ø1WØ2 | 6/20/94 | 98.8 JH 5/1/95 | 6760 JH 5/1/95 | 70/x1 | SAB 8/24/94 ~~7.400~~ 4.4 | 2 | 100/x100 GRASS |
| Ø2WØ2 | 6/20/94 | 98.8 | 6760 | 90/x1 | 7.0 SAB 8/24/94 ~~70/x100~~ | 2 | 100/x100 GRASS |
| Ø3WØ2 | 6/20/94 | 98.8 | 6760 | 90/x1 | 6.5 SAB 8/24/94 ~~65/x100~~ | 2 | 60/x100 RIFLE SHELLS ON ROOF |
| Ø4WØ2 | 6/20/94 | 98.8 | 6760 | 30/x1 | 4.5 SAB 8/24/94 ~~45/x100~~ | 2 | 60/x100 WOOD CHUCK UNDER 100 A |
| Ø5WØ2 | 6/20/94 | 98.8 | 6760 | 60/x1 | 6.5 SAB 8/24/94 ~~65/x100~~ | 2 | 90/x100 GRASS |
| Ø6WØ2 | 6/20/94 | 98.8 | 6760 | 60/x1 | 6.0 SAB 8/24/94 ~~60/x100~~ | 2 | 90/x100 GRAVEL/GRASS |
| Ø7WØ2 | 6/20/94 | 98.8 | 6760 | 60/x1 | 4.5 SAB 8/24/94 ~~45/x100~~ | 2 | 50/x100 GRAVEL |
| Ø8WØ2 | 6/20/94 | 98.8 | 6760 | 100/x1 | 6.5 SAB 8/24/94 ~~65/x100~~ | 2 | ~~90/x100 MUD~~ ~~BUILDING UNDERNEATH~~ CP 6/20/94 |
| Ø9WØ2 | CH1 CC = 102.15 and CH2 CC = 5.41 JH 5/1/95 | | | | | | Not Staked / NOT ON MAP |
| 1ØWØ2 | | | | | | | Not Staked / NOT ON MAP |
| 11WØ2 | 6/29/94 | ~~154.5~~ JH 5/1/95 154.0 | ~~8.45~~ 14.12 6.74 | 55 | 3.5 | 2 | ESTIMATED LOCATION BY SALT BINS |
| 12WØ2 | | | | | | | Not Staked / NOT ON MAP |
| 13WØ2 | | | | | | | Not Staked / NOT ON MAP |

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| 14WØ2 | 6/20/94 | ~~18.8~~ | ~~6720~~ | 110/X1 | ~~80/X100~~ 8.0 | 2 | WOODS ~~110/X100~~ C.P. |
| 15WØ2 | ~~6/21/94~~ 6/20/94 | ~~18.8~~ | ~~6720~~ | ~~0~~ 120 | 9.0 | 2 | |
| 16WØ2 | 6/21/94 | ~~137.8~~ | ~~6500~~ | ~~0~~ 140 | 9.5 | 2 | |
| 17WØ2 | 6/21/94 | 179.4 | 10.92 | 130 | 6.0 | 2 | CH1 CC = 173.22 |
| 18WØ2 | 6/21/94 | 179.4 | 10.92 | 170 | 9.5 | 2 | CH2 CC = 8.67 |
| 19WØ2 | 6/21/94 | 179.4 | 10.92 | 150 | 10.0 | 2 | |
| 20WØ2 | 6/28/94 | 130 | 6.8 | 85 | 6.5 | 2 | CH1 CC = 130.0 CH2CC = ~~11.67~~ 5.21 |
| 21WØ2 | 6/28/94 | 130 | 6.5 | 90 | 6.5 | 2 | |
| 22WØ2 | 6/21/94 | 179.4 | 10.92 | 115 | 7.0 | 2 | CH1 CC = 173.22 CH2 CC = 8.67 |
| 23WØ2 | 6/21/94 | 179.4 | 10.92 | 80 | 6.5 | 2 | |
| 24WØ2 | | | | | | | Not Staked/NOT ON MAP |
| 25WØ2 | | | | | | | Not Staked/NOT ON MAP |
| 26WØ2 | | | | | | | Not Staked/NOT ON MAP |
| 27WØ2 | | | | | | | Not Staked/NOT ON MAP |
| | QPH 11/2/94 | | | | | | |
| Ø1WØ3 | 6/20/94 | ~~137~~ | ~~9060~~ | 105 cpm | ~~65/X100 cpm~~ 6.5 | 1 | CH1 CC = 114.98 CH2 CC = 6.43 |
| Ø2WØ3 | ~~6/21/94~~ | ~~137.8~~ | ~~6500~~ | ~~0.1~~ CP 6/21/94 | 8.5 | 1 | |
| Ø3WØ3 | 6/21/94 | 152 | 8.4 | 150 | 8.5 | 1 | CH1 CC = 149.43 CH2 CC = 6.74 |
| Ø4WØ3 | 6/21/94 | 152 | 8.4 | 150 | 9.0 | 1 | |

## FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| Ø5WØ3 | 6/21/94 | 137.8 | 6500 | 100 | 7.0 | 2 | CH1 CC = 136.88 CH2 CC = 5.21 |
| Ø6WØ3 | 6/21/94 | 137.8 | 6500 | 100 | 6.0 | 2 | |
| Ø7WØ3 | 6/21/94 | 137.8 | 6500 | 100 | 5.0 | 2 | |
| Ø8WØ3 | | 3/1/95 | 3/1/95 | | | | NOT STAKED / NOT ON MAP |
| Ø9WØ3 | | | | | | | NOT STAKED / NOT ON MAP |
| 1ØWØ3 | | | | | | | AOC AREA 22 |
| 11WØ3 | | | | | | | AOC AREA 22 |
| 12WØ3 | | 3/1/95 | 3/1/95 | | | | AOC AREA 22 |
| 13WØ3 | 6/30/94 | 170.3 | 9.72 | 90 | 6.0 | 2 | (HP) CH1 CC = 165.32 |
| 14WØ3 | 6/30/94 | 170.3 | 9.72 | 75 | 5.5 | 2 | (HP) CH2 CC = ~~15.56~~ 7.65 gH 5/24/95 |
| 15WØ3 | 6/21/94 | 210.6 | 12.22 | 150 | 9.5 | 1 | CH1 CC = 200.16 CH2 CC = 9.69 |
| 16WØ3 | 6/21/94 | 210.6 | 12.22 | 155 | 10.0 | 1 | |
| 17WØ3 | 6/21/94 | 210.6 | 12.22 | 150 | 10.5 | 1 | |
| 18WØ3 | 6/21/94 | 210.6 | 12.22 | 150 | 10.0 | 1 | |
| 19WØ3 | 6/21/94 | 179.4 | 10.92 | 160 | 9.0 | 2 | CH1 CC = 173.22 CH2 CC = 8.67 |
| 2ØWØ3 | 6/28/94 | 130 | 6.5 | 80 | 9.0 | 2 | CH CC = 130.0 CH2 CC = ~~11.69~~ 5.21 gH 5/24/95 |
| 21WØ3 | 6/28/94 | 130 | 6.5 | 100 | 8.0 | 2 | |
| 22WØ3 | 6/23/94 | 122.2 | 5.59 | 150 | 8.5 | 2 | CH1 CC = 138.03 CH2 CC = ~~15.09~~ 7.35 gH 5/24/95 |
| 23WØ3 | 6/23/94 | 122.2 | 5.59 | 100 | 6.5 | 2 | |
| 24WØ3 | ~~6/23/94~~ | 122.2 | 5.59 | 9.73 | | 2 | SKB 6/25/94 NOT STAKED / NOT ON MAP |
| 25WØ3 | | | | | | | NOT STAKED / NOT ON MAP |
| 26WØ3 | | | | | | | NOT STAKED / NOT ON MAP |

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| 27WØ3 | | | | | | | NOT STAKED / NOT ON MAP |
| | JPH 11/2/94 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Ø1WØ4 | 6/29/94 | ~~157.2~~ 159 | ~~8.45~~ 6.7 | 65 | 6.1 | 2 | |
| Ø2WØ4 | 6/20/94 | ~~98.8~~ | ~~6720~~ | 70/X1 | ~~45/X100~~ 4.5 | 2 | 60/X100 GRAVEL } CH1 CC=102.15 |
| Ø3WØ4 | 6/20/94 | ~~98.8~~ | ~~6720~~ | 90/X1 | ~~50/X100~~ 5.0 | 2 | 80/X100 GRAVEL } CH2 CC= 5.41 |
| Ø4WØ4 | 6/21/94 | 137.8 | 6500 | 120/X1 | ~~70/X100~~ 7.0 | 2 | 80/X100 MUD BIRDS NESTING UNDER TRLR 4604 |
| Ø5WØ4 | 6/21/94 | 137.8 | 6500 | 110/X1 | ~~55/X100~~ 5.5 | 2 | CH1 CC= 136.88 |
| Ø6WØ4 | 6/21/94 | 137.8 | 6500 | 100/X1 | ~~50/X100~~ 5.0 | 2 | CH2 CC= 5.21 |
| Ø7WØ4 | 6/21/94 | 137.8 | 6500 | 100/X1 | ~~60/X100~~ 6.0 | 2 | 4N 6.5W 450/X100 8FT WIDE 8FT LONG CH1 100/X1 CH2 80/X100 |
| Ø8WØ4 | 6/21/94 | ~~179.4~~ | ~~10.92~~ | 100 | 8.5 | 2 | |
| Ø9WØ4 | | 173.22 | 8.67 | | | | Not Staked / NOT ON MAP |
| 1ØWØ4 | | | | | | | AOC AREA 22 |
| 11WØ4 | | | | | | | AOC AREA 22 |
| 12WØ4 | | | | | | | AOC AREA 22 |
| 13WØ4 | 6/30/94 | 170.3 | 9.72 | 130 | 8.5 | 2 | (HP) } CH1 CC= 165.32 |
| 14WØ4 | 6/30/94 | 170.3 | 9.72 | ~~150~~ 110 | 6.0 | 2 | (HP) } CH2 CC= ~~15.56~~ 7.65 |
| 15WØ4 | 6/21/94 | 179.4 | 10.92 | 170 | 8.5 | 2 | } |
| 16WØ4 | 6/21/94 | 179.4 | 10.92 | 140 | 8.0 | 2 | } CH1 CC= 173.22 |
| 17WØ4 | 6/21/94 | 179.4 | 10.92 | 170 | 8.0 | 2 | } CH2 CC= 8.67 |

FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. GRIT CH1 | CONTAM. GRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| 18WØ4 | 6/21/94 | ~~179.4~~ | ~~10.92~~ | 160 | 8.5 | 2 | CH1 CC = 173.22 CH2 CC = 8.67 |
| 19WØ4 | 6/21/94 | ~~179.4~~ | ~~10.92~~ | 150 | 9.5 | 2 | |
| 2ØWØ4 | 6/28/94 | ~~130~~ | ~~6.5~~ | 75 | 5.5 | 2 | CH1 CC = 130 CH2 CC = ~~14.69~~ 5.21 gH 5/24/95 |
| 21WØ4 | 6/28/94 | ~~130~~ | ~~6.5~~ | 50 | 4.5 | 2 | |
| 22WØ4 | 6/29/94 | ~~157.3~~ | ~~8.45~~ | 120 | 8.0 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 gH 5/24/95 |
| 23WØ4 | 6/23/94 | ~~139~~ gH 5/1/95 | ~~9.23~~ gH 5/1/95 | 100 | 6.5 | 2 | CH1 CC = 138.03 CH2 CC = ~~15.09~~ 7.35 |
| 24WØ4 | | | | | | | OVERFLOW POND / NOT ON MAP gH 5/24/95 |
| 25WØ4 | | | | | | | OVERFLOW POND / NOT ON MAP |
| 26WØ4 | | | | | | | OVERFLOW POND / NOT ON MAP |
| 27WØ4 | | | | | | | NOT STAKED / NOT ON MAP |
| 6.5WØ4 | 6/21/94 | ~~136.88~~ ~~137.8~~ | ~~5.21~~ ~~6500~~ gH 5/1/95 | 1,000 | 80.0 | 2 | 8 FEET IN DIAMETER IN GRASS |
| | gH 11/2/94 | | | | | | |
| Ø1WØ5 | | | | | | | NO STAKE / PERSONAL PROPERTY |
| Ø2WØ5 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 115 | 9.0 | 2 | |
| Ø3WØ5 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 95 | 5.5 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.87~~ 9.89 gH 5/24/95 |
| Ø4WØ5 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 115 | 7.5 | 2 | |
| Ø5WØ5 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 105 | 7.0 | 2 | |
| Ø6WØ5 | 6/22/94 | ~~184.6~~ | ~~11.7~~ | 70 | 4.0 | 2 | |
| Ø7WØ5 | 6/22/94 | ~~184.6~~ | ~~11.7~~ | 160 | 6.5 | 2 | CH1 CC = 177.73 CH2 CC = ~~18.0~~ 9.28 gH 5/24/95 |
| Ø8WØ5 | 6/22/94 | ~~184.6~~ gH 5/1/95 | ~~11.7~~ gH 5/1/95 | 125 | 8.5 | 2 | |

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# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| Ø9WØ5 | | | | | | | NO STAKE / NOT ON MAP |
| 1ØWØ5 | | | | | | | AOC AREA 22 |
| 11WØ5 | | | | | | | AOC AREA 22 |
| 12WØ5 | | | | | | | AOC AREA 22 |
| 13WØ5 | ~~6/21/94~~ 6/21/94 | 179.4 | 10.92 | 145 | 9.5 | 2 | |
| 14WØ5 | ~~6/21/94~~ 6/21/94 | 179.4 | 10.92 | 120 | 7.0 | 2 | CH1 CC = 173.22 CH2 CC = 8.67 |
| 15WØ5 | 6/21/94 | 179.4 | 10.92 | 140 | 9.5 | 2 | |
| 16WØ5 | 6/21/94 | 210.6 | 12.22 | 140 | 11.0 | 1 | |
| 17WØ5 | 6/21/94 | 210.6 | 12.22 | 145 | 9.0 | 1 | CH1 CC = 200.16 CH2 CC = 9.69 |
| 18WØ5 | 6/21/94 | 210.6 | 12.22 | 165 | 10.5 | 1 | |
| 19WØ5 | 6/28/94 | 130 | 6.5 | 105 | 9.5 | 2 | |
| 2ØWØ5 | 6/28/94 | 130 | 6.5 | 105 | 6.5 | 2 | CH1 CC = 130 CH2 CC = ~~11.69~~ ~~6.74~~ 5.21 |
| 21WØ5 | 6/28/94 | 130 | 6.5 | 95 | 6.0 | 2 | |
| 22WØ5 | 6/29/94 | 157.3 | 8.45 | 65 | 4.0 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 ON CONCRETE BY BUILDING 85 |
| 23WØ5 | 6/23/94 | 139 | 9.23 | 105 | 6.5 | 2 | CH1 CC = 138.03 CH2 CC = ~~15.09~~ 7.35 |
| 24WØ5 | | | | | | | OVERFLOW POND / NOT ON MAP |
| 25WØ5 | | | | | | | OVERFLOW POND / NOT ON MAP |
| 26WØ5 | | | | | | | OVERFLOW POND / NOT ON MAP |
| 27WØ5 | | | | | | | NOT STAKED / NOT ON MAP |
| | | | | | | | |
| | 11/2/94 | | | | | | |
| | | | | | | | |

FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT. CH1 | CONTAM. CRIT. CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| No | Entry | | | | | | |
| Ø1WØ6 | ~~6/22/94~~ | ~~253.5~~ | ~~12.48~~ | ~~100~~ | ~~7.0~~ | ~~2~~ SB 6/23/94 | NOT STAKED / OFF PROPERTY |
| Ø2WØ6 | ~~6/22/94~~ 6/29/94 | ~~253.5~~ 157.3 | ~~12.48~~ 8.45 | ~~100~~ 75 | ~~8.5~~ 6.5 | ~~2~~ 2 SBB 6/29/94 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 9/1/95 |
| Ø3WØ6 | 6/29/94 | 157.3 | 8.45 | 120 | 9.0 | 2 | IN MOUND BUILDING 105 SB 6/29/94 |
| Ø4WØ6 | ~~6/22/94~~ | ~~253.5~~ | ~~12.48~~ | ~~90~~ | ~~5.0~~ SAB | ~~6/22/94~~ 2 | ~~IN MOUND BUILDING 105 (LOCATED OFF)~~ SB 6/22/94 NOT STAKED |
| Ø5WØ6 | 6/22/94 | 253.5 | 12.48 | 90 | 5.0 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 |
| Ø6WØ6 | 6/23/94 | 122.2 | 5.59 | 90 | 4.5 | 2 | CH1 CC = 123.07 CH2 CC = ~~10.57~~ 4.5 |
| Ø7WØ6 | 6/23/94 | 122.2 | 5.59 | 140 | 9.0 | 2 | |
| Ø8WØ6 | 6/22/94 | 184.6 | 11.7 | 115 | 9.5 | 2 | CH1 CC = 177.73 CH2 CC = ~~18.0~~ 9.28 |
| Ø9WØ6 | 6/22/94 | 184.6 | 11.7 | 150 | 9.5 | 2 | |
| 1ØWØ6 | | | | | | | AOC Area 21 |
| 11WØ6 | 6/21/94 | 179.4 | 10.92 | 150 | 9.5 | 2 | |
| 12WØ6 | 6/21/94 | 179.4 | 10.92 | 175 | 10.0 | 2 | |
| 13WØ6 | 6/21/94 | 179.4 | 10.92 | 190 | 9.5 | 2 | |
| 14WØ6 | 6/21/94 | 179.4 | 10.92 | 160 | 11.0 | 2 | CH1 CC = 173.22 |
| 15WØ6 | 6/21/94 | 179.4 | 10.92 | 165 | 10.0 | 2 | CH2 CC = 8.67 |
| 16WØ6 | 6/21/94 | 179.4 | 10.92 | 140 | 10.0 | 2 | |
| 17WØ6 | 6/21/94 | 179.4 | ~~179.4~~ 10.92 | CP 150 | 10.0 | 2 | |
| 18WØ6 | 6/28/94 | 130 | 6.5 | CP ~~140~~ 125 | 9.0 | 2 | |
| 19WØ6 | 6/28/94 | 130 | 6.5 | 155 | 7.5 | 2 | CH1 CC = 130.0 CH2 CC = ~~11.69~~ 5.21 |
| 2ØWØ6 | 6/28/94 | 130 | 6.5 | 130 | 6.5 | 2 | |
| 21WØ6 | 6/28/94 | 130 | 6.5 | CP 180 | 6.5 | 2 | |

IN BUILD 105 SAB 6/22/94

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# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| 22WØ6 | 6/23/94 | ~~139~~ | ~~9.23~~ | 125 | 5.5 | 2 | CH1cc = 138.03 CH2cc = ~~15.09~~ 7.35 gH 5/24/95 |
| 23WØ6 | 6/23/94 | ~~139~~ | ~~9.23~~ | 85 | 4.0 | 2 | |
| 24WØ6 | | gH 5/11/95 | gH 5/11/95 | | | | OVERFLOW POND / NOT ON MAP |
| 25WØ6 | | | | | | | OVERFLOW POND / NOT ON MAP |
| 26WØ6 | | | | | | | OVERFLOW POND / NOT ON MAP |
| 27WØ6 | | | | | | | NOT STAKED / NOT ON MAP |
| | | | | | | | |
| | gH 11/2/94 | | | | | | |
| | | | gH 5/11/95 | | | | |
| | | gH 5/11/95 | | | | | |
| Ø1WØ7 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 140 | 8.5 | 2 | CH1cc = 236.88 CH2cc = ~~18.89~~ 9.89 gH 5/24/95 |
| Ø2WØ7 | 6/22/94 | ~~115.7~~ | ~~6.11~~ | 65 | 4.5 | 2 | CH1cc = 117.29 CH2cc = ~~11.18~~ 4.9 gH 5/24/95 |
| Ø3WØ7 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 140 | 9.5 | 2 | |
| Ø4WØ7 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 135 | 8.5 | 2 | CH1cc = 236.88 CH2cc = ~~18.89~~ 9.89 gH 5/24/95 |
| Ø5WØ7 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 125 | 8.5 | 2 | |
| Ø6WØ7 CP | ~~6/22/94~~ 4/23/94 | ~~253.5~~ 205.2 | ~~12.48~~ 3.59 | 85 SBB 6/23/94 | ~~9.5~~ SBB 6/23/94 | 2 | CH1cc = 123.07 CH2cc = ~~10.54~~ 4.5 gH 5/24/95 |
| Ø7WØ7 | 6/23/94 | ~~122.2~~ | ~~5.59~~ | 120 | 5.5 | 2 | |
| Ø8WØ7 | | | | | | | AOC AREA 21 |
| Ø9WØ7 | | | | | | | AOC AREA 21 |
| 1ØWØ7 | | gH 5/11/95 | gH 5/11/95 | | | | AOC AREA 21 |
| 11WØ7 | 6/21/94 | ~~179.4~~ | ~~10.92~~ | 170 | 9.5 | 2 | CH1cc = 173.22 |
| 12WØ7 | 6/21/94 | ~~179.4~~ | ~~10.92~~ | 175 | 10.5 | 2 | CH2cc = 8.67 |

FIDLER SURVEY

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — PROJECT I.D.: 34896

| LOCATION GRID ID | DATE OF SURVEY | CONTAMCRIT CH1 | CONTAMCRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| 13WØ7 | 6/21/94 | 179.4 | 10.92 | 120 | 6.5 | 2 | |
| 14WØ7 | 6/21/94 | 179.4 | 10.92 | 100 | 8.5 | 2 | |
| 15WØ7 | 6/21/94 | 179.4 | 10.92 | 140 | 9.5 | 2 | CH1 CC = 173.22 |
| 16WØ7 | 6/21/94 | 179.4 | 10.92 | 170 | 10.0 | 2 | CH2 CC = 8.67 |
| 17WØ7 | 6/21/94 | 179.4 | 10.92 | 150 | 8.5 | 2 | |
| 18WØ7 | 6/28/94 | 130 | 6.5 | 150 | 10 | 2 | CH1 CC = 130.0 |
| 19WØ7 | 6/28/94 | 130 | 6.5 | 85 | 5.5 | 2 | CH2 CC = ~~11.69~~ 5.21 GH 5/24/95 |
| 20WØ7 | 6/29/94 | 137.3 | 8.45 | 120 | 6.0 | 2 | CH1 CC = 154.0 |
| 21WØ7 | 6/29/94 | 137.3 | 8.45 | 90 | 7.5 | 2 | CH2 CC = ~~14.12~~ 6.74 GH 5/24/95 |
| 22WØ7 | 6/23/94 | 143 | 6.63 | 95 | 5.0 | 2 | |
| 23WØ7 | 6/23/94 | 143 | 6.63 | 115 | 8.0 | 2 | |
| 24WØ7 | 6/23/94 | 143 | 6.63 | 100 | 5.0 | 2 | CH1 CC = 141.44 |
| 25WØ7 | 6/23/94 | 143 | 6.63 | 70 | 5.0 | 2 | CH2 CC = ~~11.87~~ 5.3 GH 5/24/95 |
| 26WØ7 | 6/23/94 | 143 | 6.63 | 90 | 4.5 | 2 | |
| 27WØ7 | 6/23/94 | 143 | 6.63 | 110 | 8.5 | 2 | |
| | | GH 5/1/95 | GH 5/1/95 | | | | |
| | GH 11/2/94 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Ø1WØ8 | 6/22/94 | 253.5 | 12.48 | 175 | 9.5 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 GH 5/24/95 |
| Ø2WØ8 | 6/23/94 | 122.2 | 5.59 | 75 | 4.5 | 2 | CH1 CC = 123.07 CH2 CC = ~~10.51~~ 4.7 GH 5/24/95 |
| Ø3WØ8 | 6/23/94 | 122.2 | 5.59 | 85 | 4.0 | 2 | |
| | | GH 5/1/95 | GH 5/1/95 | | | | |

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| Ø4WØ8 | 6/28/94 | 130 | 6.5 | 80 | 3.5 | 2 | CH1 CC = 130 CH2 CC = ~~11.69~~ 5.21 9H 5/24/95 |
| Ø5WØ8 | 6/28/94 | 130 | 6.5 | 90 | 4.0 | 2 | |
| Ø6WØ8 | 6/23/94 | 122.2 | 5.59 | 70 | 4.0 | 2 | |
| Ø7WØ8 | 6/23/94 | 122.2 | 5.59 | 110 | 8.5 | 2 | CH1 CC = 123.07 CH2 CC = ~~10.51~~ 4.5 9H 5/24/95 |
| Ø8WØ8 | 6/23/94 | 122.2 | 5.59 | 115 | 7.5 | 2 | |
| Ø9WØ8 | | 9H 5/1/95 | 9H 5/1/95 | | | | NO MARKER - AOC AREA 21 |
| 1ØWØ8 | | 9H 5/1/95 | 9H 5/1/95 | | | | NO MARKER - AOC AREA 21 |
| 11WØ8 | 6/22/94 | ~~184.1~~ 213.2 | ~~11.7~~ 13.13 | 160 | 10.0 | 2 | |
| 12WØ8 | 6/22/94 | 213.2 | ~~13.04~~ 13.13 | 160 | 10.5 | 2 | |
| 13WØ8 | 6/22/94 | 213.2 | ~~13.04~~ 13.13 | 120 | 9.0 | 2 | CH1 CC = 202.4 CH2 CC = ~~19.61~~ 10.4 5/24/95 9H |
| 14WØ8 | 6/22/94 | 213.2 | ~~13.04~~ 13.13 | 120 | 6.5 | 2 | |
| 15WØ8 | 6/22/94 | 213.2 | 13.13 | 115 | 8.0 | 2 | |
| 16WØ8 | 6/28/94 | 130 | 6.5 | 120 | 6.0 | 2 | ~~In Build 89 - Estimated location~~ SB 6/28/94 |
| 17WØ8 | 6/28/94 | 130 | 6.5 | 50 | 6.0 | 2 | ~~In Build 87 - Estimated location~~ SB 6/28/94 |
| 18WØ8 | 6/28/94 | 130 | 6.5 | 50 | 3.0 | 2 | CH1 CC = 130.0 |
| 19WØ8 | 6/28/94 | 130 | 6.5 | 50 | 4.0 | 2 | CH2 CC = ~~11.69~~ 5.21 9H 5/24/95 |
| 2ØWØ8 | 6/28/94 | 130 | 6.5 | 65 | 5.5 | 2 | |
| 21WØ8 | 6/29/94 | 157.2 | 8.45 | 60 | 3.0 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 9H 5/24/95 |
| 22WØ8 | 7/6/94 | 117.0 | 8.71 | 60 | 4.5 | 2 | WESTON CONSTRUCTION SITE CH1 CC = 118.44 |
| 23WØ8 | 7/6/94 | 117.0 | 8.71 | 80 | 7.0 | 2 | WESTON CONSTRUCTION SITE CH2 CC = ~~14.19~~ 6.94 9H 5/24/95 |
| 24WØ8 | 6/29/94 | 157.2 | 8.45 | 110 | 9.0 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 9H 5/24/95 |
| 25WØ8 | 6/29/94 | 157.2 | 8.45 | 55 | 3.5 | 2 | |

9H 5/1/95 9H 5/1/95

FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| | | | | | | | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 |
| 26WØ8 | 6/29/94 | ~~157.3~~ | ~~8.45~~ | 80 | 4.0 | 2 | ~~NO READINGS - LOCATION IN WATER 6/23/94~~ ✓ SEE FIELD NOTES |
| 27WØ8 | 6/23/94 | ~~143~~ | ~~6.13~~ | 115 | 6.5 | 2 | NO SWEEP - WATER TREATMENT PLANT IN PATH |
| | 11/2/94 | 141.44 | ~~11.87~~ 5.3 | | | | |
| Ø1WØ9 | 6/22/94 | 253.8 | 12.48 | 170 | 10.5 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 |
| Ø2WØ9 | 6/23/94 | 122.2 | 5.59 | 65 | 4.0 | 2 | CH1 CC = 123.07 CH2 CC = ~~10.5~~ 4.5 |
| Ø3WØ9 | 6/23/94 | 122.2 | 5.59 | 125 | 5.0 | 2 | |
| Ø4WØ9 | 6/28/94 | 130 | 6.5 | 85 | 5.0 | 2 | CH1 CC = 130 CH2 CC = ~~11.69~~ 5.21 |
| Ø5WØ9 | 6/23/94 | 122.7 | 5.59 | 110 | 5.5 | 2 | |
| Ø6WØ9 | 6/23/94 | 122.2 | 5.59 | 75 | 4.5 | 2 | CH1 CC = 123.07 CH2 CC = 4.5 |
| Ø7WØ9 | 6/23/94 | 122.2 | 5.59 | 120 | 6.0 | 2 | |
| Ø8WØ9 | | | | | | | AOC AREA J |
| Ø9WØ9 | | | | | | | AOC AREA L |
| 1ØWØ9 | 6/22/94 | 213.2 | 13.13 | 90 | 10.0 | 2 | |
| 11WØ9 | 6/22/94 | 213.2 | 13.13 | 70 | 4.5 | 2 | CH1 CC = 202.4 CH2 CC = ~~10.61~~ 10.4 |
| 12WØ9 | 6/22/94 | 213.2 | 13.13 | 140 | 9.0 | 2 | |
| 13WØ9 | 6/22/94 | 213.2 | 13.13 | 140 | 9.0 | 2 | |
| 14WØ9 | ~~6/28/94~~ ~~6/22/94~~ | ~~213.2~~ | ~~13.13~~ | ~~120~~ 110 | ~~9.0~~ 6.0 | ~~2~~ | CH2 CC = ~~11.69~~ 5.21 |
| 15WØ9 | 6/28/94 | 130 | 6.5 | 105 | 6.0 | 2 | NO MARKER (ON HILLSIDE) EST. MARK LOCATION |
| 16WØ9 | 6/28/94 | 130 | 6.5 | 60 | 4.5 | 2 | |

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# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| 17WØ9 | 6/28/94 | 130 | 6.5 | 80 | 4.5 | 2 | ON EDGE OF BLDG 87 |
| 18WØ9 | 6/28/94 | 130 | 6.5 | 80 | 4.5 | 2 | on edge of Build 87 |
| 19WØ9 | 6/28/94 | 130 | 6.5 | 70 | 4.0 | 2 | Located in Build 87 · estimated location |
| 2ØWØ9 | 6/28/94 | 130 | 6.5 | 75 | 4.5 | 2 | CH2 CC = ~~11.69~~ 5.21 9/5/21/95 |
| 21WØ9 | 6/29/94 | 157.3 | 8.45 | 95 | ~~5.0~~ 4.0 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 9/5/21/95 |
| 22WØ9 | 7/6/94 | 117.0 | 8.71 | 80 | 6.0 | 2 | WESTON CONSTRUCTION SITE |
| 23WØ9 | | 9/5/1/95 | 9/5/1/95 | | | | AOC AREA SDB CH1 CC = 118.44 |
| 24WØ9 | | | | | | | AOC AREA SDB CH2 CC = ~~11.44~~ 6.11 9/5/21/95 |
| 25WØ9 | 6/29/94 | 157.3 | 8.45 | 50 | 4.0 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 9/5/21/95 |
| 26WØ9 | 6/29/94 | 157.3 | 8.45 | 80 | 4.0 | 2 | |
| 27WØ9 | 6/23/94 | 143 | 6.63 | 100 | 7.5 | 2 | CH1 CC = 141.44 CH2 CC = ~~11.87~~ 5.3 9/5/21/95 |
| | | 9/5/1/95 | 9/5/1/95 | | | | |
| | 9/5/1/2/94 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | 9/5/1/95 | | | | | |
| Ø1W1Ø | 6/22/94 | 253.8 | 12.48 | 180 | 9.5 | 2 | CH1 CC = 236.88 CH2 CC = ~~11.18~~ ~~18.09~~ 9/5/1/95 9.89 |
| Ø2W1Ø | 6/23/94 | 122.2 | 5.59 | 100 | 4.0 | 2 | CH1 CC = 123.07 CH2 CC = ~~10.5~~ 4.5 9/5/21/95 |
| Ø3W1Ø | 6/28/94 | 130 | 6.5 | 90 | 5.0 | 2 | CH2 CC = ~~11.69~~ 5.21 9/5/21/95 |
| Ø4W1Ø | 6/20/94 | 130 | 6.5 | 80 | 3.0 | 2 | |
| Ø5W1Ø | 6/23/94 | ~~122.2~~ 9/5/1/95 | 5.59 9/5/1/95 | 85 | 5.0 | 2 | CH1 CC = 123.07 CH2 CC = ~~10.5~~ 4.5 9/5/21/95 |
| Ø6W1Ø | | | | | | | AOC AREA J |
| Ø7W1Ø | | | | | | | AOC AREA J |

FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| Ø8W1Ø | | | | | | | AOC AREA J |
| Ø9W1Ø | | | | | | | AOC AREA J |
| 1ØW1Ø | 6/22/94 | ~~213.2~~ | ~~13.13~~ | 70 | 8.5 | 2 | |
| 11W1Ø | 6/22/94 | ~~213.2~~ | ~~13.13~~ | 110 | 6.5 | 2 | CH1 CC = 202.4 CH2 CC = ~~19.6~~ 10.4 5/24/95 |
| 12W1Ø | 6/22/94 | ~~213.2~~ | ~~13.13~~ | 90 | 9.5 | 2 | |
| 13W1Ø | 6/28/94 | 130 | 6.5 | 115 | 5.5 | 2 | no stake - estimated location |
| 14W1Ø | 6/28/94 | 130 | 6.5 | 50 | 4.5 | 2 | In Building 2 - estimated location |
| 15W1Ø | 6/28/94 | 130 | 6.5 | 85 | 5.0 | 2 | CH2 CC = ~~11.69~~ 5.21 5/24/95 |
| 16W1Ø | 6/28/94 | 130 | 6.5 | 60 | 4.0 | 2 | |
| 17W1Ø | 6/28/94 | 130 | 6.5 | 80 | 6.0 | 2 | |
| 18W1Ø | 6/28/94 | 130 | ~~6.5~~ | 65 | 4.0 | 2 | |
| 19W1Ø | 6/28/94 | 130 | 6.5 | 80 | 8.0 | 2 | |
| 2ØW1Ø | 6/27/94 | ~~152.1~~ | ~~8.45~~ | 110 | 6.5 | 2 | |
| 21W1Ø | 6/27/94 | ~~152.1~~ | ~~8.45~~ | 70 | 5.0 | 2 | CH1 CC = 149.43 CH2 CC = ~~14.12~~ 6.74 5/24/95 |
| 22W1Ø | 6/27/94 | ~~152.1~~ | ~~8.45~~ | 85 | 4.0 | 2 | |
| 23W1Ø | | 5/11/95 | 5/11/95 | | | | AOC AREA 3 |
| 24W1Ø | | | | | | | AOC AREA SDB |
| 25W1Ø | | | | | | | AOC AREA 3 |
| 26W1Ø | | | | | | | AOC AREA 3 |
| 27W1Ø | | | | | | | AOC AREA 3 |
| | 11/2/94 | | | | | | |
| | | | | | | | |

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| | gpH 11/2/94 | | | | | | |
| | | | | | | | |
| Ø1W11 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 150 | 9.5 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 gH 5/24/95 |
| Ø2W11 | 6/23/94 | ~~122.2~~ | ~~8.57~~ | 80 | 4.0 | 2 | CH1 CC = 123.07 CH2 CC = ~~10.51~~ 4.5 gH 5/24/95 |
| Ø3W11 | 6/28/94 | 130 | ~~6.5~~ | 85 | 5.0 | 2 | CH2 CC = ~~11.69~~ 5.21 5/25/95 |
| Ø4W11 | 6/28/94 | 130 | 6.5 | 90 | 4.5 | 2 | |
| Ø5W11 | 6/23/94 | ~~122.2~~ 123.07 | ~~5.59~~ 10.51 gH 5/1/95 | 105 | 5.5 | 2 | see activity Log sheet pg 10 |
| Ø6W11 | | | | | | | AOC AREA J |
| Ø7W11 | | | | | | | AOC AREA J |
| Ø8W11 | | | | | | | AOC AREA J |
| Ø9W11 | | | | | | | AOC AREA J |
| 1ØW11 | 6/22/94 | ~~213.2~~ gH 5/1/95 | ~~13.13~~ gH 5/1/95 | 140 | 10.5 | 2 | |
| 11W11 | 6/22/94 | ~~213.2~~ | ~~13.13~~ | 130 | 11.0 | 2 | CH1 CC = 202.4 CH2 CC = ~~19.6~~ 10.4 gH 5/24/95 |
| 12W11 | 6/22/94 | ~~213.2~~ | ~~13.13~~ | 85 | 7.0 | 2 | |
| 13W11 | ~~6/22/94~~ SAB 6/22/94 | ~~213.2~~ | ~~13.13~~ | ~~5~~ | | ~~2~~ SAB 6/22/94 | AOC AREA 13 |
| 14W11 | 6/28/94 | 130 | ~~6.5~~ | 90 | 5.0 | 2 | CH2 CC = ~~11.69~~ 5.21 gH 5/24/95 |
| 15W11 | | | | | | | In Building 13 |
| 16W11 | 7/21/94 | ~~183.3~~ 176.61 | ~~11.05~~ 8.71 gH 5/1/95 | 110 | 7.5 | 1 | (HP) WELL CLOSED SECURITY |
| 17W11 | 6/28/94 | 130 | ~~6.5~~ | 50 | 4.0 | 2 | In Building 35 CH2 CC = ~~11.69~~ 5.21 gH 5/24/95 |
| 18W11 | 6/29/94 | ~~157.2~~ | ~~8.45~~ | 60 | 4.0 | 2 | |
| 19W11 | 6/29/94 | ~~157.2~~ | ~~8.45~~ | 85 | 7.5 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 gH 5/24/95 |
| 2ØW11 | 6/29/94 | ~~157.2~~ gH 5/1/95 | ~~8.45~~ gH 5/1/95 | 100 | 4.5 | 2 | |

FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| | | | | | | | CH1 CC = 91.54 CH2 CC = ~~10.86~~ 4.7 9/H 5/24/95 |
| 21W11 | 7/7/94 | 87.1 | 5.88 | 75 | 4.5 | SB 6/29/94 2 | SEE PG 13 EXPLOSIVE FRAGMENTS |
| 22W11 | 7/7/94 | 87.1 | 5.85 | 75 | 4.5 | 2 | SEE PG 13 EXPLOSIVE FRAGMENTS |
| 23W11 | 6/29/94 | ~~187.3~~ | ~~8.45~~ | 55 | 5.5 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 9/H 5/24/95 |
| 24W11 | | 9/H 5/1/95 | 9/H 5/1/95 | | | | AOC AREA 3 |
| 25W11 | | | | | | | AOC AREA 3 |
| 26W11 | | | | | | | AOC AREA 3 |
| 27W11 | | | | | | | AOC AREA 3 |
| | 9/H 11/2/94 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Ø1W12 | 6/22/94 | ~~253.5~~ 9/H 5/1/95 | ~~12.48~~ 9/H 5/1/95 | 160 | 9.0 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.84~~ 9.89 9/H 5/24/95 |
| Ø2W12 | 6/23/94 | 122.2 | 5.59 | 100 | 5.0 | 2 | CH1 CC = 123.07 CH2 CC = ~~10.51~~ 4.5 |
| Ø3W12 | 6/28/94 | 130 | 6.5 | ~~SB 6/28/94 0.90~~ | 5.0 | 2 | CH2 CC = ~~11.69~~ 5.21 9/H 5/24/95 |
| Ø4W12 | 6/28/94 | 130 | 6.5 | ~~SB 6/28/94 0.75~~ | ~~SB 6/28/94 4.0~~ 4.5 | 2 | ~~In Building~~ SAB 6/27/94 NO Stale - readings taken at side of building |
| Ø5W12 | 6/28/94 | 130 | 6.5 | 110 | 5.0 | 2 | |
| Ø6W12 | | | | | | | AOC AREA J |
| Ø7W12 | | | | | | | AOC AREA J |
| Ø8W12 | | | | | | | AOC AREA J |
| Ø9W12 | | | 9/H 5/1/95 | 9/H 5/1/95 | | | AOC AREA J |
| 1ØW12 | 6/22/94 | ~~6/22/94 253.5~~ | ~~13.13 12.48~~ | 100 | 9.5 | 2 | CH1 CC = 202.4 CH2 CC = ~~19.61~~ 10.4 9/H 5/24/95 |
| 11W12 | 6/22/94 | ~~253.5~~ 6/22/94 | ~~12.48~~ 13.13 | 135 | 8.5 | 2 | |

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| 12W12 | | | | | | | AOC AREA 13 |
| 13W12 | | | | | | | AOC AREA 13 |
| 14W12 | | | | | | | AOC AREA 13 |
| 15W12 | 6/29/94 | 157.3 | 8.45 | 65 | 4.0 | 2 | |
| 16W12 | 6/29/94 | 157.3 | 8.45 | 110 | 5.5 | 2 | |
| 17W12 | 6/29/94 | 157.3 | 8.45 | 60 | 3.5 | 2 | |
| 18W12 | 6/29/94 | 157.3 | 8.45 | 60 | 4.5 | 2 | |
| 19W12 | 6/29/94 | 157.3 | 8.45 | 55 | 4.5 | 2 | CH1 CC = 154.0 |
| 20W12 | 6/29/94 | 157.3 | 8.45 | 65 | 4.5 | 2 | CH2 CC = ~~14.12~~ 6.74 gH 5/24/95 |
| 21W12 | 6/29/94 | 157.3 | 8.45 | 50 | 3.5 | 2 | |
| 22W12 | 6/29/94 | 157.3 | 8.45 | 85 | 5.5 | 2 | |
| 23W12 | 6/29/94 | 157.3 | 8.45 | 75 | 5.0 | 2 | |
| 24W12 | 6/29/94 | 157.3 | 8.45 | 40 | 3.5 | 2 | |
| 25W12 | | gH 5/11/95 | gH 5/11/95 | | | | AOC AREA 3 |
| 26W12 | | | | | | | AOC AREA 3 |
| 27W12 | | | | | | | AOC AREA 3 |
| | gH 11/2/94 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | gH 5/11/95 | gH 5/11/95 | | | | |
| Ø1W13 | 6/22/94 | 253.5 | 12.48 | 180 | 10.0 | 2 | CH1 CC = 236.88 |
| Ø2W13 | 6/23/94 | 253.5 | 12.48 | 95 | 4.5 | 2 | CH2 CC = ~~18.89~~ 9.89 gH 5/24/95 |

gH 5/24/95

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT | | FIDLER READING (CPM) | | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| | | CH1 | CH2 x 1000 | CH1 | CH2 x (1000) | | |
| Ø3W13 | 6/28/94 | 130 | 6.5 (5.21) | 110 | 4.5 | 2 | |
| Ø4W13 | ~~6/~~ CP 6/29/94 | | 5/1/95 | | | | In Building 38 - Not Staked |
| Ø5W13 | | | | | | | In Building 38 - Not Staked |
| Ø6W13 | | | | | | | NOT STAKED / NOT ON MAP |
| Ø7W13 | | | | | | | Not Staked / NOT ON MAP |
| Ø8W13 | | | | | | | Not Staked / NOT ON MAP |
| Ø9W13 | | | | | | | Not Staked / NOT ON MAP |
| 1ØW13 | | | | | | | Not Staked / NOT ON MAP |
| 11W13 | | | | | | | Not Staked / NOT ON MAP |
| 12W13 | | | | | | | Not Staked / NOT ON MAP |
| 13W13 | | | | | | | Not Staked / NOT ON MAP |
| 14W13 | | | | | | | Not Staked / NOT ON MAP |
| 15W13 | | | | | | | Not Staked / NOT ON MAP |
| 16W13 | | | | | | | Not Staked / NOT ON MAP |
| 17W13 | | | | | | | Not Staked / NOT ON MAP |
| 18W13 | | | | | | | Not Staked / NOT ON MAP |
| 19W13 | | | | | | | Not Staked / NOT ON MAP |
| 2ØW13 | | | | | | | Not Staked / NOT ON MAP |
| 21W13 | | | | | | | Not Staked / NOT ON MAP |
| 22W13 | | | | | | | Not Staked / NOT ON MAP |
| 23W13 | | | | | | | Not Staked / NOT ON MAP |
| 24W13 | | | | | | | ~~Not Staked~~ SB 6/27/94 / NOT ON |

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| 25W13 | 6/29/94 | 157.2 | 8.45 | 40 | 4.0 | 2 | ~~Not Staked~~ SAB 6/29/94 CH1 CC = 154.0 |
| 26W13 | 6/29/94 SB | 157.2 | 8.45 | ~~100~~ SB 6/29/94 60 | 4.0 | 2 | ~~Not Staked~~ SB 6/29/94 CH2 CC = ~~14.12~~ 6.74 gH 5/24/95 |
| 27W13 | | gH 5/1/95 | gH 5/1/95 | | | | Not Staked - AOC AREA 3/NOT ON MAP |
| | gH 11/2/94 | | | | | | |
| Ø1W14 | 6/22/94 | 253.5 gH 5/1/95 | 12.48 gH 5/1/95 | 100 | 7.0 | 2 | gravel area CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 |
| Ø2W14 | 6/23/94 | 122.2 | 5.59 | 80 | 4.5 | 2 | CH1 CC = 123.07 CH2 CC = ~~10.51~~ 4.5 gH 5/24/95 |
| Ø3W14 | 6/28/94 | 130 | 6.5 | 75 | 5.0 | 2 | CH2 CC = ~~11.69~~ 5.21 gH 5/24/95 |
| Ø4W14 | | | | | | | Not Staked/NOT ON MAP |
| Ø5W14 | | | | | | | Not Staked/NOT ON MAP |
| Ø6W14 | | gH 5/1/95 | gH 5/1/95 | | | | Not Staked/NOT ON MAP |
| Ø7W14 | 6/30/94 | 170.3 | 9.72 | 100 | 7.0 | 2 | (HP) |
| Ø8W14 | 6/30/94 | 170.3 | 9.72 | 150 | 10.0 | 2 | (HP) |
| Ø9W14 | 6/30/94 | 170.3 | 9.72 | 145 | 10.0 | 2 | (HP) CH1 CC = 165.32 |
| 1ØW14 | 6/30/94 | 170.3 | 9.72 | 85 | 8.0 | 2 | (HP) CH2 CC = ~~15.56~~ 7.65 gH 5/25/95 |
| 11W14 | 6/30/94 | 170.3 | 9.72 | 115 | 10.0 | 2 | (HP) |
| 12W14 | 6/30/94 | 170.3 | 9.72 | 130 | 8.0 | 2 | (HP) |
| 13W14 | 6/29/94 | 157.2 | 8.49 | 100 | 5.5 | 2 | STAKE LABELLED WRONG CH1 CC = 154.0 |
| 14W14 | | | | | | | Not Staked/NOT ON MAP |
| 15W14 | 6/29/94 | 157.2 gH 5/1/95 | 8.45 gH 5/1/95 | ~~100~~ 70 CP 6/29/94 | ~~5.5~~ 4.0 6/29/94 | 2 | CH2 CC = ~~14.12~~ 6.74 gH 5/24/95 |

GPH 5/1/95 GPH 5/1/95 CP 6/29/94 6/29/94 ~~11.16~~ 6.74 5/24/95

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| 16W14 | | | | | | | Not Staked / NOT ON MAP |
| 17W14 | | | | | | | Not Staked / NOT ON MAP |
| 18W14 | | | | | | | Not Staked / NOT ON MAP |
| 19W14 | | | | | | | Not Staked / NOT ON MAP |
| 20W14 | | | | | | | Not Staked / NOT ON MAP |
| 21W14 | | | | | | | Not Staked / NOT ON MAP |
| 22W14 | | | | | | | Not Staked / NOT ON MAP |
| 23W14 | | | | | | | Not Staked / NOT ON MAP |
| 24W14 | | | | | | | Not Staked / NOT ON MAP |
| 25W14 | 6/29/94 | ~~157.2~~ GPH 5/1/95 | ~~8.45~~ GPH 5/1/95 | 85 | 7.0 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 GPH 5/24/95 |
| 26W14 | 6/29/94 | ~~157.2~~ | ~~8.45~~ | 80 | 7.5 | 2 | |
| 27W14 | 6/29/94 | ~~157.2~~ | ~~8.45~~ | 150 | 9.0 | 2 | |
| | GPH 11/2/94 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | GPH 5/1/95 | | | | |
| Ø1W15 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 190 | 10.0 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 GPH 5/24/95 |
| Ø2W15 | 6/~~22~~ 23/94 6/29/94 JMB | ~~122.2~~ | ~~5.57~~ | 110 | 4.5 | 2 | CH1 CC = 123.07 CH2 CC = ~~10.51~~ 4.5 GPH 5/25/95 |
| Ø3W15 | 6/28/94 | 130 | ~~6.5~~ | 80 | 6.0 | 2 | CONSTRUCTION AREA CH2 CC = ~~11.69~~ 5.21 GPH 5/24/95 |
| Ø4W15 | | GPH 11/2/94 | | | | | In Building SM - Not Staked |
| Ø5W15 | | | | | | | (HP) |
| Ø6W15 | 6/28/94 | 130 | ~~6.5~~ | 75 | 5.0 | 2 | CH2 CC = ~~11.69~~ 5.21 GPH 5/25/95 |

GPH 5/1/95

# FIELD SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| Ø7W15 | 6/30/94 | ~~170.3~~ | ~~9.72~~ | 115 | 8.5 | 2 | (HP) CH1 CC = 165.32 |
| Ø8W15 | 6/30/94 | ~~170.3~~ | ~~9.72~~ | 155 | 9.0 | 2 | (HP) |
| Ø9W15 | 6/30/94 | ~~170.3~~ | ~~9.72~~ | 125 | 10.5 | 2 | (HP) CH2 CC = ~~15.56~~ 7.65 gH 05/25/95 |
| 1ØW15 | 6/30/94 | ~~170.3~~ | ~~9.72~~ | 100 | 7.5 | 2 | (HP) |
| 11W15 | 6/30/94 | ~~170.3~~ | ~~9.72~~ | 120 | 8.5 | 2 | (HP) |
| 12W15 | 6/29/94 | ~~157.3~~ | ~~8.45~~ | 100 | 6.0 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 gH 5/24/95 |
| 13W15 | 6/29/94 | ~~157.3~~ | ~~8.45~~ | 85 | 4.5 | 2 | |
| 14W15 | 6/29/94 | ~~157.3~~ gH 5/1/95 | ~~8.45~~ gH 5/1/95 | 108 | 6.0 | 2 | |
| | gH 11/2/94 | | | | | | |
| | | gH 5/1/95 | gH 5/1/95 | | | | |
| Ø1W16 | 6/22/94 | ~~253.5~~ | ~~10.0~~ | 170 | 10.5 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 gH 5/24/95 |
| Ø2W16 | 6/23/94 | ~~122.2~~ | ~~5.59~~ | 70 | 4.5 | 2 | CH1 CC = 123.07 CH2 CC = ~~10.51~~ 4.5 gH 05/25/95 |
| Ø3W16 | 6/28/94 | 130 | 6.5 | 100 | 5.0 | 2 | GRAVEL |
| Ø4W16 | 6/28/94 | 130 | 6.5 | ~~210~~ 150 | 9.0 | 2 | GRASS CH2 CC = ~~11.69~~ 5.21 gH 5/25/95 |
| Ø5W16 | ~~6/28/94~~ | ~~130~~ | ~~6.5~~ SB 6/28/94 | | | SB 6/28/94 2 | HP AREA |
| Ø6W16 | 6/28/94 | 130 | 6.5 | 45 | 4.5 | 2 | |
| Ø7W16 | 6/30/94 | ~~170.3~~ | ~~9.72~~ | 80 | 5.0 | 2 | (HP) CH1 CC = 165.32 |
| Ø8W16 | 6/30/94 | ~~170.3~~ | ~~9.72~~ | 45 | 4.5 | 2 | (HP) CH2 CC = ~~15.56~~ 7.65 gH 5/24/95 |
| Ø9W16 | 6/30/94 | ~~170.3~~ | ~~9.72~~ | 130 | 7.5 | 2 | (HP) |
| 1ØW16 | 6/30/94 | ~~170.3~~ gH 5/1/95 | ~~9.72~~ | 125 | 6.5 | 2 | (HP) |

gH 5/1/95

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| 11W16 | 6/29/94 | 152.2 | 8.45 | 110 | 5.5 | 2 | CH1 CC=154.0 CH2CC=~~15.56~~ 6.74 gH 5/24/95 ~~gH 5/1/95~~ 6/29/94 |
| 12W16 | | | | | | | IN BLDG 22 NOT ~~DONE~~ CP STAKED NOT ON MAP |
| 13W16 | 6/29/94 | ~~152.2~~ gH 5/1/95 | 8.45 gH 5/1/95 | 55 | 5.5 | 2 | |
| | gH 11/2/94 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | gH 5/1/95 | gH 5/1/95 | | | | |
| Ø1W17 | 6/27/94 | ~~235.5~~ | 12.48 | 100 | 5.5 | 2 | gravel CH1CC=236.88 CH2CC= ~~18.89~~ 9.87 gH 5/24/95 |
| Ø2W17 | 6/28/94 | 130 | 6.5 | 80 | 4.5 | 2 | CH2CC= ~~11.69~~ 5.21 gH 5/24/95 |
| Ø3W17 | | | | | | | In Building 36-Not Staked/NOT ON MAP |
| Ø4W17 | 6/28/94 | 130 | 6.5 | 80 | 4.0 | 2 | |
| Ø5W17 | 6/28/94 | 130 | 6.5 | 90 | 4.0 | 2 | CH2 = ~~11.69~~ gH 5/24/95 5.21 |
| Ø6W17 | 6/28/94 | 130 | 6.5 | 100 | 5.0 | 2 | |
| Ø7W17 | 6/30/94 ES 6/30 | ~~130~~ 178.3 | 9.72 | 130 | 6.5 | 2 | (HP) |
| Ø8W17 | 6/30/94 ES 6/30 | ~~130~~ 178.3 | 9.72 | 130 | 8.0 | 2 | (HP) |
| Ø9W17 | 6/30/94 | 170.3 | 9.72 | 80 | 5.5 | 2 | (HP) CH1 = 165.32 CH2 CC= ~~15.56~~ 7.65 gH 5/24/95 |
| 1ØW17 | 6/30/94 | 170.3 | 9.72 | 100 | 6.0 | 2 | (HP) |
| 11W17 | 6/30/94 | 170.3 | 9.72 | 90 | 7.0 | 2 | (HP) |
| 12W17 | 6/27/94 | 152.1 | 8.45 | 40 | 4.5 | 2 | CH1 CC=149.43 CH2CC=6.74 |
| | gH 11/2/94 | gH 5/1/95 | gH 5/1/95 | | | | |
| | | | | | | | |
| | | | | | | | |

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| No Entry | | | | | | | |
| Ø1W18 | 6/22/94 | ~~253.5~~ 9H 5/11/95 | 12.48 | 185 | 9.0 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 9H 5/24/95 |
| Ø2W18 | 6/28/94 | 130 | 6.5 | 80 | 4.0 | 2 | In Building 50 - readings taken from side |
| Ø3W18 | 6/28/94 | 130 | 6.5 | 75 | 5.0 | 2 | CH2 CC = ~~11.69~~ 5.21 9H 5/24/95 |
| Ø4W18 | 6/28/94 | 130 | 6.5 | 60 | 4.5 | 2 | |
| Ø5W18 | | | | | | | In Building 51 - Not Staked / NOT ON MAP |
| Ø6W18 | 6/28/94 | 130 | 6.5 | 90 | 6.5 | 2 | CH2 CC = ~~11.69~~ 5.21 9H 5/24/95 |
| Ø7W18 | 6/30/94 | 170.3 | 9.72 | 100 | 7.0 | 2 | (HP) |
| Ø8W18 | 6/30/94 | 170.3 | 9.72 | 170 | 11.0 | 2 | (HP) CH1 CC = 165.32 CH2 CC = ~~15.56~~ 7.65 9H 5/24/95 |
| Ø9W18 | 6/30/94 | 170.3 | 9.72 | 150 | 10.5 | 2 | (HP) |
| 1ØW18 | | 9H 5/11/95 | 9H 5/11/95 | | | | Not Staked / NOT ON MAP |
| 11W18 | | | 9H 5/24/95 | | | | Not Staked / NOT ON MAP |
| 12W18 | 6/27/94 | 149.43 ~~152.7~~ | 9H 5/24/95 ~~8.45~~ 9H 5/24/95 | 100 | 6.5 | 2 | no marker; estimated location ES 6/20/94 |
| 6.5W18 | 6/30/94 | ~~170.3~~ 165.32 | ~~9.72~~ 9H 5/24/95 ~~15.56~~ 7.65 9H 5/24/95 | 460 | 46 | 2 | EPI 40 out channel along drainage ditch ES 6/20/94 ~~6.31~~ ~~6.5~~ ~~6.7W~~ |
| 9H 11/2/94 | | | | | | | |
| Ø1W19 | 6/22/94 | ~~253.5~~ 9H 5/11/95 | 12.48 | 155 | 9.5 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 9H 5/24/95 |
| Ø2W19 | 6/28/94 | 130 | 6.5 | 85 | 4.0 | 2 | CH2 CC = ~~11.69~~ 5.21 9H 5/24/95 |
| Ø3W19 | 6/28/94 | 130 | 6.5 | ~~6/28/94~~ 470 | 5.0 | 2 | |
| Ø4W19 | 6/28/94 | 130 | 6.5 | 60 | 4.0 | 2 | |
| Ø5[illegible] | 6/28/94 | 130 | 6.5 | 65 | [illegible].0 | 2 | |

FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| Ø6W19 | 6/28/94 | 130 | 6.5 | 60 | 5.0 | 2 | CH2 CC = ~~11.69~~ 5.21 9H 5/24/95 |
| Ø7W19 | 6/27/94 | 176.8 | 8.97 | 325 | 20.0 | 2 | See field notes pg. 11 * |
| Ø8W19 | 6/27/94 | 176.8 | 8.97 | 125 | 7.0 | 2 | CH1 CC = 170.98 |
| Ø9W19 | 6/27/94 | 176.8 | 8.97 | 170 | 9.5 | 2 | CH2 CC = ~~14.76~~ 7.14 9H 5/24/95 |
| 1ØW19 | 6/27/94 | 176.8 | 8.97 | 70 | 3.5 | 2 | |
| 11W19 | | 9H 5/11/95 | 9H 5/11/95 | | | | Not Staked / NOT ON MAP |
| 12W19 | | | | | | | Not Staked / NOT ON MAP |
| | 9H 11/2/94 | | | | | | |
| | | | 9.89 | | | | |
| | | 236.88 | 18.89 | 9H 5/24/95 9H 5/11/95 | | | |
| Ø1W2Ø | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 95 | 5.0 | 2 | ASPHALT |
| Ø2W2Ø | 6/28/94 | 130 | 6.5 | 105 | 6.5 | 2 | CH2 CC = ~~11.69~~ 5.21 9H 5/24/95 |
| Ø3W2Ø | 6/28/94 | 130 | 6.5 | 100 | 6.5 | 2 | |
| Ø4W2Ø | 6/27/94 | 176.8 | 8.97 | 110 | 7.5 | 2 | |
| Ø5W2Ø | 6/27/94 | 176.8 | 8.97 | 85 | 4.5 | 2 | CH1 CC = 170.98 CH2 CC = ~~14.76~~ 7.14 9H 5/24/95 |
| Ø6W2Ø | 6/27/94 | 176.8 | 8.97 | 375 | 22.0 | 2 | SEE FIELD NOTES pg 11 ** |
| Ø7W2Ø | 6/27/94 | 176.8 | 8.97 | 325 | 22.5 | 2 | SEE FIELD NOTES pg 11 ** |
| Ø8W2Ø | | 9H 5/11/95 | 9H 5/11/95 | | | | Not Staked / NOT ON MAP |
| Ø9W2Ø | | | | | | | Not Staked / NOT ON MAP |
| 1ØW2Ø | 6/29/94 | 157.3 | 8.45 | 95 | 4.5 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 |
| 11W2Ø | 6/29/94 | 157.3 | 8.45 | 80 | 4.0 | 2 | No Stake - estimated by gate 9H 5/24/95 |
| | | 9H 5/11/95 | 9H 5/11/95 | | | | |

# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| 12W20 | | | | | | | Not Staked/NOT ON MAP |
| | 9H 11/2/94 | | | | | | |
| 01W21 | 6/22/94 | 253.5 | 12.48 | 9/22/94 ~~150~~ 140 | 9.5 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 9H 5/24/95 |
| 02W21 | 6/27/94 | 176.8 | 8.97 | 140 | 6.5 | 2 | |
| 03W21 | 6/27/94 | 176.8 | 8.97 | 160 | 8.0 | 2 | CH1 CC = 170.98 CH2 CC = ~~14.76~~ 9.14 9H 5/24/95 |
| 04W21 | 6/27/94 | 176.8 | 8.97 | 100 | 5.0 | 2 | |
| 05W21 | 6/27/94 | 152.1 | 8.45 | 110 | 10 | 2 | CH1 CC = 149.43 CH2 CC = 6.74 |
| 06W21 | | 9H 5/11/95 | 9H 5/11/95 | | | | AOC AREA 7 |
| 07W21 | | | | | | | AOC AREA 7 |
| 08W21 | 6/27/94 | 176.8 | 8.97 | 85 | 4.5 | 2 | CH1 CC = 170.98 CH2 CC = ~~14.76~~ 7.14 9H 5/24/95 |
| 09W21 | 6/27/94 | 176.8 | 8.97 | 75 | 4.5 | 2 | |
| 10W21 | 6/29/94 | 154.3 | 8.45 | 9/22/94 ~~95~~ 90 | 9/22/94 ~~4.5~~ 6.5 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 9H 5/24/95 |
| 11W21 | | 9H 5/11/95 | 9H 5/11/95 | | | | AOC AREA 7 |
| 12W21 | | | | | | | AOC AREA 7 |
| | 9H 11/2/94 | | | | | | |
| | | | | | | | |
| | | 236.88 ~~253.5~~ | ~~18.89~~ 9.89 ~~12.48~~ 9H 5/24/95 9H 5/11/95 | 145 | 8.5 | 2 | |
| 01W22 | 6/22/94 | | | | | | |

## FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| Ø2W22 | 6/27/94 | ~~176.8~~ | ~~8.97~~ | 135 | 5.5 | 2 | CH1 CC=170.98 CH2 CC= ~~14.76~~ 7.14 GH 5/24/95 |
| Ø3W22 | 6/27/94 | ~~176.8~~ | ~~8.97~~ | 115 | 6.0 | 2 | |
| Ø4W22 | 6/27/94 | ~~152.1~~ | ~~8.45~~ | 100 | 9.5 | 2 | CH1 CC= 149.43 CH2 CC= ~~14.12~~ 6.74 GH 5/24/95 |
| Ø5W22 | 6/27/94 | ~~152.1~~ | ~~8.45~~ | 105 | 8.0 | 2 | |
| Ø6W22 | | ~~GH 5/11/95~~ | ~~GH 5/11/95~~ | | | | AOC AREA 7 |
| Ø7W22 | | | | | | | AOC AREA 7 |
| Ø8W22 | 6/27/94 | ~~176.8~~ | ~~8.97~~ | 115 | 4.5 | 2 | CH1 CC= 170.98 CH2 CC= ~~14.76~~ 7.14 GH 5/24/95 |
| Ø9W22 | 6/27/94 | ~~176.8~~ | ~~8.97~~ | 95 | 6.0 | 2 | |
| 1ØW22 | | ~~GH 5/11/95~~ | ~~GH 5/11/95~~ | | | | AOC AREA 7 |
| 11W22 | | | | | | | AOC AREA 7 |
| 12W22 | | | | | | | AOC AREA 7 |
| | GPH 11/2/94 | | | | | | |
| Ø1W23 | 6/22/94 | ~~253.5~~ | ~~12.43~~ | 170 | 10.5 | 2 | CH1 CC= 236.88 CH2 CC= ~~18.89~~ 9.89 GH 5/24/95 |
| Ø2W23 | 6/27/94 | ~~176.8~~ | ~~8.97~~ | 160 | 5.0 | 2 | CH1 CC= 170.98 CH2 CC= ~~14.76~~ 7.14 GH 5/24/95 |
| Ø3W23 | 6/27/94 | ~~152.1~~ | ~~8.45~~ | 115 | 5.5 | 2 | |
| Ø4W23 | 6/27/94 | ~~152.1~~ | ~~8.45~~ | 95 | 6.0 | 2 | CH1 CC= 149.43 CH2 CC= 6.74 |
| Ø5W23 | 6/27/94 | ~~152.1~~ | ~~8.45~~ | 100 | 7.0 | 2 | |
| Ø6W23 | | ~~GH 5/11/95~~ | ~~GH 5/11/95~~ | | | | AOC AREA 7 |
| Ø7W23 | | | | | | | AOC AREA 7 |

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# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| Ø8W23 | 6/27/94 | ~~152.1~~ | ~~8.45~~ GPH 5/31/95 | 65 | 4.5 | 2 | |
| Ø9W23 | | 149.43 | 14.12 | | | | AOC AREA 7 |
| 1ØW23 | | | | | | | AOC AREA 7 |
| 11W23 | | | | | | | AOC AREA 7 |
| 12W23 | | | | | | | AOC AREA 7 |
| | GPH 11/2/94 | | | | | | |
| Ø1W24 | 6/22/94 | 253.5 | 12.48 | 150 | 9.5 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 GPH 5/24/95 |
| Ø2W24 | 6/27/94 | 176.8 | 8.97 | 90 | CP 6/27 ~~13.0~~ 4.0 | 2 | |
| Ø3W24 | 6/27/94 | 176.8 | 8.97 | 135 | 6.5 | 2 | |
| Ø4W24 | 6/27/94 | 176.8 | 8.97 | 145 | 7.5 | 2 | CH1 CC = 170.98 CH2 CC = ~~14.76~~ 7.14 GPH 5/24/94 |
| Ø5W24 | 6/27/94 | 176.8 | 8.97 | 70 | 4.0 | 2 | |
| Ø6W24 | 6/27/94 | 176.8 | 8.97 | 70 | 3.5 | 2 | |
| Ø7W24 | ~~6/27/94~~ SB 6/27/94 | ~~176.8~~ 176.8 | ~~8.97~~ 8.97 | ~~90~~ 70 | ~~4.5~~ SB 6/27/94 4.5 | 2 | |
| Ø8W24 | | GPH 5/11/95 | GPH 5/11/95 | | | | Not Staked / NOT ON MAP |
| Ø9W24 | | 154.0 | ~~14.12~~ GPH 5/24/95 GPH 5/11/95 | | | | Not Staked / NOT ON MAP |
| 1ØW24 | 6/29/94 | ~~159.2~~ | ~~8.45~~ 6.74 | 95 | 5.5 | 2 | Construction Area - Estimated location |
| 11W24 | | | | | | | Not Staked / NOT ON MAP |
| 12W24 | | | | | | | Not Staked / NOT ON MAP |
| | Entry GPH | 11/2/94 | | | | | |

FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| | | | | JPH 11/2/94 | | | |
| Ø1W25 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 145 | 9.0 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 |
| Ø2W25 | 6/27/94 | ~~152.1~~ | ~~8.45~~ | 50 | 3.5 | 2 | CH1 CC = 149.43 CH2 CC = ~~14.12~~ 6.74 |
| Ø3W25 | | | | | | | In building 61 (NOT STAKED/NOT ON MAP) |
| Ø4W25 | 6/28/94 | 130 | | 50 | 5.5 | 2 | In Building 61 (TAKEN BY SMOKING SHELTER) |
| Ø5W25 | 6/27/94 | ~~176.8~~ | ~~8.97~~ | 70 | 3.0 | 2 | CH1 CC = 170.98 CH2 CC = ~~14.76~~ 7.14 |
| Ø6W25 | | | | | | | In Asphalt lined pond |
| Ø7W25 | | | | | | | In Asphalt lined pond |
| Ø8W25 | | | | | | | Not Staked / NOT ON MAP |
| Ø9W25 | 6/29/94 | ~~157.3~~ | ~~8.45~~ | 65 | 6.0 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 |
| | JPH 11/2/94 | | | | | | |
| Ø1W26 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | ~~145~~ 115 | ~~9.0~~ 8.5 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 |
| Ø2W26 | 6/27/94 | ~~152.1~~ | ~~8.45~~ | 100 | 5.5 | 2 | CH1 CC = 149.43 CH2 CC = ~~14.12~~ 6.74 |
| Ø3W26 | 6/28/94 | 130 | | 40 | 3.5 | 2 | In Building 61 (TAKEN BY LOADING DOCK 3) |
| Ø4W26 | 6/27/94 | ~~152.1~~ | ~~8.25~~ | ~~50~~ | ~~4.0~~ | 2 | CH1 CC = 149.43 CH2 CC = ~~14.12~~ 6.74 |
| Ø5W26 | 6/27/94 | ~~176.8~~ | ~~8.97~~ | 100 | 5.5 | 2 | CH1 CC = 170.98 CH2 CC = ~~14.76~~ 7.14 |
| Ø6W26 | | | | JPH 5/1/95 | | | AOC AREA 7 |

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# FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| Ø7W26 | | | | | | | AOC AREA 7 |
| Ø8W26 | 6/29/94 | ~~157.2~~ | ~~8.45~~ | 85 | 5.0 | 2 | CH1 CC = 154.0 CH2 CC = ~~14.12~~ 6.74 9H 8/29/95 |
| Ø9W26 | 6/29/94 | ~~157.2~~ | ~~8.45~~ | 50 | 5.0 | 2 | |
| | | 9H 5/1/95 | 9H 5/1/95 | | | | |
| | 9PH 11/2/94 | | | | | | |
| | | | 9H 5/1/95 | 9H 5/1/95 | | | |
| Ø1W27 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 105 | ~~8.5~~ 5.5 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 9H 5/24/95 |
| Ø2W27 | 6/27/94 | ~~152.1~~ | ~~8.45~~ | 20 | 4.0 | 2 | CH1 CC = 149.43 CH2 CC = ~~14.12~~ 6.74 9H 5/24/95 |
| Ø3W27 | 6/27/94 | ~~152.1~~ 152.1 | ~~8.45~~ 8.45 | 75 | 4.0 | 2 | |
| Ø4W27 | 6/27/94 | ~~146.8~~ | ~~8.97~~ | 75 | 3.5 | 2 | |
| Ø5W27 | 6/28/94 | 130 | ~~6.5~~ ~~11.64~~ 5.21 9H 5/1/95 | 50 | 3.5 | 2 | BY FENCE, NO MARKER ESTIMATED LOCATION |
| Ø6W27 | | | | | | | Not Staked / NOT ON MAP |
| Ø7W27 | | | | | | | Not Staked / NOT ON MAP |
| Ø8W27 | | | | | | | Not Staked / NOT ON MAP |
| Ø9W27 | | | | | | | Not Staked / NOT ON MAP |
| | 9PH 11/2/94 | | | | | | |
| | | | 9H 5/1/95 | 9H 5/1/95 | | | |
| Ø1W28 | 6/22/94 | ~~253.5~~ | ~~12.48~~ | 130 | 9.0 | 2 | CH1 CC = 236.88 CH2 CC = ~~18.89~~ 9.89 9H 5/24/95 |
| Ø2W28 | 6/27/94 | ~~152.1~~ | ~~8.45~~ | 80 | 5.0 | 2 | CH1 CC = 149.43 CH2 CC = ~~14.12~~ 6.74 9H 5/24/95 |

## FIDLER SURVEY

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

| LOCATION GRID ID | DATE OF SURVEY | CONTAM. CRIT CH1 | CONTAM. CRIT CH2 | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | FIDLER NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|
| Ø3W28 | | | | | | | NOT STAKED / NOT ON MAP |
| Ø4W28 | | | | | | | NOT STAKED / NOT ON MAP |
| Ø5W28 | | | | | | | NOT STAKED / NOT ON MAP |
| Ø6W28 | | | | | | | NOT STAKED / NOT ON MAP |
| Ø7W28 | | | | | | | NOT STAKED / NOT ON MAP |
| Ø8W28 | | | | | | | NOT STAKED / NOT ON MAP |
| Ø9W28 | | | | | | | NOT STAKED / NOT ON MAP |

JPH 11/2/94

**TASK TEAM ACTIVITY LOG SHEET** Pg 202 **FIDLER**

**PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1** Building 61 **TASK NO.: 34896**

Date (mm/dd/yy): 7/5/94 TIME: 8 : 00 PAGE 1 OF 1

Task Team Members:

SALLY BROWN

CRAIG PATTERSON

Narrative (include time and location):

8:00 - NEAR BUILDING 61 STD BKGD CHKS NEAR A1 sd = 9.79

CH1 - 90, 100, 100, 110, 80, = ~~9.6~~ x3 ~~= 28.8 + 96~~ SB 4/27/95 = (124.8) 3xsd = 29.39 + 96 = (125.39)

$Pu^{238}$ - 10,000 Th - 1200

CH2 - ~~23.0~~ SB 7-5-94 8.0, 7.0, 7.0, 7.5, 7.5 = 37 ÷5 = 7.4 x5 ~~= 8.22 + 7.4 =~~ SB 4/27/95 (9.62)

Th - 23.0 $Pu^{238}$ - 7.0 sd = 2.22 ~~SB 6/1/95~~ 3xsd = 8.16 + 7.4 = (15.56)

$\bar{X}$ = 7400 sd = 86 x 3 = ~~258~~

258 + 7400 = 7658 ≈ 7.6 kcpm

FINISH AOC BUILDING 61 at ~~1~~ 1500 SB 7-5-94 Assume Out channel CC = 8.0 kcpm

15:00 - GO TO TRAILER FOR SHORT BREAK. MAKE PHONE CALLS

15:20 - GO TO AOC J.

Daily Weather Conditions: A.M. HOT, MUGGY, HUMID, SUNNY

P.M. VERY HOT

Recorded By Sally Brown QA Checked By Paul Parrish

**FIDLER MEASUREMENT DATA** **FIDLER**

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

**FACILITY CODE:** MND 00 **LOGGER CODE:** SAIC
**LOG DATE:** 7-5-94 FIELD REP: Sally Brown
**ACCEPTANCE CODE:** A FIDLER NO.: 2
RATEMETER/SCALER:
MODEL NO.: 3400 SERIAL NO.: A806N CALIBRATION DATE: 4/18/94
WINDOW: Mlt THRESHOLD: NA VOLTAGE: 1.22 BATTERY: 80%
NaI PROBE:
MODEL NO.: 3611 SERIAL NO.: ~~A806N~~ A900T (SB 7/5) CALIBRATION DATE: 4/18/94
CHECK SOURCE:
ISOTOPE: (SB 7-5) Pu-238 ACTIVITY: 0.5 μcuries ~~DPM~~ DPM (9/8/94) SERIAL NO.: 31
SOURCE CHECK:
METER READING: 18600 COUNTS/ 1 MIN = 18600 CPM
(WITHIN ± 3 STANDARD DEVIATIONS? (Y/N) Y )

| | OUT | CH1 | CH2 |
|---|---|---|---|
| CONTAMINATION CRITERIA: | Assume 8.0 Kcpm | ~~124.8~~ 125.39 | ~~4.62~~ 7.6 Kcpm ~~15.56~~ gH 6/1/95 gH 4/27/95 |

COMMENTS: STD BKGD DATA - pg 202

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**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/ MIN = CPM
(WITHIN ± 3 STANDARD DEVIATIONS? (Y/N) )

No Entry

| | OUT | CH1 | CH2 |
|---|---|---|---|
| CONTAMINATION CRITERIA: | | | |

COMMENTS:

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

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

FORM COMPLETED BY / DATE 7/5/94 TECHNICAL REVIEWER / DATE 1/8/94

FIDLER SURVEY Pg 218 Building 61

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 |
|---|---|---|---|---|---|---|---|---|
| 61C01-16 | 7-5-94 | 2 | 5.0 | N | N | NA | NA | |
| 61C01-17 | | | 4.5 | | | | | |
| 61C01-18 | | | 7.0 | | | | | |
| 61C01-19 | | | 7.0 | | | | | |
| 61C01-20 | | | 6.0 | | | | | |
| 61C01-21 | | | 7.0 | | | | | |
| 61C01-22 | | | 7.0 | | | | | |
| 61C01-23 | | | 4.5 | | | | | |
| 61C01-24 | | | 4.5 | | | | | |
| 61C01-25 | 7-5-94 | 2 | 4.5 | N | N | NA | NA | |
| | | | | | | | | |
| 61D01 | ~~7-5-94~~ | ~~2~~ SB 7-5-94 | | ~~N~~ SB 7-5-94 | ~~N~~ | ~~NA~~ | ~~NA~~ | |
| 61D01-01 | 7-5-94 | 2 | 16.5 | N | N | NA | NA | |
| 61D01-02 | | | 5.0 | | | | | |
| 61D01-03 | | | 4.5 | | | | | |
| 61D01-04 | | | 5.0 | | | | | |
| 61D01-05 | | | 5.0 | | | | | |
| 61D01-06 | | | 4.0 | | | | | |
| 61D01-07 | | | 4.5 | | | | | |
| 61D01-08 | | | 4.0 | | | | | |
| 61D01-09 | | | 4.5 | | | | | |
| 61D01-10 | | | 4.5 | | | | | |
| 61D01-11 | | | 4.5 | | | | | |
| 61D01-12 | | | 4.0 | | | | | |
| 61D01-13 | | | 4.0 | | | | | |
| 61D01-14 | | | 4.5 | | | | | |
| 61D01-15 | | | 4.5 | | | | | |
| 61D01-16 | | | 3.5 | | | | | |
| 61D01-17 | | | 4.5 | | | | | |
| 61D01-18 | | | 4.5 | | | | | |
| 61D01-19 | | | 4.5 | | | | | |
| 61D01-20 | | | 4.5 | | | | | |
| 61D01-21 | | | 4.5 | | | | | |
| 61D01-22 | | | 4.5 | | | | | |
| 61D01-23 | 7-5-94 | 2 | 4.0 | N | N | NA | NA | |

219

FIDLER SURVEY

PG 219

Building 61

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 |
|---|---|---|---|---|---|---|---|---|
| 61D01-24 | 7/5/94 | 2 | 3.5 | N | N | NA | NA | |
| 61D01-25 | 7/5/94 | 2 | 4.0 | N | N | NA | NA | |
| | | | | | | | | |
| 61E01 | | | | | | | | |
| | | | | | | | | |
| 61A02 | | | | | | | | |
| 61A02-01 | 7/5/94 | 2 | 8.0 | N | N | NA | NA | |
| 61A02-02 | | | 7.0 | | | | | |
| 61A02-03 | | | 5.0 | | | | | |
| 61A02-04 | | | 5.5 | | | | | |
| 61A02-05 | | | 6.0 | | | | | |
| 61A02-06 | | | 5.0 | | | | | |
| 61A02-07 | | | 5.0 | | | | | |
| 61A02-08 | | | 5.5 | | | | | |
| 61A02-09 | | | 8.0 | | | | | |
| 61A02-10 | | | 8.0 | | | | | |
| 61A02-11 | | | 8.0 | | | | | |
| 61A02-12 | | | 6.0 | | | | | |
| 61A02-13 | | | 6.0 | | | | | |
| 61A02-14 | | | 5.5 | | | | | |
| 61A02-15 | | | 5.5 | | | | | |
| 61A02-16 | | | 5.5 | | | | | |
| 61A02-17 | | | 5.0 | | | | | |
| 61A02-18 | | | 6.0 | | | | | |
| 61A02-19 | | | 7.0 | | | | | |
| 61A02-20 | | | 8.0 | | | | | |
| 61A02-21 | | | ~~9.0~~ 8.0 | | | | | |
| 61A02-22 | | | 6.0 | | | | | |
| 61A02-23 | | | 5.0 | | | | | |
| 61A02-24 | | | 5.0 | | | | | |
| 61A02-25 | 7-5-94 | 2 | 5.5 | N | N | NA | NA | |
| | | | | | | | | |
| 61B02 | | | | | | | | |
| 61B02-01 | 7/5/94 | 2 | 5.0 | N | N | NA | NA | |
| 61B02-02 | 7/5/94 | 2 | 5.0 | N | N | NA | NA | |

FIDLER SURVEY Pg 222 Building 61

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 |
|---|---|---|---|---|---|---|---|---|
| 61D02-19 | 7/5/94 | 2 | 4.0 | N | N | NA | NA | |
| 61D02-20 | | | 4.0 | | | | | |
| 61D02-21 | | | 4.5 | | | | | |
| 61D02-22 | | | 4.5 | | | | | |
| 61D02-23 | | | 4.5 | | | | | |
| 61D02-24 | | | 4.5 | | | | | |
| 61D02-25 | | | 4.5 | | | | | |
| | | | | | | | | |
| 61E02 | | | | | | | | |
| | | | | | | | | |
| 61A03 | | | | | | | | |
| 61A03-01 | 7-5-94 | 2 | 9.0 ≈ 9.0 | N | Y ~~N~~ Stalk | NA | NA | |
| 61A03-02 | | | 8.0 | | N | | | |
| 61A03-03 | | | 4.5 | | | | | |
| 61A03-04 | | | 5.0 | | | | | |
| 61A03-05 | | | 5.0 | | | | | |
| 61A03-06 | | | 6.0 | | | | | |
| 61A03-07 | | | 5.5 | | | | | |
| 61A03-08 | | | 5.0 | | | | | |
| 61A03-09 | | | 6.0 | | | | | |
| 61A03-10 | | | 8.0 | | | | | |
| 61A03-11 | | | 8.0 | | | | | |
| 61A03-12 | | | 6.0 | | | | | |
| 61A03-13 | | | 5.0 | | | | | |
| 61A03-14 | | | 6.0 | | | | | |
| 61A03-15 | | | 5.5 | | | | | |
| 61A03-16 | | | 5.5 | | | | | |
| 61A03-17 | | | 5.0 | | | | | |
| 61A03-18 | | | 5.5 | | | | | |
| 61A03-19 | | | 7.0 | | | | | |
| 61A03-20 | | | 8.5 | | Y Soil | | | |
| 61A03-21 | | | 9.0 | | Y Soil | | | |
| 61A03-22 | | | 6.5 | | | | | |
| 61A03-23 | | | 5.0 | | | | | |
| 61A03-24 | 7-5-94 | 2 | 5.5 | N | N | NA | NA | |

223

FIDLER SURVEY

PG 223

Building 61

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 |
|---|---|---|---|---|---|---|---|---|
| 61A03-25 | 7-5-94 | 2 | 6.0 | N | N | NA | NA | |
| | | | | | | | | |
| 61B03 | | | | | | | | |
| 61B03-01 | 7-5-94 | 2 | 5.0 | N | N | NA | NA | |
| 61B03-02 | | | 5.0 | | | | | |
| 61B03-03 | | | 5.0 | | | | | |
| 61B03-04 | | | 5.0 | | | | | |
| 61B03-05 | | | 5.0 | | | | | |
| 61B03-06 | | | 5.0 | | | | | |
| 61B03-07 | | | 5.0 | | | | | |
| 61B03-08 | | | 5.0 | | | | | |
| 61B03-09 | | | 5.0 | | | | | |
| 61B03-10 | | | 5.0 | | | | | |
| 61B03-11 | | | 5.0 | | | | | |
| 61B03-12 | | | 5.0 | | | | | |
| 61B03-13 | | | 5.0 | | | | | |
| 61B03-14 | | | 5.0 | | | | | |
| 61B03-15 | | | 5.0 | | | | | |
| 61B03-16 | | | 5.0 | | | | | |
| 61B03-17 | | | 5.0 | | | | | |
| 61B03-18 | | | 5.0 | | | | | |
| 61B03-19 | | | 5.0 | | | | | |
| 61B03-20 | | | 5.0 | | | | | |
| 61B03-21 | | | 5.5 | | | | | |
| 61B03-22 | | | 5.0 | | | | | |
| 61B03-23 | | | 5.0 | | | | | |
| 61B03-24 | | | 5.0 | | | | | |
| 61B03-25 | 7-5-94 | 2 | 5.0 | N | N | NA | NA | |
| | | | | | | | | |
| 61C03 | | | | | | | | |
| 61C03-01 | 7-5-94 | 2 | 6.0 | N | N | NA | NA | |
| 61C03-02 | | | 6.5 | | | | | |
| 61C03-03 | | | 5.0 | | | | | |
| 61C03-04 | | | 5.0 | | | | | |
| 61C03-05 | 7-5-94 | 2 | 5.0 | N | N | NA | NA | |

FIDLER SURVEY

RG 224

Building 61

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 |
|---|---|---|---|---|---|---|---|---|
| 61C03-06 | 7-5-94 | 2 | 5.0 | N | N | NA | NA | |
| 61C03-07 | | | 5.0 | | | | | |
| 61C03-08 | | | 5.0 | | | | | |
| 61C03-09 | | | 6.5 | | | | | |
| 61C03-10 | | | 6.0 | | | | | |
| 61C03-11 | | | 5.5 | | | | | |
| 61C03-12 | | | 6.0 | | | | | |
| 61C03-13 | | | 5.0 | | | | | |
| 61C03-14 | | | 5.0 | | | | | |
| 61C03-15 | | | 5.0 | | | | | |
| 61C03-16 | | | 4.5 | | | | | |
| 61C03-17 | | | 4.5 | | | | | |
| 61C03-18 | | | 5.0 | | | | | |
| 61C03-19 | | | 5.0 | | | | | |
| 61C03-20 | | | 5.0 | | | | | |
| 61C03-21 | | | 5.0 | | | | | |
| 61C03-22 | | | 4.5 | | | | | |
| 61C03-23 | | | 4.5 | | | | | |
| 61C03-24 | | | 5.0 | | | | | |
| 61C03-25 | 7-5-94 | 2 | 4.5 | N | N | NA | NA | |
| | | | | | | | | |
| 61D03 | | | | | | | | |
| 61D03-01 | 7-5-94 | 2 | 5.0 | N | N | NA | NA | |
| 61D03-02 | | | 5.0 | | | | | |
| 61D03-03 | | | 4.5 | | | | | |
| 61D03-04 | | | 4.5 | | | | | |
| 61D03-05 | | | 5.0 | | | | | |
| 61D03-06 | | | 5.0 | | | | | |
| 61D03-07 | | | 4.5 | | | | | |
| 61D03-08 | | | 4.5 | | | | | |
| 61D03-09 | | | 4.5 | | | | | |
| 61D03-10 | | | 4.5 | | | | | |
| 61D03-11 | | | 4.5 | | | | | |
| 61D03-12 | | | 5.0 | | | | | |
| 61D03-13 | 7-5-94 | 2 | 4.5 | N | N | NA | NA | |

225

FIDLER SURVEY

PG 225

Building 61

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 |
|---|---|---|---|---|---|---|---|---|
| 61D03-14 | 7-5-94 | 2 | 5.0 | N | N | NA | NA | |
| 61D03-15 | | | 5.0 | | | | | |
| 61D03-16 | | | 4.0 | | | | | |
| 61D03-17 | | | 4.5 | | | | | |
| 61D03-18 | | | 4.0 | | | | | |
| 61D03-19 | | | 4.5 | | | | | |
| 61D03-20 | | | 5.0 | | | | | |
| 61D03-21 | | | 4.5 | | | | | |
| 61D03-22 | | | 4.5 | | | | | |
| 61D03-23 | | | 4.0 | | | | | |
| 61D03-24 | | | 5.0 | | | | | |
| 61D03-25 | 7/5/94 | 2 | 4.5 | N | N | NA | NA | |
| | | | | | | | | |
| 61E03 | | | | | | | | |
| | | | | | | | | |
| 61A04 | | | | | | | | |
| 61A04-01 | 7-5-94 | 2 | [illegible].0 = 9.0 | N | Y | NA | NA | |
| 61A04-02 | | | 8.0 | | N | | | |
| 61A04-03 | | | 6.0 | | | | | |
| 61A04-04 | | | 5.0 | | | | | |
| 61A04-05 | | | 6.0 | | | | | |
| 61A04-06 | | | 6.0 | | | | | |
| 61A04-07 | | | 5.0 | | | | | |
| 61A04-08 | | | 5.0 | | | | | |
| 61A04-09 | | | 5.0 | | | | | |
| 61A04-10 | | | ~~[illegible].0~~ 9.0 | | Y | | | |
| 61A04-11 | | | ~~[illegible].0~~ 9.0 | | | | | |
| 61A04-12 | | | 6.0 | | N | | | |
| 61A04-13 | | | 5.0 | | | | | |
| 61A04-14 | | | 5.0 | | | | | |
| 61A04-15 | | | 6.0 | | | | | |
| 61A04-16 | | | 6.0 | | | | | |
| 61A04-17 | | | ~~[illegible].0~~ 4.5 | | | | | |
| 61A04-18 | | | ~~[illegible].0~~ 6.0 | | | | | |
| 61A04-19 | 7-5-94 | 2 | 6.0 | N | N | NA | NA | |

## A.2 SITE MANAGER LOGBOOK

EG & G MOUND

OU5

SITE MANAGER
LOGBOOK

OPS AREA PHASE I
NEW PROP EXTND PHASE

Russ Tussings 4800 1400

# 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:** 9/14/94

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| 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 | " | " |
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| 21 | " | 6/8/94 | 51 | " | 6/30/94 |
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| 23 | " | 6/13/94 | 53 | " | " |
| 24 | " | " | 54 | " | 7/5/94 |
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| 26 | " | " | 56 | " | 7/6/94 |
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PROJECT NO.: 34896


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| 64 | " ; | 7/12/94 | 94 | " ; | 8/8/94 |
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| 73 | " ; | 7/19/94 | 103 | " ; | 8/23/94 |
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| 76 | " ; | " | 106 | Task Team Activity Sheet; | 8/29/94 |
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| 249 | " ; 5/25/94 | 279 | " ; 8/23/94 |
| 250 | " ; 5/26/94 | 280 | " ; 8/25/94 |
| 251 | " ; 5/31/94 | 281 | " ; 8/29/94 |
| 252 | " ; 6/1/94 | 282 | " ; 9/1/94 |
| 253 | " ; 6/2/94 | 283 | NO ENTRY |
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| 269 | " ; 6/30/94 | 299 | " ; 9/7/94 |
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TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.1

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

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

Task Team Members:

| | | | |
|---|---|---|---|
| JOHN DAVIS | SAIC | BERNARD KIENOW | SIMMS, WEISS, DENNIPLES |
| ERIC SAYLOR | SAIC | ART TURPIN | |
| EVELYN MENGHER- | 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 0S0) to get surveyors started. Joyce Geisler on site. Find error on site map; 1W on map is really 0W, 2W = 1W, etc. Put in a few pins in SE corner by Post 2. Surveyors leave site to cut pins in half

1200 Break for lunch.

1300 Return fm. lunch. Per K. McMahan, 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 tomorrow's work.

Last Entry

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

P.M. cloudy, windy, 65°F

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. Z

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

TASK NO: 34896

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

Task Team Members:

| | | | |
|---|---|---|---|
| JOHN DAVIS | (SMC) | BERNARD KIENOW | (SWD) |
| ERIC SAYLOR | (SMC) | ART TURPIN | (SWD) |
| EVELYN MEALHER | (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 weedwacker

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

1200 Break for lunch. T. Tank on site

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

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

1800 Offsite - EOD

Last entry

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

P.M. Warm, sunny 75°F

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P3

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) | BERNHARD KIENOW | (SWD) |
| ERIC SAYLOR | ↓ | ANT TURPIN | ↓ |
| EVELYN MEAGHER | | JEFF LUNKA | |

Narrative (include time and location):

on site @ 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 site doing paperwork.

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

1200 Break for lunch

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

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

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

LAST ENTRY

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

P.M. Small warming to 70°F

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

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

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

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

Task Team Members:

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

Narrative (include time and location):

0700 @ trailer. Conduct Tailgate Safety Mtg. J. Geiler 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 were OK here as long as we stay out of red rope.

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

1200 Break for lunch

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

NOTE: JD offsite @ 1630

1500 Back to t/r (ES, SM). EOD

LAST ENTRY

Daily Weather Conditions: A.M. CLEAR COOL GALLY 50°F

P.M. SAME, WARMING to 60°F

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.S

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 MEAGHER | | JEFF KUNKA | |

Narrative (include time and location):

0700 @ t/r. Conduct Tailgate Meeting. Discuss days work orders. JD works on saw maintenance.
NOTE: J. Geisler on site @ 0800. Update her map. JD tells her about HP mtg yesterday - she concurs.
0800 @ site. Work in main mound area J chaining 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. 6

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 MEAGHER | | JEFF KUNKA | |

Narrative (include time and location):

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

0730 Meet guards @ Bldg 23 by Area 13. SWD surveys around 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 Happy? Out to A21 to try to define boundary. Find center of bunker but can't find perimeter due to heavy vegetation and lack of deep soil on surface. Fidler readings 10-15K above background in bunker area. KM suggests that to properly define boundary, it's necessary to do subsurface soil samples w/ appropriate PPE and HP support — which is not in our scope of work.

1500 JD walks lines in thru 7N (West half). Some cutting on 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 MEALHER | ↓ | CHRIS HALLEY | ↓ |
| SHARON KRECKMEYER | ↓ | BERNARD KIENOW | SWD |
| | | ART TURPIN | ↓ |
| | | JEFF KUNKA | ↓ |

Narrative (include time and location):

0700 @ trailer. Pick 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 offsite @ 0930.

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

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

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

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

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

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

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

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

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

Task Team Members:

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

Narrative (include time and location):

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

LMT Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By EVELYN MEAGHER QA Checked By 8/15/94

**TASK TEAM ACTIVITY LOG SHEET** — SITE MANAGER LOGBOOK P.9

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

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

Task Team Members:

| | | | |
|---|---|---|---|
| JOHN DAVIS | SAIC | EVELYN MEACHER | SAIC |
| BRAD RICHARDSON | ↓ | SHARON KREITENMEYER | ↓ |
| CHRIS HALLEY | ↓ | BERNARD KICNOW | SWD |
| | | ART TURPIN | ↓ |
| | | JEFF KUNICA | ↓ |

Narrative (include time and location):

0700 w/ tlr. Prep for days activities. Team status. Conduct safety mtg.

0730 Surveyors to Bldg 49 to meet Security; JD left message w/ Russ Tulins 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 KC borings w/ AJ 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 ~~dust~~ of poison Ivy. For the surveyors we chop 21-A-4 Thru 21-A-1; Also chopped 13-A-3 thru 13-A-6.

Daily Weather Conditions: A.M. Overcast, Muggy, 75°F

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

Recorded By [signature] QA Checked By 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 Holley

Evelyn Meagher-Hatzell

Narrative (include time and location):

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

morning

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

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

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.11

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

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

Task Team Members:

JOHN DAVIS — EVELYN MEAGHER
BRAD RICHARDSON — SHARON KALKMEYER
CHRIS HALLEY

Narrative (include time and location):

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

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

0730 Sharon & Evelyn cleared & staked in Area 22. Jeff from H&P checked our hands & boots for radiation before lunch (1130) & after we finished Area 22 (1500).

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 P.12

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

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

Task Team Members:

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

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~~ emt staked in fenced in secure areas til 1130

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

P.M. NA

Recorded By Brad Richardson QA Checked By [illegible]

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P-13

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

Date (mm/dd/yy): 5/26/99 TIME: N/A PAGE 2 OF 2

Task Team Members:

N/A

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~~ HSA 5/26/99 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. N/A

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 KEITHLEYER | SAIC |
| CHRIS HALLEY | ↓ | BRANDAD KICNOW | SWD |
| EVELYN MEACHER | ↓ | Art 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 Bowser-Morner today but no-show.
- Note: Chris Halley offsite @ 0800.

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

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

1200 Both crews @ t/k for lunch

1300 Continue work. EM & SK back to A21. CH offsite again. JD to A7 to continue staking. Note: K. McMahan out till 6/14

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

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

LAST ENTRY

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

P.M. Sunny, warming to 76°F

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

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

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

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

Task Team Members:

| | | | |
|---|---|---|---|
| JOHN DAVIS | SMC | SHARON Kreitemeyer | SMC |
| EVELYN MEACHER | ↓ | BRAD RICHARDSON | ↓ |
| CHRIS HALLEY | | | |

Narrative (include time and location):

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

0830-0930: JD takes Tim Boehmer to A7 to look @ borehole locs. All look OK if hole in HP area is on Road. Then to New Property. TB wants to scrape rd for Bonner 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.

1430 ~~0930~~ 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 LOGBO P.16

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

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

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 SK EM + SK ~~returned~~ SK returned to site

1615 EM left the site for the day

1700 SK left the site for the day.

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

1705 BR & CH left site

LAST ENTRY

Daily Weather Conditions: A.M. See previous page

P.M. " " "

Recorded By Sharon Krietemeyer QA Checked By JVA

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.17

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

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

Task Team Members:

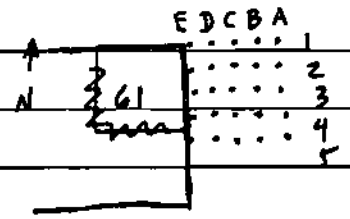
JOHN DAVIS — CHRIS HALLEY
SHARON KRIETEMEYER
BRAD RICHARDSON

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 Trask & Alan Spearmd
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, & hazy.
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 ~~S~~ 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. Marken 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 for A. Spessard regarding blanket approval for soil gas emplacement. Conduct H&S briefing.

0830 BR, CH, MO to Area 3/SDB to begin sticky tree. 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.

1100 BR, MO, & CH staked most of Area 3; It began to storm at 1400 and continues now.

LAST ENTRY

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

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 20

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

TASK NO: 34896

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

Task Team Members:

Brad Richardson

Chris Halley

Narrative (include time and location):

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

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

LAST ENTRY

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

P.M. " 85°F,

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.21

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

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

Task Team Members:

Brad Richardson
Chris Halley
Eric Saylor

Narrative (include time and location):

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

0735 We are set up to have a guard escort us tomorrow from 0730 - 1530 inside the security areas. First thing tomorrow morning we have to contact our escort guard 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 1930

LAST ENTRY

BRR 6/8/94

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

P.M. " " "

Recorded By [signature] QA Checked By [signature]

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

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

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

Task Team Members:

A Brad Richardson — Matt 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 clearing the geophysical lines. CH and M.O will go around w/ security and finishin staking w/in secure areas.
0800 J Geisler says there are some points near Area 7 and Area 3/SDB that will have to be move due to utility.
0830 CH + MO to stake secure areas 7; Sm/PP; and 1 (12N15-12W2
BR + ES to finish geophysical lines in Area J.
1200 Lunch
1245 CH + MO to Area 3/SDB to stake. BR + ES to stake and finish Area 3.
245-315 To Wilmont for supplies (paint, bar oil, etc) CH + MO.
0315 Both crews at Area 3/SDB to finish staking/cutting
until finishing

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

Recorded By [signature] QA Checked By [signature]

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

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

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

Task Team Members:

Eric Saylor, Mike Klidjecz, Mark Howard, Bonser-Monroe Crew
Chris Halley, Martha Cramer, Joletta Humpert
John Davis, Mike Monroe

Narrative (include time and location):

0730 ES, SH + JD on site.

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

0930: dozer operator to New Prop via Bonser 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 Klidjecz, Eric Saylor: HSA
Mark Howard, Mike Monroe: Soil Gas.

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

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

Other notes & interest:

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

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

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

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.24

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

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

Task Team Members:

NA

Narrative (include time and location):

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

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

per Hr Sm A. Spurrad; excavate at intersection on Mound Road W. N Bldg 21 culvert w/ HP corrugate. R. Mowen time @ 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 plate for hammer and generator (hammer too small), crew to Meijers for misc, and Davis to Hazco (misc supplies and to change oil). 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 — SITE MANAGER LOGBOOK P.25

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

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

Task Team Members:

JOHN DAVIS, Joletta Humpert, MARK ~~Mike~~ Howard JHD 6/14/94, Mike Klidjece, ERIC Saylor (HSA), Mike MONROE, SUSAN ~~Austin~~ Abston, MARTHA CRAMER (CABLE TOOL), BOWSER-MORNER CREW

Narrative (include time and location): JD 8/21/94

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

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

0915 Soil gas crew starts near 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. CMW prepping to collect surface sample. Not drilling yet

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

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

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

1200-1300 Break for lunch.

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

P.M. Same

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

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

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

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

Task Team Members:

NA

Narrative (include time and location):

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

For A7 Drilling:

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

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

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

#4: Not cleared

#5: loc as staked OK

#6, 7: need to be moved.

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

#12, 13, 14: Not cleared

#15: in D1D area. May require additional D4D 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. Trask; Borehole #3 goes in leach field, just make sure we miss holding tank - J. Geisler should have map.

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

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

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

1800 All personnel offsite.

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 28

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

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

Task Team Members:

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

Narrative (include time and location):

0700 All personnel w/ t/r. Conduct H&S briefing.
Crews gathering equipment.
Joyce Weiler w/ t/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 Klidjiecz & Mark Howard have it. Drillers will need it.

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

Cable tool on standby waiting on IDM drums. They've been procured but not bar coded.
1000 JD w/ HSA. Crew pursing water for scalp 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):

10/5 @ Cable tool. Still waiting on IDM drums. Standing water in hole @ approx 6'. Bedrock @ approx 1' (can see it in hole) So no bedrock sample (soil) collected since its TC same material as TC surface sample.

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

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

1430 Start tremie #5 sand / slurry in W399.

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

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

1530 Note: SC crew reports that hammer drill is broken

Daily Weather Conditions: A.M. NA

P.M. V. hot and humid 95°F

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 30

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

TASK NO: 34898

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 Geokon equipment.

EOD SUMMARY:

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

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

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

1800 All personnel offsite.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.31

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

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

Task Team Members:

JOHN DAVIS JOLETTA MINARD
MARK HOWARD MIKE MONROE (SG)
MIKE KLIDJIECZ, ERIC SAYLOR (HSA)
CHRIS HALLEY, JEFF DEVANLUNN (STAKE)
SUSAN ABSTON, MARTHA GRANGER (CABLE)
BOWER MORNER CREWS

Narrative (include time and location):

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

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

1330 Meet T. Tarok, B. Stanley, A. Spessard 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 8" mini utility samplers. Some downtime for Mound construction.

~~CABLE TOOL~~ MW DIVISION: Inspection. Also downtime due to equipment failure

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

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

P.M. Same

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.32

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

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

Task Team Members:

NA

Narrative (include time and location):

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

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

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.33

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

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

Task Team Members:

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

Narrative (include time and location):

0730 all personnel @ HR. Conduct H&S Briefing. Conduct site orientation and assign training to SB, CP.
A7 HSA set up on B1.
FIDLER crew begins equip. & site familiarization.
HAZCO delivers new OVA - old one was leaking Hz
Broadway barricade delivers flashing highway barrels for A7.
0945 to Bldg 91 pick up 3 open top 1DM 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 for J. Geisler and shelby tubes for drillers.
NOTE: Village Rental delivers drill for soil gas crew.
NOTE: per Mike Donahue, may have trouble supporting all drills - HP coverage.
Davis off site @ 1030
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. Morrison 8/15/94

**TASK TEAM ACTIVITY LOG SHEET** — SITE MANAGER LOGBOOK P. 34

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 348962

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

Task Team Members:

JOHN DAVIS JOLETTA MUMPERT ERIC SAYLOR GREG LODER JEFF DEVAULT (A7 HSA)
MARK MONROE, MIKE HOWARD (SC) 6/21/94 SUSAN ABSTON MARTHA CRAMER (CABLE TOOL)
MIKE KLUDJECZ EVELYN MEALHER (NP HSA) SALLY BROWN CRAIG PATTERSON (FIDLER)

Narrative (include time and location):

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

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

0915 Cable tool support vehicle stuck on W387 - ATV HSA comes up to unstick it.

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

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

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

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

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

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P35

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

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

Task Team Members:

NA

Narrative (include time and location):

- should exclusion zones be posted? Signs saying Do Not Enter 40 HR TRNG REQUIRED
- re Asbestos. She will set up AN 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 25'. Dry

NP HSA: completed B407 to TD 13.5 Dry. Decomm'd.

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

FIDLER: 1 FIDLER down; otherwise good progress

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

SOIL GAS: Good progress

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.36

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

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

Task Team Members:

John Davis Joletta Humpert Eric Taylor Greg Lodin Jeff Donaughus (OAHSA) Susan Alston Martha Cannon (Cable tool) Mark Howard Mike Monroe (SL) Mike Klidzejs Evelyn Meagher (NPHSA) Chris Patterson Sally Brown (FIDLER)

Narrative (include time and location):

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

0800-0900 JD checking mound rom drums. Find K. McMahon. Load up 8 used (empty) Weston barrels on Bldg 91. Deliver to rigs.

Cable tool continues drilling on W398. NPHSA set up on B[illegible] 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. McMahon 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 is located is under power lines. Try to find Bob Stanley or A. Spessard to relocate but unavailable so rig goes to B5.

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

P.M. same, some clouds

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.37

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

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

Task Team Members:

NA

Narrative (include time and location):

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

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

per T. Tank: 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 the move. No utility lines encountered.

- CALL fm Dan Garrison Mound Safety. JD asked to make postings for exclusion zone. DG says coveralls (cross-over 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. Loder reports that A7B7 will need to be moved to clear.

Daily Weather Conditions: A.M. NA

P.M. NA

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

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

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

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

Task Team Members:

NA

Narrative (include time and location):

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 Moot 39' No water. Will let sit overnite.

Soil Gas: AOC Z2: 2 timers installed, 34 tubes on perimeter. Need urinalysis to get inside AZ2. 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 939

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 Lodie, Jeff DeVinney (OAHSA)
Mike Klidzejs, Eric Saylor (NPHSA), Mark Howard, Mike Monroe (SG)
Susan Abston, Martha Cramer (cable tool), Sally Brown, Craig Patterson (FIDLER)

Narrative (include time and location):

0730 all personnel on site. Conduct H&S Briefing.
J. Geisler and Bill Stoll (4768) @ HQ. BS will be JG replacement next week. Discuss misc. items. Agree to drill A788, A789 on Mon.
- Call to Gene Wolfe Bowen-Marano. GW agrees to drill W400 w/ cable tool @ hourly prices. Set up B-M man (JM) for drum staging today - will meet Denny Gault @ 0900 @ Guard Post 2. Re pump for well develop. - B-M will supply pump and generator @ no cost GW will charge for manpower. B-M will try to supply enough tubing to dedicate to each well. B-M coveralls and work uniforms are rented and are laundered commercially.

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

1300. Only one OVA operational. HAZCO delivers one and takes back 2 bad ones.
G. Lodie repeats poss. high OVA on A783 @ 17.5'. Also wet

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

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.40

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

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

Task Team Members:

NA

Narrative (include time and location):

NCRs to write up:
- 6" hole on W399
- NO 2nd Alk. RUN ON B401 water sample
- NO CONTINUOUS CORING ON B1, B2
- delay in working geotech shelby tubes sample thru. Concern about cross-contamination. Discuss w/ T. Tank. Discuss w/ Alec Berry. He says to make sure its not just a nuisance hit.

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

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

Note: crews report that Mound HP has requested all sampling

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.41

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

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

Task Team Members:

NA

Narrative (include time and location):

completed @ 330p (it was 345 before)

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

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. N/A

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

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

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

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

Task Team Members:

JOHN DAVIS, JOLETTA HUMPERT, GEORGE WAHL, GREG LODER, JEFF DEVAUGHN (AHSA), MIKE KLIDZEJS, ERIC SAYLOR (NPHSA), MARK HOWARD, MIKE MONROE (SC), SUSAN ABSTON, MARTHA CROMER (CABLE TOOL), SALLY BROWN, GREG PATTERSON (FIDER), PAUL PARRISH, DAVE CUMMINGS (GEOP)

Narrative (include time and location):

0730. Staff @ H/R. Conduct H&S Briefing.

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

Per T. Tank, A. Bray: on B3 (A7) drill only enough to collect 1st 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 FIDER security escort for tomorrow - 730-430. Meet @ Post 2. JHD 6/27
- Call for Dave Keefer. Surveillance sched. for ~~last~~ 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 @ AHSA B3. Pursing with to collect grab sample. Thin floater on top of water indicated

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

P.M. same, pleasant

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P43

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

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

Task Team Members:

NA

Narrative (include time and location):

by interface phone

1330 @ NP HSA B406. Current depth is 60'. No water encountered. Poss bedrock. Refusal @ 60' - withd shale? Trying to auger through it. Cont spl collected @ 45'. Question is what is total depth in this situation? Auger refusal @ 63'. Decide this is bedrock. Cont soil sample @ 45' which is 20' above bedrock. This spl collected based on damp core but hole 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 TOTD gry cly, dry. VOC hit @ 34-36 100ppm neg meth, v. chloride, benzene.

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P-44

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

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

Task Team Members:

NA

Narrative (include time and location):

ND spl collected @ 20'- CESE GRAVEL, NO FINES.

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

1700 Call A. Berry inform him of B3 situation

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

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

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

FIDLER: 45 points in NONAOC 213 to date

SOIL GM: good progress

GEOPHYSC.: CONTINUE EM31

LMT ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK

P.45

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

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

Task Team Members:

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

Narrative (include time and location):

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

Per T. Tank. "Delete" Field Change 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 @ 20' intvl in B3. Coarse gravels, fines washed out.

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

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

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

Per A. Berry: move B402 60' N toward fence. Confirm w/ A. Spessard.

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

Daily Weather Conditions: A.M. humid and warm

P.M. same

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.46

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

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

Task Team Members:

NA

Narrative (include time and location):

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

- Then to B409. Moving back to orig. location. Ran to B400. Anticipated Bedrock @ 2.5' Water @ approx 25'. Per A. Berry, set the top of the well @ water level to avoid a dry hole during groundwater fluctuation. With A. Berry, pick a new location for well @ B402. (SEE Pg 45)

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

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

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

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

- Call fm A. Berry. Has found a spot for HC Soils Disp. Well. Also wants to move B402 in Soils Disp. Zone.

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.47

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

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

Task Team Members:

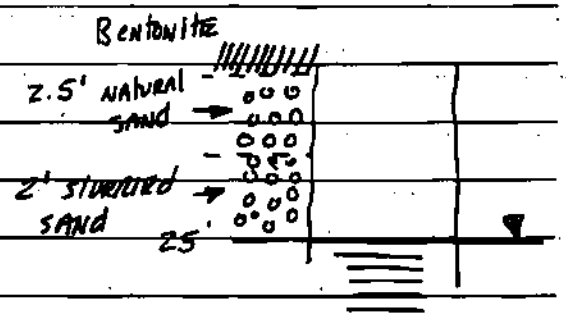
NA

Narrative (include time and location):

Drill new well in SDZ first - mid afternoon tomorrow.

1630 Call fm S. Abston. While setting the well @ B400, about 2'1/2 ft of natural inplace sand fell in on the 2' of sand filter, essentially giving about 4' of sand pack. Discussed situation w/ SALC 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

Task Team Members:

John Davis, Joletta Humphrey, George Wahl, Gary Loder, Jeff DeVaughn (ATHSA), Susan Ashton, Martha Cerrone (CABLE), Mike Klidzejz, Eric Saylor (NPHRA), Sally Brown, Craig Patterson (ADER), Mark Howard, Mike Monroe (SG), Paul Parrish, Dave Cummings (GEOP)

Narrative (include time and location):

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

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

STEVE DAVIS 615 481-4755

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

Kip Weaver (Mound Demolitions) 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. Smoke w/ some rain

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.49

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

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

Task Team Members:

NA

Narrative (include time and location):

where septic tank is.

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

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

1200 Call for T. Tank. Informed me that we should've have put in soil gas samplers in A21 per Change Order

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

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 50

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

TASK NO: 34896

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

Task Team Members:

NA

Narrative (include time and location):

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

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

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

- All A7 boring cleared except B15.

EOD Summary

A7 B16: TDID = 12' K. McMahan shut rig down @ 1600 due to high RADS - will analyze @ SSF

NP HSA: completed 403, 404. HSA done

NP Cable: TDID = 20.0 Dry.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

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

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

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

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

Task Team Members:

John Davis Joletta Hampton George Wahl Greg Lodge Jeff DeVaughn (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)
PHD 6/30/94 George Wahl

Narrative (include time and location):

0730 all personnel onsite. Call Roy Moore to arrange wipes to release NP ATV HSA rig. PHD 6/30/94
- T. Tank arrangements 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. Moore, action levels determined by Actinium levels, not thorium. Actinium test may take sev. days.

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

Daily Weather Conditions: A.M. cool clear 70° pleasant

P.M. SAME

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.52

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

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

Task Team Members:

NA

Narrative (include time and location):

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

1440 Mtg w/ A. Berry, A. Speicard, T. Trask @ OSE Bldg.

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

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

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.53

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

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

Task Team Members:

NA

Narrative (include time and location):

EOD SUMMARY

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

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

NPCable Tool: Well set and bentonite seal. on B402. TD = 33.'
Screen @ ≐ 21-31' wtr @ 22.09

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 54

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

TASK NO: 34896

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

Task Team Members:

John Davis, Joletta Minard, Greg Loder, Jeff DeVausen (AZHSA), Susan Abston, Martha Cramer (Cable), Craig Patterson, Sally Brown (FIDLER), Chris Halley, Eric Snyder, George (WAHI) (sed splg)

Narrative (include time and location):

0715 all personnel onsite. Conduct H&S Briefing.
J. Geisler onsite. Review last weeks activities w/her.
Alert her that B410 will require a LOTO.
- Get sediment sampling crew going. They go to office for logbook.
- Greg Schanie onsite for SAIC QA surveillance.
  - M&TE QAAP 12.1 - not necessary. QAAPs are guidelines. QAPjP takes precedence. Get rid of M&TE usage log - no entries.
  - Not recording lot numbers of calib. gases on M&TE log.
  - All pages numbered in logbooks. Last entry. Blank pages crossed out & dated

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

1000 to A7 B13 w/ G. Schanie to observe operations.
1030 to Bldg 61 w/ G. Schanie to observe FIDLER
1130 to NON-AOC w/ G. Schanie 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 on FC to initiate COC on Spl tle w/ Spl Mgr, i.e. life of sample begins w/ Spl Mgr. This requires that Sample Log Sheets be completed in field and transfer is documented in Activ. Log.

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

JMP 7-5-94

1430

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

1515 Call fm G. Loder on WS TTD 7/5/94 1313. 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. N/A

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 Davanzo (AZHSA), Chris Halley, Eric Taylor (SED), Susan Abston, Martha Cramer (CABLE), Mike Monroe, George Wahl (SG), Sally Brown, Craig Patterson (FIDLER)

Narrative (include time and location):

0730 All personnel onsite. Conduct H&S briefing.

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

- Cable tool crew back.

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

0900 @ HSA A7. Collecting water sample

0930 @ Cable tool. Grouting B402 & pulling casing.

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

Debrief w/ G. Schank. Will leave Procedure checklists

- FC for Compuchem boxes. JH doing it.
- FC to eliminate methanol wipe on bottles
- FC to cover label w/ clear tape.
- FC to use teflon instead of parafilm
- FC to check VOAs for and cyanide for chlorine & sulfides.
- FC for temp blanks in 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 P.57

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

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

Task Team Members:

NA

Narrative (include time and location):

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

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

1700 @ B13. G. Locke reports TDTD = 62. Water encountered @ 59. Per A. Berry, do not collect a water spl as 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 Joretta Hompert
Tanya Pfaff Juan Alvarado (SEEP)
Susan Abston Martha Cermak (CABLE)
Gary Locker Jeff DeVausen (HSA)
Sally Brown Craig Patterson (FIDLER)
Mike Monroe George Wahl (SG)
Chris Halley Eric Taylor (SED.

Narrative (include time and location):

0700 all personnel onsite.
0700 Meet S.C. Patterson, J. Geisler @ Bldg 102 for Security escort to Bldg 50 for LOTO.
0800 Security arrives
0830 Complete LOTO @ Bldg 50 - street lites. Now to substation near B10 for LOTO of more street lites.
0900 Complete LOTO. Cable tool starts on B410
0845 G. Locker reports that B13 is completed. TD @ 70' @ bedrock
0900 T. Trask on site. Discuss schedule.
1100 Call T. Pedro leave msg. for FRI access
D. Sink, D. Work, J. Heger : B-M
G. Locker, J. DeVausen, J. Davis, J. Minard, J. Alvarez : SAIC
1030 G. Locker reports B13 completed @ 70.0 bedrock
1430 @ OSE Bldg for mtg w/ T. Trask, A. Sprinkel, A. Barry, K. McMahon
- 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. Get 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:

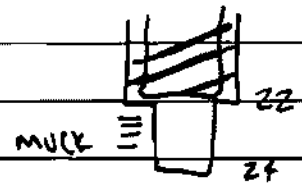
NA

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. Skeeter lowers mast then accompanies me to Bldg 50 for removal of LOTO.
1600 @ Bldg 50 for LOTO.
1615 to substation. Complete removal of LOTO.
1630 G. Coder reports @ B14 @ 22-24' drill into a black muck, damp, OVA= >1000ppm DH, <1ppm BZ (breezy) and LEL = 85% $O_2$ = 16%. Shut down Rig.
Also poor recovery. No spl @ 5', 10', spld 12-18
river @ 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 onsite. 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 risers @ ≐ 21.7. @ 28-30', OVA @ >1000 ppm DH, LEL = 24%.

Spend rest of day pumping well & collecting water spl.

No pump available.

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

1530 JD offsite

Last Entry

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

P.M. clearing and warm

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 62

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

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

Task Team Members:

JOHN DAVIS JOLETTA HUMPHRY MIKE MONROE GEORGE WAHL (SC)
GREG LODER JEFF DEVINGER (ATHSA) JUAN ALVARADO TONYA PFAH (SEED)
SUSAN ALSTON MARTIN CRAMER (CABLE) CRAIG PATTERSON SUZY BROWN (FIDLER)

Narrative (include time and location):

0700 all personnel on site
0730 Meet J. Wesler & S.C. Patterson for LOTO. Go to Bldg 50, then deep wells
0800 LOTO completed. To B14. LEL has dissipated over weekend. Continue disc.
- 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 TMD 7-11-94' Will set screen 29-39 tomorrow. Lowering mast for LOTO.
1535 @ B14. TDTD = 74.4ft. No bedrock. In clean w-sorted River gravel.
1615 @ Bldg 102 for LOTO. Cleared there @ 1645. To Bldg 50 and deep wells
1700 LOTO completed.

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

Recorded By [signature] QA Checked By Laura M. Marston 7/15/94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.63

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

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

Task Team Members:

NA

Narrative (include time and location):

EOD SUMMARY:

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

A7 HSA: still on B14. TDTD = 76.0

SEEPS: Sp1d 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

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

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

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

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

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

Task Team Members:

John Davis, Joletta Hempel, Mike Monroe, George Wahl (SG), Gary Loder, Eric Saylor (AZ HSA), Sally Brown, Craig Patterson (FIDCER), Susan Abston, Martha Cramer (CMDE), Chris Hatley (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 splg 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. Beaty who says its ok just to auger to bedrock - no split-spoon sampling required.
LMT Entry

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

Recorded By [signature] QA Checked By Laura M. Monzon 9/15/00

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.65

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

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

Task Team Members:

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

Narrative (include time and location):

0700 all personnel on site.

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

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

0915 Chris Holley onsite to replace Sally Brown on FIDLER

1000 Stake bldg PH holes w/ K. 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, it's OK to dump New Prop cuttings @ site if there is no OUN 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 AM.

Recorded By [signature] QA Checked By Laura M. Morrison 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:
Grouted B410
Cable tool: continue developing 397. Slow recharge.
HSA: complete B14 @ 114' Move to 310 7/13/94.
Difficulty grouting - holes run out of grout due to washouts from heaving sands. Move to B8
Soil GM: installing in Area 3
FIDLER: working in A7
Last Entry

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

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.67

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

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

Task Team Members:

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

Narrative (include time and location):

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

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

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

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

depth @ 12'. high OVA (pegged) downhole. 35ppm a 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 B400.

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

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 68

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

TASK NO: 34896

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

Task Team Members:

NA

Narrative (include time and location):

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

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

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

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

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

Daily Weather Conditions: A.M. NA

P.M. NA

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

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: N/A PAGE 3 OF 3

Task Team Members:

N/A

Narrative (include time and location):

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

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

S. Alston & M. 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 LOGBOOK P.70

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

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

Task Team Members:

| | | | |
|---|---|---|---|
| JOHN DAVIS | SAIC | DENNIS SINK | BOWER MORRIS |
| SUSAN ABSTON | ↓ | DWIGHT WOLK | ↓ |
| MARTHA CRAMER | | | |

Narrative (include time and location):

@ OSE bldg @ 0900; J. DAVIS, S. ABSTON, M. CRAMER, D. WOLK, 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 P.71

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

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

Task Team Members:

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

Narrative (include time and location):

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

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

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

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

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

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 P. 72

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

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

Task Team Members:

J.H.

Narrative (include time and location):

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

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By J. Humpert QA Checked By Laura M. Mauer 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 (ADLEC) Martha Cramer - Susan Abston (NP) Juan Alvarado - Chris Halley (Soil gas) Joe Schultheis, Elisa Jackson, Greg Loder - George Wahl (Area 7) Dave Cummings (Geophysical)

Narrative (include time and location):

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

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

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

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 74

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

Date (mm/dd/yy): ~~7-18-94~~ 7-19-94 JHO 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 Jolitta 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:

Tom Davis, Joletta Humphrey, Mark Cramer, Susan Abston (GW sptg), Greg Loder, George Wahl (AFHSA), Sally Brown, Carey Patterson (FIDER), Juan Alvarado, Chris Halley (SG)

Narrative (include time and location):

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

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

1000 @ B402. Sptg clean 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 P.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 (SOTC)

D. Sink Dwork (B-M).

1400 Call fm K. McMechan. He wants to stage all IDM drums in A7.

1500 G. Coder completes B10 @ 13.5'.

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

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.77

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

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

Task Team Members:

NA

Narrative (include time and location):

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

Lithologic Zones:

ZONE 1: surface mostly silty clays; clayey silty soil

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

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

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

Samples Collected

ZONE 1: B40521 B40721 B40821

ZONE 2: B40421 B40621 B40723

ZONE 3: B40622 B40822

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.78

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. Morillas 8/15/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK 0.79

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

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

Task Team Members:

NA

Narrative (include time and location):

B409 NONE.

SAMPLE SUMMARY

ZONE 1 3 buckets 3 Shelbys

ZONE 2 3 buckets 1 Shelby

ZONE 3 2 buckets 1 Shelby

SOIL - silty clays ~~clayey silts~~ (ZONE 1)

grades FIRM CLAYS (ZONE 2)

weathered shale or limestone

(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 8.80

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 (TUE) TIME: 0700 PAGE 1 OF 1

Task Team Members:

John Davis, Joletta Humphrey, Gail Loden, George Wahl (A7HSA), Juan Alvarado, Chris Halley (SC), Susan Alston, Martin Cramer (GW spl), Sally Brown, Craig Patterson (FIDLER)

Narrative (include time and location):

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

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

- A7HSA completes B11; TD @ 20.5 (bdek); water sampled @ 12.5
- S. Alston collects water spl @ B410. Then to W359 – difficulty pumping – v. slow recharge

Last entry

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

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

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

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

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

Task Team Members:

Greg Loder George Wahl

Joletta Minend John Davis

Narrative (include time and location):

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

1300 Driller back from lunch. Send him to 17 to stage
10M drums
LAST ENTRY

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 — SITE MANAGER LOGBOOK #P-83

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

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

Task Team Members:

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

Narrative (include time and location):

0715 All personnel onsite at sample trailer. Getting S. Abston and M. Cramer ready for B16. S. Abston reviewing logbook from previous drilling.

0800 K. MacMahan stopped by - EG&G is now saying we can't use our own respirator fits. Also mentioned Allen Spesard was going to stop by to talk to crew.

0810 Called A. Spesard. - he doesn't need to speak to crew. Said we start without respirators but Henry Robinson and Keith MacMahan will be monitoring (w/ Fidler) to ensure we don't exceed the Actinium action level of 60 pCi/g. If we exceed the action level, EG&G will not accept our respirator fit tests and we'll probably have to get fit test by Mound. (Keith's beeper #: ~~8-267-4110~~) JH 7/25/94

0830 K. MacMahan called - informed him they were starting B16. He's heading down right now. Call B. Gault - leave message to call about what needs to be done with drums outside Bldg 19.

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

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.84

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

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

Task Team Members:

J. Humpert

Narrative (include time and location):

Talked to drillers - they're trying to line up concrete truck to come in tomorrow (Tues.) at 9:00am 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

185

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 Kuonen (surveying) for OU9 tomorrow @ 10:30 am. Either myself or possibly Laura M. will fill in.

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

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

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.86

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

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

Task Team Members:

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

Narrative (include time and location):

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

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

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

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

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

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

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

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.87

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

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

Task Team Members:

NA

Narrative (include time and location):

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

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK p. 88

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

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

Task Team Members:

JOHN DAVIS, JOLETTA HUMPERT, SUSAN ALSTON, MARTHA CRAWLER (A7 HSA)
CHRIS HALLEY, JUAN ALVARADO (SG)
SALLY BROWN, CLAYS PATTERSON (FIDELE)

Narrative (include time and location):

~~AND~~ 7/27/94

0700 ~~All site on personnel~~ All personnel on site. Conduct HAS 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/ W395. 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 deconning rig and washing barrels out. DRILLING COMPLETE!

LAST ENTRY

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

P.M. Still w/ some clearing

Recorded By [signature] 7/27/94 QA Checked By Laura M. Morrum 8/16/94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK 0.89

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

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

Task Team Members:

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

Narrative (include time and location):

0700 all personnel on site.
G. Loder, S. Abston work on completing logbooks.
M. Cramer calibrates TLC meter.
J. Minard, G. Loder pulling soil gas samplers.
J. Davis QAs logbooks
1400 Joe Schultheis on site to look @ AOC J geophysical grid.
1430 @ OSE Bldg for mtg w/ K. McMahan, A. Spesard, T. Tank. Jim Zahora

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

Last Entry

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

Recorded By [signature] QA Checked By Laura M. 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 Humphrey 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. Frank
1mt Entry

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

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK 291

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 Crocker

Juan Alvarado Chris Holley (SG)

Sally Brown Craig Patterson (FIDLER)

Narrative (include time and location):

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

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

1200 JD to office. Evaluate Bowker-Morner 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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK: P.92

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

TASK NO: 34896

Date (mm/dd/yy): 8/3/94 Wed TIME: 0700: PAGE 1 OF 1

Task Team Members:

JUAN ALVARADO Chris Halley (soil gas)

JOHN DAVIS

Narrative (include time and location):

0700 Soil gas crew onsite. Working in A7

1400 JD onsite to check access for Add'l Sampling Program.

LAST Entry

Daily Weather Conditions: A.M. cool, overcast 75° F

P.M. warmer 85°F

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK p.93

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

Date (mm/dd/yy): 8/4/94 Thurs TIME: 0700 PAGE 1 OF 2

Task Team Members:

Juan Alvarado Chris Hailey

Narrative (include time and location):

0700 Soil gas crew onsite. Working in A7.

0930 A. Berry calls J. Davis w/ Beavercreek office.
AB wants W399 surveyed to try to improve flow to collect groundwater sample.

1000 JDavis faxes July Accident Report to J. Geisler

1430 @ OSE Bldg for mtg w/ A. Spessard, A. Berry, K. McMahan, T. Tank
- Discuss issuance of New Prop. Phase 1 Field Report
- Discuss Add'l Sampling Plan
- Discuss 50/10 Validation. Will treat OpsArea and New Prop as a "single batch".
- A. Berry wants to survey W399.
- Some RAD Worker II slots; 730A 8/10 @ 91B; Keith needs to know first thing Mon.

NOTE: Soil gas completes Area 7 today.
Last Entry

Daily Weather Conditions: A.M. cool overcast 80°F

P.M. warm to 85°F

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

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK p.94

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

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

Task Team Members:

Joletta Humpert

Gary Lodin John Davis (PH BLDG BORINGS)

Martha Cranmer Chris Halley (SOIL GAS)

Narrative (include time and location):

0700 Soil gas crew on site. Work in AJ all day.

0800 G. Lodin onsite w/ equip. from Village Center.

0830 J. Davis onsite.

- To Bldg 24 to drill B17, B18, B19, B20; 0-5' each; with hand augering equipment.

1130 v. difficult drilling. Complete B17.

1530 continued diff. drilling Complete B18.

Last Entry

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

P.M. same, sl. more humid

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

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK p95

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

Date (mm/dd/yy): 8/9/94 TIME: 0730 PAGE 1 OF 1

Task Team Members:

Joletta Humphrey

Martha Cramer Chris Halley (SG)

Greg Loder Juan Alvarado (PH BLDG BORINGS)

Narrative (include time and location):

SOIL CM CREW WORKING IN AREA J. V. difficult drilling down steep hillside.

GL & JA continue w/ PH bldg. Complete B20? @ 3'. B19? Auger refusal @ 2'. Attempted to contact Mound personnel for direction.

Last Entry

Daily Weather Conditions: A.M. SEE INDIV. LOGBOOKS

P.M. "

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

**TASK TEAM ACTIVITY LOG SHEET** SITE MANAGER LOGBOOK P.96

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

Date (mm/dd/yy): 8/10/94 TIME: 0730 PAGE 1 OF 1

Task Team Members:

Joletta Humpert Greg Loder (SG altitude)
Chris Halley Matthew Cramer (SG place)
Joe Schultheis (W399)

Narrative (include time and location):

All personnel on site by 0730

1130 Call fm. Joe Schultheis. He checked water level in W399; water @ 26.29' from top of casing. Well depth @ 35.11 TOC. Screen @ 23.33 which means there's about 7' of water in screen which is a sufficient amount to surge.

1200 Call to Joletta. JH & GL pulling soil gas tubes in A3. CH & MC installing SG tubes in Area J.

Note: Yesterday GL completed drilling and sampling PH holes; all to 3'. Also grouted holes.

Call to Jim?; Bowser-Morner. Ted Keen set up to surge and pump W399 tomorrow; w/ G. Loder.

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.97

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

Date (mm/dd/yy): 8/11/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Joletta Humpert Paul Parrish (SG Retrieve)

Chris Helley Juan Alvarado (SG Place)

Greg Loder (W399)

Narrative (include time and location):

GL supervises Bowler Morner to ~~pu~~ ~~onto~~ ~~field~~ SURGE and pump W399

@ start, WL @ 24.1' well depth = 33.0

SURGE for 1 hour, check turbidity SURGE AGAIN.

Then ~~pump~~ ~~the project~~ bail well dry, 4.5 gal removed.

SEE W399 logbook for details

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.98

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

Date (mm/dd/yy): 8/15/94 MON TIME: 0715 PAGE 1 OF 1

Task Team Members:

Joletta Humpert (SG Retrieve)
Paul Parrish (SG Retrieve)
Martha Cramer (SG Place
(Soil G Place) Chris Halley

Narrative (include time and location):

All ~~personell~~ JH 8/15/94 personnel onsite by 0730

Placement Crew working in Area 61 and Area J.

Retrieval crew in Area 7.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By Laura M. Marsa 9-27-94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK
P.99

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

Date (mm/dd/yy): 8/16/94 TUES TIME: 0730 PAGE 1 OF 1

Task Team Members:

~~Joletta~~ SPH 8/16/94

Chriss Halley + Martha Cramer (SG Place)

Narrative (include time and location):

All personnel onsite @ 0700

Working in Area 13 with security.
Fast Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By Laura M. Marion 9-27-94

**TASK TEAM ACTIVITY LOG SHEET** | SITE MANAGER LOGBOOK p. 100

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

Date (mm/dd/yy): 8/17/94 WED TIME: NA PAGE 1 OF 1

Task Team Members:

M. Cramer
C. Halley

Narrative (include time and location):

All Entries Made by CH 8/31/94

0700 Arrive at Trailer
0836 Crew to non-AOC areas.
1150 Lunch Break
1330 Back to ~~AOC~~ non-AOC areas
1605 Back to Trailer
1610 Tubes / Log Book

Last Entry

Daily Weather Conditions: A.M. Overcast / Hazy / Fog ~64°F
P.M. N/A

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 101

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

Date (mm/dd/yy): 8/18/94 THURS TIME: NA PAGE 1 OF 1

Task Team Members:

MARTHA CRANCE CHAU HALLEY (SOIL GAS) SHAW, WEISS, DENAPLES (SURVEYORS)
JOHN DAVIS ", BERNARD KLENOW
JEFF, KUNCA

Narrative (include time and location):

0800 SWD personnel + JDAVIS on site to locate As built OPS AREA and New Property soil borings, wells, seeps, and sediment points.

- Work in Ops Area; locate A7 borings (B01-B16) and Bldg 24 borings (B17-B20). Also locate well 0410 and three sed. points w/i Ops Area

1200-1300 LUNCH

1300-1600. To New Prop. Show them boring, well, and sed locations. They'll (SWD) finish surveying next Tues.

Last Entry

Daily Weather Conditions: A.M. Sl. overcast 85°F

P.M. SAME

Recorded By [signature] QA Checked By Juletta Thompson

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.102

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

TASK NO: 34896

Date (mm/dd/yy): 8/22/94 TIME: NA PAGE 1 OF 1

Task Team Members:

M Cramer

C Haley

Narrative (include time and location):

All Entries made by CA 8/31/94

0700 Arrive @ site

0730 Joletta calls to discuss upcoming week workplans for soilgas.

0805 H+S briefing

0815 Non-AOC area

0900 High Rad areas encountered. by SGT Cramer. Called J Davis - MC/CH will sample well 399 this week. Need to purge 3 days and sample

0945 Continue Non AOC.

1145 To Lunch

~1500 To well 399 to purge

~1630 Return from well.

~1630 Tubes/Logbooks. Last Entry.

Daily Weather Conditions: A.M. Cloudy / Cool 68°

P.M. N/A

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK 8-103

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

Date (mm/dd/yy): 8/23/94 TIME: NA PAGE 1 OF 1

Task Team Members:

M. Cramer — Steve Davis (Oak Ridge)
C. Hally
M. Oblay

Narrative (include time and location):

~~All Entries made by CH 8/31/94~~ JPH 9/16/94

0715 Personnel onsite
0800 M.O. trained in soil gas procedures.
0900 M.O and C.H. leave to help OU9 surveyors.
1000 H&S briefing by M.C.
1030 Pick up HP - off to non AOC to install.
1145 Lunch
1315 Back to Area 13 to pull timers.
1430 Begin installing in non AOC
1530 Back at trailer - offsite.
Last Entry

Daily Weather Conditions: A.M. 75°F, Sunny
P.M. 80°F, breezy

Recorded By Jolotta Humpert QA Checked By Laura M. Morrison 9-27-94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 104

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

TASK NO: 34896

Date (mm/dd/yy): 8/24/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Martha Cramer (S.G. Jr)
Chris Halley (S.G. Jr)
Henry Robinson (EG & G)

JPH 8/24/94

Narrative (include time and location):

0700 Onsite at trailer
0715 J. Geisler provides permits
0830 Begin drilling in nonAOC (SW/PP) area to install tubes.
1200 Lunch
1305 Back to SW/PP Area to install
1450 Scanned out by HP.
1515 Bailing W399 in New Property
1600 Offsite

Daily Weather Conditions: A.M. 68°F, cloudy, overcast
P.M. 78°F, cloudy

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 9-27-94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P-105

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

Date (mm/dd/yy): ~~8/24/94~~ 8/25/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Martha Cramer (SG In) Henry Robinson (EG&G)
Matt Obloy (SG In-training).
Chris Hallely (SG In).

Narrative (include time and location):

0700 Onsite at trailer
0800 Meet security at Gate 56 to install in nonADC.
0830 H&S briefing.
1150 Break for lunch. M. Cramer leaves for office.
1245 Back to nonADC to install.
1605 Patching holes in quickcrete.
1620 Purging Well W399.
1700 Offsite

Daily Weather Conditions: A.M. 72°F, overcast, P. cloudy.
P.M. 87°F, hot, sunny

Recorded By Joletta Humpert. QA Checked By Laura M. Marra 9-27-94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 106

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

Date (mm/dd/yy): 8/29/94 TIME: NA PAGE 1 OF 1

Task Team Members:

J. Humpert (retrieval) Matt Obloy (install)
Juan Alvarado (retrieval)
Chris Halley (install)

Narrative (include time and location):

0730 Arrive @ trailer
0745 Keith McMahan indicated a bird count will be conducted some time this week.
H&S briefing
0800 Retrieval crew leaves to retrieve in Area J, non ADC north, Area 13 timers, and patch holes in Area J.
0900 Installation crew off to non ADC to install tubes.
1215 Break for lunch
Retrieval crew leaves for office
1300 C.H. out with J. Geisler locating points.
M.O. heads to office.
Last Entry

Daily Weather Conditions: A.M. Sunny, 70°F
P.M. Sunny, 75°F

Recorded By Jletta Humpert QA Checked By Laura M. Marlon 9-27-94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P.107

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

Date (mm/dd/yy): 8-30-94 TIME: NA PAGE 1 OF 1

Task Team Members:

Matt Obloy Chris Halley (SG Inc.)

JPH 8/30/94

Narrative (include time and location):

0730 Arrive at trailers
0830 Off to non-AOC to install following HTS briefing
1130 Lunch break
1230 Back to non AOC to install
1550 Scan out with HP
1615 Unload equipment
Offsite. Last Entry

Daily Weather Conditions: A.M. 75°F, Sunny
P.M. 75°F, Overcast

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 9-27-94

**TASK TEAM ACTIVITY LOG SHEET** SITE MANAGER LOGBOOK P. 108

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

Date (mm/dd/yy): 8/31/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Chris Halley, Matt Oblog (S.G. Jr)

JPH 8/31/94

Narrative (include time and location):

0730 Onsite at sample trailer
0800 Off to install in non AOC - pick up HP.
1215 Lunch break
1300 Meet w J. Geisler for permits
1330 Rain - shut down
1400 Back at trailer - prepping soil gas tubes, etc.
1600 Offsite
Fast Entry

Daily Weather Conditions: A.M. 70°F Overcast
P.M. 72°F, Overcast, rain

Recorded By Juletta Hunsperger QA Checked By Laura M. Marion 9-27-94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P 109

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

Date (mm/dd/yy): 9/1/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Matt Oakley, Chris Halley (S.G. In)
Jetta Humpert, Brad Richardson (S.G. Out)

Narrative (include time and location):

0730 Onsite at sample trailer
H&S briefing
0800 Installation team out to non-AOC after picking up HP.
Retrieval team out to Area J, Area 61 & Area 3. Retrieving tubes and patching holes.
1200 Lunch. Retrieval team done. Shipping Area 3 + Area J.
1500 Installation team returns to trailer - prepping tubes.
1630 Offsite.
Test Entry

Daily Weather Conditions: A.M. Sunny, 70°F
P.M. Sunny, 75°F

Recorded By Jetta Humpert QA Checked By Laura M. Morrison 9-27-94

TASK TEAM ACTIVITY LOG SHEET

SITE MANAGER LOGBOOK P. 110

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

TASK NO: 34896

Date (mm/dd/yy): 9/6/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Matt Cholay, Brad Richardson (SG, In)
Joletta Humpert Paul Parrish (SG, Out)

Narrative (include time and location):

0700 Onsite at sample trailer
0715 M.O. talking with Geisler @ day's activities
0800 J Geisler returns - discuss strategy to finish sampling points plus additional points.
0830 Installation team out to pick up HP coverage and work in non-AOC.
H&S briefing conducted.
1200 Retrieval complete for today. Team offsite.
1215 Installation team met w J. Geisler. Continued drilling in non-AOC
Last Entry

Daily Weather Conditions: A.M. Overcast, 65°F, light drizzle
P.M. NA

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 9-27-94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P-111

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

Date (mm/dd/yy): 9/8/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Matt Oblay, Brad Richardson (installation)
Joletta Humpert, Paul Parrish (retrieval) JPH 9/12/94

Narrative (include time and location):

0800 On site at Sample Trailer
0840 Meet with HP - working in nonAOC installing
Retrieval team with security in Area 13.
1200 Break for lunch. Retrieval team leaves site
to ship Area 13 and Area 61 tubes, then head to
office
1330 Installation team meets w J. Geisler in NonAOC.
Wkt. Installing
1530 Back at trailer
1545 Offsite

Daily Weather Conditions: A.M. Sunny, 65°F, Calm Wind
P.M. Sunny, 70°F, SWind 5-10 mph

Recorded By [signature] QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** SITE MANAGER LOGBOOK P. 112

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

Date (mm/dd/yy): 9/8/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Matt Oblog (S.G. Jr)
Brad Richardson (S.G. Jr) JRH 9/8/94

Narrative (include time and location):

0815 Onsite at sample trailer. Working with HP and EG&G concerning high alpha readings on M.O.'s hands.
0900 Meet security - installing in non AOC (near Bldg 87)
1200 ~~1300~~ JRH 9/8/94 Lunch break
1300 Back to non AOC Secure area (near Bldg 87)
1530 Exit secure area - back to trailers
1610 Offsite
Last Entry

Daily Weather Conditions: A.M. 72°F Sunny
P.M. 72°F, Sunny

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 9-27-94

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 113

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

Date (mm/dd/yy): 9/12/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Joletta Humpert (S.G. Out) — Brad Richardson (S.G. In)
Paul Parrish (S.G. Out)
Matt Oblay (S.G. In)

Narrative (include time and location):

0730 Onsite at Sample trailer
1000 Joletta Humpert and Paul Parrish finish Pulling Non AOC Tubes (See Page 98 Non AOC Logbook).
12:00 Brad and Matt break for lunch
13:00 Brad and Matt continue installing Soil Gas Tubes.
16:20 Offsite
Last Entry

Daily Weather Conditions: A.M. 60°F Sunny
P.M. 80°F, Sunny

Recorded By [signature] QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P-114

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

Date (mm/dd/yy): 9-13-94 TIME: NA PAGE 1 OF 1

Task Team Members:

Matt Oldey

A. Brad Richardson

JRH 9/15/94

Narrative (include time and location):

08:00 Matt and Brad on-site, load equipment into truck, prepare for installation of Soil Gas Tubes.

11:30 Break for lunch

12:15 Continue installing Soil Gas Tubes.

15:30 finish installing Sample Tubes for the day.

Last Entry

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

P.M. 85°F, Sunny

Recorded By Matt Oldey QA Checked By Juliette Humpert

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P.115

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

Date (mm/dd/yy): 9-14-94 TIME: NA PAGE 1 OF 3

Task Team Members:

Matt Oldy
A Brad Richardson
Henry Robinson

JPH 9/15/94

Narrative (include time and location):

0745 - Brad on-site, load equipment into truck for the soil-gas surveys ~~& RSI (region soil invited survey)~~ & OU5 additional samples. JPH 9/15/94
Waiting on Joyce - make sure we have clearance to do screen samples w/o intrusive permit.
0830 Call to someone @ X-3351 (Burn Area). He said they were burning explosives this morning and early afternoon and that he would contact Joyce when it would be safe to collect samples in burn area
0900 - Joyce gave us digging permit for all our screening sample points and the Metals point (TAL)
0910 - Got Henry, go to 13.25N 5.75W (#29); since we don't have security escort we moved point outside fence in grand area - Henry clears point
0925 - Collect Screen Soil 13.25N 5.75W (#29)
0930 - Locate 21.5N 2.5W (#115) - Henry clears point.
0935 - Collect Screen Soil 21.5N 2.5W (#115)
0940 - Locate 14.3N 12.75W (#65) - Henry clears point
0944 - Collect Screen Soil ~~from~~ 14.3N 12.75W (#65)
1050 - Locate 13.5N, 15.5W (#28) - Henry clears point

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

Recorded By A Brad Richardson QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK p. 116

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

Date (mm/dd/yy): 9-14-94 TIME: NA PAGE 2 OF 3

Task Team Members:

A Brad Richardson
Matt Oblog
Henry Robinson

JPH 9/15/94

Narrative (include time and location):

0952 ~~1057~~ - Collect 13.5 N 15.5 W (#28) - had moved off pavement
1006 - Locate 13 N 22.5 W (#86, 87) - Henry clears site
1010 - Collect 13 N 22.5 W (#86, 87)
1026 - Locate 2.5 N 18 W (#45) - Henry clears site
1030 - Collect 2.5 N 18 W (#45) - bushwacked 50 feet north of 2N 18 stake in woods
1040 - Locate 0S 5W (#46) - Henry clears site
1045 - Collect 0S 5W (#46) - along road.
1049 - Locate 4.5 N 7.5 W (#117) - Henry clears site
1052 - Collect 4.5 N 7.5 W (#117)
1108 - Got amber jars for TAL Metals sample
1109 - At #50 (8N 24.5W) 9-14-94, Henry clears site
1112 - Collect #50 (8N 24W) - same location as the soil gas probe
- Lot# ~~Ø~~ F3146050 8 oz. Amber Jar
9-14-94
1117 - Henry clears us for lunch
1120 - Back @ Trailer
1330 - Meet Joyce and Henry @ Burn area
1340 - At BB2 1Ø1 & BB2 ØØ1 - H & J clay; gravel/sand
1391 - Collect " " " " - Duplicate " " 0"-6"

Daily Weather Conditions: A.M. 78°F Sunny, SW 10-15
P.M. 89° " "

Recorded By [signature] QA Checked By Jolette Humphrey

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK P. 117

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

Date (mm/dd/yy): 9-14-94 TIME: NA PAGE 3 OF 3

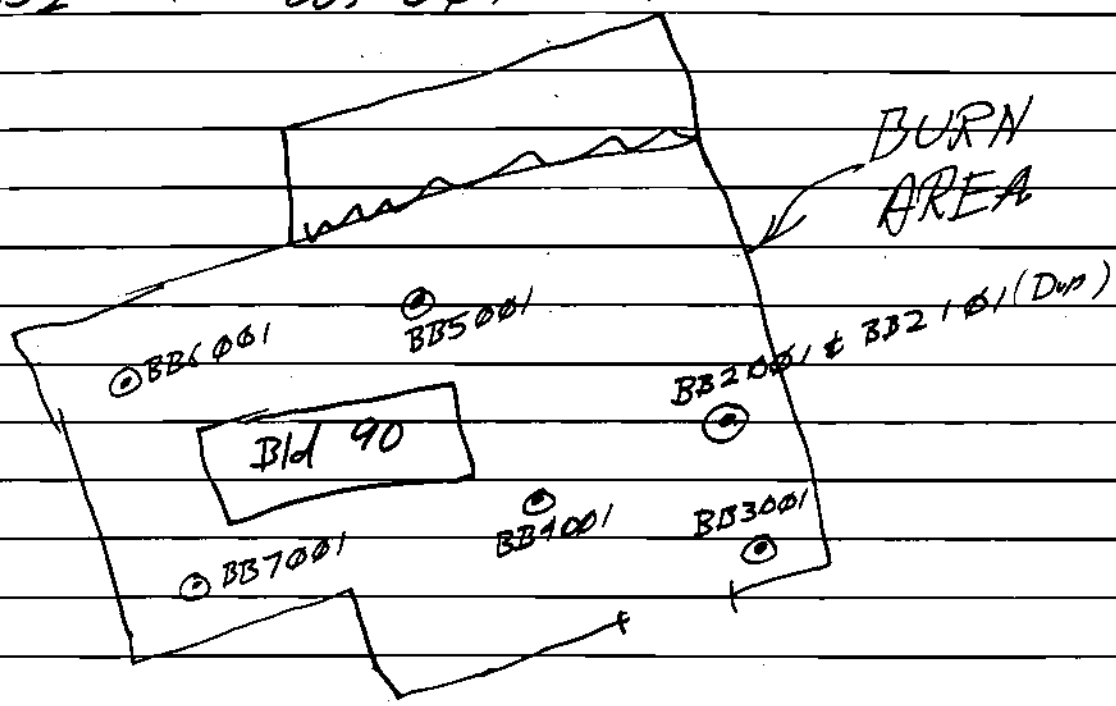
Task Team Members:

A Brad Richards
Matt Oblog
Henry Robinson

JPH 9/15/94

Narrative (include time and location):

1345 - Collect BB3 ØØ1 - Sand & Gravel 0"-6"
1349 - Collect BB4 ØØ1 " " "
1352 - " BB5 ØØ1 " " "




1356 - Collect BB6 ØØ1 Sand & Gravel 0"-6"
1400 - Collect BB7 ØØ1 " " "
- All locations sampled were cleared by Joyce and Henry prior to sampling; Henry also collected screen sample
1405 - Finished here - shipped samples fedex.

Daily Weather Conditions: A.M. NA
P.M. 90°F Sunny SW 10-15

Recorded By A Brad Richards QA Checked By Joletta Hunnicutt

TASK TEAM ACTIVITY LOG SHEET — SITE MANAGER LOGBOOK

P. 118

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

Date (mm/dd/yy): _____ TIME : _____ : _____ PAGE _____ OF _____

Task Team Members:

_____ _____

_____ _____

_____ _____

Narrative (include time and location):

NO MORE Activity LOG SHEET ENTRIES IN THIS BOOK

JMD 9/16/94

Daily Weather Conditions: A.M. _____

P.M. _____

Recorded By _____ QA Checked By _____

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: 08 00

WEATHER: Clear, sunny, warm 50°F

WORKING CONDITIONS: good.

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

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

Last entry

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

| | | |
|---|---|---|
| Eric Taylor | | |
| Billy Mellott | | |
| Bedford Dunn | | |
| Art Tuyn | | |
| Jeff Tucker | | |
| Jolette Minard | | |

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: 3

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)

| | | |
|---|---|---|
| Bruce D Kunz | | |
| Art Lunzi | | |
| [illegible] | | |
| [illegible] | | |
| Eric [illegible] | | |
| Jolette Munard | | |

JOHN H. DAVIS

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P.23

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
- snow & 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] | | |
| Letta Minard | | |

Terri Davis

SITE HEALTH & SAFETY OFFICER

**TAILGATE SAFETY MEETING LOG FORM** SITE MANAGER LOGBOOK P-244

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

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

WEATHER: clear cool breezy 50°F

WORKING CONDITIONS: good

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

NOTES: Discuss:

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

Last Entry

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

| | | |
|---|---|---|
| Billy Martindell | | |
| D A Lebra | | |
| Art Lugo | | |
| Bryan D Kim | | |
| Eric Taylor | | |
| Juletta Minard | | |

SITE HEALTH & SAFETY OFFICER

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

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

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

WEATHER: clear cool breezy 50°F

WORKING CONDITIONS: good

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

NOTES:

Discuss:

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

Last Entry

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

| | | |
|---|---|---|
| Eric Taylor | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| | | |

SITE HEALTH & SAFETY OFFICER

**TAILGATE SAFETY MEETING LOG FORM** SITE MANAGER LOGBOOK P. 246

**PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1** TASK NO: 1348

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

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 Taylor | | |
| [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: hard hat & glasses; add cleaning PPE when cleaning.

NOTES:

Discuss
- chemistry & market safety
- administering 1st aid
- ticks
- heat exhaustion
- slip, trip, fall

Last Entry

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

| | | |
|---|---|---|
| [illegible] | [illegible] | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |

SITE HEALTH & SAFETY OFFICER

**TAILGATE SAFETY MEETING LOG FORM** SITE MANAGER LOGBOOK P.248

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

DATE: 5-21-94 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 work 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 Kristiansen | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 249

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

TASK NO: 34896

DATE: 5-25-94 Su M Tu (W) Th F Sa TIME: 7:30

WEATHER: overcast, rainy, 65-70° F

WORKING CONDITIONS: Fair, slightly slippery

REQUIRED PPE: glasses, boots, Add PPE for clearing

NOTES:

Discuss
- slip/trip/fall hazards
- rattlesnake first aid
- cautioned workers regard slippery conditions

Last Entry

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

| | | |
|---|---|---|
| Cindy Montgomery | | |
| Sharon Kretzenger | | |
| Brad Richards | | |
| Chr D Hally | | |
| | | |
| | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P-250

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

TASK NO: 34896

DATE: 5-26-94 Su M Tu W (Th) F Sa TIME: 7:30

WEATHER: hazy w/ some sun, some rain.

WORKING CONDITIONS: good

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

NOTES:

Discuss:

Be safe - its tough out there!

Last Entry

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

| | | |
|---|---|---|
| [illegible] | [illegible] | |
| [illegible] | | |
| [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)

| | | |
|---|---|---|
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |

SITE HEALTH & SAFETY OFFICER

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

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

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, and clearing equipment when clearing

NOTES:

Discuss

• Safety in Area 3/SDB.

Last Entry

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

| | | |
|---|---|---|
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| | | |

SITE HEALTH & SAFETY OFFICER

**TAILGATE SAFETY MEETING LOG FORM** — SITE MANAGER LOGBOOK P-253

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

DATE: 6/2/94 Su M Tu W (Th) F Sa TIME: 07:30

WEATHER: 60°F Sunny

WORKING CONDITIONS: good

REQUIRED PPE: glasses + steel toed boots, add clearing equipment when clears

NOTES:

Discuss:

- eye scratch incident of Evelyn Meagher yesterday
  Eye protection v. important. Stress dangers of slip trip fall

Last Entry

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

| | | |
|---|---|---|
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| | | |
| | | |
| | | |

SITE HEALTH & SAFETY OFFICER

**TAILGATE SAFETY MEETING LOG FORM** SITE MANAGER LOGBOOK p. 254

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

DATE: 6-6-94 Su M Tu W Th F Sa TIME: 0800

WEATHER: overcast, humid, 60° F

WORKING CONDITIONS: good

REQUIRED PPE: see below

NOTES:

Discuss:

- Mound PPE requirement; glasses & hook always, hard hats in construction zones. Also discuss cleaning PPE
- Poison ivy. Lots of it at 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 D. [illegible] | | |
| | | |
| | | |
| | | |

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)

| | | |
|---|---|---|
| [illegible] | | |
| [illegible] | | |
| | | |
| | | |
| | | |
| | | |

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: 34896

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 | | |
| [illegible] | | |
| | | |
| | | |
| | | |
| | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 257

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

DATE: 6/9/94 Su M Tu W (Th) F Sa TIME: 07:30

WEATHER: Mostly Sunny 60°F, Calm

WORKING CONDITIONS: Good

REQUIRED PPE: See below

NOTES:

Discuss Concerns w/ Area J
- Ticks
- Poison Ivy
- Steep slopes

Discuss Mounds PPE Requirements
- safety shoes
- safety glasses
- Hard Hats in construction area.

Last Entry

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

| | | |
|---|---|---|
| [illegible] | | |
| Eric Taylor | | |
| [illegible] | | |
| [illegible] | | |
| | | |
| | | |

SITE HEALTH & SAFETY OFFICER

**TAILGATE SAFETY MEETING LOG FORM** SITE MANAGER LOGBOOK P. 258

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

DATE: 6/13/94 Su M Tu W Th F Sa TIME: 07:30

WEATHER: Sunny 70°F

WORKING CONDITIONS: (Good)

REQUIRED PPE: See below

NOTES: Concerns

- Hard Hats in construction areas
- Safety Glasses
- Lost side slopes
- Discuss Mound PPE: glasses & boots always, hardhats around drill rigs.
- JSHA for drill rigs.
- Biological hazards in New Prop; ticks, etc.
- Site-Specific Checklist for New Prop

Last Entry

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

| | | |
|---|---|---|
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | Juletta Rumpert |
| [illegible] | [illegible] | |
| [illegible] | [illegible] | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P-259

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

DATE: 6/14/94 — Su M (Tu) W Th F Sa — TIME: 0730

WEATHER: SUNNY humid 85°F

WORKING CONDITIONS: good

REQUIRED PPE: boots, glasses, hardhats

NOTES:

Discuss
- use of PPE
- heat stress - drink lots of water
- 1-ton limit on "Steep Hill" Road by Decon Pad. Rigs must go around.

Last entry

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

| | | |
|---|---|---|
| [illegible] | [illegible] | |
| [illegible] | Mark T. [illegible] | |
| [illegible] | [illegible] | |
| Martha [illegible] | Juletta Humpert | |
| Susan L Alston | | |
| L C Patterson | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P.260

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

TASK NO: 34896

DATE: 6/15/94 Su M Tu (W) Th F Sa TIME: 0730

WEATHER: warm 80°F humid Clear

WORKING CONDITIONS: good.

REQUIRED PPE: glasses, boots, handhats 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 handhats for soil gas; applicable if in H&S Checklists

Last Entry

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

| | | |
|---|---|---|
| [illegible] | [illegible] | |
| [illegible] | Joletta Thompson | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK 0261

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

DATE: 6/16/94 Su M Tu W (Th) F Sa TIME: 07:30

WEATHER: hot humid hazy 90°F

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, hardhats in exclusion zones

NOTES:

Discussed

- anticipated 90°F weather today - heat stress. Safety breaks and drink lots of water. Awnings will be supplied if necessary
- Safety glasses will be replaced as necessary.

last entry

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

| | | |
|---|---|---|
| Susan L Albston | Mark Fitzgerald | |
| [illegible] | Mike Wanner | |
| [illegible] | Joletta Humpert | |
| SC Patterson | | |
| Joe Kern | | |
| Eric Taylor | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P.262

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

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 | [illegible] |
| [illegible] | Juletta Humpert | [illegible] |
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] 6/20/94 |
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK

P 263

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

DATE: 6-21-94 Su M (Tu) W Th F Sa TIME: 0730

WEATHER: hazy, overcast humid 75°F

WORKING CONDITIONS: good but wet

REQUIRED PPE: glasses, boots; hardhat in exclusion zones, construction zones

NOTES:

Discussed

- lightening alerts. Mound HP 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 weak cowards and will launder.
- Slippery driving conditions in new property
- Heat stress

Last entry

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

| | | |
|---|---|---|
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
| [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: 34896**

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

WEATHER: warm, humid, 90°F, clear

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, hardhats as required.

NOTES: Discussed

- training forms
- Don't let drillers start rig, put up mast, etc until exclusion zone is established
- Get urine samples turned in
- Chiggers are bothersome. Need more insect spray
- Heat stress – drink water and safety breaks

Last Entry

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

| | | |
|---|---|---|
| [illegible] | [illegible] | |
| [illegible] | [illegible] | |
| Juletta Humpert | [illegible] | |
| Yantha Cramer | [illegible] | |
| [illegible] | Sally A Brown | |
| Eric Taylor | [illegible] | |

[illegible]

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 265

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

DATE: 6/23/94 Su M Tu W (Th) F Sa TIME: 0730

WEATHER: hazy & overcast, lightning alert in aft.

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, handwate as required

NOTES: Discussed

- earplugs, sign on exclusion zone, coveralls, training records to be turned in, urine samples, teflon tape on soil samples plastic under rig and drums

Last Entry

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

| | | |
|---|---|---|
| Eric Taylor | Maurice J. Cramer | [illegible] |
| Susan J. Gilston | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
| [illegible] | Gabrielle Hampert | |
| [illegible] | Stan [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.: 3489

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. Clayton | [illegible] | |
| [illegible] | Juliette Hurspert | |
| [illegible] | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 267

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

DATE: 6/28/94 Su M (Tu) W Th F Sa TIME: 0730

WEATHER: hazy, overcast, cool

WORKING CONDITIONS: good

REQUIRED PPE: glasses and boots; add hardhat in exclusion zones and construction sites

NOTES: Discussed:

- Logbook protocol: line outs, signatures, blank spaces, Abandonment Log
- Audit on Thursday - Audit protocol, housekeeping
- decon station - flammables in cabinet w EOD
- tape (teflon) soil jars w Rig.
- Wear earplugs w Rig
- Action levels > 1 ppm on OVA
- Glove changes
- Joletta Humpert in charge when JDavis not here.

Last Entry

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

| | | |
|---|---|---|
| Sally A Brown | Eric Saylor | |
| [illegible] | Joletta Humpert | |
| [illegible] | | |
| Marlo L Cross | | |
| Susan L Alder | | |
| [illegible] | | |

SITE HEALTH & SAFETY OFFICER

**TAILGATE SAFETY MEETING LOG FORM** SITE MANAGER LOGBOOK P.268

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

DATE: 6/29/94 Su M Tu (W) Th F Sa TIME: 0730

WEATHER: clear, sl. humid 80°F

WORKING CONDITIONS: GOOD

REQUIRED PPE: glasses and back, handbook on required.

NOTES:

Discussed:

Action levels. Level D is < 1 ppm OVA. Level C is 1-5 ppm w/o benzene or vinyl chloride. Level B is > 5 ppm or > 1 ppm w/ benzene or vinyl chloride.

10% LEL: > 10% LEL must be intrinsically safe environment which drilling is not.

Safety glasses: Always wear them!

Last Entry

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

| | | |
|---|---|---|
| Sally Brown | Jeff DeLaughter | [illegible] |
| [illegible] | [illegible] | [illegible] |
| Susan T Alston | [illegible] | [illegible] |
| Mauntaz Cramer | [illegible] | Colette Humphrey |
| [illegible] | SC Patterson | [illegible] |
| Eric Taylor | [illegible] | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P 269

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

DATE: 6/30/94 Su M Tu W (Th) F Sa TIME: 1200

WEATHER: clear cool humid 70°F

WORKING CONDITIONS: good

REQUIRED PPE: glasses and boots, hardhats as required

NOTES: Discussed:

- chigger protection
- Action levels w/ B16. Mound HP will determine working levels and will issue stopwork as necessary

Last Entry

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

| | | |
|---|---|---|
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| Juletta Humpert | | |

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
- Heat 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. Carmes | |
| [illegible] | Juletta Thurport | |
| [illegible] | [illegible] | |
| [illegible] | | |
| Sally J. 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 & book, handbooks as required.

NOTES: Discussed

- weather conditions

Last Entry

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

| | | |
|---|---|---|
| Guy Patterson | Juletta Hupperet | |
| Susan L Alston | George Wahl | |
| Martha Cramer | Steve C. Bell | |
| Sally A Brown | Sheila Patterson | |
| [illegible] | [illegible] | |
| [illegible] | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P 272

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

TASK NO.: 34896

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

WEATHER: warm clear humid 80°F

WORKING CONDITIONS: good

REQUIRED PPE: hardhats not required, glasses and boots

NOTES:

Discussed:

scheduling

heat stress

chiggers

LAST ENTRY

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

| | | |
|---|---|---|
| [illegible] | Eric Taylor | |
| Sally S Brown | Jeletta Humpert | |
| George Wahl | | |
| [illegible] | | |
| Susan L Alcolea | | |
| [illegible] | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P 273

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

DATE: 7/13/94 Su M Tu (W) Th F Sa TIME: 0730

WEATHER: warm clear humid 85°F

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, handhints as required

~~Discussed~~ JMD 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 | Juliette Humpert | |
| George Wall | | |
| [illegible] | | |
| Guy Patton | | |
| Susan J Alexander | | |

SITE HEALTH & SAFETY OFFICER

**TAILGATE SAFETY MEETING LOG FORM** SITE MANAGER LOGBOOK P. 274

**PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1** TASK NO: 34[illegible]

DATE: 7/14/94 Su M Tu W (Th) F Sa TIME: 0750

WEATHER: overcast sl drizzle humid 75°F

WORKING CONDITIONS: slippery

REQUIRED PPE: glasses & boots; hardhats as required

NOTES: Discussed

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

Last Entry

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

| | | |
|---|---|---|
| [illegible] | Juletta Humpert | |
| George Wahl | George Wahl | |
| [illegible] | | |
| Sally Brown | | |
| Gerard L Alden | | |
| Marshall Cramer | | |

[illegible]

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P.275

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

DATE: 7/18/94 — Su (M) Tu W Th F Sa — TIME: 0730

WEATHER: WARM, 80°F, CLEAR

WORKING CONDITIONS: good

REQUIRED PPE: glasses and boots, hardhats as required

NOTES:

Discussed:

- keep vehicles gassed up
- watch for poison ivy.

Last Entry

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

| | | |
|---|---|---|
| J. Humpert | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| | | |
| | | |

SITE HEALTH & SAFETY OFFICER

**TAILGATE SAFETY MEETING LOG FORM** | SITE MANAGER LOGBOOK P. 276

**PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1** | **TASK NO: 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 hardhat as required.

NOTES:

Discussed

- all intrusive personnel must submit a pre-work urine sample.
- humid conditions and possible lightning alert

LAST ENTRY

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

| | | |
|---|---|---|
| [illegible] | | |
| Juletta Humpert | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 277

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] | | |
| [illegible] | | |

7/27/94

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBO

P. 278

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

TASK NO. 34

DATE: 8/23/94 8/22/94 Su M Tu W Th F Sa

TTD 9/20/94

TIME: ____ : ____

WEATHER: _____

WORKING CONDITIONS: _____

REQUIRED PPE: _____

NOTES: SEE PAGE 103 OF THIS LOGBOOK

102

TTD 9/20/94

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

| | | |
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SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 279

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

DATE: 8/23/94 Su M Tu W Th F Sa TIME: ____ : ____

WEATHER: _____

WORKING CONDITIONS: _____

REQUIRED PPE: _____

NOTES:

SEE PAGE 103 OF THIS LOGBOOK

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

| | | |
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SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P. 280

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

TASK NO: 34896

DATE: 8/25/94 Su M Tu W Th F Sa TIME: ____ : ____

WEATHER: _____

WORKING CONDITIONS: _____

REQUIRED PPE: _____

NOTES: SEE PAGE 105 OF THIS LOGBOOK

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

| | | |
|---|---|---|
| | | |
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SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK: p. 281

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

TASK NO. 34896

DATE: 8/29/94 Su M Tu W Th F Sa TIME: ____ : ____

WEATHER: _____

WORKING CONDITIONS: _____

REQUIRED PPE: _____

NOTES:

SEE PG 106 of this LOGBOOK

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

| | | |
|---|---|---|
| | | |
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SITE HEALTH & SAFETY OFFICER

**TAILGATE SAFETY MEETING LOG FORM** SITE MANAGER LOGBOOK P. 282

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

DATE: 9/1/94 Su M Tu W Th F Sa TIME: ____ : ____

WEATHER: _____

WORKING CONDITIONS: _____

REQUIRED PPE: _____

NOTES: SEE PG 109 of THIS LOGBOOK

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

| | | |
|---|---|---|
| | | |
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| | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK p. 298

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

TASK NO: 34896

DATE: 9/6/94 Su M (Tu) W Th F Sa TIME: 0800

WEATHER: Overcast, 65°F, Light drizzle

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, hardhats as required.

NOTES: discuss
- required Mound PPE
- drill safety
- slip hazards (wet pavement)

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

| | | |
|---|---|---|
| [illegible] | | |
| [illegible] | | |
| [illegible] | | |
| Matt Oxley | | |
| | | |
| | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK p. 299

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

DATE: ALBR 9/3/96 ~~9/7/95~~ 9/7/94 Su M Tu (W) Th F Sa TIME: 08:00

WEATHER: Clear, 65°F, Calm

WORKING CONDITIONS: good

REQUIRED PPE: glasses, boots, hardhats as required

NOTES: discuss
- required Mound PPE
- drill safety
- slip hazards (uneven footing
-

| The following individuals attended the daily "tailgate" safety meeting: (Signatures) | | |
|---|---|---|
| [illegible] | | |
| Matt Oxley | | |
| | | |
| | | |
| | | |
| | | |

SITE HEALTH & SAFETY OFFICER

**TAILGATE SAFETY MEETING LOG FORM** SITE MANAGER LOGBOOK P: 300

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

DATE: 9-8-94 Su M Tu W (Th) F Sa TIME: 0815

WEATHER: Sunny, 65°F, Calm

WORKING CONDITIONS: Good

REQUIRED PPE: glasses, safety boots, hardhards in construction zone

NOTES: Dissusse - (Rad clegrance
- drill safety
- Underground utilities

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

| | | |
|---|---|---|
| [illegible] | | |
| Mark Ozley | | |
| | | |
| | | |
| | | |
| | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK P-301

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

TASK NO: 34896

DATE: 9-12-94 Su (M) Tu W Th F Sa TIME: 0730

WEATHER: Sunny 65°F

WORKING CONDITIONS: Good

REQUIRED PPE: glasses, safety boots, hardhats in construction

NOTES: Discuss - Rad issues
- drill safety
- slip danger

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

| | | |
|---|---|---|
| [illegible] | | |
| Matt [illegible] | | |
| | | |
| | | |
| | | |
| | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM

SITE MANAGER LOGBOOK p.302

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

TASK NO: 34896

DATE: 9-13-94 Su M (Tu) W Th F Sa TIME: 0730

WEATHER: Sunny 70°F

WORKING CONDITIONS: Good

REQUIRED PPE: Glasses, safety boots, hardhats

NOTES: Discuss - Drill safety
- 1st Aid Procedures
- PPE "

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

| | | |
|---|---|---|
| [illegible] | | |
| Matt [illegible] | | |
| | | |
| | | |
| | | |
| | | |

SITE HEALTH & SAFETY OFFICER

TAILGATE SAFETY MEETING LOG FORM — SITE MANAGER LOGBOOK P. 303

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

DATE: 9-14-94 Su M Tu (W) Th F Sa TIME: 0730

WEATHER: Sunny 70°F

WORKING CONDITIONS: Good

REQUIRED PPE: Glasses, safety boots, gloves, hardhats in construction

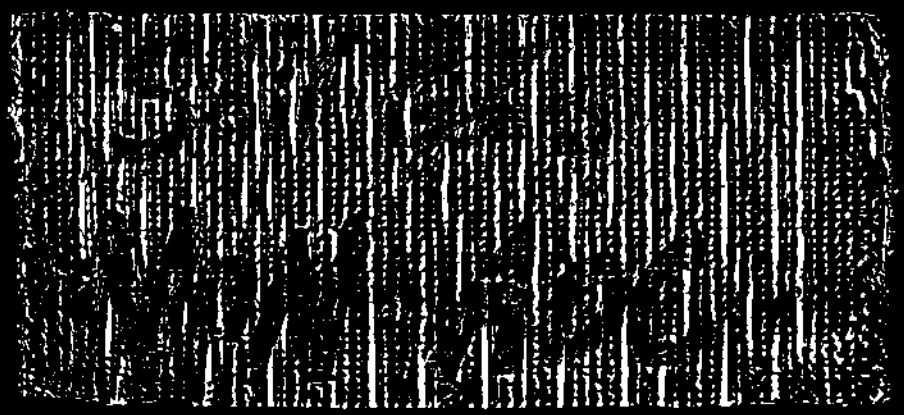
NOTES: Discuss - Drill safety
- Noise protection
- Slip hazards

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

| | | |
|---|---|---|
| [illegible] | | |
| | | |
| | | |
| | | |
| | | |
| | | |

SITE HEALTH & SAFETY OFFICER

## A.3 SOIL GAS LOGBOOKS



# 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:** 86/11/14
**END DATE:**

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PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — PROJECT NO.: 34896


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**TASK TEAM ACTIVITY LOG SHEET** — **SOIL/GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/14/94 TIME: 0900 : _____ PAGE 1 OF 2

pg 1

Task Team Members:

Mark Howard — Rod Long (Safety Engineer)

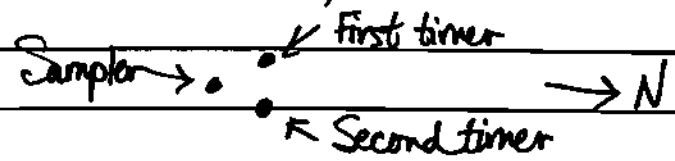
Mike Monroe — MM

Joletta Humpert — 6/14/94

Narrative (include time and location):

0900 Issue STIC trailers to begin setting timers in NAOC. Arrive at Gate 2 to wait for HP coverage

0910 Began installing samplers at 1W1 - time sampler. Sampler installed to N of stake. First time sampler installed to W, second timer to E.




0930 Abandonned hole due to small drill - moved over to 2W1. Called Elisa and ordered larger drill to pick up today.

0950 Began installing samplers with hand auger

1350 M. Monroe and M. Howard back from picking up hammer drill and returning. First sampler at 2W1 installed at 1015.

1358 Installed first time sampler at 2W1 to the W of sampler.

1410 Installed second time sampler at ~~2W2~~ 2W1 to the E of sampler. JPH 6/14/94

1415 Decontaminating drill bit. Moving to ~~18W2~~ 18W1. JPH 6/14/94

Daily Weather Conditions: A.M. ~75° F foggy/Humid

P.M. ~90° F HUMID/Sunny

Recorded By [signature] QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/14/94 TIME: NA PAGE 2 OF 2

Task Team Members: pg. 2

M. Howard
M. Monroe
J. Humpert

Narrative (include time and location):

1420 Waiting for J. Geisler (called by Rod) due to electrical (or other) readings at ~~18W2~~ 18W1.
1440 J. Geisler onsite. Still getting readings but J.G. thinks its from overhead power lines. Moved sample location to the E @ 2 feet.
1445 Drilling 18W1. Installed sampler at 1450.
1453 Installing timer #1 to the W of sampler. Hit rock so moved sample location for timer
1505 Installed sample timer #1.
1510 Installed sample timer #2.
Moved to 23W7. Cleared by Rod.
1530 Installed timer #1, timer #2, and sampler at 23W7
1545 Moved to 2W23. Cleared by Rod
1600 Installed sample, timer #1 and timer #2.

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

Recorded By [signature] QA Checked By [signature]

**TASK TEAM ACTIVITY LOG SHEET** — SOIL GAS

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY EXTENDED PHASE** — TASK NO.: 34896

Date (mm/dd/yy): 06/15/94 TIME: 0820 PAGE 1 OF 2

Task Team Members: pg. 3

M. Forzieri — R. Mowen (HP)

M. Monroe

R. Long (Safety Engineer) — ~~[illegible]~~

Narrative (include time and location):

0820 - Contacted HP's to meet us at last two timer locations.

0900 - After looking at proposed 14N7W, we decided to try and put a timer at 15N7W because of less visible RIP-RAP.

0905 - Setting up equipment

0922 - Installed 07W15 0930 Installed 07W15 Timer #1 0933 Timer #2 installed

1030 - Because of spatial problems, set up on 08W19 ≈ 10ft North of 10' East staked location on Rod Long b/c of underground interference.

1045 - After 4 attempts at drilling w/ refusal @ ~6' b/c of rock, 5th attempt met ~4½' Setting sample 08W19 at 1045

Installing Timer #1 at 1055, 1100 installed Timer #2

1300 - get excavation permit for 4N-6W. Leave trailer to meet HP at Gate 2 to start installing tubes.

1320 - Begin drilling at 01W01. moved Hole location ~11' West, 4' North transmitte

1335 - Installed 01W01

1340 - Moved to next point 01W02. HP had to leave - waiting on his return to resume sampling.

1350 - HP returns. begin drilling

1355 - installed 01W02 / P8

1400 - setup on 02W02 / P9

Daily Weather Conditions: A.M. ~75°F Humid Sunny

P.M. 90°F Humid & Sunny

Recorded By MARK D. [illegible] QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/15/94 TIME: 1400 : _____ PAGE 2 OF 2

Task Team Members: pg 4.

See 1/2

Narrative (include time and location):

1425 - After 3 unsuccessful attempts and because of many underground lines, the 4th hole drilled will be 03W02. ≈depth is 12" deep.

P9 = ~~02W02~~ ~~02W03~~ 03W02

1458 - Began drilling ~~03W02~~ b/c of lines. Moving hole ~12' west, 3' South.

1500 - Cleaning out hole P10 - ~~03W02~~ Depth ~15".

1505 - Set ~~03W03~~/P10 03W02 ↑ 03W02

1508 - Set up on ~~03W01~~/P11. 03W01/P11

1510 - begin drilling.

1515 - b/c the drill has no torque bar, we were having to put tension on the handle, so the handle broke. We were able to install 03W01/P11 @ a depth of ~12" b/c the hole couldn't be cleaned out.

1520 - Install ~~03W01~~ ~~03W03~~/P11 03W01/P11

1530 - pick up equipment, leave site for trailers.

6/15/94

Daily Weather Conditions: A.M. N/A

P.M. ~93°F HOT HOT SUNNY HUMID

Recorded By [signature] QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/16/94 TIME: 0715 PAGE 1 OF 4

Task Team Members: Pg 5

M. Howard

M. Monroe

R. Long (Mound Safety Engineer)

~~Roy Monroe - Not going w/us this morning MM 6/16/94~~

Narrative (include time and location):

0715 Arrive @ trailers. ~~Spoke~~ MMH 6/16/94 Spoke to Rod Long about giving us a drill permit for the wooded area around 7N 12W area

0725 Loading up equipment for ~~Sam~~ MMH 6/16/94 installing samplers w/ hand augers instead of the Hammer drill b/c the drill hasn't been repaired from 6/15/94.

~~0800~~ - waiting for Joyce & Rod to determine which points they can give us the OKAY for drilling

0815 - Joyce & Rod gave okay for 15W-19W / 1N-4N. Roy (MH) ~~gotten~~ MMH joins the group

0820 - Arrive in wooded area. setting up to find points

0830 Arrive 15W01/P12 Begin drilling

0845 - 1st hole attempt - ~6". Begin 2nd attempt.

0855 - 2nd attempt only ~7.5". Spoke w/ J. Davis about minimal lengths needed for samplers. He said that the entire tube needs to at least be completely covered. We'll do the best we can.

0905 - Installed 15W01/P12 ~8"

0907 - Arrive 16W02/P13 Begin drilling

0915 - Hit bedrock @ ~13". Cleaning out hole to set sampler.

0918 - Install 16W02/P13

0920 - Moved to 16W03/P14 Begin drilling

Daily Weather Conditions: A.M. ~77°F Clear/Humid

P.M. NA

Recorded By Mark T. Howard QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/16/94 TIME: 0920 : ____ PAGE 2 OF 4

Task Team Members:

Sam 1 & 4 pg. 6

MTH 6/16/94

Narrative (include time and location):

0930 - After 3 Attempts; 1, + 2 hit bedrock @ 6", #3 at 9"
0930 - Installing 16W03/P14
0935 - Move to 16W04/P15 Begin drilling.
0942 - Install ~~16W3/P14 @ 14"~~ 16W04/P15
0947 - Move to 15W04/P16 Begin drilling
1000 - After 3 attempts, Installing 15W04/P16 ≈ 14" at 3rd attempt hole
1005 - $H_2O$ BREAK! YEA!
1020 - Move to 17W04/P17
1026 - Begin drilling
1038 - Hit rock @ ≈ 11" cleaning out hole.
1040 - Install 17W04/P17
1045 - Move to 18W04/P18 Begin drilling
1054 - Hit bedrock/refusal at ≈ 13" cleaning out hole
1055 - Installing 18W04/P18
1100 - Move to 19W04/P19 Begin drilling
1109 - 2nd attempt west ≈ 14" at 19W04/P19
1110 - Installing 19W04/P19
1114 - Moved to 19W03/P20 Begin drilling
1125 - Hit refusal @ ≈ 11"
1130 - Installing 19W03/P20 ≈ 11"

Daily Weather Conditions: A.M. ~ 85°F Humid Sunny

P.M. NA

Recorded By Mark T. Hoard QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 06/16/94 TIME: 1135 : _____ PAGE 3 OF 4

Task Team Members: pg. 7

See 1 of 4

MTH 6/16/94

Narrative (include time and location):

1135 - Set up on 18W03/P21 Begin drilling
1142 - Hit refusal @ ≈14" on 2nd attempt
1145 - Installing 18W03/P21 @ ≈14"
1147 - Move to and set up on 17W03/P22 Begin drilling
1155 - 2nd attempt went ≈ 10"
1156 - Installing 17W03/P22 ≈10" 2nd attempt
1210 - Break for Lunch, Scanned out by HP.
1300 - Deconning augers from this mornings MTH 6/16/94 installation of tubes.
1315 - Finished Deconning, letting equipment dry
1325 - Called HP to meet us at last sampling location (the Ray Meister)
1352 - Arrived at 16W01 but it's not listed on neither my map nor Ray's map. Moved to 17W01
1356 - Set up on 17W01/P23 begin drilling
1400 - 3rd ATTEMPT went ~ 8 INCHES. CLEANING OUT HOLE
1402 - INSTALLING 17W01/P23 ~ 8 INCHES.
1407 - Moved to & set up on 19W01/P24 Begin drilling. Visible bedding
1415 - After 7 attempts & less than 4" each. No sample at 19W01
1420 - Moving to 19W02/P24
1422 - Setting up on 19W02/P24 Begin drilling
1425 - Hit refusal @ ≈12" Installing 19W02/P24

Daily Weather Conditions: A.M. ~88°F overcast but still Humid!
P.M. ~89°F Sunny, Again!

Recorded By [signature] QA Checked By [signature]

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/16/94 TIME: : 1430 PAGE 4 OF 4

Task Team Members:

See 1 of 4

pg. 8

MM 6/16/94

Narrative (include time and location):

1430 - Set up on 18W02/P25 Begin drilling
1435 - We actually went 18" on 18W02/P25 YIPPEE! Installing 18W02/P25
1440 - Setting up on 17W02/P26 Begin drilling
1450 - 3'd attempt got to 216" Installing 17W02/P26
1500 - Pack up equipment, scanned out by HP.
1505 - Rod Long arrives to locate possible missing points. 15W02, 15W03 Mike E I found 15W02 was mislabelled as 16W02. 15W03 was not found but a stick w/ an orange flag attached was found in approx. the correct location for 15W03. R. Long said he would check on this. Because of our drill situation, we asked R. Long to clear the rest of the wooded area for us. He said he would go with us Monday or whenever we went out to sample.
1535 - Arrive at trailer. decon equipment.
1545 - Got word that we could ~~not~~ go to Village rental to see about another drill. Left for Village
1630 - Village Rental is going to by a new drill for us and will deliver it to Gate 2 Monday morning.
1730 - Finished for day

MM 6/16/94

Daily Weather Conditions: A.M. NA

P.M. 93°F HOT HUMID SUNNY

Recorded By: Mark T. Hawks QA Checked By: Joretta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — SOIL GAS

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — TASK NO.: 34896

Date (mm/dd/yy): 06/20/94 TIME: 0700 PAGE 1 OF 5

Pg. 9

Task Team Members:

M. Howard — R. Long

M. Monroe

R. Mower — MMH 06/20/94

Narrative (include time and location):

0700 - Arrive on site. Begin loading equipment into truck for today's sampling. We are MMH supposed to have a new drill delivered to Gate 2 this morning to continue w/ sites out in the open areas.

0735 - Ready to leave & begin installation of samplers. Waiting for R. Long or J. Geisler to arrive so we can get the necessary permits for work.

0750 - Paged J. Geisler to please meet us @ the trailer.

0800 - R. Long arrives. He says we have OKAY for 3N-1W → 3N-4W and 4N-1W → 4N-5W. R. Mower should already have excavation Permit for these points. Still waiting for J. Geisler to issue Burn Permit

0805 - J. Geisler arrives. Burn Permit good thru today

0830 - Still waiting for drill to arrive. Set up on ~~3W01~~ 01W03 MMH 6/20/94 /P27

0845 - Drill arrives. decon new bit.

0850 - Begin drilling

0855 - Installing ~~03W01~~ 01W03 MMH 6/20/94 /P27.

0900 - Move & set up on ~~03W02~~ 02W03 MMH 6/20/94 /P28 Begin drilling

0910 - Installing 02W03/P28

0912 - Set up on 03W03/P29

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

P.M. NA

Recorded By MRK-11 2000 QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/20/94 TIME: 0912 : 1040 PAGE 2 OF 5

Task Team Members:

Pg. 10

See 1023

MH 06/20/94

Narrative (include time and location):

0915 - Begin drilling 03W03/P29.
0922 - Install 03W03/P29
0925 - Set up on 04W03/P30 Begin drilling
0928 - Install 04W03/P30
0932 - Decanning Auger bits.
0944 - Set up on 02W04/P31 Begin drilling.
There is not a 01W04 staked out. It appears to be on the other side of the fence. Since we see no markings from R. Long, we will skip that point until we speak w/ him.
0946 - Install 02W04/P31
0950 - Move to 03W04/P32 Begin drilling
1005 - Install 03W04/P32
1006 - Move to 04W04/P33
1008 - Begin drilling 04W04/P33
1010 - Install 04W04/P33 The 4 tooth bit is it!!!
1011 - Decanning good bit.
1014 - Set up on 05W04/P34 Begin drilling
1015 - Install 05W04/P34. It's gotta be the bit!
1040 - Got Permission from R. Long for 7 more holes before Lunch. Leave for $H_2O$ refill + wait for R. Mowen to return

Daily Weather Conditions: A.M. Partly Cloudy ~78°F Humid

P.M. NA

Recorded By [signature] QA Checked By Juletta Hungerford

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 06/20/94 TIME: 1041 : 1152 PAGE 3 OF 5

Task Team Members:

See 1025 Pg. 11

MH 06/20/94

Narrative (include time and location):

1045 - Return from stocking up on $H_2O$.
1047 - Set up on 06W03/P35
1050 - Begin drilling 06W03/P35
1055 - Installing 06W03/P35
1056 - Decoring bit.
1059 - Move to 05W03/P36.
1101 - Begin drilling 05W03/P36.
1106 - Install 05W03/P36.
1106 - Move to 06W02/P37.
1114 - Begin drilling 06W02/P37
1120 - Instal 06W02/P37 ≈ 14" due to refusal. (Rock)
1122 - Decorning good bit. Move to 05W02/P38
1125 - Begin drilling 05W02/P38
1128 - Install 05W02/P38.
1135 - Set up on 06W01/P39 Begin drilling after decorning bit.
1142 - Install 06W01/P39
1144 - News Flash!!! Its Hot as @*&! out Here! $H_2O$ Break
1145 - Decon good bit. Setting up on 05W01/P40
1150 - Drilling 05W01/P40.
1152 - Instal 05W01/P40.

Daily Weather Conditions: A.M. ~85°F Hot Humid Sunny

P.M. NA

Recorded By Mark Tiffanelle QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/20/94 TIME: ~~1053~~ 1153 : 1515 PAGE 4 OF 5

Task Team Members:

See log 5

Pg 12
MPH
06/20/94

Narrative (include time and location):

1155 ~~1055~~ - Becoming good bit.
1157 ~~1057~~ - Begin drilling 04W01 / P41
1159 ~~1059~~ - Install 04W01 / P41
1200 - Packing up equipment for lunch.
1245 - Drive to Village Rental to check on bit sizes. Not what we need, will call trailers to say if they can get 2 bits to us soon.
1340 - Arrive back @ SAIC trailers.
1345 - R. Long @ trailers. writing up Excavation/Drill Permit for wooded area for this afternoon.
1412 - Meet R. Mowen near wooded area. Waiting on R. Long to arrive so Roy M can show us a back road to the points.
1425 - We had to go back for generator gas & sample tubes.
1430 - Meet up w/ HP & Safety Engineer. Drive to sample points soon.
1440 - R. Long is writing up drill permit.
1443 - Driving to sample points
1500 - Located first point 15W05 / P42 - will use hand auger for these holes
1508 - Set up on 15W05 / P42 Begin drilling
1510 - 2nd attempt went full - Rain Begins.
1515 - Install 15W05 / P42

Daily Weather Conditions: A.M. 90°F Hot Hot Sunny Humid
P.M. ~92°F Hot Humid Sunny

Recorded By [signature] QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/20/94 TIME: 1517 : 1630 PAGE 5 OF 5

Task Team Members: pg 13.

See 1 & 5

MM
06/20/94

Narrative (include time and location):

1517 - we ~~have~~ hear the lightning siren. R. Mowen & R. Long determine we should probably return to the vehicles since we're in a heavily wooded area. Also we need to make sure we can drive this 2-wheel Drive Toyota outta here.

1538 - Truck seems to be stuck in the mud. R. Mowen & R. Long leave to see about getting the truck unstuck

1545 - S. Abston & The Marthanator arrive to pull us out w/ their 4-wheel drive. We are now unstuck.

1600 - Scanned out by HP. We are going to try & meet @ 6:30 am 6/21/94 to begin installing tubes to beat the heat.

1615 - Cleaning up equipment.

1630 - Leave site for the day.

MM
06/20/94

Daily Weather Conditions: A.M. NA

P.M. ~93+°F HOT HUMID SUNNY.

Recorded By [signature] QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/21/94 TIME: NA PAGE 1 OF 4

pg 14

Task Team Members:

M. Howard — R. Mowen

M. Monroe

R. Long — MM 06/21/94

Narrative (include time and location):

0600 - Arrive Gate 2. Drive to trailers. Begin packing equipment for today's activities.

0642 - Talked w/ R. Long. said he would be @ trailers in about 10 minutes

0700 - R. Long arrives, we call R. Mowen & he will meet us near the sample points in the woods

0710 - We are discussing w/ R. Long which points he will clear.

0720 - Begin Hiking to 16W05/P43

0730 - Set up on 16W05/P43. Begin drilling (Hand Auger today)

0735 - Installing 16W05/P43 M. Monroe & R. Long leave to scan pesimeter

0740 - Move & Set up on 17W05/P44

0745 - Begin drilling 17W05/P44

0747 - Install 17W05/P44

MM 6/21/94 ~~0850~~ 0750 - Move & set up on 16W06/P45.

0752 - Begin drilling.

0757 - Install 16W06/P45 ≈ 18" NOTE - watch out for the Bumble Bee nest ≈ 3' NW of the hole.

0802 - Move & set up on 17W06/P46 Begin drilling

0811 - Install 17W06/P46.

0820 - Located 18W05/P47 set up on hole begin drilling

0826 - Begin Installing 18W05/P47. Hit Rock ~ 11"

Daily Weather Conditions: A.M. ~75° F overcast/humid

P.M. NA

Recorded By Mark T. Howard QA Checked By Juletta Humphrey

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 06/21/94 TIME: N/A PAGE 2 OF 4

Task Team Members:

Pg. 15

See 1 & 4

MH 06/21/94

Narrative (include time and location):

0838 - M. Monroe & R. Long return from scanning perimeter.
0840 - Set up on 17W07/P48. Begin drilling
0845 - 3rd attempt at hole went ~8" due to Rock.
0846 - Installing 17W07/P48
0850 - Hiking to 15W06/P49.
0855 - Set up on 15W06/P49 Begin drilling.
0855 - 2nd Attempt went ~8" Refusal due to Rock
0859 - Installing 15W06/P49.
0902 - Packing equipment hiking back to meet R. Bernard (x4128) at the Burn Area to see about access for sampling points.
0920 - Get access for burn area & Magazine Road area for installation of a few more points this morning.
0925 - $H_2O$ Break. YIPPEE!
0930 - Leave for trailers to decon augers & get more sample tubes.
1020 - Arrive Lower Bunker area. R. Long is at scanning area 22 AOC.
1022 - Set up on 19W06/P50 Begin drilling
1024 - Install 19W06/P50 ~12" Refusal due to Rock
1027 - Set up on 19W05/51 Begin drilling
1035 - Install 19W05/51 ~12" Refusal due to Rock
1038 - Set up on 18W06/52

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

P.M. NA

Recorded By MARK HAGARD QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/21/94 TIME: N/A PAGE 3 OF 4

Task Team Members:

See 1 of 4

pg. 16

MTH
06/21/94

Narrative (include time and location):

1040 - Begin drilling 18W06/52
1047 - Install 18W06/52 ~15" Refusal due to Rock 2nd attempt
1049 - Set up on 18W07/53 Begin drilling
1050 - After 4th attempt, 18W07/53 went full. Installing 18W07/53
1056 - Finished w/ all possible holes for today's permit that aren't inside test fence area
1115 - Meet R. Long at his office (Building 22) to get drill permit for Area 22 AOC for tomorrow. Rod gave us the low down on any lines in the area. R. Mowen has the permit now.
1200 - LUNCH!
1245 - Return from lunch. Spoke to J. Davis (SAIC) about how things are going w/ installation. Talked about ordering two more 4-tooth bits & whether or not we need them. Figured out the 4-tooth bit are speeding things up quite a lot. Also discussed delays w/ getting areas cleared as far as drill permits. Decided to work w/ existing system as best as we can before we attempt any changes.
1310 - Got call from R. Mowen (HP). We may need whole body rants before we enter 22 AOC. We will still meet tomorrow (06/22/94) and install 22 AOC points which

Daily Weather Conditions: A.M. ~87°F Hot Humid Sunny
P.M. ~90°F Sunny Humid

Recorded By Mark J. Jones QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 06/21/94 TIME: NA PAGE 4 OF 4

Task Team Members: Pg. 17

See 1 & 4

MTH
06/21/94

Narrative (include time and location):

are outside the Rad Area.
1320 - Deconning bits used from this mornings installation activities.
1335 - leave trailers to pull timers at original 6 locations at Non AOC
1340 - Pull timer #1 @ 02W01/P1
1345 - Drive to 18W01/P2
1350 - Pull timer #1 @ 18W01/P2
1355 - Drive to 23W07/P3
1400 - Pull timer #1 @ 23W07/P3
1405 - Drive to 02W23/P4
1410 - Pull timer #1 @ 02W23/P4
1415 - Drive to 07W15/P5
1420 - Pull timer #1 07W15/P5
1425 - Drive to 08W19/P6
1430 - Pull timer #1 08W19/P6
1435 - Drive back to find HP to scan tubes & vs.
1440 - J. Tackett (HP) scanned tubes & vs.
1450 - Arrive back @ trailers. Unloading equipment & turning over timers to J. Humpert.
1500 - Finished w/ soilgas for the day

MTH
06/21/94

Daily Weather Conditions: A.M. NA

P.M. ~90°F Sunny Humid

Recorded By Mark T. Hood QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/22/94 TIME: NA PAGE 1 OF 2

Task Team Members:

M. Howard

M. Monroe

R. Mower

Pg. 18

MTH 06/22/94

Narrative (include time and location):

For early sampling for this date - See AOC Logbook.

1420 - Set up on 11W06/P86. Begin drilling using hand auger

1425 - Install 11W06/P86 Full

1438 - Move to & set up on 12W06/P87.

1441 - Install 12W06/P87 ≈13" b/c of Rock

1444 - Setup on 13W06/P88

1445 - Begin drilling on 13W06/P88

1449 - After 3rd attempt, Install 13W06/P88 ~12" b/c of Rock

1452 - Setup on 14W06/P89. Begin drilling

1456 - Install 14W06/P89 Full

1504 - Set up on 13W05/P90 using Electric drill

1506 - Begin drilling 13W05/P90

1508 - Install 13W05/P90 Full

1511 - Set up on 14W05/P91

1513 - Begin drilling 14W05/P91 using hand auger

1517 - Install 14W05/P91 ≈16" due to Rock

1520 - R. Long on site. Talked about getting drill permit for AOC 21. He will bring it to us in a few minutes

1530 - Set up on 11W07/P92 Begin drilling

1535 - 2nd attempt went full. Install 11W07/P92 Full

Daily Weather Conditions: A.M. NA

P.M. ~88°F Sunny/Humid

Recorded By Mark T Howard QA Checked By Jolette Humpert

TASK TEAM ACTIVITY LOG SHEET

SOIL GAS

PROJECT NAME: EG&G MOUND OUS NEW PROPERTY, EXTENDED PHASE TASK NO. 34896

Date (mm/dd/yy): 06/22/94 TIME: NA PAGE 2 OF 2

Task Team Members:

pg. 19

See 1&2

MTH
06/22/94

Narrative (include time and location):

1540 - Set up on 12W07/P93 Begin drilling
1544 - Install 12W07/P93 Full
1547 - Set up on 13W07/P94
1548 - Begin drilling 13W07/P94
1554 - Install 13W07/P94 ~9" due to Rock
1557 - Set up on 14W07/P95 Begin drilling
1602 - Install 14W07/P95 ~10" due to Rock.
1605 - Pack up equipment, hike back to truck.
1620 - Arrive @ trailers, unload equipment. Got Permit for Acc 21 from R. Long

MTH
06/22/94

Daily Weather Conditions: A.M. NA
P.M. ~90°F Hot, Sunny, Humid

Recorded By Mark T. Harold QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 6/24/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Joletta Humpert

pg. 20

JPH 6/24/94

Narrative (include time and location):

1100 Contacted Paul Bedard (NERI) to JPH 6/24/94 results from first timers from non-AOC area. Results are:

Tube #1 - high levels of petroleum hydrocarbons
#2 - low to medium levels of TCE
#3 - trace levels of hydrocarbons
#4 - low to medium levels of hydrocarbons
#5 - moderate levels of hydrocarbons
#6 - low level of terpenes (resins from plants) and possibly a little benzene

Significant results are #1, #2, and #5. Tubes in this area should be exposed to approx. 7-8 days (area south of JPH 6/24/94 7N line).

Pull samples after this period and use travel blanks pertinent to the bags used.

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By Mark T. Howard

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OUS NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 06/28/94 TIME: NA PAGE 1 OF 2

Task Team Members: Pg. 21

M. Howard

M. Monroe MTH 06/28/94

Narrative (include time and location):

1420 - Leave trailers to pull timers P1-26

1440 - Pull 01W01 / P7

1443 - Pull 01W02 / P8

1445 - Pull 02W02 / P9

1451 - Pull 02W01 / P1 & Timer #2

1456 - Pull 03W02 / P10

1500 - Pull 03W01 / P11

1515 - Pull 15W01 / P12

1518 - Pull 17W01 / P23

1521 - Pull 18W01 / P02 & Timer #2

1528 - Pull 19W02 / P24

1532 - Pull 18W02 / P25

1536 - Pull 17W02 / P26

1539 - Pull 16W02 / P13

1544 - Pull 16W03 / P14

1547 - Pull 17W03 / P22

1552 - Pull 18W03 / P21

1554 - Pull 19W03 / P20

1557 - Pull 19W04 / P19

1600 - Pull 18W04 / P18

Daily Weather Conditions: A.M. NA

P.M. ~86°F Partly cloudy, HOT

Recorded By [signature] QA Checked By Juletta Humphrey

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/28/94 TIME: NA PAGE 2 OF 2

Task Team Members:

See 1 of 2 pg 22

MH 06/28/94

Narrative (include time and location):

1602 - Pull 17W04/P17

1605 - Pull 16W04/P15

1608 - Pull 15W04/P16

1615 - Pull 23W07/P3 & Timer #2

23W07/P3 was broken when pulled from ground. Wires were transferred to clean ~~light~~ MH 6/28/94 tube.

1625 - Drop off tubes to J. Humpert. Unload truck

MH 06/28/94

Daily Weather Conditions: A.M. NA

P.M. ~86°F Hot, Sunny

Recorded By Mark T. Harold QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 06/29/94 TIME: NA PAGE 1 OF 2

Pg. 23

Task Team Members:

M. Howard

M. Monroe

J. Tackett (HP)

MTH 06/29/94

Narrative (include time and location):

1045 - J. Tackett (Mr. HP of the Year) MTH scans tubes pulled from 06/28/94.

1205 - Arrive @ HP Hut. J. Tackett back soon. Then we'll drive to sample points. We will try to start w/ ~~06W05/P206~~ MTH 6/29/94 06W07/P206.

1225 - Found 06W07/P206. This point is in the middle of the road and will be moved ~ 10' WEST of the staked location

1230 - Set up on 06W07/P206. Begin drilling

1233 - Install 06W07/P206. Full

1235 - Set up on 07W07/P207. Begin drilling

1238 - Install 07W07/P207. Full

1241 - Move & Set up on 06W06/P208. Begin drilling ~10' W of stake

1246 - Install 06W06/P208 Full

1253 - Set up on 07W06/P209 Begin drilling

1255 - Install 07W06/P209 Full 3rd attempt

1259 - Set up on 08W06/P210. Begin drilling

1301 - Install 08W06/P210. Full

1306 - Set up on 09W06/P211. Begin drilling

1308 - Install 09W06/P211. Full

1310 - R. Long on site. We may or may not have a permit for more samples tomorrow. R. Long will find us ~ 7-730 Am on 6/30/94.

Daily Weather Conditions: A.M. ~78°F clear. looks like it's going be a scorcher!

P.M. ~84°F partly sunny

Recorded By: Mark T. Howard QA Checked By: Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/29/94 TIME: NA PAGE 2 OF 2

Task Team Members: pg. 24

See 1 of 2

MTH 06/29/94

Narrative (include time and location):

1320 - R. Long leaves area.
1334 - Set up on 06W05/P212. ~18' of stake. Begin drilling
1336 - Install 06W05/P212. Full
1339 - Set up on 07W05/P213. Begin drilling
1342 - Install 07W05/P213. Full
1346 - Set up on 08W05/P214. Begin drilling
1349 - Install 08W05/P214. Full
1402 - RAINING
1412 - Set up on 06W04/P215. Begin drilling
1413 - Install 06W04/P215. Full
1415 - Set up on 07W04/P216. Begin drilling
1417 - Install 07W04/P216. Full
1420 - Set up on 08W04/P217. Begin drilling
1425 - Install 08W04/P217 ~16" Refusal on Rock
1430 - Pack equipment head to trailers.
1500 - Unload truck into trailers. WRAP tubes w/ wire for tomorrow's installation activities.
1530 - Finished for today.

MTH 06/29/94

Daily Weather Conditions: A.M. NA

P.M. ~86°F cloudy

Recorded By Mark F. Harold QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 06/30/94 TIME: NA PAGE 1 OF 5

Pg 25

Task Team Members:

M. Howard

M. Monroe

J. Tackett (HP)

MRH 06/30/94

Narrative (include time and location):

0600 - Arrive SAIC trailers. Load equipment into truck

0625 - Call HP Hut. J. Tackett will meet us at sample points.

0630 - We are out of tap $H_2O$ (the trailer). Driving to B-30 to get tap $H_2O$ for decon.

0655 - Set up on 07W03/P218. Begin drilling

0700 - Install 07W03/P218. Full

0703 - Set up on 07W02/P219. Begin drilling. hole moved ~7' SW from stake.

0705 - Install 07W02/P219. Full

0709 - Set up on 08W02/P220. Begin drilling

0711 - Install 08W02/P220 - ~15" Refusal on Rock

0727 - Set up on 07W01/P221. Begin drilling

0730 - Install 07W01/P221. Full - Sandy area

0745 - Pick up more sample tubes. Meet w/ R. Long about which points we have access to on the permit around Magazine alley.

0806 - Set up on 22W07/P222. Begin drilling

0808 - Install 22W07/P222. Full

0816 - Set up on 23W06/P223. Begin drilling

0820 - Install 23W06/P223. Full

0822 - Set up on 23W05/P224. Begin drilling

0825 - Install 23W05/P224.

Daily Weather Conditions: A.M. ~70°F clear - good day for driving home to TN!

P.M. NA

Recorded By [signature] QA Checked By [signature]

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/30/94 TIME: NA PAGE 2 OF 5

Task Team Members:

See 1565

pg. 26

MTH
06/30/94

Narrative (include time and location):

0833 - Set up on 23W04/P225. Begin drilling
0834 - Install 23W04/P225. Full
0840 - Wrap sample tubes.
0853 - Set up on 22W05/P226. Begin drilling. Original ~~stick~~ stake was on a drain spout. Point moved ~ 10' N, 2' W of stake
0902 - Install 22W05/P226 - ~9" Refusal on Rock 2nd attempt
0908 - Set up on 22W04/P227. Begin drilling
0910 - Install 22W04/P227. Full
0916 - Set up on 24W07/P228. Begin drilling
0920 - Install 24W07/P228. Full
0922 - Set up on 26W07/P229. Begin drilling
0925 - Install 26W07/P229. Full
0930 - Set up on 27W07/P230. Begin drilling
0932 - Install 27W07/P230. Full
0942 - Set up on 22W01/P231. Begin drilling
0947 - Install 22W01/P231. ~10" Refusal on Rock
0949 - Set up on 23W01/P232. Begin drilling
0952 - Install 23W01/P232. Full

MTH
6/30/94

Daily Weather Conditions: A.M. ~72°F clear

P.M. NA

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 06/30/94 TIME: ND PAGE 3 OF 5

Task Team Members: Pg. 27

See 1 of 5

MJH 06/30/94

Narrative (include time and location):

0957 - Set up on 22W02/P233. Begin drilling
1000 - Install 22W02/P233 Full
1008 - Set up on 23W02/P234. Begin drilling.
1015 - Install 23W02/P234. Full point ~ 6' S of stake.
1020 - Set up on 23W03/P235. Begin drilling
1023 - Install 23W03/P235. Full
1030 - Set up on 22W03/P236 Begin drilling
1034 - Install 22W03/P236. Full
1145 - Talk to R. Benzel (x4128) about opening the gates to the Burn area & Bunker Area on the backside of the hill. He will open them @ 1300. Call J. Tackett (HP) & told him to meet us @ the Burn area @ 1300.
1155 - Leave to pull Timers #1 @ AOC 21
1306 - 13W03/P237. Begin drilling
1314 - Install 13W03/P237. Full
1316 - Set up on 13W04/P238. Begin drilling
1318 - Install 13W04/P238. Full
1326 - Set up on 14W04/P239. Begin drilling
1330 - Install 14W04/P239. Full

MJH 06/30/94

Daily Weather Conditions: A.M. ~74°F clear
P.M. ~80°F clear

Recorded By: Mark J. Hornbeck QA Checked By: Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 06/30/94 TIME: NA PAGE 4 OF 5

Task Team Members: pg 28

See 1 of 5

MTH 06/30/94

Narrative (include time and location):

1332. Set up on 14W03/P240. Begin drilling
1334. Install 14W03/P240. Full
1335. Set up on 14W02/P241. Begin drilling
1338. Install 14W02/P241. Full
1345. Set up on 14W01/P242. Begin drilling
1347 - Install 14W01/P242. Full
1400 - set up on 20W06/P243. Begin drilling
1401 - Install 20W06/P243. Full
1404 - Set up on 21W06/P244. Begin drilling
1406 - Install 21W06/P244. Full
1412 - Set up on 21W05/P245. Begin drilling
1415 - Install 21W05/P245. ~14" Refusal on Rock
1420 - Set up on 21W04/P246 Begin drilling
1425 - Install 21W04/P246. Full
1430 - Set up on 20W04/P247. Begin drilling
1432 - Install 20W04/P247. Full
1438 - Set up on 20W03/P248. Begin drilling
1439. Install 20W03/P248. Full
1445 - Set up on 20W02/P249. Begin drilling
1452 - Install 20W02/P249. Full

Daily Weather Conditions: A.M. NA

P.M. 80°F clear

Recorded By Mark T. Howard QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO. 134896

Date (mm/dd/yy): 06/30/94 TIME: NA PAGE 5 OF 5

Task Team Members: pg 29

See 1825

MTH 06/30/94

Narrative (include time and location):

1456 - Set up on 21W03/P250. Begin drilling.
1459 - Install 21W03/P250. Full
1515 - Packing up equipment.
1520 - Scanned out by HP. Finished for day.
1530 - Arrive @ SAIC trailers unload equipment

MTH 06/30/94

Daily Weather Conditions: A.M. NA

P.M. ~82°F partly cloudy

Recorded By Mark T. Hansen QA Checked By Jolitta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 07-06-94 TIME: NA : NA PAGE 1 OF 4

Task Team Members: pg 30

MIKE MONROE

GEORGE WAHL

Narrative (include time and location):

0700 - ARRIVE ON SITE AND LOAD TRUCK

0715 - CALL R. LONG TO GET A BURN PERMIT. R. LONG SAID HE SHOULD BE HERE IN APPROX. 15 MIN.

0745 - RECEIVED BURN PERMIT FROM J. GEISLER

0750 - TALK TO J. TACKETT & PLAN TO MEET AT HP HUT SHORTLY.

0752 - BEGIN PREPARING SAMPLE TUBES.

0815 - MEET HP at HP Hut. Go to Sample point

0845 - SET UP on 7N3

0900 - Drill on 7N3

0910 - Install 3W07/P ~~250~~ 251 7/6/94 GW full

0915 - Setup on ~~2~~3W06/P252 3GW 7/6/94 Begin drilling

0917 - Install ~~2~~3W06/P252 3GW 7/6/94 full

0918 - Break to decon drill bits

0927 - Need Digging permit for 1W06

0928 - Setup on 2W05/P253 Begin drilling

0930 - Install 2W05/P253 full

0935 - Setup on 3W05/P254 Begin drilling

~~0940 - Install 3W05/P254~~ GW 7/6/94

0945 - Redrill 3W05/P254 shallow hole caves in

Daily Weather Conditions: A.M. 93°F

P.M. 96°F

Recorded By George Wahl QA Checked By Jolette Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO. 34896

Date (mm/dd/yy): 07-06-94 TIME: NA : NA PAGE 2 OF 4

Task Team Members:

pg 31

Mike Monroe

George Wahl

Narrative (include time and location):

0947 - Install 3W05/P254, 7 inches
0954 - Break to decon drill bits
Note 6N2W steak is at 6N3W on map
10:07 - Setup on 4W05/P255 begin drilling
10:08 - Redrill 4W05/P255
1012 - Install 4W05/P255, 9 inches
1015 - Setup on 5W05/P256
1016 - Generator out of gas
1029 - Resume setup on 5W05/P256 begin drillin
1031 - Redrill 5W05/P256, rocks
1032 - Redrill 5W05/P256, rocks
1036 - Install 5W05/P256, 10 inches
1055 - Setup on 5W07/P257 begin drilling
1057 - Redrill 5W07/P257
1100 - Install 5W07/P257, 7 inches
12:44 - Went to building 13, waiting on R. Long and J. Tackell to clear area
0125 Setup on ~~3W~~ 6W 15W03/P258 hand auger
0129 Install 15W03/P258/P258 12 inches
0135 Setup on 15W02/P259 begin hand auger

Daily Weather Conditions: A.M. 93°F

P.M. 96°F

Recorded By George Wahl QA Checked By Joletta Humphrey

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

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

pg 32

Task Team Members:

Mike Monroe

George Wahl

Narrative (include time and location):

Ø137 - Install 15WØ2/P259
Ø138 - Redrill 15WØ2/P259
Ø138 - Redrill 15WØ2/P259
Ø139 - Redrill 15NØ2/P259
Ø145 Redrill 4 times
Ø15Ø Redrill 9th time give up can not drill 74"
Ø2Ø8 Setup on 2W6N/P259 Begin drilling
Ø212 Install 2W6N/P259 full
Ø217 Note: changed steak from 1W6N to 2W6N it was marked incorrectly
Ø218 Note: changed steak from 2W62 to 3W6N it was marked incorrectly I edited the log to reflect this
Ø224 Setup 2W7N/P26Ø Begin drilling
Ø225 Install 2W7N/P26Ø full
Ø24Ø Break for water
~~Ø322 Remove Sample tube 2W4N/32~~ OW 7/6/94
Ø336pm Remove Sample 15W5N/42
Ø3.4Øpm Remove Sample 16W5N/43
15:57 Remove Sample 17W5N/44

Daily Weather Conditions: A.M. 93°F

P.M. 96°F

Recorded By George Wahl QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

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

Task Team Members:

pg. 33

Mike Monroe

George Wahl

Narrative (include time and location):

1603 - Remove Sample 16W 6N/45
1605 - Remove Sample 17W 6N/46
1610 - Remove Sample 18W 5N/47
1614 - Remove Sample 17W 7N/48
1621 - Remove Sample ~~15W 6W~~ 7/6/94 15W 6N/49
1630 - Stop to check feet & hands at Bldg. 30
No one in building HP did not do check

JPH 7/13/94

Daily Weather Conditions: A.M. 93°F
P.M. 96°F

Recorded By George Wahl QA Checked By Jolitta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

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

Task Team Members: pg 34

Mike Monroe

George Wahl

Narrative (include time and location):

0630 - Load equipment in truck

0721 - Remove ~~16W9N~~ 19 GW 7/7/94 /50 19W6N/50 6 GW 7/7/94

0724 - Remove 19W5N/51

0728 - Remove 18W6N/52

0731 - Remove 18W7N/53

0736 - Pick up previous day tubes for HP screening

0752 - Remove 3W4N/32

0800 - Talk with HP about permits

0842 - Take sample tubes back to SAIC trailer

0915 - Get permit from J. Geisler

0923 - Setup on 21W2N/261 Begin drilling

0928 - Install 21W2N/261 Full

0939 - Setup on 21W1N/262 Begin drilling

0940 - Redrill 21W1N/262

0943 - Install 21W1N/262 Full

0950 - Decon drill bits

1008 - Setup on 1W7N/263 begin drilling

1015 - Redrill 1W7N/263

Daily Weather Conditions: A.M. 83°F

P.M. 91°F

Recorded By George Wahl QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

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

Task Team Members:

pg 35

Mike Monroe

George Wahl

Narrative (include time and location):

1017 - Install 1W7N/263 Full

1028 - Setup on 1W4N/264 Begin drilling

1034 - Install 1W4N/264 Full

1036 - Decon drill bits

1100 - Break for lunch

12:11 - Meet with J. Geisler of Building 22 for permit

12:44 Receive permit from J. Geisler

12:47 Setup on 11W2N/265 Begin Drilling

12:51 Install 11W2N/265 Full

13:28 Removed second timer 2266

JPH 7/8/94

Daily Weather Conditions: A.M. NA

P.M. 91 °F

Recorded By George Wahl QA Checked By Jolietta Humpert

**TASK TEAM ACTIVITY LOG SHEET** **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** **TASK NO.: 34896**

Date (mm/dd/yy): 7-12-94 TIME: NA PAGE 1 OF 2

Task Team Members: pg 36

Joletta Humpert

Chris Halley

Narrative (include time and location):

1000 Left sample trailer to begin pulling non-AOC samplers from 7N block.

1020 Pulled P86 / 6N11

1028 Pulled P92 / 7N11

1030 Pulled P93 / 7N12

1033 Pulled P94 / 7N13

1038 Pulled P95 / 7N14

1045 Pulled P87 / 6N12

1049 Pulled P88 / 6N13

1053 Pulled P89 / 6N14

1100 Pulled P90 / 5N13

1105 Pulled P91 / 5N14

1112 Pulled P207 / 7N6

1118 Pulled P206 / 7N7

1130 Pulled P209 / 6N7

1125 Pulled P208 / 6N6

1133 Pulled P210 / 6N8

1136 Pulled P211 / 6N9

1140 Pulled P214 / 5N8

1143 Pulled P212 / 5N6

Daily Weather Conditions: A.M. 72°F, sunny

P.M. 86°F, sunnich

Recorded By Joletta Humpert QA Checked By [illegible]

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OUS NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 7-12-94 TIME: NA PAGE 2 OF 2

Task Team Members: pg 37

J.H.

C.H.

Narrative (include time and location):

1146 Pulled P213/5N7
1150 Attempted to find P230 - Couldn't find sampler. Will ask installers what the story is.
1215 Lunch
1334 Pulled P229/ 7N26
1342 Pulled P228/ 7N24
1346 Pulled P222/ 7N22
1353 Pulled P223/ 6N23
1355 Pulled P224/ 5N23
1358 Pulled P225/ 4N23
1401 Pulled P235/ 3N23
1405 Attempted to pull P234 - buried in gravel. Will return with better tools (2N23)
1420. Moved on to P232/1N23. Pulled.
1440. Pulled P231/1N22.
1450 Returned to trailer to get more tools.
1520 Finally, removed P234/2N23.
Return to trailer. Tubes scanned by HP as well as our feet and hands.
Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By: [illegible]

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 7-13-94 TIME: NA PAGE 1 OF 2

Task Team Members: pg 38

Joletta Humpert

Juan Alvarado

Narrative (include time and location):

See Area 22 for mornings activities.

~~1240~~ 1230 Began at P221/1N7 - Stuck. J. Humpert
JPH 7/13/94 moved on while J. Alvarado began digging

~~1240~~ 1233 Pulled P219/2N7.
JPH 7/13/94.

1240 Pulled P220/2N8.

1245 Pulled P216/4N7

1250 Pulled P217/4N8

1250 Pulled P221/1N7

1315 Pulled P218/3N7

Raining, mining?!

1325 Pulling P215/4N6. Alot of rock - gravel cave in. J.A. using pick to loosen rocks. Tube broken by weight of rocks. Wires placed in empty tube.

1413 Pulled P239/4N14

1418 Pulled P238/4N13

~~1422 Pulled P240~~ JPH 7/13/94

1421 Pulled P240/3N14

1422 Pulled P237/3N13

1432 Pulled P242/1N14

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

P.M. Hot 85°F Sunny

Recorded By Joletta Humpert QA Checked By Juan A. Alvarado

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

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

Task Team Members: Pg. 39

J.H

J-A

Narrative (include time and location):

1440 Pulled P241 / 2N14

1450 Went to HP to get tubes scanned and hands and feet scanned.

1520 Returned to trailer

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Jolette Humpert QA Checked By [illegible]

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 7-14-94 TIME: NA PAGE 1 OF 1

Task Team Members: pg. 40

Juan Alvarado

Joletta Humpert

Narrative (include time and location):

0915 Finishing pull samplers

0920 Pulled P243/6N20

0926 Pulled P247/4N20

0931 Pulled P248/3N20

0934 Pulled P249/2N20

0938 Pulled P262/1N21

0944 Pulled P250/3N21

0947 Pulled P261/2N21

0951 Pulled P246/4N21

0955 Pulled P245/5N21

0958 Pulled P244/6N21

1005 Closed and locked ~~area~~ gate in magazine area JAA 7/14/94

1008 Pulled P226/5N22

1010 Pulled P227/4N22

1017 Pulled P230/7N27

1025 Pulled P233/2N22

1030 Pulled P236/3N22

1044 Pulled P258/3N15

1100 To HP to get tubes and we scanned. Everything OK off to lunch. Sample management in afternoon. Last Entry.

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

P.M. NA

Recorded By Joletta Humpert QA Checked By Juan J. Alvarado

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 7-21-94 TIME: NA PAGE 1 OF 1

Task Team Members: Pg. 41

J. Alvarado

C. Hulley

Narrative (include time and location):

1312 Pulled #251 7N3

1317 Pulled #252 6N3

1321 Pulled #253 5N2 + pulled 264 (4N1)

1324 Pulled #254 5N3

1328 Pulled #255 5N4

1336 Pulled #256 5N5

1333 Pulled #257 7N5

1337 Pulled #263 7N1 7-21-94

1341 Pulled #259 ~~6N1~~ 6N2

1347 Pulled #260 7N2

1408 Pulled #265 2N1

Last Entry

Daily Weather Conditions: A.M. NA

P.M. Sunny, 90°F, humid

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8/17/94 TIME: NA PAGE 1 OF 6

Task Team Members: Pg. 43

M. Cramer — H. Robinson (HP)

C. Halley

Narrative (include time and location):

0700 Arrive at trailers to load equipment & prepare for the day's activities.

0710 Signed burn permit with J. Geisler

0730 Discussed strategy of Non AOC with J. Humpert

0810 At HP to get H. Robinson.

0815 Arrive on site at Non AOC area 21N

0820 J. Humpert & P. Parrish on site to borrow some of our equipment.

0825 Health & Safety briefing given: Topic discussed - hearing protection

0832 J. Humpert & P. Parrish off site

0836 Set up 21N1; in grass; ~ 30ft. from high traffic Mound Road outside of fence

0844 Install 21N1; 16"; bag 37; #835

0846 Setup 21N2; in grass

0852 Install 21N2; full; bag 37; #836

0853 Set up 21N3; in grass

0859 Install 21N3; Full; bag 37; #837

0901 Setup 22N3; in Rocky soil

0907 Install 22N3; Full; bag 37; #838

Daily Weather Conditions: A.M. overcast, hazy, fog. Cool ~ 64°F

P.M. NA

Recorded By Mark L Cramer QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8/17/94 TIME: NA PAGE 2 OF 6

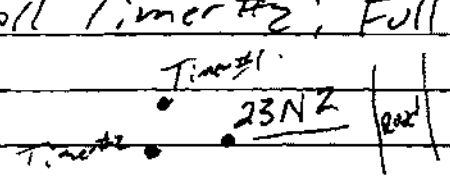
Task Team Members: pg. 44

see page 1 of 6

8/26/94

Narrative (include time and location):

0909 Set up 22 N2; in grass
0917 Install 22 N2; 12"; bag 37; # 839
0919 Setup 22 N1 in grass & soil; next to fence ~50 ft from Mound Road
0926 Install 22 N1; Full; bag 37; #840
0929 Setup 23 N1; in grass & soil, next to fence ~ 50 ft from Mound Road
0936 Install 23 N1; full; bag 37; #841
0939 Set up 23 N2; in grassy soil
0946 Install 23 N2; Full; bag 37; #842
0948 Install Timer #1; Full; #842 23 N2
0950 Install Timer #2; Full; #842 23 N2




0953 Set up 24 N1; grassy area; next to fence ~50 ft from Mound Road; collapsing
1001 Install 24 N1; 15"; bag 37; #843
1003 Set up 24 N2; in moderate traffic road in asphalt

Daily Weather Conditions: A.M. See page 1 of 6
P.M. NA

Recorded By Mark Z Cross QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8/17/94 TIME: NA PAGE 3 OF 6

Task Team Members:

See page 1 of 6 pg. 45

JPH 8/26/94

Narrative (include time and location):

1017 Install 24 N2; Full; bag 37; #844
1020 Returning to trailers for DI water
1035 Arrive on site
1040 Set up 25 N1; in grassy area, next to fence ~50 ft. from Mound Road
1048 Install 25N1; Full; bag 37; #845
1049 Set up 26N1; same as 25N1
1055 Install 26N1; Full; bag 33; #846
1057 Set up 25 N2; in parking lot
1102 Install 25 N2; Full; bag 33; #847
1104 Set up 26N2; in landscaped mulch garden area ~5 ft. from moderate traffic road. Mud
1107 Install 26N2; Full; bag 33; #848
1113 Set up 27N2; in grassy area next to gate exit; moderate to high traffic
1120 Install 27N2; 14"; bag 33; #849
Set up 27N1; in grass ~25 ft from
1124 Mound Road; ~5 feet from exit gate
1129 Install 27N1; full; bag 33; #850
1132 Set up 28N1 same conditions

Daily Weather Conditions: A.M. See page 1 of 6

P.M. NA

Recorded By: Mark Z Cram QA Checked By: Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 7/17/94 TIME: AA PAGE 4 OF 6

Task Team Members:

see page 1 of 6 pg. 46

JPH 8/26/94

Narrative (include time and location):

1137 Install 28N1; 16"; bag 33; #851
1149 At trailers after scanning out.
1330 Leaving trailers for HP
1340 At bldg 30. Calling J. Geisler to get permit for 28N2.
1400 At site, decide to wait for J. Geisler there. Trying to organize permits
1415 Setup 27N3; in road moderate traffic asphalt.
1430 Install 27N3; Full; bag 33; #852
1431 Setup 27N4; in thick concrete. J. Geisler on site to scan 26N4 and 27N5 which needed to be moved.
1440 27N5 and 26N4 moved and scanned for new locations to be okay per J. Geisler.
446 Stopped drilling 27N4. Drilled for 15 minutes and only 2 inches into the concrete. No place to relocate.
1446 Setup 26N4, in asphalt next to loading dock of bldg. 61. Moderate traffic

Daily Weather Conditions: A.M. see page 1 of 6

P.M. Cloudy, Sunny ~80°F

Recorded By Mark L Crow QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET

SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

Date (mm/dd/yy): 8/12/94 TIME: NA PAGE 5 OF 6

Task Team Members:

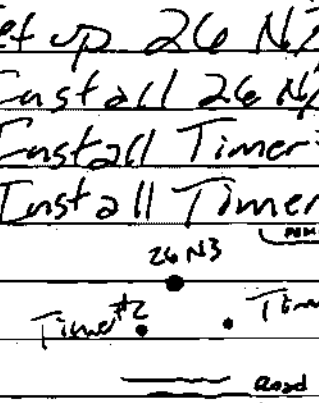
pg. 47

see page 1 of 4

gph 8/26/94

Narrative (include time and location):

1456 Install 26N4; Full; bag 33; #853
1458 Set up 27N5; in concrete ~ 25 ft from road on 2 sides
1505 Stopped drilling 27N5 same conditions as 27N4. cannot relocate due to utilities. McCaldey
1507 Set up 26N3.5 McCaldey in grassy area.
1511 Install 26N3.5 McCaldey Full; bag 33; #854
1514 Install Timer #1; Full; #854; 26N5
1514 Install Timer #2; Full; #854; 26N5




1522 Set up 25N5; in concrete next to Asphalt lined pond.
1526 Install 25N5; full; bag 33; #855
1527 Set up 25N4; next to building in rocky soil
1532 Install 25N4; Full; bag 33; #856
1534 Set up ~~25~~ McCaldey 24N5; in asphalt; soil underneath

Daily Weather Conditions: A.M. NA

P.M. see page 4 of 4

Recorded By Matt Z Cram QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8/17/94 TIME: NA PAGE 6 OF 6

Task Team Members:

see page 1 of 6 pg. 48

JPH 8/26/94

Narrative (include time and location):

1537 Install 24 N5; Full; bag 33; #857
1539 Setup 24 N4; in grassy area at bottom of slope
1544 Install 24 N4; Full; bag 33; #858
1545 Setup 24 N3; in grassy area
1549 Install 24 N3; Full; bag 33; #859
1550 Setup 23 N4; on grassy area
1554 Install 23 N4; Full; bag 33; #860
1605 Scanned hands & feet & returned to trailer
LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. see page 4 of 6

Recorded By Matt L Crow QA Checked By Juletta Pumpert

TASK TEAM ACTIVITY LOG SHEET

SOIL GAS

PROJECT NAME: EG&G MOUND OUS NEW PROPERTY, EXTENDED PHASE

TASK NO: 34896

Date (mm/dd/yy): 8/18/94 TIME: NA PAGE 1 OF 6

Task Team Members:

PG. 49

M. Cramer H. Robinson

C. Halley

Narrative (include time and location):

0700 Arrive at trailers to get ready for the day

0707 Signed burn permit with J. Geisler.

0725 At HP to secure coverage for the morning
Went over permits.

0732 Arrive on site; behind building 73 & 61.

0735 Health & Safety briefing given
Topics discussed: fire hazards & generators.

0740 Returned to trailer for left behind equipment.

0750 At Bldg. 73

0810 Setup 23N5; in grassy area

0815 Install 23N5; full; bag 33; #861

0816 Setup 22N5; in grassy area

0821 Install 22N5; Full; bag 33; #862

0822 Setup 22N4; in grassy area

0830 Install 22N4; Full; bag 33; #863

0832 Setup 21N5; in grassy area

0835 Install 21N5; Full; bag 33; #864

0837 Setup 23N3; in weeds; rocky soil

0844 Install 23N3; Full; bag 33; #865

0847 Setup 24N6; along asphalt pond in asphalt.

Daily Weather Conditions: A.M. hazy, Cool 70°F

P.M. NA

Recorded By Marsha L Cramer QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8/18/94 TIME: NA PAGE 2 OF 6

Task Team Members: pg. 50

see page 1 of 6

JPH 8/26/94

Narrative (include time and location):

0900 Install 24N6; Full; bag 33; #866
0912 At 28N2
~~0815~~ McG 8/18/94 0917 Set up 28N2' in grass ~5 ft. from entrance gate road. Mod. to high traffic
0922 Install 28N2; Full; bag 33; #867
0926 Set up 21N4' along side of moderate traffic road. In sand.
0930 Install 21N4; Full; bag 33; #868
0939 Set up 26N8. Along side of moderate traffic road; in rocks/gravel
0950 Install 26N8; Full; bag 33; #869
0952 Relocated 26N9 to top of hill alongside access roads
0959 Go to relocate 19N8.
1015 Call J. Geisler to inform her that these points were relocated and need rescanned.
1020 Set up 24N7' in parking lot asphalt
1025 Install ~~27K~~ McGhatter 24N7; Full; bag 33; #870
1029 Set up 23N8; in parking lot asphalt
1035 Install 23N8; Full; bag 34; #871

Daily Weather Conditions: A.M. Cloudy, ~75°F

P.M. NA

Recorded By Mark Z Crane QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8/18/94 TIME: NA PAGE 3 OF 6

Task Team Members:

See page 1 of 6 pg. 51

JPH 8/26/94

Narrative (include time and location):

1040 Set up 22 N8; in parking lot asphalt
1045 Install 22 N8; Full; bag 34; #872
1049 Set up 21 N8 in parking lot asphalt
1055 Install 21 N8; Full; bag 34; #873
1057 Set up 21 N9; same conditions
1100 Install 21 N9; Full; bag 34; #874
1104 Set up 22 N9; in parking lot asphalt
1115 Install 22 N9; Full; bag 34; #875
1125 Set up 21 N10; Rocky Soil / Drainage Area
1132 Install 21 N10; Full; Bag #34; #876
1136 Set up 20 N11; Asphalt Drive; Near Road
1141 Install 20 N11; Full; Bag #34; #877
* Area J K7 #878; duplicate number used
1155 Scanned feet & hands - putting cement over samples done in parking lot
1310 At HP to do permits w/ J. Geisler
1335 At 20 N line
1340 Set up 20 N5; in middle of road; in asphalt
1341 20 N6 encountered high rad readings

Daily Weather Conditions: A.M. see page 2 of 6
P.M. P.Cloudy, Humid, ~80°F

Recorded By Mark L Crane QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8/18/94 TIME: NA PAGE 4 OF 6

Pg. 52

Task Team Members:

See page 1 of 6

JPH 8/26/94

Narrative (include time and location):

moved point ~ 4 ft from stake back to rad background levels.

1353 Install 20 N5; full; bag 34; # 879

1355 H. Robinson informed that at 20N7 he encountered very high rad approx 40k on out channel, will have to take sample to determine what it is and what actions to take.

1400 Area on 20N6 where rad is background is not able to be drilled due to collapse. H. Robinson took soil sample of 20N6 to also determine what we are dealing with and the appropriate actions.

1417 J. Gersler on site to find relocated 19N8. Gave permits that we needed for Area 3. Will continue there. Packed up equipment.

1430 Arrive at Gate 33. Called Security to unlock gate.

1446 Security on site to unlock gate.

Daily Weather Conditions: A.M. NA

P.M. See page 3 of 6

Recorded By Mark L Crum QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OUS NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8/18/94 TIME: NA PAGE 5 OF 6

Pg. 53

Task Team Members:

See page 1 of 6

JPH 8/26/94

Narrative (include time and location):

1504 All of crew is ready. We are locked out in the perimeter to finish Area 3.
1506 Setup Area 3 013; in tall weeds.
1514 Install A3 013; Full; bag 34; #880
1515 Setup Area3 014; in tall grass.
1520 Install A3 014; 14"; bag 34; #881
1521 Setup Area 3 015; weeds/gravel
1526 Install A3; Full; bag 34; #882
1527 Setup Area 3 N15; in railroad tracks; very loose backfill; 1528 Install N15; 9"; bag 34; #883
1528 Setup ~~Area~~ Area 3 N14; in gravel/loose rocks.
1534 Install Area 3 N14; 10"; bag 34; #~~883~~ 884 JPH 8/26/94
1536 Called security to get gate unlocked.
1606 WE ARE FREED.
1608 SETUP AREA 3 M15; in Rocks/gravel.
1610 Install A3 M15; 9"; bag 34; #885
1612 Scanned out.
1617 Pulled Area 3 G15 #469
1620 Tried pulling H15 wire broke cannot get it.

Daily Weather Conditions: A.M. NA

P.M. see page 3 of 6

Recorded By Mark I Cramer QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8/18/94 TIME: NA PAGE 6 OF 6

Pg: 54

Task Team Members:

see page 1 of 6

JPH 8/26/94

Narrative (include time and location):

1632 Pulled I15 #467

1640 Returned to trailers

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. see page 3 of 6

Recorded By Martha Z Crane QA Checked By Juliette Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8/22/94 TIME: NA PAGE 1 OF 3

Pg: 55

Task Team Members:

M. Cramer — H. Robinson (HP)

C. Halley

Narrative (include time and location):

0700 Arrive on site: load equipment & prepare for day.
0715 J. Geisler signs burn permit.
0730 J. Humpert calls in to check progress & discuss this week's activities.
0800 At Bldg 30 to discuss w/ H. Robinson results of 20 N 6 & 20 N 7. There are low levels of thorium & plutonium, but we are within the limits to drill.
0805 At 20 N Line.
H & S briefing: Topics discussed - Precautions to take when working in low level radiation areas.
0815 Set up 20 N 6; in grass/weeds
0821 Install 20 N 6; Full; bag 34; # 886
0822 Set up 20 N 7; In rocky soil;
0831 Install 20 N 7; Full; bag 34; # 887
~~0833 Set up~~ MCC 8/22/94
0845 Set up 19 N 6; In asphalt; next to (~7 ft) moderate traffic road
0856 Install 19 N 6; Full; bag 34; # 888

Daily Weather Conditions: A.M. Cloudy, Cool ~ 68°F

P.M. NA

Recorded By Marcia L. Cramer QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8/22/94 TIME: NA PAGE 2 OF 3

Pg: 56

Task Team Members:

see page 1 of 3

JPH 8/26/94

Narrative (include time and location):

0900 19 N7 encountered ~60k Thorium. Took soil sample for labs.
Decided to determine which points are hot and take samples. and then determine which points can be drilled
0940 All points were scanned and can be drilled.
Telephone conversation w/ J. Davis · will be purging W399 in afternoon
0945 setup 19 N8; in grass
0950 Install 19 N8; Full; bag 34; #889
1010 Setup 18 N8; in soil
1015 Install 18 N8; Full; bag 34; #890
1022 Setup 17 N6 along side of moderate traffic road in rocks & gravel
1024 Install 17 N6; 16"; bag 34; #891
1030 Setup 17 N7; in rocky soil
1034 Install 17 N7; Full; bag 34; #892
1035 Setup 17 N8; in weeds, rocky soil
1040 Install 17 N8; Full; bag 34; #893
1054 setup 16 N8; in Rocky, Rocky Soil

Daily Weather Conditions: A.M. See page 1 of 3

P.M. NA

Recorded By Martha Z. Cramer QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET

SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

Date (mm/dd/yy): 8/22/94 TIME: N/A PAGE 3 OF 3

Pg. 57

Task Team Members:

See page 1 of 3

JPH 8/26/94

Narrative (include time and location):

1100 Install 16N8; Full; bag 34; #894
1102 Setup 16N7 in loose rocky soil
1108 Install 16N7; Full; bag 34; #895
1115 Setup 16N6; In asphalt; in moderate traffic road.
1126 Install 16N6; Full; bag 34; #896
1128 Setup 15N6; in asphalt; in moderate traffic road.
1141 Install 15N6; Full; bag 35; #897
1145 Scanned feet & hands. After cleaning up and loading equipment returned to trailers
LAST ENTRY

Daily Weather Conditions: A.M. See page 1 of 3

P.M. N/A

Recorded By Martha L Cra[illegible] QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8-23-94 TIME: 0700 - 1145 PAGE 1 OF 2

Pg. 58

Task Team Members:

Martha Cramer — Steve Davis

Chris Halley — Henry Robinson

Matt Obley

Narrative (include time and location):

0700 Martha on site
0715 Chris on site

0800 Matt on-site, gets brieted by Martha on Soil Gas Survey procedures.

0900 Steve Davis back from Site-Tour, Meets w/ Martha Concerning H&S Audit
Matt and Chris leave to help Surveyors (Kushmer Assoc.) find OU9 Points

1000 Martha Holds H&S Briefing
MTG 23 topics include Steel Toes, Glasses, and Hearing Protek.

1030 ~~1030 42~~ Pick up Henry Robinson at HP Building.

1042 Set-up on 19N7, Screened @ HP because of initial High Fiddler Reading. OK To Do.

1045 Install 19N7, 14" Bag 35 #898
Site is on Slope; Rocky and Vegetated

1102 Set-up on 19N9 on Vegetated, Rocky Slope

1105 Install 19N9; Full; Bag 35 #899

1116 Set-up on 15N13, on Asphalt.

1121 Install 15N13; full; Bag 35 #900

1125 Set-up on 15N12, in grassy Area

1133 Install 15N12; full; Bag 35 #901

1145 Scan-out; Break for lunch.

Daily Weather Conditions: A.M. 75° F ↑, Sunny

P.M. N/A

Recorded By Matt Obley QA Checked By Julita Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO: 34896

Date (mm/dd/yy): 8-23-94 TIME: 13:15 - 15:30 PAGE 2 OF 2

Pg. 59

Task Team Members:

Martha Cramer — Terry Robinson (H.P.)

Chris Halley

Matt Obloy

Narrative (include time and location):

1315 Back from "Business" lunch w/ Steve Davis leave trailers to pull some "timed" samples

1343 Area 13, A3 timed sample pulled, #820

1345 Area 13, B6 timed sample pulled, #826

1355 Timed sample #854 pulled.

1357 Timed sample #842 pulled.

1432 Set-up on 15N10, grassy area

1436 Install 15N10; full; Bag 35 #902

1445 Set-up @ 15N9, on vegetated slope.

1449 Install 15N9; full; Bag 35 #903

1515 Set-up on 26N9; grassy slope

1520 Install ~~18~~ MTD 8-23 26N9; full; Bag 35 #904

1530 Back @ trailers unload truck.

LAST ENTRY

Daily Weather Conditions: A.M. N/A

P.M. 80°F, Breezy

Recorded By Matt Obloy QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8/24/94 TIME: NA PAGE 1 OF 4

Pg: 60

Task Team Members:

M. Cramer
C. Halley
H. Robinson (HP)

MLC 8/24/94

Narrative (include time and location):

0700 Arrive on Site to prepare for the day.
0715 J. Geisler on site to sign burn permit and give us permits for SM/PP Area.
Load Truck. H&S briefing - biological hazards
0755 At Guard Post 2 to wait for security guard escort.
0835 At SM/PP Area to begin drilling.
0845 Set up 20N1; in rocky area; rocky soil
0850 Install 20N1; Full; bag 35; # 905
0852 Set up 20N2; in soil
0856 Install 20N2; Full; bag 35; #906
0857 Set up 19N1; in soft soil.
0902 Install 19N1; 12"; bag 35; #907
0904 Set up 18N1; in rocky area, soft soil
0910 Install 18N1; 12"; bag 35; #908
0928 Set up 19N3; in rocky area
0932 Install 19N3; Full; bag 35; #909
Set up 20N3; point is under dumpster; moved to ~5 ft.; in loose rocky soil
0938 Install 20N3; 10"; bag 35; #910

Daily Weather Conditions: A.M. Cloudy, Overcast, Cool ~ 68°F; Slight Breeze

P.M. NA

Recorded By Mark L Cramer QA Checked By Juletta Humpert

GAS
1896

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8/24/94 TIME: NA PAGE 2 OF 4

Ps. 61

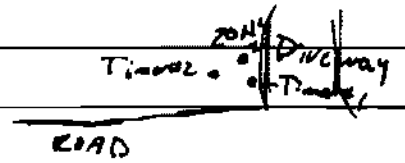
Task Team Members:

See page 1 of 4

GPH 8/26/94

Narrative (include time and location):

0949 Setup 19N4; in asphalt in box staging area
0952 Install 19N4; Full; bag 35; #911
0953 Setup 19N5; in asphalt
0959 Install 19N5; Full; bag 35; #912
1014 Setup 17N4; in asphalt
1023 Install 17N4; full; bag 35; #913
1031 Setup 18N3; in concrete pad
1036 Install 18N3; Full; bag 35; #914
1040 Setup 18N4; in Rocky
1045 Install 18N4; 14"; bag 35; #915
1047 Setup 17N5; in loose rocky sandy soil.
Moving to asphalt area. due to collapse.
1100 Install 17N5; Full; bag 35; #916
1110 Out of secured area - guard leaves.
1115 Setup 20N4 in rocky soil
1118 Install 20N4; Full; bag 35; #917
1124 Install Timer #1; Full; 20N4; #917
1130 Install Timer #2; Full; 20N4; #917




Daily Weather Conditions: A.M. See page 1 of 4

P.M. NA

Recorded By Matthew Cramer QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** **TASK NO.: 34896**

Date (mm/dd/yy): 8/24/94 TIME: NA PAGE 3 OF 4

Pg 62

Task Team Members:

see page 1 of 4

8/26/94

Narrative (include time and location):

~~0955~~ SET UP 9N7; in grass; Rocky Soil
1145 Install 9N7; full; bag 35; #918
1150 Install Timer #1 9N7; full; #918
1156 Install Timer #2 9N7; full; #918

9N7
Timer #1 • • Timer #2 |ROAD|

1200 Scanned hands & feet. Returning to SAIC trailer for lunch.
1255 At Guard Post 2 to arrange security to meet at SMPP Area. Go to HP to get H. Robinson.
1305 At SMPP Area Gate, security arrives.
1320 Set up 17N1; in rocky soil ~50 feet from Mound Road
1329 Install 17N1; full; bag 38, #919
1331 Set up 17N2; in asphalt, rocky soil
1334 Install 17N2; 12"; bag 38; #920
1352 Set up 12N3; in rocks
1358 Install 12N3; full; bag 38; #921
1400 Set up 12N4; in Rocks; rocky soil
1404 Install 12N4; 16"; bag 38; #922

Daily Weather Conditions: A.M. see page 1 of 4
P.M. See page 4 of 4

Recorded By [signature] QA Checked By [signature]

GAS 34896 4

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8/24/94 TIME: NA PAGE 4 OF 4

Pg. 63

Task Team Members:

See page 1 of 4

JDH 8/26/94

Narrative (include time and location):

1406 Setup 11N3; in concrete
1410 Install 11N3; full; bag 38; #923
1412 Setup 10N3; in asphalt
1416 Install 10N3; full; bag 38; #924
1418 Setup 13N3; in asphalt
1425 Install 13N3; full; bag 38; #925
1426 Setup 14N3; in asphalt
1429 Install 14N3; full; bag 38; #926
1437 Setup 10N4; in rocks & gravel
1444 Install 10N4; 10"; bag 38; #927
1450 A. Robinson scans hands & feet and leaves site.
1455 Returning to points to cement cap.
1515 Returning to trailers to bail well 399, LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. Cloudy, Breeze; ~78°F

Recorded By Mark I Crum QA Checked By Juletta Hampton

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8/25/94 TIME: NA PAGE 1 OF 5

Pg. 64

Task Team Members:

M. Gamer — Matt Okley
C. Halley
H. Robinson (HP)

Narrative (include time and location):

0700 Arrive onsite
0704 Sign burn permit w/ J. Geisler.
Prepare for day
0755 At Gate 56 to wait for security & HP.
0815 Everyone here. Meet J. Geisler to
scan points left in secured area.
Points scanned and permits updated.
0830 H&S briefing - ear protection, generator
0850 Set up 11 N4; in rocky loose soil.
0856 Install 11 N4; 12"; bag 38; # 928
0858 Set up 12 N5; in rocky soil; rocky area
0902 Install 12 N5; Full; bag 38; # 929
0907 Setup 15 N3; moved ~ 20 feet to N.
in rocky/gravel
0911 Install 15 N3; Full; bag 38; # 930
0917 Set up 16 N3 in rock/gravel; loose
0923 Install 16 N3; 12"; bag 38; # 931
0925 Set up 16 N4; in grassy area
0934 Install 16 N4; Full; bag 38; # 932
0935 Set up 16 N5; ~ 5k above background

Daily Weather Conditions: A.M. Somewhat Overcast, P. Cloudy ~ 72°F
P.M. NA

Recorded By Matt L. Gamer QA Checked By Joletta Humpert

AS
396

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8/25/94 TIME: NA PAGE 2 OF 5

Pg. 65

Task Team Members:

See page 1 of 5

JPH 8/26/94

Narrative (include time and location):

on out channel; ~ 400 cpm Plutonium on Channel 1; Encountered much higher $\mu R/hr$ readings at other points which came back from the lab as okay to drill. So we will drill this hole. Beta is non-detect. Sample point in grass.

0944 Install 16N5; full; bag 38; #933

0950 Set up 18N2; moved ~ 35 feet from 18N3; decided to go ahead and drill point. Original point moved out from building and then moved due to electrical utilities. In concrete sidewalk

0958 Install 18N2; Full; bag 38; #934

1040 pick up Matt @ trailer, Martha done for the day

1046 Set-up on 16N1, in grassy area near perimeter fence, off of Mound Road, and inside Plant.

1050 install 16N1; full; Bag 38 #935

1052 Set-up on 16N2; in ashphalt parking lot

1056 install 16N2; full; bag 38 #936

Daily Weather Conditions: A.M. See page 1 of 5

P.M. NA

Recorded By Martha Z Crane QA Checked By Juletta Hungerford

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8-25-94 TIME: NA PAGE 3 OF 5

Pg. 66

Task Team Members:

C. Hailey
M. Oblay
H. Robinson - H.P.

8/26/94

Narrative (include time and location):

10:58 Set-up on 15N2; in Ashalt parking lot
11:02 install 15N2; full; Bag 38 # 937.
11:05 Set-up on 15N1; in grassy area near fence.
11:07 install 15N1; full; Bag 38 # 938
11:10 Set-up on 14N1; in Asphalt near fence.
11:12 Install 14N1; full; Bag 38 # 939
11:14 Set-up on 14N2; in asphalt parking lot.
11:18 Install 14N2; Bag 38 # ~~939~~ MO 8-25 940.
11:26 Set-up on 13N1; in grassy area near fence
11:30 Install 13N1; full; Bag 38 # ~~940~~ MO 8-25 941.
11:34 Set-up on 13N2; in asphalt Parking lot.
11:37 Install 13N2; full; Bag 38 # ~~941~~ MO 8-25 942.
11:50 Back @ trailer to break for lunch
12:45 Back from lunch, Prepare for afternoon work
13:07 Setup 12N1; grassy area near fence/road
13:14 Install 12N1; Full; Bag #38; #943
13:16 Setup 12N2; Asphalt parking lot.
13:19 Install 12N2; Full; Bag 39; #944
13:22 Setup 11N1; grassy area near fence/road
13:28 Install 11N1; Full; Bag #39; #945

Daily Weather Conditions: A.M. 80°F, Humid
P.M. 85°F, Hot and Humid

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

GAS
4896

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8-26-94 TIME: NA PAGE 4 OF 5

Pg. 67

Task Team Members:

M. Oblay
C Halley
H. Robinson - H.P.

8/26/94

Narrative (include time and location):

13:30 Set up 11N2; Asphalt parking lot.
13:38 Install 11N2; Full; Bag #39; #946
13:40 Setup 10N1; Grassy Area near fence / road
13:47 Install 10N1; Full; Bag #39; #947
13:50 Set-up 10N2; Asphalt Parking Lot.
13:58 Install 10N2; Full; Bag #39; #948
1405 Set-up 9N1; Grassy Area near fence/road.
1414 Install 9N1; Full; Bag #39; #949
1416 Setup 9N2; Asphalt parking lot.
1420 Ran out of gas; Back to trailer
1439 Resume drilling 9N2
1447 Install 9N2; Full; Bag #39; #950
1450 Setup 8N1; grassy area next to fence/road.
1458 Install 8N1; Full; Bag #39; #951
1500 Setup 8N2; Asphalt parking lot.
1506 Install 8N2; Full; Bag #39 #952
1510 Set-up 8N3; Asphalt parking lot
1515 Install 8N3; Full; Bag #39; #953
1523 Set-up 9N3; Asphalt, near trailers.
1526 Install 9N3; Full; Bag # 39 # 954

Daily Weather Conditions: A.M. N/A
P.M. 87° F Hot, Hazy, Humid.

Recorded By Matt Oblay QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8-25-94 TIME: NA PAGE 5 OF 5

Pg. 68

Task Team Members:

M. Obley
C. Halley
H. Robinson H.P.

JPH 8/26/94

Narrative (include time and location):

1536 Set-up on 9N5, grassy area East of Area J.
Install 9N5;
1540 install 9N5; full; Bag 39 #955
1545 Set-up on 9N6; in gravel by roadside.
1549 Install 9N6; full; Bag 39 #956
1555 Scan-out w/ Henry Robinson
back to trailer to unload equipment.
1605 Begin filling in S.G. Points placed this afternoon
w/ Concrete - drove foil plug.
1620 off to purge well #399
East Entry

Daily Weather Conditions: A.M. N/A
P.M. 87° F Hot

Recorded By Matt Obley QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8-29-94 TIME: 1: PAGE 1 OF 4

Pg 69

Task Team Members:

Matt Obloy

Chris Halley

Jeff Tackett (H.P)

SPH 9/2/94

0700 At trailers / work on well 399

Narrative (include time and location):

0900 ~~Arrive @ trailers~~ CM 8/31/94, Prepare for the Morning Activities - Load truck.

0930 Setup 8N6; Gravel by side of road; Heavy Traffic

0935 Joyce brings permits for next area.

1015 Install 8N6; Full; Bag #39; #957

1018 Setup 8N7; Grassy Area

1025 Install 8N7; Full; Bag #39; #958

1029 Setup 8N8; Grassy Area/Trail

1035 Install 8N8; Full; Bag #39; #959

1104 Set-up on 9N10; in Grassy Area; Timers Set here.

1115 install Timers #1 and #2 at 9N10; both full.

1119 install 9N10; full; Bag #39, #960.

1120 Set-up on 10N10; in grassy and vegetated area.

1125 Install 10N10; full; Bag 39, #961

1130 Set-up on 10N11 in woods.

1133 Install 10N11; full. Bag 39 #962

1140 Set-up on 9N11; in woods.

1143 Install 9N11; full; Bag 39 #963.

1145 Set-up on 9N12; in grassy Area.

Daily Weather Conditions: A.M. 60-75°F Sunny

P.M. NA

Recorded By [signature] QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8-29-94 TIME: NA PAGE 2 OF 4

Task Team Members: Pg. 70

MTO

CJH

J. Tackett - Health Physicist

JPH 9/2/94

Narrative (include time and location):

1147 install 9N 12; full; Bag 39 #964.

1155 Scan out - go to trailers

1215 truck unloaded - Break for lunch

Petrex pulling team J. Alvarado and J. Humpert

| | | | | | |
|---|---|---|---|---|---|
| 0920 | Pulled | 21 W 2 | P# 836 | | Grassy |
| 0922 | Pulled | 21 W 1 | P# 835 | muddy | near traffic |
| 0924 | Pulled | 22 W 2 | P# 839 | | |
| 0926 | Pulled | 22 W 1 | P# 840 | muddy | near traffic |
| 0926 | Pulled | 8-29-94 22 | 23 W 2 | P# 842 | |
| 0927 | pulled | 23 W 2 | Times #2 | P# 842 | |
| 0929 | Pulled | 23 W 1 | P# 841 | muddy | near traffic |
| 0933 | Pulled | 24 W 1 | P# 843 | muddy | near traffic |
| 0937 | pulled | 22 W 3 | P# 838 | | |
| 0940 | Pulled | 25 W 1 | P# 845 | muddy | near traffic & lawn mowing |
| 0940 | pulled | 21 W 3 | P# 837 | | |
| 0942 | Pulled | 21 W 4 | P# 868 | wet | |
| 0945 | Pulled | 26 W 1 | P# 846 | muddy | near traffic & lawn mowing |
| 0948 | Pulled | 20 W 4 | P# 917 | times | secure block |
| 0953 | Pulled | 27 W 2 | P# 849 | muddy | near traffic |
| 0957 | Pulled | 27 W 1 | P# 850 | muddy | near traffic |

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Juan J. Alvarado QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8-29-94 TIME: NA PAGE 3 OF 4

Pg. 71

Task Team Members:

J. Alvarado

J. Humpert

JPH 9/2/94

Narrative (include time and location):

0958 Pulled 24 N2 P# 844

1002 Pulled 28 N1 P# 851 muddy near traffic

1002 Pulled 25 N2 P# 847

1004 Pulled 25 N3 P# 859 muddy

1006 Pulled 28 N2 P# 867 under water near traffic

1006 Pulled 24 N4 P# 858

1008 Pulled 23 N4 P# 860

1010 Pulled 23 N3 P# 865

1015 Pulled 22 N4 P# 863

1018 Pulled 21 N5 P# 864

1022 Pulled 22 N5 P# 862

1025 Pulled 23 N5 P# 861 and 27N3/

1030 Pulled 24 N5 P# 857

1034 Pulled 24 N6 P# 866

1038 Pulled 26 N2 P# 848 muddy near traffic

1040 Pulled 24 N7 P# 870

1044 Pulled 26 N8 P# 869

1048 Pulled 26 N4 P# 853 wet near traffic no concrete cap.

1050 Pulled 26 N5 P# 854

1054 Pulled 25 N5 P# 855

Daily Weather Conditions: A.M. NA

P.M. 80 °F sunny slight breeze

Recorded By [signature] QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** **TASK NO.: 34896**

Date (mm/dd/yy): 8-29-94 TIME: NA PAGE 4 OF 4

Task Team Members: Pg. 72

J. Alvarado

J. Humpert

JPH 9/2/94

Narrative (include time and location):

1058 pulled 25 W 4 P# 856

1113 pulled 22 W 8 P# 872 under water near tank

1116 pulled 23 W 8 P# 871

1122 pulled 21 W 8 P# 873

1125 pulled 21 W 9 P# 874

1128 pulled 21 W 10 P# 876

1132 pulled JPH 8-29-94 22 W 9 P# 875

1140 pulled 20 W 11 P# 877

1155 pulled 20 W 5 P# 879

1200 pulled 9 W 7 P# 918

1205 Lunch

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8-30-94 TIME: NA PAGE 1 OF 3

Pg. 73

Task Team Members:

Matt Obley
Chris Halley
Jeff Tackett - H.P.

JPH 8/29/94

Narrative (include time and location):

07:20 Chris Halley on-site
Joyce brings new burning permit for 8-30 thru 9/5.
08:00 Matt on-site; Load truck, prepare for morning activities.
08:15 Health and Safety briefing, Topics discussed; Hearing Protection During Drilling of S.G. Holes.
08:30 Pick up Jeff Tackett at Bldng. 30
08:45 Arrive at 8N27 To set Timers in: 2nd Timers in area along w/ 9N10.
08:55 Set-up on 8N27; in grassy Area near overflow Pond.
09:00 install 8N27; full; Bag 39 #965 includes Two Timers.
09:20 Set-up on 6N22; grassy Area
09:25 install 6N22; full; Bag 39 # 966
09:34 Set up on 7N20; grassy Area.
09:41 install 7N20; full; Bag 39 # 967.
09:45 Report To Guard Post 2 for "Head Count"
09:50 Set-UP on 7N21; grassy Area.
09:55 install 7N21; full; Bag 39 # 968
10:20 Set-up on 7N16; in woods; Using Hand Auger.

Daily Weather Conditions: A.M. 75°, Sunny
P.M. NA

Recorded By Matt Obley QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8-30-94 TIME: NA PAGE 2 OF 3

Pg. 74

Task Team Members:

M. Obley.
C. Halley.
J. Tackett.

JPH 9/2/94

Narrative (include time and location):

10:30 install 7N16; full; Bag 39 #969.
10:35 Set-up on 7N15; in woods, on earth Mound.
10:40 install 7N15, full; Bag 44 #970.
11:00 Stake points 7N4 and 6N5 so that we can obtain permit from Joyce
11:30 Break for lunch.
12:30 back from lunch, pick up permit from Joyce
-pick up Jeff T.
12:49 Set-up on ~~10N5~~ 11N5 MTO 8.30; grassy area, near Bld. 95
12:53 install 11N5; full; Bag 44 #971
13:05 set-up on 18N7 in grassy slope W of Bldng. 30
13:10 install 18N7; full; Bag 44 #972
13:20 Set-up on 27N4, in Road by Guard Schack
13:35 Install 27N4; F.M.; Bag #44; #973
13:38 Set-up 27N5; middle of Rd. / Asphalt
1403 Install 27N5; F.M.; Bag #44; 974
1415 Set-up on 19N10; in gravel parking lot.
14:20 install 19N10; full; Bag 44 # 975
14:24 Set-up on 20N10; behind Building 51.
14:26 install 20N10; full; Bag 44 # 976

Daily Weather Conditions: A.M. 75°F, Sunny
P.M. 75°F, clouding up.

Recorded By Matt Obley QA Checked By Jaletta Humpert

GAS
4896

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8-30-94 TIME: NA PAGE 3 OF 3

Pg. 75

Task Team Members:

M. Ogley
C. Holley
J. Tackett

JPH 9/2/94

Narrative (include time and location):

14:30 17N10, 17N11, 16N10 and 16N11 are located w/in High Radiation where construction activities are going on only personnel w/ Rad I and II Training can enter.

1443 Setup 18N12; Edge of road in gravel Heavy Traffic.

1458 Install 18N12; Full; Bag #44; 977

1501 Setup 17N12; Rocky Soil; Near road Heavy Traffic.

1510 Install 17N12; Full; Bag #44 #978

9-6-94 PJS 1525 installed 16N13; Full. Bag 44 # 1,014

1513 Setup 16N13; Asphalt Road; Heavy Traffic.

1535 Set-up on 15N11, in woods behind Building 22

1540 install 15N11; 16", Bag 44 #979

Note: use Hand Auger to install.

1550 "Scan-out" w/ Jeff T at building 30.

1555 Top-off Holes in asphalt w/ 'crete.

1615 Back @ Trailers to unload equip.

Last Entry

Daily Weather Conditions: A.M. N/A

P.M. 75°F, overcast

Recorded By Matt Ogley QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 08/31/94 TIME: NA PAGE 1 OF 3

Pg 76.

Task Team Members:

Chris Halley
Matt Oblog
J. Tackett

JPH 9/2/94

Narrative (include time and location):

0700 CH on site
0715 Load equipment on truck
0735 Check on escort for secure area. R. Tusing was contacted 8/30/94 for 7:30-9:30 slot. We are not on schedule. Will do other areas and set up guard for 9/1/94.
0745 Matt arrives on site.
0800 Pick up Jeff Tackett at Bldng. 30.
0822 Set up 25N9; Edge of road in Asphalt.
0842 Install 25N9; Full; Bag #44; #980
0905 Set-up on 16N9; in grassy area. Using Hand Auger.
0915 install 16N9; full; Bag 44 # 981.
0925 Set-up on 18N9. in woods. Using hand Auger.
0935 install 18N9; 14"; Bag 44 # 982.
1025 Set-up on 15N7; in woods behind Building 30. This point already has a timer and Reg. S.G. Tube installed. We will redrill a new hole and install new Tube.
1030 install 15N7; full; Bag 44 # 983.

Daily Weather Conditions: A.M. ~70°F, overcast.

P.M. NA

Recorded By Matt Oblog QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 8/31/94 TIME: NA PAGE 2 OF 3

Pg 77

Task Team Members:

Chris Halley

Matt Oblog

Jeff Tackett - H.P.

9/2/94

Narrative (include time and location):

10:35 Set-up on 15N8; in woods

10:40 install 15N8; Full; Bag 44 # 984.

10:55 Set-up on 14N7; in woods.

11:00 install 14N7; 12"; Bag 44 # 985.

11:07 Set-up on 14N8; down slope from 14N7 in woods.

11:13 install 14N8; full; Bag 44 # 986.

11:25 Set-up on 14N13; in grassy area near Bldg. 22 parking lot.

11:30 install 14N13; full; Bag 44 #987.

1135 Set up 14N12; Soft soil / Mud.

1138 Install 14N12; Full; Bag #44; #988

1141 Setup 14N11; Soft Soil / mud.

1143 Install 14N11; Full; Bag #44; #989

1148 Setup 14N10; Grassy area / mud 5' North of stake.

1150 Install 14N10; Full; Bag #44; #990

1215 Break for lunch.

1300 Back on-site meet w/ Joyce Geisler to obtain new Permits.

Daily Weather Conditions: A.M. 75°F, Overcast.

P.M. NA

Recorded By [signature] QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 8/31/94 TIME: NA PAGE 3 OF 3

Pg 78

Task Team Members:

C. Hailey

M O'Rourke

JPH 8/31/94

Narrative (include time and location):

1330 - To HP Bldg

1331 - Rain

1400 - Back to trailer to unload soil gas equip.

Set up to stake new SG locations

1605 - Mark off site

1610 - Make soil gas tubes

1700 - Logbooks

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Jolette Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9/1/94 TIME: NA PAGE 1 OF 3

Pg. 79

Task Team Members:

C. Holley

M. Obley

J. Taurit (HP)

JPH 9/2/94

Narrative (include time and location):

0650 - Crew on site - load truck

0725 - R. Long here to sign burn permit.

0730 - Guards should be at gate 56.

0738 - Meet on site

0800 - Waiting for guard to open Gate 56.

0810 - Pick up Security Guard and enter Gate 56.

0815 - Set-up on 18N6; in asphalt. in secure area

0825 - install 18N6; full; Bag 40 #991.

0830 - Set-up on ~~8~~ 9N4 mto 9.1; in asphalt. in secure area

0835 - install 9N4; full; Bag 40 # 992

0837 - Set-up on 8N4; in asphalt. in secure area.

0840 - install 8N4; full; Bag 40 #993

0845 - Set-up on 8N5; in asphalt. in secure area.

0850 install 8N5; full; Bag 40 #994

0909 Set-up on 7N19; in grassy slope, in secure area.

0914 install 7N19; Bag 40; #995.

0920 Set-up on 5N20; in grassy area near Bunker in secure area.

0925 install 5N20; full; Bag 40 #996

0928 Jeff takes security back / we go to 14N9

Daily Weather Conditions: A.M. 63°F, overcast, windy

P.M. NA

Recorded By Matt Obley QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 9/1/94 TIME: NA PAGE 2 OF 3

Task Team Members: Pg. 80

C. Kelly
M. Oblog
J. Tackett

JPH 8/31/94

Narrative (include time and location):

0942 Set up 14N9; In woods / rocky soil
0950 Install 14N9; Full; Bag #40; #997
0956 Set up 12N10 Grassy Area by woods.
0959 Install 12N10; Full; Bag #40; #998
1001 Set up 12N11; In woods; soft ground
1003 Install 12N11; Full; Bag #40; #999
1008 Set up 11N10; In clear, grassy area by woods
1012 Install 11N10; Full; Bag #40; #1000
1023 Set-up on 11N11; in woods.
1028 install 11N11; 13"; Bag 40 # 1001
1035 Set-up on 11N12; in woods
1042 install 11N12; 16"; Bag 40 # 1,002.
1056 Set-up on 10N12; in grassy area near fence
1104 install 10N12; 17"; Bag 40 # 1,003
1119 Set-up on 9N13; in grassy area near fence
1127 install ~~9N13~~ MTO 9.1 9N13; Full; Bag 40 # 1,004.
1132 Set-up on 8N13; in woods.
1135 ~~Set up~~ MTO 9.1 install 8N13; Full; Bag 40 # 1,005
1139 Set up 8N12; in woods.
1142 install 8N12; Full; Bag 40 # 1,006

Daily Weather Conditions: A.M. ~70°F, Clearing and Pleasant
P.M. NA

Recorded By Matt Oblog QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-1-94 TIME: NA PAGE 3 OF 3

Pg 81

Task Team Members:

C. Hall
M. Obley
J. Tackett

JPH 9/2/94

Narrative (include time and location):

1149 Set-up 8N11; in woods, using hand auger
1154 install 8N11; 12"; Bag 40 # 1,007.
1205 Scanned out / Too Lunch.
1315 Everyone back from Lunch.
1320 To HP Bldg to pickup J.T.
1335 Set-up on 11N18; in asphalt Road.
1345 install 11N18; full; Bag 40 # 1,008
1348 set-up on 10N20; in gravel by road.
1355 install 10N20; full; Bag 40 # 1,009
1403 set up on 9N21; in asphalt Road.
1415 install 9N21; full; Bag 40 # 1,010
1420 Set up 12N24; In gravel by edge of RD. Light traffic
1429 Install 12N24; Full; Bag #40; # 1011
1431 Set up 12N23; Gravel; Between building 67 and RR.
1434 Install 12N23; Full; Bag #40; 1012
1442 Set-up on PT9N26; in Gravel rear Building 94.
1448 install 9N26; full; Bag 40 # 1,013.
1500 Scan out / Log Books / Tubes

Daily Weather Conditions: A.M. N/A
P.M. 72°F Sunny and Breezy

Recorded By Matt Obley QA Checked By Juletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 9-6-94 TIME: 0730 PAGE 1 OF 4

Pg 82

Task Team Members:

A Brad Richardson
Matt Oblog
Henry Robinson (EG&G)

9/10/94

Narrative (include time and location):

0730 - Matt on site, met w/ J. Giesler regarding digging & fire permit
0830 - leave Trailer and meet w/ Henry R. @ HP Building
0844 - @ location 13N, 26W - next to building 19 - location in Asphalt -
0852 - set-up - over 13N 26W #1015
- Henry check sight - beneath 6" of asphalt, 12" of gravel sub-base.
0907 - Install 13N 26W, 16", Bag #40, #1015
0912 - At 14N 26W - Henry checks sight; decon equip.
- grassy area, silty soil w/gravel near bottom
0919 - Install 14N 26W, 18", Bag #40, #1016
0927 - At 13N 25W - Henry checks sight; decon equip.
- in asphalt area, gravel and clay (org) under asphalt
0930 - Joletta dropped off digging permit for two points near 103
0934 - Install 13N 25W, 18", Bag #40, #1017
0949 - At 10N ~~20W~~ 19W - Henry checks sight.
- between security fence and road, in sandy silt & gravel
- materials loose and collapse very easily
0955 - Install 10N 19W, 18", Bag #42, #1018

Daily Weather Conditions: A.M. 60°F, Misty - Fog, Calm wind
P.M. NA

Recorded By A Brad Richardson QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-6-94 TIME: 09:56 PAGE 2 OF 4

Pg. 83

Task Team Members:

A Brad Richardson
Matt Oblog
Henry Robinson (EG&G)

JPH 9/10/94

Narrative (include time and location):

Points 10N 18W & 10N 17W are in secured area
1020 At 7N 4W - Henry checks sight. - in grassey area next to Bld. 105 - Henry grabs H.P. sample
1024 - Install 7N4W, 14", Bag #42, #1019
1028 - At 6N 5W - Henry checks sight. - in grassey area next to Bld 105, silty clay and gravel
1037 - Install ~~X~~ 6N5W, 18", Bag #42, #1020
1100 - Break for lunch.
1200 - Back @ trailers to meet Joyce Geisler
1245 - Leave Trailer to hook up w/ Henry and then drive to locations
1300 - Meet up w/ Henry & Joyce: locate 12N22W
- Henry checks site, gravel overlying silt & sand
1312 - Install 12N 22W, 18", Bag #42, #1021
1321 - At 12N21W - Henry checks site, asphalt overlying concrete, gravel
1328 - Install 12N 21, 18", Bag #42, #1022
1332 - At 12N 20W - Henry check site, asphalt underlying sandy-silt
1336 - Install 12N 20W, 18" Bag #42, #1023

Daily Weather Conditions: A.M. 63°F, Drizzle, Fog, Calm wind
P.M. 70°F, Partly Cloudy, Wind NW 5-15

Recorded By: A Brad Richardson QA Checked By: Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 9/6/94 TIME: 13:44 PAGE 3 OF 4

Pg 84

Task Team Members:

A Brad Richardson — Joyce Giesler

Matt Oblay

Henry Robinson

Narrative (include time and location):

1345 - At 12N 18W, Henry checks site, sand-silt gravel
1347 - Install 12N 18W, 18" Bag #42, #1024
1354 - At 12N 19W, Henry checks site, silty-sand & gravel
1356 - Install 12N 19W, 18", Bag #42, #1025
1359 - At 11N 19W, Henry checks site. Moved this 30 feet to the north (per Joyce Giesler), sand & gravel
1403 - Install 11N 19W, 18", Bag #42, #1026
1409. At 11N 20W Henry checks site. Inside Tank overflow basin, asphalt cover concrete → sand and gravel.
1412 - Install 11N 20W, 18", Bag #42, #1027

1424 - Note: 10N 21W & 10N 22W Not found, in very thick area in woods along creek.
1429. At 12N 17W, Henry clears site, asphalt overlying gravelly sand
1434 - Install 12N 17W, 18", Bag #42, #1028
1439 - At 12N 16W, Henry clears site, sand and gravel on bank.
1442 - Install 12N 16W, 18", Bag #42, #1029
1446 - At 12N 15W, Henry & Joyce clear site. Move site approx. 30 feet to north - on embankment, sand & gravel
1449 - Install 12N 15W, 18", Bag #42, #1030

Daily Weather Conditions: A.M. NA

P.M. 70°F, partly cloudy, calm wind

Recorded By A Brad Richardson QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9/6/94 TIME: 14:50 PAGE 4 OF 4

Pg. 85

Task Team Members:

A Brad Richardson — Joyce Giesler

Matt Oblon

Henry Robinson

Narrative (include time and location):

1453 - Look behind building #87 To see if locations are in secure area.

1505 - Alot of those points inside secure area. We will wait until tomorrow when we have arranged to have security w/us.

1510 - Henry screens us out.

1512 - Go to patch the asphalt holes

1540 - Back @ Trailer; unload truck

Last Entry

Daily Weather Conditions: A.M. NA

P.M. 70°F, partly cloudy, wind west 5-10

Recorded By [signature] QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-7-94 TIME: 08:40 PAGE 1 OF 4

Pg 86

Task Team Members:

Brad Richardson — Henry Robinson

Matt Obley

Joyce Giesler

Narrative (include time and location):

0840- Leave trailer to pick up Henry and check out where we can work. We were supposed to have security help today, however they thought SAIC only needed one security escort instead of two (Joletta's team has the escort).

0855 At 7N 27W, Henry & Joyce clear site, in grass swale, top soil - silty sand

0858 Install 7N 27W, 18", Bag #42, #1031

0900 At 7N 26W, Henry & Joyce clear site, in gravel pathway, sand & gravel w/ little silt

0908 Install 7N 26W, 12", Bag #42, #1032

0910 At 7N 25W, Henry & Joyce clear site, in grass area next to roadway; sand & silt w/ gravel.

0918 Install 7N 25W, 17", Bag #42, #1033

0927 Locate 8N 25W, Henry & Joyce clear site, in grass area next to ditch weir; sand & gravel, very soft

0929 Install 8N 25W impossible; the soil conditions very soft, loose.- move over to south 3 feet.

0936 Install 8N 25W, 18", Bag #42, #1034

0945 At 8N 21W, Henry & Joyce clear site, in asphalt, sand/gravel under

Daily Weather Conditions: A.M. Sunny, 65°F, South Wind 5-10

P.M. NA

Recorded By Brad Richardson QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO. 34896

Date (mm/dd/yy): 9-7-94 TIME: NA PAGE 2 OF 4

P5 87

Task Team Members:

A Brad Richardson — Henry Robinson

Matt Obloy

Joyce Giester

Narrative (include time and location):

-drill is binding up in underlayment gravel.

-1003-Install 8N 21W, 18", Bag #42, #1035

-1009-At 7N 22W, In grass, next to road. Henry and Joyce clear point, sandy gravel w/ silt.

1013-Install 7N 22W, 18", Bag #42 #1036

1016-At 7N 23W, In grass south of road swale, silty sand soil

1021-Install 7N 23W, 18", Bag #42, #1037

1027-At 7N 24W, Next to south side of road, Clayey soil

1031-Install 7N 24W, 18", Bag #42, #1038

1038-Locate 8N 22W, Joyce & Henry clear site, Next to road under construction fence. Sand/gravel w/silt.

1053-Install 8N 22W, 15", Bag #42, #1039

1122-At 8N 15W, Henry & Joyce clear site, in woods along chipped line, silty soil

1127-Install 8N 15W, 18", Bag #42 #1040

1130-At 8N 14W, Henry & Joyce clear site, in woods, silty soil

1135-Install 8N 14W, 18" Bag #42, #1041

1145-Load Truck head back to trailer

1150-As Henry was screening us out Matt Obloy was discovered

Daily Weather Conditions: A.M. Sunny, 70°F, S. Wind 5-10

P.M. NA

Recorded By [signature] QA Checked By Jolotta Humpert

**TASK TEAM ACTIVITY LOG SHEET** **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** **TASK NO.: 34896**

Date (mm/dd/yy): 9-7-94 TIME: NA PAGE 3 OF 4

Pg 88

Task Team Members:

A Brad Richardson — Joyce Giesler

Matt Oblog

Henry Robinson

Narrative (include time and location):

To have 300-400 counts per min. on both hands.
After washing w/ Alconox and water Alpha count was to background.
1310 Back from Lunch
1330 meet up w/ Joyce; she relocates 10N 5W
1340 At 10N5W; 3 feet off south wall of building 95; in grassy area. Waiting for Henry:
Henry & Roy back to check on Matt's "radioactive hand". No reading.
1418 Install 10N5W, 18", Bag #41, #1042
1420 Henry did another check on Matt - normal background readings
1440 At 9N 25W, Henry & Joyce clear site; in asphalt area next to clarifier tanks
1448 Install 9N25W, 18", Bag #41, #1043
1459 At 9N 27W, Henry & Joyce clear site; next to fence in grass. sandy gravel w/silt.
1502 Install 9N 27W, 18", Bag #41, #1044
1506 At 8N 26W, Henry & Joyce clear site; next to settling pond in grass, sandy silt, w/some gravel.

Daily Weather Conditions: A.M. NA

P.M. Sunny w/some clouds, 70°F, Wind SW 10-15

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO. 34896

Date (mm/dd/yy): 9-7-94 TIME: NA PAGE 4 OF 4

Pg. 89

Task Team Members:

A Brad Richardson — Joyce Giesler

Matt Oldoy

Henry Robinson

Narrative (include time and location):

1509 - Install 8N 26W, 18", Bag #41, # 1045

1515 Joyce informs us that we cannot sample 10N21 and 10N22 since it is w/in the test fire explosion zone. These points will remain on hold along w/ 11N21, 11N22 and 11N23 while operations continue in bldgs 42 and 27, approx. 2 weeks.

1530 Unload truck @ trailers

1545 Brad and Matt off-site.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. ~75°F Sunny

Recorded By Matt Oldoy QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-8-94 TIME: NA PAGE 1 OF 5

Pg 90

Task Team Members:

A. Brad Richardson — Joyce Giesler
Matt Obloy — Ashley Conrad
Roy Mowen — Henry Robinson

Narrative (include time and location):

0815 - On site, start loading up, HP is at trailer checking for any alpha contamination related to Matt's incident.

0830 - I call Security to let them know we are waiting on some people before we can meet w/ our escort. He gave us until nine. Left Joyce a message that we would be at Building 87

0900 - At Building 87, met security

0940 - Have located most of points in secure area around Bld 87 except 9N 19 & 9N 18 which are inside bld 87

0945 - Meet Henry R. - counted 18 points in secure area

0950 - At 8N 20, Cleared by Henry & Joyce, next to fence, in sand & grave

0956 - Joyce came around bldg, and said we had to stop work untill she checks with the bld 87 manager.

1003 - Joyce returned and said that they are not processing today so we may continue work.

1010 - Install 8N 20, 14", Bag #41, # 1046

1015 - Henry screens us out.

1020 - At 9N 20w, Henry & Joyce clear site, next to fence in gravel

1046 Daily Weather Conditions: A.M. Sunny, 70°F, South wind 5-10

P.M. NA

Recorded By: Brad Richardson QA Checked By: Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-8-94 TIME: NA PAGE 2 OF 5

Pg 91

Task Team Members:

A Brad Richardson — Joyce Giesler
Matt Oblon — Ashley Conrad
Henry Robinson

Narrative (include time and location):

1024 - S Install 9N 20W, 18", Bag #41, # 1047
1029 - Henry check RAD on us : OK
1030 - At 8N 19W, in grass 10 feet from Bld 87, sandy/gravel
1035 - Install 8N 19W, 18", Bag # 41, # 1048
1038 - Henry check RAD on us : OK
1039 - At 8N 18W, in grass / gravel pathway
1040 - Roy Moore stopped by to inform us that no RAD has been detected in Matt's car or our trailer
1100 - Install 8N 18W, 12", Bag # 41, # 1049
1110 - Henry checks RAD on us : OK
1111 - At 8N 17W, in grass on slope of hill, sandy silt/gravel.
- Keith McMahan come down and he deduced that the plastic liner on the pick up bed will transfer a radon gas onto static charged surfaces like Matt's hands. ; Mystery solved.
1114 - Install 8N 17W, 18", Bag # 41, # 1050
1119 - Henry checks RAD on us : OK
1120 - At 8N 16W, Joyce & Henry clear site. grass area at top of slope 8 feet from fence, sandy silt.
1125 - Install 8N 16W, 18", Bag # 41, # 1051

Daily Weather Conditions: A.M. Sunny, 70°F South wind 5-10
P.M. NA

Recorded By [signature] QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-8-94 TIME: NA PAGE 3 OF 5

Pg 92

Task Team Members:

A Brad Richardson — Joyce Giesler
Matt Obloy — Ashley Conrad
Henry Robinson

Narrative (include time and location):

1130 - At 9N 16W, Joyce & Henry clear it, next to sidewalk in grass area, gravel & sand w/silt
1140 - Install 9N 16W, ~~18"~~ 7", Bag #41, # 1052
1145 - Henry clears us for lunch.
1157 - Drop off truck at HP so that they can check it out while we lunch.
1250 - Back on-site
1300 - Called Russ Tusing - left message on machine: "need escort on Monday @ 8:00 for entry into Bld 87 untill 3:00pm"
1303 - Russ Tusing confirmed our escort
1330 - At 10N 18, Henry & Joyce clear, next to sidewalk in garden bed soil.
1339 - Install 10N18, 16", Bag #41, # 1053
1341 - At 10N17, Henry & Joyce clear, next at sidewalk in garden soil
1345 - Install 10N17, 18", Bag #41, # 1054
1347 - At 10N16, Henry & Joyce clear, in asphalt next to sidewalk
1355 - Install 10N16, 18", Bag #41, # 1055
1359 - At 10N15, Henry & Joyce clear, in grass next to

Daily Weather Conditions: A.M. Sunny, 72°F, South wind 5-10
P.M. " " " "

Recorded By A Brad Richardson QA Checked By Jrutta Humpesit

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-8-94 TIME: NA PAGE 4 OF 5

Pg 93

Task Team Members:

A Brad Richardson — Joyce Giesler

Matt Obley

Henry Robinson

Narrative (include time and location):

sidewalk & corner of building

1402 Install 10N 15, 18", Bag #41, #1056

1406 At 11 N 14, Henry and Joyce clear site, in asphalt next to BLD #49.

1414 Install 11N 14, 18", Bag #41, #1057

1420 At 10 N 14, Henry and Joyce clear site, in ~~glass~~ grass

1429 Install 10N 14, 14", Bag #41, #1058

1444 At 9N 15, Henry and Joyce clear site, behind bld. #87 in gravelly patch 5 ft. from building., gravel & sand, w/ silt

1452 Install 9N 15, 18", Bag #41, #1059

1457 At 9N 14, Henry and Joyce clear site, in wood next to concrete drainage channel, gravel sandy silt.

1502 Install 9N14, 10", Bag #41, #1060

1513 At 11 N 16, Henry & Joyce clear site, in grass next to bld. #63 and fence gate

1520 Install 11N16, 14", Bag #41, #1061

1521 At 11 N 17, Henry & Joyce clear site, in grass next to telephone pole west of BLD #63

1527 Install 11N17, 17", Bag #41, #1062

1530 Henry screen our persons: OK; Exit secure area

Daily Weather Conditions: A.M. NA

P.M. Sunny, 72°F, South wind 5-10

Recorded By [signature] QA Checked By Joletta Hungerford

**TASK TEAM ACTIVITY LOG SHEET** **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** **TASK NO.: 34896**

Date (mm/dd/yy): 9-8-94 TIME: NA PAGE 5 OF 5

Pg 94

Task Team Members:

A. Brad Richardson

Matt Obley

JPH 9/8/94

Narrative (include time and location):

16:40 Back at trailer to unload equipment

16:10 leave site, end of day.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. 72°F, Sunny

Recorded By Matt Obley QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-12-94 TIME: NA PAGE 1 OF 3

Pg 95

Task Team Members:

Brad Richardson — Joyce Giesler

Matt Oblon

Henry Robinson

Narrative (include time and location):

0800 - On site, load trailer and truck

0820 - Meet Henry @ gate of Bld 87 where we will meet security

TTP:

0910 - Inside secure area @ 9N17, Joyce 6 to clearance.

0917 - At 9N17W, Henry & Joyce clear location, in grass area four feet from building wall, gravel and sand w/silt.

0922 - Install 9N17W, 18", Bag #41, #1063

0928 - Locating Additional Point 8½N 20½W, Henry & Joyce clear location, in gravel next to asphalt drive in Bld. 87 secure area, sand & gravel - hit flat rock

0938 - Install 8½N 20½W, 12", Bag #41, #1064

0955 - Looking for 10N 13, not where its suppose to be. Can't find it at all.

1005 - Stake 10N 13 so Joyce can re-clear it.

1017 - At Add. Point #7 (7½N 25½W) Henry & Joyce clear point in gravel pathway off of road near monitoring wells.

1025 - Install Add. Point #7, 12", Bag #41, #1065

1035 - Staked 8N 24 and 8N 23

1055 - Stake 13N 5½W. Just outside security fence in asphalt

Daily Weather Conditions: A.M. 68°F Sunny, Calm

P.M.

Recorded By [signature] QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 9-12-94 TIME: NA PAGE 2 OF 3

Pg 96

Task Team Members:

A Brad Richardson — Joyce Giesler

Matt Obley

Henry Robinson

Narrative (include time and location):

1058 - Building 36 - additional point off of south east corner of building 36 (15 feet)

1100 - Building 36 - additional point off of north east corner of Baild 36 (2 feet)

1114 - In "burn area", locate additional point 75 feet southeast of Building 90

1145 - Go to Furrows to buy wire.

1215 - Lunch

1300 - Back @ trailers; make up sample tubes

1325 - Joyce meets us at trailer

1326 - Call Security to meet us at Building 87; Tell Henry

1348 - At 10 N 13 W, Henry & Joyce clear location, in gravel area between sidewalk and retaining wall south of Bldg. #99

1351 - Install 10N 13W, 17", Bag #41, # 1066

1404 - At Bld 36 S.E. Point, Joyce and Henry clear location; in gravel between sidewalk and security fence, gravel & sand w/silt

1407 - Install Bld 36 SE Point, 17", Bag #43, #1067

1411 - At Bld 36 N.E. Point, Joyce and Henry clear location; in gravel 5 feet north and west of NE corner.

1416 - Install Bld 36 N.E., 18", Bag #43, #1068

Daily Weather Conditions: A.M. 75°F Sunny, West Wind 5-10

P.M. " " "

Recorded By A Brad Richardson QA Checked By Juletta Hampert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO: 34896

Date (mm/dd/yy): 9-12-94 TIME: NA PAGE 3 OF 3

Pg 97

Task Team Members:

Brad Richardson — Joyce Gieder
Matt Oblon — Vern Pearson
Henry Robinson

Narrative (include time and location):

1424 - At 3½N 13½W (In Burn Area), Henry & Joyce clear location, gravel drive area.
1430 - Install 3½N 13½W (Burn Area), 18", Bag #43, #1069
1438 - At 8N 24W, Henry & Joyce clear location, in grass area behind 2100 gallon containers.
1442 - Install 8N 24W, 17", Bag #43, #1070
1444 - At 8N 23W, Henry & Joyce clear location, in grass between construction road and silt fence.
1454 - Install 8N 23W, 17", Bag #43, #1071
1503 - At the above ground fuel tanks and pumps / fuel separator to clear points w/ Joyce.
1515 - Staked 14N 15, 15N 14, 14N 25, 14N 27
1550 - Back at trailer to wire tubes, unload truck
1620 - Brad and Matt off site.
Last Entry

Daily Weather Conditions: A.M. NA
P.M. 78°F, Sunny, West Wind 5-10

Recorded By Brad Richardson QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-12-94 TIME: NA PAGE 1 OF 1

Pg 98

Task Team Members:

P. Parrish

J. Humpert

JPH 9/12/94

Narrative (include time and location):

JR 2/14/96

0825 Pulled 27N 5W, Petrex # 974

0835 Pulled 25N 9W, Petrex # 980

0840 Pulled 20N 10W, Petrex # 976

0845 Pulled 18N 7W, Petrex # 972

0848 Pulled 18N 9W, Petrex # 982

0903 Pulled 17N 12W, Petrex # 978

0908 Pulled 18N 12W, Petrex # 972

0910 Pulled 19N 10W, Petrex # 975

~~Pulled 18N12/972 and 17N12/978~~ JPH 10/3/94

0915 Pulled 16N 13W, Petrex # 1014

0925 Pulled 15N 8W, Petrex # 984

0930 Pulled 15N 11W, Petrex # 979

0935 Pulled 15N 7W, Petrex # 983

0940 Pulled 16N 5W, Petrex # 981

0945 Pulled 27N 4W, Petrex # 973

Last Entry

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

P.M. NA

Recorded By Matt Oxley for, J. Humpert. QA Checked By Juliette Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-13-94 TIME: NA PAGE 1 OF 5

Pg 99

Task Team Members:

A Brad Richardson — Joyce Giesler

Matt Oldey

Henry Robinson

Narrative (include time and location):

0800 - On Site - Load Truck

0815 - Met w/ Joyce; go get Henry; go to Tanks

0833 - At E. Pump Loca., Henry & Joyce clear it, in grass slope next to Pumps.

0838 - Install E. Pump Loca., 10", Bag #43, #1072

0842 - At S. Pump, Henry & Joyce Clear it, in asphalt

0850 - Install S. Pump Loca., 14", Bag #43, #1073

0851 - At W. Pump, Henry & Joyce Clear loca., in asphalt.

0856 - Install W. Pump Loca, 16", Bag #43, #1074

0858 - At N. Pump, Henry & Joyce Clear loca, in asphalt

0903 Install N. Pump Loc, 12", Bag #43, #1075

0904 At W. Tank, Henry & Joyce Clear loca., in gravel

0910 Install W. Tank, 10", Bag #43; #1076

0914 At S. Tank, Henry & Joyce clear loc., in grass @ top slope

0918 Install S. Tank Loca, 17", Bag #43, #1077

0920 At. E. Tank Loca, Henry & Joyce clear loca. in gravel next to road.

0924 Install E Tank Loca, 16" Bag #43, #1078

0926 At. N Tank Loca, Henry & Joyce clear loca., in gravel next to road.

0931 Install N. Tank Loca., 17", Bag #43, #1079

0935 Keith McMahon helped Joyce clear points around separator.

Daily Weather Conditions: A.M. Sunny 70°F, Wind W. 5-10

P.M. NA

Recorded By A Brad Richardson QA Checked By Joletta Humphrey

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-13-94 TIME: NA PAGE 2 OF 5

pg 100

Task Team Members:

A Brad Richardson — Joyce Giesler

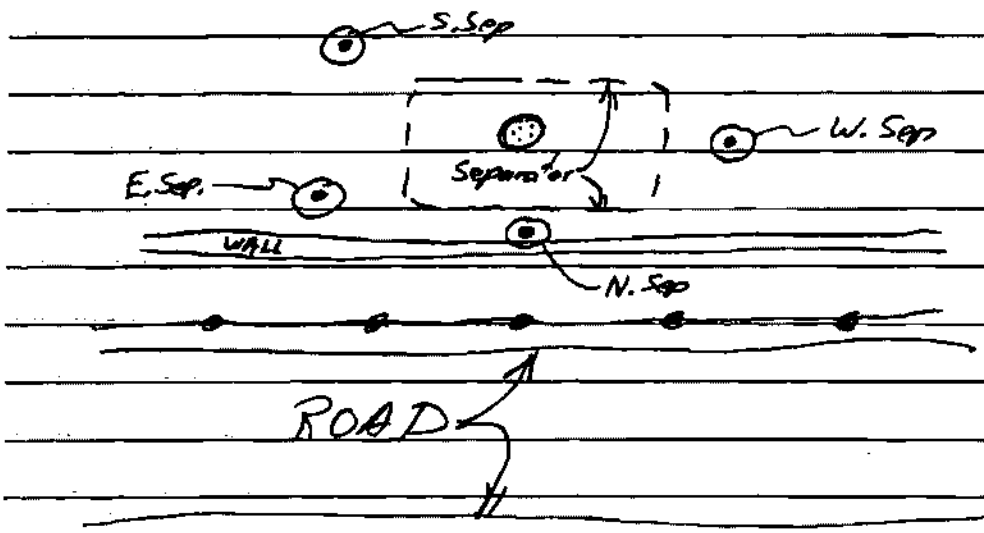
Matt Oblog

Henry Robinson

Narrative (include time and location):

0951 At S. Sep., Henry & Joyce clear loca, in grave

0954 Install S. Sep., 14", Bag #43, # 1080




1000 - At E. Sep., Henry & Joyce clear loca., in grave.

1008 - Install E. Sep., 8", Bag #43, # 1081

1009 - At N. Sep., Henry & Joyce clear loca., in grave

- hole keeps collasping, digging w trowel instead of hammer drill; hole against retaining wall.

1019 - Install N. Sep., 10", Bag #43, #1082

1021 - At W. Sep., Henry & Joyce clear loca., in grave

- hole keeps collasping; so use trowel instead of hammer-drill.

Daily Weather Conditions: A.M. Sunny, 75°F, Wind West 5-10

P.M. NA

Recorded By A Brad Richardson QA Checked By Juetta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-13-94 TIME: NA PAGE 3 OF 5

Pg 101

Task Team Members:

A Brad Richardson — Joyce Giesler

Matt Obley

Henry Robinson

Narrative (include time and location):

1028 - Install W. Sep., 14", Bag #43, #1083

1042 - Set-up on 15N14; by roadside. Henry and Joyce have cleared location.

1043 - Install 15N14, 12", Bag ~~#43~~ 43, #1084

1050 - Set-up on 14N15; in road, location has been cleared by Joyce and Henry.

1059 - Install 14N15; 14"; Bag 43 #1085

1109 - At sample #1, Henry & Joyce clear location; next to bld 74 and basin; in gravel walkwalk

1114 - Install Sample #1, 16", Bag #43, #1086

1116 - At sample #2 (bld. 74), Henry & Joyce clear loca.; between bld 74 and basin, in gravel walkway

1119 - Install Sample #2, 16", Bag #43 #1087

1121 - Henry clears our persons for RAD

1125 - Break for lunch

1215 - Back from Lunch; contact Joletta: we will get additional tubes tomorrow; contact security and ask them to tell Joyce to meet us @ 14N 27; meet up w/ Henry

1300 Still no Joyce; we drive to bld 38, Joyce is there

1309 At 13N 5½ W, Henry & Joyce clear in, in asphalt next to fence

Daily Weather Conditions: A.M. Sunny, 78°F, Wind West 5-10

P.M. NA

Recorded By A Brad Richardson QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-13-94 TIME: NA PAGE 4 OF 5

Pg. 102

Task Team Members:

A Brad Richardson — Joyce Giesler

Matt Oblon

Henry Robinson

Narrative (include time and location):

1315 - Install 13 N 5½, 17", Bag #43, #1088

1317 - At 14 N6, Henry & Joyce clear it, in gravel berm next to road; gravel in clay/silt; collapsing

1331 - Install 14 N 6, 8", Bag #43, #1089

1336 - At addition Point in Area J 13N 7, cleared by H&J. - in weeds., loose fill keeps collapsing

1345 Install 13N 7, 10", Bag #43, #1090

1351 - At 14N 27, Henry & Joyce clear it, in grass next to fence

1355 - Install 14N 27, 17", Bag #43, #1091

1400 - At 14N 25, H&J clear it, in grass on slope

1404 - Install 14N 25, 17", Bag #35, #1092

1410 - Joyce said she will talk to person in charge of the fragmentation area, tomorrow

1411 - At 9N 25½ (add. pt #6), H&J clear it, in loose gravel fill; will be collapsing

1414 - Install 9N 25½ (add pt. #6), 18", Bag #35, #1093

1424 - At "Bld #51 West", H&J clear loca. in sand & gravel

1427 - Install "Bld #51 West, 10", Bag #35, #1094

Out of sample Tubes

Daily Weather Conditions: A.M. NA

P.M. Sunny 85°F Wind W 5-10

Recorded By [signature] QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE TASK NO.: 34896

Date (mm/dd/yy): 9-13-94 TIME: NA PAGE 5 OF 5

Pg. 103

Task Team Members:

A Brad Richardson Joyce Giesler

Matt Oblog

Henry Robinson

Narrative (include time and location):

1430 - Joyce clears Bld #51 East.

- she will clear out Sample #8 (overflow pond) and bld #105

1600 - leave Mound Plant.

East Entry

Daily Weather Conditions: A.M. NA

P.M. Sunny 85°F Wind W 10-15

Recorded By A. Brad Richardson QA Checked By Jolette Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-14-94 TIME: NA PAGE 1 OF

Task Team Members: Pg 104

Brad Richardson
Matt Oblog
Henry Robinson

JPH 9/15/94

8N 25½
8N 5½

Narrative (include time and location):

1312 - At Bld #51 East, Henry & Joyce cleared it; in grassy area on side of Bld 51
1320 - Install Bld #51 East, 18", Bag #1 (9-14-94), #1095
1435 - At 8N 25½ (Add. Sample #8) H&J clear location - in grass
1444 - Install 8N 25½, 17", Bag #1 (9-14-94), #1096
1451 - At 8N 5½, H&J clear location, in grass between fence & road.
1455 - Install 8N 5½, full, Bag #1 (9-14-94), #1097
1500 - Finish-up

Bldg 27 points still on hold. Informed A. Sperard and Tom Tank of situation. Because of processing at Bldg 27, SAIC is not allowed to enter area while processing. Will need a large enough window to get into area, install tubes, allow exposure, and then return to pull tubes. A. Sperard did not seem troubled that these points may be eliminated; gave us verbal approval to eliminate if necessary. Waiting for update from G. Geisler on processing schedule to make decision. Will most likely abandon because will delay field reports. Just Entry.

Daily Weather Conditions: A.M. NA
P.M. 85°F Sunny, West 10-15

Recorded By Brad Richardson QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO: 34896

Date (mm/dd/yy): 9-22-94 TIME: NA: PAGE 1 OF 4

Task Team Members: pg 1/5

A Brad Richardson
Matt Obloy
Ms. Collins (Escort; Security)

Narrative (include time and location):

0730 - On-Site begin loading truck
0740 - Joyce Geisler ask us to ① clean up around outside of trailer and ② Take trash to HP for screening so that we may dispose of it.
0810 - Meet security escort @ Bld #30 (Ms. Collins)
0820 - Pull #906 (20N, 2W)
- can't locate #910 (20N, 3W)
0825 - Pull # 905 (20N, 1W)
0826 - Pull # 907 (19N, 1W)
0833 - " # 908 (18N, 1W)
0836 - " # 919 (17N, 1W)
0841 - " # 909 (19N, 3W)
0842 - " #911 (19N, 4W)
0846 - " #912 (19N, 5W)
0850 - Call Joletta regarding location of #910
0910 - Pull #914 (18N, 3W)
0912 - " #915 (18N, 4W)
0915 - The "pull" wire at #934 broke (drilled through concrete walkway); wire look corroded; fill in hole; #934 lost.
0917 - Pull # ~~914~~ 913 (17N, 4W) JPH 9/23

Daily Weather Conditions: A.M. Partly Cloudy, 65°F, Wind West 5-10
P.M. NA

Recorded By A Brad Richardson QA Checked By J. Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-22-94 TIME: NA PAGE 2 OF 4

Task Team Members: pg 106

A Brad Richardson

Matt Obley

Ms. Collins (Security Escort)

Narrative (include time and location):

0920 - Pull # 916 (17N 4W)
0940 - " # 920 (17N 2W)
0947 - " # 933 (16N 5W)
0953 - " # 931 (16N 3W)
1017 - " # 932 (16N 4W)
1022 - " # 926 (14N 3W)
1024 - Point # 930 wire smashed to be in ground and carbon coated wire cannot be retrieved out of gravelly soil
1035 - Pull # 923 (11N, 3W)
1045 - Searched for # 921 in gravel/cobble ground cover; cannot locate it; The point is next to a former chain link fence which, according to our escort, was removed last week; possible the sample tube was dug up or covered over.
1050 - Pull # 922 (12N, 4W)
1051 - " # 924 (10N, 3W)
1053 - " # 928 (11N, 4W)
1100 - " # 927 (10N 4W)
1110 - " # 929 (12N 5W)

Daily Weather Conditions: A.M. Partly Sunny, 70°F, West 10-15

P.M. NA

Recorded By [signature] QA Checked By J. Humpert

TASK TEAM ACTIVITY LOG SHEET

SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO. 34896

Date (mm/dd/yy): 9-22-94 TIME: N.A PAGE 3 OF 4

Task Team Members: Pg 107

A Brad Richardson

Matt Oblon

Ms. Collins (Security Escort)

Narrative (include time and location):

1120 - Pull # 992 (9N, 4W)

1130 - " # 993 (8N, 4W)

1150 - Lunch

1240 - Back from Lunch

1246 - Pull # 936 (16N, 2W)

1248 " # 935 (16N, 1W)

1249 " # 937 (15N, 2W)

1250 " # 938 (15N, 1W)

1252 " # 940 (14N 2W)

1255 " # 939 (14N 1W)

1300 " # 942 (13N 2W)

1304 " # 944 (12N 2W)

1306 " # 941 (13N 1W)

1309 " # 943 (12N, 1W)

1313 " # 946 (11N, 2W)

1314 " # 945 (11N, 1W)

1316 " # 948 (10N, 2W)

1319 " # 947 (10N, 1W)

- Point # 950 is under car

1321 - Pull # 949 (9N, 1W)

Daily Weather Conditions: A.M. Sunny, 75°F, West 10-15

P.M. " " " "

Recorded By [signature] QA Checked By [signature]

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 9-22-94 TIME: NA PAGE 4 OF 4

Task Team Members: Pg 108

A Brad Richardson

Matt Oblay

AB 9-22-94

Narrative (include time and location):

1323 - Pull # 954 (9N 3W)
1325 - " # 952 (8N 2W)
1327 - " # 951 (8N 1W)
1329 - " # 953 (8N 3W)
1345 - " # 955 (9N 5W)
1416 - " # 956 (9N 6W)
1418 - " # 918 (9N 7W)
1423 " # 960 (9N 10W) #2 Timer
1430 " # 965 (8N 27W) #2 Timer
1452 " # 917 (20N 4W)
1455 - Drop off samples at HP for screening
1505 - Back @ trailer - cleaning up out side and collection trash.
- Roy Mower incommunicado - cannot screen trash until talk w/ him.
1600 - Pack of AB 9-22-94 up Timers #960 & #965 for Fed Ex shipment - Airbill # 8219959856
1610 - Leave site

LAST ENTRY

Daily Weather Conditions: A.M.

P.M. Sunny, 75°F, West 10-15

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): ~~9-22-94~~ 9/26/94 TIME: NA PAGE 1 OF 1

Task Team Members: ~~JBR 9/22/94~~ ~~JPH 9/26/94~~ pg 109

J. Humpert

JPH 9/26/94

Narrative (include time and location):

1100 Talked to P. Bedard (NERI) to get exposure results for #960 and #965. Results are as follows:

#960 – low levels of hydrocarbons including some benzene and $C_6$-$C_7$ cycloalkanes and cycloalkenes.

#965 – moderate levels of hydrocarbons including BTEX, TCE and PCE.

Recommended exposure time is 28 days.
Fast Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By J. Humpert QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-27-93 TIME: NA PAGE 1 OF 11

Task Team Members:

A Brad Richardson Pg 110

Matt Obley

Joletta Humpert

9/27/94

Narrative (include time and location):

0730 - On Site to load truck
0750 - Call Security to meet us in front of Bld. 105
0805 - Pull #950 (9N, 2W)
- Still waiting on security - meant
0820 - Pull #957 (8N, 6W)
0825 - Pull #958 (8N, 7W)
0830 - Pull #959 (8N, 8W)
0845 - Pull #994 (8N 5W) Security here
0855 - Pull #991 (18N 6W)
0902 - Pull #1077 (S. Tank)
0903 Pull #1072 (E. Pump)
0904 Pull #1095 (E. Bld 51)
0904 Pull #1094 (W. Bld 51)
0905 Pull #1078 (E. Tank)
0906 Pull #1079 (N. Tank)
0908 Pull #1076 (W. Tank)
0909 Pull #1080 (S. Sep)
0911 " #1082 (N. Sep)
0912 " #1083 (W. Sep)
0913 " #1081 (E. Sep)

Daily Weather Conditions: A.M. Cloudy, 58°F, Damp, Wind W. 5-10

P.M. NA

Recorded By [signature] QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 9-27-93 TIME: NA PAGE 2 OF 4

Task Team Members:

Pg. 111

A Brad Richardson
Matt Oblay
Joletta Humpert

9/27/94

Narrative (include time and location):

0916 - Pull (N Pump) # 1075
0917 - " # 1074 (W. Pump)
0920 - Pull # 1073 (S. Pump)
~~10~~
0930 Pull # 1011 (12N 24)
0931 " # 1012 (12N 23)
0932 " # 1008 (11N 18)
0945 " # 1039 (8N 22) Pulled Early
0947 " # 1010 (9N 21)
0955 " # 968 (7N 21)
0956 " " 967 (7N 20)
0957 " # 1009 (10N 20)
1005 " # 966 (6N 22)
- Points # 995 and # 996 in secure area
1010 Pull # 965 (8N 27)
1011 Pull # 1013 (9N 26)
1020 " # 961 (10N 10)
1021 " # 962 (10N 11)
1022 " # 1003 (10N 12)
1023 " # 960 (9N 10)

Daily Weather Conditions: A.M. Cloudy, 59°F, Damp, Wind W. 10mph
P.M. NA

Recorded By [signature] QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** **TASK NO.: 34896**

Date (mm/dd/yy): 9-27-94 TIME: NA PAGE 3 OF 4

Task Team Members:

Pg. 112

A Brad Richardson
Matt Oblog
Joletta Humpert

9/27/94

Narrative (include time and location):

1030 Pull #963 (9N 11)
1033 " #964 (9N 12)
1036 " #1004 (9N 13)
1040 " #1007 (8N 11)
1041 " #1006 (8N 12)
1042 " #1005 (8N 13)
1046 Pull #998 (12N 10)
1048 " #999 (12N 11)
1056 " #1006 (11N 10)
1055 " #1001 (11N 11)
1057 " #1002 (11N 12)
1105 " #969 (7N 16)
1110 " #~~78~~ BR #970 (7N 15)
1120 " #985 (14N 7)
1125 " #986 (14N 8)
1130 " #997 (14N 9)
1135 " #990 (14N 10)
1145 " #989 (14N 11)
1150 " #988 (14N 12)
1150 " #987 (14N 13)

Daily Weather Conditions: A.M. Cloudy, 60°F, Drizzle, Wind W 5-10

P.M. NA

Recorded By [signature] QA Checked By [signature]

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9-27-94 TIME: NA PAGE 4 OF 4

Task Team Members:

Pg. 113

Brad Richardson
Matt Oldey
Joletta Humpert + Paul Parrish.

JPH 9/27/94

Narrative (include time and location):

Return to trailer after dropping tubes at HP to get scanned
1200 Lunch
1300 Onsite at trailer - securing contents of trailer getting ready for trailer to be moved next to Bldg 4. Packing up non ADC North for shipment.
1500 Locating all equipment needing to be returned.
P.P. will head to Village Rental + return drill
B.R. will deliver tubes to fedex. Airbill# 2393553481
J.H returning equipment to HAZCO.
M.O. waiting for D. Gault to deliver barcodes for IDM barrels.
Offsite @ 1600.
Last Entry

Daily Weather Conditions: A.M. NA
P.M. Cloudy, 60°F, Wind W. 5-10

Recorded By [signature] QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9/6/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Pg. 114

J. Humpert

P. Parrish

JPH 9/16/94

Narrative (include time and location):

Transferred from AOC logbook.

1105 Pulling 8N27/965 timer #1 in non AOC West

1112 Pulling 9N10/960 timer #1 in non AOC West

1117 Pulling 9N7/918 timer #2 in non AOC Secure

1123 Pulling 20N4/917 timer #2 in non AOC Secure

1132 Pulling 19N6/888

1134 Pulling 19N7/~~889~~ 898 JPH 10/3/94

1136 Pulling 20N6/886

1139 Pulling 20N7/887

1145 Pulling 17N6/891

1148 Pulling 17N7/892

1149 Pulling 17N8/893

1158 Pulling 16N6/896

Break for lunch - offsite

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Juletta Humpert QA Checked By Bud Richard

TASK TEAM ACTIVITY LOG SHEET: SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE TASK NO: 34896

Date (mm/dd/yy): 9/7/94 TIME: NA : PAGE 1 OF 1

Task Team Members: Pg. 115

J Humpert
P. Partrish

JPH 9/7/94

Narrative (include time and location):

Transferred from ADC logbook.
0945 Pull 15N13/900 - in asphalt.
0948 Pull 15N12/901 - in grass
0958 Pull 19N9/899 - in grass
1005 Pull 19N8/889
1008 Pull 18N8/890
1013 Pull 26N9/904.
1017 Pull 15N6/897
1025 Pull 16N8/894
1037 Pull 16N7/895. Hiking, rockclimbing to 15N9.
1054 Pull 15N9/903 attempted - "guy" wire broke.
1100 Pull 15N10/902.
1110 15N9/903 - sacrificed - unable to locate tube.
Start Survey

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

Recorded By J. Humpert QA Checked By [signature]

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL GAS**

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 10-4-94 TIME: NA PAGE 1 OF 3

Task Team Members: Pg. 116

A Brad Richardson

Matt Obloy

Narrative (include time and location):

0730: On Site - Trailers have been moved to new location new guard post 2 - Truck is inside secure area - called guard to meet us at our trailer @ 8:00

0830: Still no guard and can't get truck

0845: Guard said he's waiting for a ride

0900: Met Guard got truck

0906: ~~Pull #995 (7N 19)~~ 10-4-94

0910: Pull #996 (5N 20)

0913: Pull #995 (7N 19)

0917 - " #1047 (9N 20)

0918 - " #1046 (8N 20)

0920 - " #1048 (8N 19)

0922 - " #1049 (8N 18)

0924 - " #1050 (8N 17)

0926 - " #1051 (8N 16)

0928 - " #1052 (9N 16)

0945 " #1059 (9N 15) Tube broke - Replaced Tube

0935 - " #1060 (9N 14)

0938 #1058 (10N 14)

Daily Weather Conditions: A.M. Clear, 52°F, Calm

P.M. NA

Recorded By A Brad Richardson QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 10-7-94 TIME: NA PAGE 2 OF 3

Task Team Members: Pg. 117

A Brad Richardson

Matt Oakley

Narrative (include time and location):

0948- Pull #1035 (8N 21)
0953- " #1062 (11N 17)
0957- " #1053 (10N 18)
1000 " #1054 (10N 17)
1002 " #1055 (10N 16)
1004 " #1061 (11N 16)
1006 " #1056 (10N 15)
1011 " #1057 (11N 14)
1016 " #1018 (10N 19)
1022 " #1031 (7N 27)
1023 " #1032 (7N 26)
1024 " #1033 (7N 25)
1026 " #1034 (8N 25)
1027 " #1038 (7N 24)
1028 " #1037 (7N 23)
1031 " #1036 (7N 22)
1035 " #1030 (12N 15)
1037 " #1029 (12N 16)
1041 " #1028 (12N 17)
1043 " #1024 (12N 18)

Daily Weather Conditions: A.M. Clear 55°F, Wind West 5-10 mph

P.M. NA

Recorded By A Brad Richardson QA Checked By Jolletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 10-4-94 TIME: NA PAGE 3 OF 3

Task Team Members:

A Brad Richardson Pg 118.

Matt Oblon

JPH 10/11/94

Narrative (include time and location):

1045 - Poll #1025 (12 N 19)
1047 - " #1026 (11 N 19)
1050 - " #1027 (11 N 20)
1052 - " #1023 (12 N 20)
1055 - " #1022 (12 N 21)
1058 - " #1021 (12 N 22)
1105 - " #1015 (13 N 26)
1108 - " #1017 (13 N 25)
1112 - " #1016 (14 N 26)
1116 - " #1044 (9 N 27)
1118 - " #1045 (8 N 26)
1120 - " #1043 (9 N 25)
1128 - " #1040 (8 N 15)
1131 - " #1041 (8 N 14)
1138 - " #1020 (6 N 5)
1143 - " #1019 (7 N 4) - Tube broke - replaced tube
1145 - " #1042 (10 N 5)
1200 - Drop Tubes off at HP to be Scanned
1215 - Lunch, Brad off-site
1300 - Pick-up Tubes from HP, Store them in Trailer.

Daily Weather Conditions: A.M. Sunny, 58°F, Wind West 5-10

P.M. NA

Recorded By A Brad Richardson QA Checked By Juletta Humpert

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE TASK NO: 34996

Date (mm/dd/yy): 10-11-94 TIME: NA PAGE 1 OF 2

Task Team Members:

Pg. 119

J Brad Richardson

Matt Oblay

10/11/94

Narrative (include time and location):

0730 - On Site, load equipment, call security for escort

0810 - Security arrives

0815 - Pull # 1069 (3½N 13½W)

0834 - " #1064 (8½N 20½W)

0840 - " #1063 (9N 17W)

0843 - " #1066 (10N 13W)

0848 - " #1071 (8N 23W)

0854 - " #1070 (8N 24W)

0858 - " #1065 (7½N 25½)

0859 - " #1096 (8N 25½)

0911 # #1097 (8N 5½)

0914 # #1088 (13N 3½)

0916 " #1090 (13N 7)

0920 " #1089 (14N 6)

0923 " #1068 (Bld 36 ~~SE~~ NE Point) 10-11-94

0925 " #1067 (Bld 36 SE Point)

0934 " #1084 (15N 14W)

0936 " #1085 (14N 15W)

0939 " #1086 (Bld 74 NW point)

0941 " #1087 (Bld 74 SE point)

Daily Weather Conditions: A.M. Clear, 45°F, Wind West 5-10

P.M. NA

Recorded By J Brad Richardson QA Checked By Juletta Humphrey

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO. 34896

Date (mm/dd/yy): 10-11-94 TIME: NA PAGE 2 OF 2

Task Team Members:

A. Brad Richardson — Pg. 120

Matt Oblog — JPH 10/11/94

Narrative (include time and location):

0948 Pull #1093 (9N 25½)

0951 " #1091 (14N 27)

0953 " #1092 (14N ~~28~~ 25W) ABR 10-11-94 Tube broke-replaced

1010 Pack-up, Leave Site

Last Entry

Daily Weather Conditions: A.M. Sunny, 58°F, Calm Wind

P.M. NA

Recorded By [signature] QA Checked By [signature]

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 Pg 302 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 |
|---|---|---|---|---|---|---|---|---|
| Ø1WØ1 | | 7 | 06/15/94 1555 | 06/28/94 1448 | ND | ND | NA | Bag#1 |
| Ø2WØ1 | | 1 | 6/14/94 1015 | 06/28/94 1451 | Ø | Ø | | Bag#1 |
| Ø3WØ1 | | 211 | 06/15/94 ~~0855~~ | 1520 06/28/94 1500 | ND | ND | | Bag #1 Full |
| Ø4WØ1 | | 41 | 06/20/94 1159 | 7/5/94 1128 | ND | ND | | Bag #2 Full |
| Ø5WØ1 | | 40 | 06/20/94 1152 | 7/5/94 1123 | ND | ND | | Bag #2 Full |
| Ø6WØ1 | | 39 | 06/20/94 1142 | 7/5/94 1119 | ND | ND | | Bag 2 Full |
| Ø7WØ1 | | 221 | 06/30/94 0730 | 7/13/94 125Ø | ND | ND | | Bag #10 Full |
| Ø8WØ1 | | | | | | | | |
| Ø9WØ1 | | | | | | | | |
| 1ØWØ1 | | | | | | | | |
| 11WØ1 | | | JPH 10/3/94 | | | | | |
| 12WØ1 | | | | | | | | |
| 13WØ1 | | | | | | | | |
| 14WØ1 | | 242 | 06/30/94 1347 | 7/13/94 1432 | ND | ND | NA | Bag #6 Full |
| 15WØ1 | | 12 | 06/16/94 0905 | 6/28/94 1515 | ND | ND | | Bag #1 ≈8" |
| ~~16WØ1~~ | JPH 7/18/94 | | | | | | | |
| 17WØ1 | | 23 | Ø6/16/94 14Ø2 | 06/28/94 1518 | ND | ND | NA | Bag #1 ~1Ø" |
| 18WØ1 | | 2 | 6/14/94 145Ø | 06/28/94 1521 | Ø | Ø | | Bag #1 |
| NO SAMPLE 19WØ1 | | | | | | | | |
| ~~20WØ1~~ | JPH 7/18/94 | | | | | | | ~~JPH 7/18/94~~ ~~Bag #13 Full~~ |
| 21WØ1 | | 262 | 7/7/94 Ø943 | 7/14/94 Ø938 | ND | ND | NA | Bag #13 full |
| 22WØ1 | | 231 | 06/30/94 0947 | 7/12/94 144Ø | ND | ND | | Bag #6 ~18" |

SOIL GAS SAMPLING (PETREX) 2 of 2 PROJECT NO.: 34896

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 Pg 3Ø3 JPH 9/14/94 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 |
|---|---|---|---|---|---|---|---|---|
| 23WØ1 | | 232 | 06/30/94 0952 | 7/12/94 142Ø | ND | ND | NA | Bag #6 Full |
| 24WØ1 | | | | | | | | |
| 25WØ1 | | | | | | | | |
| 26WØ1 | | | JPH 10/3/94 | | | | | |
| 27WØ1 | | | | | | | | |
| Ø2WØ1 | | – | 6/14/94 1358 | 06/21/94 134Ø | Ø | Ø | NA | timer #1 Full |
| Ø2WØ1 | | – | 6/14/94 141Ø | 06/28/94 1451 | Ø | Ø | | timer #2 Full |
| 18WØ1 | | – | 6/14/94 15Ø5 | 06/21/94 135Ø | Ø | Ø | | timer #1 |
| 18WØ1 | | – | 6/14/94 151Ø | 06/28/94 1521 | Ø | Ø | | timer #2 |
| Ø1WØ2 | | 8 | 6/15/94 1355 | 06/28/94 1443 | ND | ND | | Bag #1 Full |
| Ø2WØ2 | | 9 | 06/15/94 1425 | 06/28/94 1445 | ND | ND | | Bag #1 ~12" |
| Ø3WØ2 | | 10 | 06/15/94 15Ø5 | 06/28/94 1456 | ND | ND | | Bag #1 ≈15" |
| ~~Ø4WØ2~~ | JPH 10/3/94 | | | | ~~ND~~ JPH 7/18/94 | ~~ND~~ | | ~~Bag #1~~ JPH 7/18/94 |
| Ø5WØ2 | | 38 | 06/20/94 1128 | 7/5/94 1116 | ND | ND | NA | Bag #2 Full |
| Ø6WØ2 | | 37 | 06/20/94 1120 | 7/5/94 1113 | ND | ND | | Bag #2 ≈14" |
| Ø7WØ2 | | 219 | 06/30/94 0705 | 7/13/94 1233 | ND | ND | | Bag #10 Full |
| Ø8WØ2 | | 220 | 06/30/94 0711 | 7/13/94 124Ø | ND | ND | | Bag #10 Full |
| ~~Ø9WØ2~~ | JPH 7/18/94 | | | | | | | |
| ~~1ØWØ2~~ | | | | | | | | |
| 11WØ2 | | 265 | 7/7/94 1251 | 7/21/94 1408 | ND | ND | NA | Bag #13 Full |
| ~~12WØ2~~ | JPH 7/18/94 | | | | | | | |
| ~~13WØ2~~ | | | | | | | | |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 Pg 304 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 |
|---|---|---|---|---|---|---|---|---|
| 14WØ2 | | 241 | 06/30/94 1338 | 7/13/94 1440 | ND | ND | NA | Bag #6 Full |
| 15WØ2 | | — | | | ND | ND | | Depth <4" could not install |
| 16WØ2 | | 13 | 06/16/94 0918 | 06/28/94 1539 | ND | ND | | Bag #1 ≈13" |
| 17WØ2 | | 26 | 06/16/94 1450 | 06/28/94 1536 | ND | ND | | Bag #2 ≈16" |
| 18WØ2 | | 25 | 06/16/94 1435 | 06/28/94 1532 | ND | ND | | Bag #1 Full |
| 19WØ2 | | 24 | 06/16/94 1425 | 06/28/94 1528 | ND | ND | | Bag #1 ≈12" |
| 20WØ2 | | 249 | 06/30/94 1452 | 7/14/94 1462 | ND | ND | | Bag #6 Full |
| 21WØ2 | | 261 | 7/7/94 0928 | 7/14/94 0947 | ND | ND | | Bag #13 Full |
| 22WØ2 | | 233 | 06/30/94 1000 | 7/14/94 1025 | ND | ND | | Bag #6 Full |
| 23WØ2 | | 234 | 06/30/94 1015 | 7/12/94 1520 | ND | ND | | Bag #6 Full |
| ~~24WØ2~~ | | | | | | | | |
| ~~25WØ2~~ | CPH | | | | | | | |
| ~~26WØ2~~ | 7/18/94 | | | | | | | |
| ~~27WØ2~~ | | | | | | | | |
| | | | | CPH 10/3/94 | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Ø1WØ3 | | 27 | 06/28/94 0830 | 7/5/94 1044 | ND | ND | NA | Bag #2 Full |
| Ø2WØ3 | | 28 | 06/28/94 0829 | 7/5/94 1047 | ND | ND | | Bag #2 Full |
| Ø3WØ3 | | 29 | 06/20/94 0922 | 7/5/94 1051 | ND | ND | | Bag #2 Full |
| Ø4WØ3 | | 30 | 06/20/94 0928 | 7/5/94 1053 | ND | ND | | Bag #2 Full |

SOIL GAS SAMPLING (PETREX)

PROJECT NO.: 34896

OPERATIONAL AREA, PHASE 1 Pg 305 FIDLER READING (CPM) COC

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 Pg 3Ø5 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 |
|---|---|---|---|---|---|---|---|---|
| Ø5WØ3 | | 36 | 06/20/94 1106 | 7/5/94 1Ø58 | ND | ND | NA | Bag #2 Full |
| Ø6WØ3 | | 35 | 06/20/94 1055 | 7/5/94 11Ø5 | ND | ND | | Bag #2 Full |
| Ø7WØ3 | | 218 | 06/20/94 Ø700 | 7/13/94 1315 | ND | ND | | Bag #10 Full |
| Ø8WØ3 | | | | | | | | |
| Ø9WØ3 | JPH 7/18/94 | | | | | | | |
| 10WØ3 | | | | JPH 10/3/94 | | | | |
| 11WØ3 | | | | | | | | |
| 12WØ3 | | | | | | | | |
| 13WØ3 | | 237 | 06/30/94 1314 | 7/13/94 1422 | ND | ND | NA | Bag #6 Full |
| 14WØ3 | | 248 | 06/30/94 1334 | 7/13/94 1421 | ND | ND | | Bag #6 Full |
| 15WØ3 | | 258 | 7/6/94 Ø129 | 7/14/94 1Ø44 | ND | ND | | Bag #13 12 inches |
| 16WØ3 | | 14 | 06/16/94 Ø93Ø | 06/28/94 1544 | ND | ND | | Bag #1 ≈ 9" |
| 17WØ3 | | 22 | 06/16/94 1156 | 06/28/94 1547 | ND | ND | | Bag #1 ≈ 10" |
| 18WØ3 | | 21 | 06/16/94 1145 | 06/28/94 1552 | ND | ND | | Bag #1 ≈ 14" |
| 19WØ3 | | 20 | 06/16/94 1130 | 06/28/94 1554 | ND | ND | | Bag #1 ≈ 11" |
| 20WØ3 | | 248 | 06/30/94 1439 | 7/14/94 Ø931 | ND | ND | | Bag #6 Full |
| 21WØ3 | | 250 | 06/30/94 1459 | 7/14/94 Ø944 | ND | ND | | Bag #6 Full |
| 22WØ3 | | 236 | 06/30/94 1034 | 7/14/94 1Ø3Ø | ND | ND | | Bag #6 Full |
| 23WØ3 | | 235 | 06/30/94 1023 | 7/12/94 14Ø1 | ND | ND | | Bag #6 Full |
| 24WØ3 | JPH 7/18/94 | | | | | | | |
| 25WØ3 | | | JPH 10/3/94 | | | | | |
| 26WØ3 | | | | | | | | |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 Pg 306 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 |
|---|---|---|---|---|---|---|---|---|
| ~~27W03~~ | JPH 7/18/94 | | | | | | | |
| | | | | | | | | |
| | | | | JPH 10/3/94 | | | | |
| | | | | | | | | |
| 01W04 | | 264 | 7/7/94 1034 | 7/21/94 1321 | ND | ND | NA | Bag #13 Full |
| 02W04 | | 31 | 06/20/94 0946 | 7/5/94 1208 | ND | ND | | Bag #2 Full |
| 03W04 | | 32 | 06/20/94 1005 | 7/5/94 7/7/94 1152 | ND | ND | | Bag #2 Full |
| 04W04 | | 33 | 06/20/94 1018 | 7/5/94 1136 | ND | ND | | Bag #2 Full |
| 05W04 | | 34 | 06/20/94 1015 | 7/5/94 1133 | ND | ND | | Bag #2 Full |
| 06W04 | | 215 | 06/29/94 1413 | 7/13/94 1355 | ND | ND | | Bag #10 Full; Broken on retrieval |
| 07W04 | | 216 | 06/29/94 1417 | 7/13/94 1245 | ND | ND | | Bag #10 Full |
| 08W04 | | 217 | 06/29/94 1425 | 7/13/94 ~~1240~~ 1250 JPH 7/13/94 | ND | ND | | Bag #10 ~16" |
| ~~09W04~~ | | | | | | | | |
| ~~10W04~~ | JPH 7/18/94 | | | | | | | |
| ~~11W04~~ | | | JPH 10/3/94 | | | | | |
| ~~12W04~~ | | | | | | | | |
| 13W04 | | 238 | 6/30/94 1318 | 7/13/94 1418 | ND | ND | NA | Bag #6 Full |
| 14W04 | | 239 | 06/30/94 1330 | ~~06/28/94~~ 7/13/94 1413 | ND | ND | | Bag #6 Full |
| 15W04 | | 16 | 06/16/94 1000 | 06/28/94 1608 | ND | ND | | Bag #1 ≈ 14" |
| 16W04 | | ~~[illegible]~~ 15 | 06/16/94 0942 | 06/28/94 1605 | ND | ND | | Bag #1 ≈ 14" |
| 17W04 | | 17 | 06/16/94 1040 | 06/28/94 1602 | ND | ND | | Bag #1 ≈ 11" |

SOIL GAS SAMPLING (PETREX) PROJECT NO.: 34896

PHASE 1 Pg 307 COC

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 Pg 307 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 |
|---|---|---|---|---|---|---|---|---|
| 18WØ4 | | 18 | 06/16/94 1055 | 06/28/94 1600 | ND | ND | NA | Bag #1 ≈ 13" |
| 19WØ4 | | 19 | 06/16/94 1110 | 06/28/94 1557 | ND | ND | | Bag #1 ≈ 14" |
| 2ØWØ4 | | 247 | 06/30/94 247 | ~~06/13~~ 7/14/94 0926 | ND | ND | | Bag #6 Full |
| 21WØ4 | | 246 | 06/30/94 1425 | 7/14/94 0951 | ND | ND | | Bag #6 Full |
| 22WØ4 | | 227 | 06/30/94 0910 | 7/14/94 1010 | ND | ND | | Bag #6 Full |
| 23WØ4 | | 225 | 06/30/94 0834 | 7/12/94 1358 | ND | ND | | Bag #10 Full |
| ~~24WØ4~~ | | | | | | | | |
| ~~25WØ4~~ | JPH 7/18/94 | | | | | | | |
| ~~26WØ4~~ | | | | | | | | |
| ~~27WØ4~~ | | | | | | | | |
| | | | JPH | 10/3/94 | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| ~~Ø1WØ5~~ | JPH 7/18/94 | | | | | | | |
| Ø2WØ5 | | 253 | 7/6/94 0928 | 7/21/94 1321 | ND | ND | NA | Bag #13 Full |
| Ø3WØ5 | | 254 | 7/6/94 0947 | 7/21/94 1324 | ND | ND | | Bag #13 7 inches |
| Ø4WØ5 | | 255 | 7/6/94 1012 | 7/21/94 1328 | ND | ND | | Bag #13 9 inches |
| Ø5WØ5 | | 256 | 7/6/94 1036 | 7/21/94 1330 | ND | ND | | Bag #13 10 inches |
| Ø6WØ5 | | 212 | 06/29/94 1334 | 7/12/94 1143 | ND | ND | | Bag #10 Full |
| Ø7WØ5 | | 213 | 06/29/94 1342 | 7/12/94 1146 | ND | ND | | Bag #10 Full |
| Ø8WØ5 | | 214 | 06/29/94 1349 | 7/12/94 1140 | ND | ND | | Bag #10 Full |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 Pg 3of8 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 |
|---|---|---|---|---|---|---|---|---|
| ~~09W05~~ | JPH 7/18/94 | | | | | | | |
| ~~10W05~~ | | | | | | | | |
| ~~11W05~~ | | | | JPH 10/3/94 | | | | |
| ~~12W05~~ | | | | | | | | |
| 13W05 | | 90 | 06/20/94 1508 | 7/12/94 1100 | ND | ND | NA | Bag#4 Full |
| 14W05 | | 91 | 06/22/94 1517 | 7/12/94 1105 | ND | ND | | Bag#4 ~~Full~~ 16" |
| 15W05 | | 42 | 06/20/94 1515 | 7/6/94 1536 | ND | ND | | Bag#2 Full |
| 16W05 | | 43 | 06/21/94 0735 | 7/6/94 1540 | ND | ND | | Bag#2 Full |
| 17W05 | | 44 | 06/21/94 0747 | 7/6/94 15:57 | ND | ND | | Bag#2 Full |
| 18W05 | | 47 | 06/21/94 0826 | 7/6/94 16:10 | ND | ND | | Bag#2 ~10" |
| 19W05 | | 51 | 06/21/94 1035 | 7/7/94 07:24 | ND | ND | | Bag#3 ~12" |
| 20W05 | | 996 | 9/1/94 0925 | 10/4/94 0910 | ND | ND | | full; Bag 40 |
| 21W05 | | 245 | 06/30/94 1415 | 7/14/94 0955 | ND | ND | | Bag#6 ~14" |
| 22W05 | | 226 | 06/30/94 0902 | 7/14/94 1008 | ND | ND | | Bag#6 ~9" |
| 23W05 | | 224 | 6/30/94 0825 | 7/12/94 1355 | ND | ND | | *Black liner still on tube when pulled!!! |
| ~~24W05~~ | JPH 7/18/94 | | | | | | | |
| ~~25W05~~ | | | | | | | | |
| ~~26W05~~ | | | | | | | | ~~Bag#13~~ JPH 10/5/94 Bag#16 |
| ~~27W05~~ | | | | | | | | |
| | | | | JPH 10/3/94 | | | | |
| | | | | | | | | |

[redacted]

SOIL GAS SAMPLING (PETREX) PROJECT NO.: 34896

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 Pg 3Ø9 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 10/3/94 | | | | |
| ~~Ø1WØ6~~ | JPH 7/18/94 | | | | | | | |
| Ø2WØ6 | | 259 | 7/6/94 Ø2/2 | 7/21/94 1341 | ND | ND | NA | Bag #13 Full |
| Ø3WØ6 | | 259 2 | 7/6/94 ~~Ø3/2~~ Ø947 | 7/21/94 1317 | ND | ND | ↓ | Bag #13 Full GW 7/6/94 |
| ~~Ø4WØ6~~ | JPH 7/18/94 | | | | | | | |
| Ø5WØ6 | | 1Ø2Ø | 9/6/94 1Ø37 | 10/4/94 1138 | ND | ND | NA | bag #42; 18" |
| Ø6WØ6 | | 208 | 06/29/94 1246 | 7/12/94 1125 | ND | ND | | Bag #10 Full |
| Ø7WØ6 | | 209 | 06/29/94 1255 | 7/12/94 ~~1143~~ 1139 JPH 10/3/94 | ND | ND | | Bag #10 Full |
| Ø8WØ6 | | 210 | 06/29/94 1301 | 7/12/94 1133 | ND | ND | | Bag #10 Full |
| Ø9WØ6 | | 211 | 06/29/94 1308 | 7/12/94 1136 | ND | ND | ↓ | Bag #10 Full |
| ~~1ØWØ6~~ | JPH 7/18/94 | | | | | | | |
| 11WØ6 | | 86 | 06/22/94 1425 | 7/12/94 1Ø2Ø | ND | ND | NA | Bag #4 Full |
| 12WØ6 | | 87 | 06/22/94 1441 | 7/12/94 1Ø45 | ND | ND | | Bag #4 ~13" |
| 13WØ6 | | 88 | 06/22/94 1449 | 7/12/94 1Ø49 | ND | ND | | Bag #4 ~12" |
| 14WØ6 | | 89 | 06/22/94 1456 | 7/12/94 1Ø53 | ND | ND | | Bag #4 Full |
| 15WØ6 | | 49 | 06/21/94 Ø859 | 7/6/94 16:21 | ND | ND | | Bag #2 ~8" |
| 16WØ6 | | 45 | 06/21/94 Ø757 | 7/6/94 16:03 | ND | ND | | Bag #2 ~~[illegible]~~ 10" |
| 17WØ6 | | 46 | 06/21/94 Ø811 | 7/6/94 16:05 | ND | ND | | Bag #2 Full |
| 18WØ6 | | 52 | 06/21/94 1047 | 7/7/94 Ø7:28 | ND | ND | | Bag #3 ~15" |
| 19WØ6 | | 50 | 06/21/94 1024 | 7/7/94 Ø7:21 | ND | ND | | Bag #2 ~12" |
| 2ØWØ6 | | 243 | 06/30/94 1401 | 7/14/94 Ø92Ø | ND | ND | | Bag #6 Full |
| 21WØ6 | | 244 | 06/30/94 1406 | 7/14/94 Ø958 | ND | ND | ↓ | Bag #6 Full |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 3/Ø 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 |
|---|---|---|---|---|---|---|---|---|
| 22WØ6 | | 966 | 8/30/94 Ø925 | 9/27/94 1ØØ5 | ND | ND | NA | field: bag 39 |
| 23WØ6 | | 223 | Ø6/2Ø/94 Ø82Ø | 7/12/94 1353 | ND | ND | ↓ | Bag #10 Full |
| 24WØ6 | | | | | | | | |
| 25WØ6 | gpH 7/18/94 | | | | | | | |
| 26WØ6 | | | | | | | | |
| 27WØ6 | | | | | | | | |
| | | | | gpH 10/3/94 | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Ø1WØ7 | | 263 | 7/7/94 1Ø:17 | 7/21/94 1337 | ND | ND | NA | Bag #13 Full |
| Ø2WØ7 | | 260 | 7/6/94 Ø225 | 7/21/94 1347 | ND | ND | ↓ | Bag #13 Full |
| Ø3WØ7 | | 251 | 7/6/94 Ø91Ø | 7/21/94 1312 | ND | ND | ↓ | Bag #13 full |
| Ø4WØ7 | | 1Ø19 | 9/6/94 1Ø24 | 10/4/94 1143 | ND | ND | ↓ | bag #42, 14" |
| Ø5WØ7 | | 257 | 7/6/94 11ØØ | 7/21/94 1333 | ND | ND | ↓ | Bag #13 7inches |
| Ø6WØ7 | | 206 | Ø6/29/94 1233 | 7/12/94 1118 | ND | ND | ↓ | Bag #10 Full |
| Ø7WØ7 | | 207 | Ø6/29/94 1238 | 7/12/94 1112 | ND | ND | ↓ | Bag #10 Full |
| Ø8WØ7 | | | | | | | | |
| Ø9WØ7 | gpH 7/18/94 | | | gpH 10/3/94 | | | | |
| 1ØWØ7 | | | | | | | | |
| 11WØ7 | | 92 | Ø6/22/94 1535 | 7/12/94 1Ø28 | ND | ND | NA | Bag #4 Full |
| 12WØ7 | | 93 | Ø6/22/94 1544 | 7/12/94 1Ø3Ø | ND | ND | ↓ | Bag #4 Full |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 Pg 311 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 |
|---|---|---|---|---|---|---|---|---|
| 13WØ7 | | 94 | 06/22/94 1554 | 7/12/94 1Ø33 | ND | ND | NA | Bag #4 ~9" |
| 14WØ7 | | 95 | 06/22/94 16Ø2 | 7/12/94 1Ø38 | ND | ND | | Bag #4 ~18" |
| 15WØ7 | | 97Ø | 8/3Ø/94 1Ø4Ø | 9/27/94 111Ø | ND | ND | | full; bag 44 |
| 16WØ7 | | 969 | 8/30/94 1Ø3Ø | 9/27/94 11Ø5 | ND | ND | | full; bag 39 |
| 17WØ7 | | 48 | 06/21/94 Ø846 | 7/6/94 16:14 | ND | ND | | Bag #2 ~ 8" |
| 18WØ7 | | 53 | 06/21/94 1Ø5Ø | 7/7/94 Ø7:31 | ND | ND | | Bag #3 Full |
| 19WØ7 | | 995 | 9/1/94 Ø914 | 10/4/94 Ø913 | ND | ND | | full; bag 40 |
| 2ØWØ7 | | 967 | 8/30/94 Ø941 | 9/27/94 Ø956 | ND | ND | | full; bag 39 |
| 21WØ7 | | 968 | 8/30/94 Ø955 | 9/27/94 Ø955 | ND | ND | | full; bag 39 |
| 22WØ7 | | 222 | 06/30/94 Ø808 | 7/12/94 1346 | ND | ND | | Bag #10 Full |
| 23WØ7 | | 3 | 6/14/94 1528 | 6/28/94 1615 | Ø | Ø | | Bag #1; broken on retrieval |
| 24WØ7 | | 228 | 06/30/94 Ø920 | 7/12/94 1342 | ND | ND | | Bag #6 Full |
| ~~25WØ7~~ | JPH 10/3/94 | — | | | | | | |
| 26WØ7 | | 229 | 06/30/94 Ø925 | 7/12/94 1334 | ND | ND | NA | Bag #6 Full |
| 27WØ7 | | 23Ø | 06/30/94 Ø932 | 7/14/94 1Ø17 | ND | ND | | Bag #6 Full |
| 23WØ7 | | – | 6/14/94 153Ø | 06/21/94 14ØØ | Ø | Ø | | timer #1 |
| 23WØ7 | | – | 6/14/94 1532 | 6/28/94 1615 | Ø | Ø | | timer #2 |
| 27WØ7 | | 1Ø31 | 9/7/94 Ø858 | 10/4/94 1Ø22 | ND | ND | | bag 42; 18" |
| 26WØ7 | | 1Ø32 | 9/7/94 Ø9Ø8 | 10/4/94 1Ø23 | ND | ND | | bag 42; 12" |
| Ø1WØ8 | | 951 | 3/25/94 1455 | 9/22/94 1327 | ND | ND | | full; bag 39 |
| Ø2WØ8 | | 952 | 3/25/94 1504 | 9/22/94 1325 | ND | ND | | full; bag 39 |
| Ø3WØ8 | | 953 | 3/25/94 1515 | 9/22/94 1329 | ND | ND | | full; bag 39 |
| 25WØ7 | | 1Ø33 | 9/7/94 Ø918 | 10/4/94 1Ø24 | ND | ND | ND | bag 42; 17" |
| 22WØ7 | | 1Ø36 | 9/7/94 1Ø13 | | 1Ø31 | ND | ND | bag 42; 18" |
| 23W[illegible]7 | | 1Ø37 | 9/7/94 1Ø21 | | 1Ø28 | ND | ND | bag 42; 18" |
| 24W[illegible]7 | | 1Ø38 | 9/7/94 1Ø31 | | 1Ø27 | ND | ND | bag 42; [illegible]" |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 312 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Ø4WØ8 | | 993 | 9/1/94 | Ø84Ø | 9/22/94 | 113Ø | ND | ND | NA | full; bag 40 |
| Ø5WØ8 | | 994 | 9/1/94 | Ø85Ø | 9/27/94 | Ø845 | ND | ND | | full bag 40 |
| Ø6WØ8 | | 957 | 8/27/94 | 1015 | 9/27/94 | Ø82Ø | ND | ND | | full; bag 39 |
| Ø7WØ8 | | 958 | 8/27/94 | 1025 | 9/27/94 | Ø825 | ND | ND | | full; bag 39 |
| Ø8WØ8 | | 959 | 8/29/94 | 1Ø35 | 9/27/94 | Ø83Ø | ND | ND | | full; bag #39 |
| Ø9WØ8 | | | | | | | | | | |
| 1ØWØ8 | | | | | | | | | | |
| 11WØ8 | | 1ØØ7 | 9/1/94 | 1154 | 9/27/94 | 1Ø4Ø | ND | ND | NA | 12"; bag 40 |
| 12WØ8 | | 1ØØ6 | 9/1/94 | 1142 | 9/27/94 | 1Ø41 | ND | ND | | full; bag 40 |
| 13WØ8 | | 1ØØ5 | 9/1/94 | 1135 | 9/27/94 | 1Ø42 | ND | ND | | full; bag 40 |
| 14WØ8 | | 1Ø41 | 9/7/94 | 1135 | 10/4/94 | 1131 | ND | ND | | full; bag 42 |
| 15WØ8 | | 1Ø4Ø | 9/7/94 | 1127 | 10/4/94 | 1128 | ND | ND | | bag 42; 18" |
| 16WØ8 | | 1Ø51 | 9/8/94 | 1125 | 10/4/94 | Ø926 | ND | ND | | bag 41; 18" |
| 17WØ8 | | 1Ø5Ø | 9/8/94 | 1114 | 10/4/94 | Ø924 | ND | ND | | bag 41; 18" |
| 18WØ8 | | 1Ø49 | 9/8/94 | 11ØØ | 10/4/94 | Ø922 | ND | ND | | bag 41; 12" |
| 19WØ8 | | 1Ø48 | 9/8/94 | 1Ø35 | 10/4/94 | Ø92Ø | ND | ND | | bag 41; 18" |
| 2ØWØ8 | | 1Ø46 | 9/8/94 | 1Ø1Ø | 10/4/94 | Ø918 | ND | ND | | bag 41; 14" |
| 21WØ8 | | 1Ø35 | 9/7/94 | 1ØØ3 | 10/4/94 | Ø948 | ND | ND | | bag 42; 18" |
| 22WØ8 | | 1Ø39 | 9/7/94 | 1Ø53 | 9/27/94 | Ø925 | ND | ND | | bag 42; 15" |
| 23WØ8 | | 1Ø71 | 9/12/94 | 1454 | 10/11/94 | Ø848 | ND | ND | | bag 43, 17" |
| 24WØ8 | | 1Ø7Ø | 9/12/94 | 1442 | 10/11/94 | Ø854 | ND | ND | | bag 43, 17" |
| 25WØ8 | | 1Ø34 | 9/7/94 | Ø936 | 10/4/94 | 1Ø26 | ND | ND | | bag 42; 18" |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 3/3 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| 26WØ8 | | 1Ø45 | 9/7/94 | 15Ø9 | 10/4/94 | 1118 | ND | ND | NA | 18"; bag 41 |
| 27WØ8 | | 965 | 8/30/94 | Ø9ØØ | 9/27/94 | 1Ø1Ø | ND | ND | | bag 39; full |
| 27WØ8 | | 965 | 8/30/94 | Ø9ØØ | 9/27/94 | 1Ø15 | ND | ND | | timer #1 |
| 27WØ8 | | 965 | 8/30/94 | Ø9ØØ | 9/22/94 | 143Ø | ND | ND | | timer #2 |
| | JPH 10/3/94 | | | | | | | | | |
| Ø1WØ9 | | 949 | 8/25/94 | 1414 | 9/22/94 | 1321 | ND | ND | NA | full; bag 39 |
| Ø2WØ9 | | 950 | 8/25/94 | 1447 | 9/22/94 | Ø8Ø5 | ND | ND | | full; bag 39 |
| Ø3WØ9 | | 954 | 8/25/94 | 1526 | 9/22/94 | 1323 | ND | ND | | full; bag 39 |
| Ø4WØ9 | | 992 | 9/1/94 | Ø835 | 9/22/94 | 112Ø | ND | ND | | full; bag 40 |
| Ø5WØ9 | | 955 | 8/25/94 | 1540 | 9/22/94 | 1345 | ND | ND | | full; bag 39 |
| Ø6WØ9 | | 956 | 8/25/94 | 1548 | 9/22/94 | 1416 | ND | ND | | full; bag 39 |
| Ø7WØ9 | | 918 | 8/24/94 | 1145 | 8/29/94 | 1288 | ND | ND | | full; bag 35 |
| Ø8WØ9 | | | | | 9/22/94 | 1418 | | | | |
| Ø9WØ9 | JPH 10/26/94 | | | | | | | | | |
| 1ØWØ9 | | 96Ø | 8/29/94 | 1117 | 9/27/94 | 1Ø23 | ND | ND | NA | full; bag # 39 |
| 11WØ9 | | 963 | 8/29/94 | 1143 | 9/27/94 | 1Ø3Ø | ND | ND | | full; bag 39 |
| 12WØ9 | | 964 | 8/29/94 | 1147 | 9/27/94 | 1Ø33 | ND | ND | | full; bag 39 |
| 13WØ9 | | 1ØØ4 | 9/1/94 | 1127 | 9/27/94 | 1Ø36 | ND | ND | | full; bag 40 |
| 14WØ9 | | 1Ø6Ø | 9/8/94 | 15Ø2 | 10/4/94 | Ø935 | ND | ND | | bag 41; 10" |
| 15WØ9 | | 1Ø59 | 9/8/94 | 1452 | 10/4/94 | Ø945 | ND | ND | | bag 41; 18" |
| 16WØ9 | | 1Ø52 | 9/8/94 | 114Ø | 10/4/94 | Ø928 | ND | ND | | bag 41; 7" |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 314 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| 17W09 | | 1063 | 9/12/94 | 0922 | 10/11/94 | 0840 | ND | ND | NA | Bag 41; full |
| 18W09 | | | | | 9/11 10/25/94 | | | | | Bldg here |
| 19W09 | | | | | | | | | | ↓ |
| 20W09 | | 1047 | 9/8/94 | 1024 | 10/4/94 | 0917 | ND | ND | NA | bag 41; 18" |
| 21W09 | | 1010 | 9/1/94 | 1415 | 9/27/94 | 0947 | ND | ND | ↓ | full; bag 40 |
| 22W09 | | ~~1039~~ | | | | | | | | Construction |
| 23W09 | | ~~1071~~ | 9/1/94 | | | | | | | in this area |
| 24W09 | | ~~1070~~ | | | | | | | | - no sampler |
| 25W09 | | 1043 | 9/7/94 | 1448 | 10/4/94 | 1120 | ND | ND | NA | bag 41; full |
| 26W09 | | 1013 | 9/1/94 | 1448 | 9/27/94 | 1011 | ND | ND | | full; bag 40 |
| 27W09 | | 1044 | 9/7/94 | 1502 | 10/4/94 | 1116 | ND | ND | | full; bag 41 |
| 07W09 | | 918 | 8/24/94 | 1150 | 8/29/94 | 1200 | ND | ND | | full; Timer #1 |
| 07W09 | | 918 | 8/24/94 | 1156 | 9/6/94 | 1117 | ND | ND | | full; Timer #2 |
| 10W09 | | 960 | 8/29/94 | 1115 | 9/6/94 | 1112 | ND | ND | | full; timer #1 |
| 10W09 | | 960 | 8/29/94 | 1115 | 9/22/94 | 1423 | ND | ND | | full; timer #2 |
| 01W10 | | 947 | 5/25/94 | 1347 | 9/22/94 | 1319 | ND | ND | | fun bag 39 |
| 02W10 | | 948 | 5/25/94 | 1358 | 9/22/94 | 1316 | ND | ND | | fun; bag 39 |
| 03W10 | | 924 | 8/24/94 | 1416 | 9/22/94 | 1051 | ND | ND | | full; bag 38 |
| 04W10 | | 927 | 8/24/94 | 1444 | 9/22/94 | 1100 | ND | ND | | 10"; bag 38 |
| 05W10 | | 1042 | 9/7/94 | 1418 | 10/4/94 | 1145 | ND | ND | ↓ | bag 41; 18" |
| 06W10 | | | | | | | | | | In Area J |
| 07W10 | | | | | | | | | | In Area J |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 315 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Ø8W1Ø | | | | | | | | | | In Area J |
| Ø9W1Ø | JPH 9/2/94 | ~~963~~ | ~~8/29/94~~ | ~~1143~~ | | | ~~ND~~ | ~~ND~~ | | ~~full; bag 39~~ |
| 1ØW1Ø | | 961 | 8/29/94 | 1126 | 9/27/94 | 1Ø2Ø | ND | ND | NA | full; bag 39 |
| 11W1Ø | | 962 | 8/29/94 | 1133 | 9/27/94 | 1Ø21 | ND | ND | | full; bag 39 |
| 12W1Ø | | 1ØØ3 | 9/1/94 | 11Ø4 | 9/27/94 | 1Ø22 | ND | ND | | 17"; bag 40 |
| 13W1Ø | | 1Ø66 | 9/12/94 | 1351 | 10/11/94 | Ø843 | ND | ND | | bag 41; 17" |
| 14W1Ø | | 1Ø58 | 9/8/94 | 1429 | 10/4/94 | Ø938 | ND | ND | | bag 41; 14" |
| 15W1Ø | | 1Ø56 | 9/8/94 | 14Ø2 | 10/4/94 | 1ØØ6 | ND | ND | | bag 41; 18" |
| 16W1Ø | | 1Ø55 | 9/8/94 | 1355 | 10/4/94 | 1ØØ2 | ND | ND | | bag 41; 18" |
| 17W1Ø | | 1Ø54 | 9/8/94 | 1343 | 10/4/94 | 1ØØØ | ND | ND | | bag 41; 18" |
| 18W1Ø | | 1Ø53 | 9/8/94 | 1339 | 10/4/94 | Ø957 | ND | ND | | bag 41; 16" |
| 19W1Ø | | 1Ø18 | 9/6/94 | Ø955 | 10/4/94 | 1Ø16 | ND | ND | | bag #42; 18" |
| 2ØW1Ø | | 1ØØ9 | 9/1/94 | 1355 | 9/27/94 | Ø957 | ND | ND | | full; bag 40 |
| 21W1Ø | | | | | | | | | | fragmentation area |
| 22W1Ø | | | | | | | | | | access denied |
| 23W1Ø | | | | | | | | | | Area 3 + SDB |
| 24W1Ø | JPH 10/26/94 | | | | | | | | | |
| 25W1Ø | | | | | | | | | | |
| 26W1Ø | | | | | | | | | | |
| 27W1Ø | | | | | | | | | | |
| | | | | | JPH 10/3/94 | | | | | |
| | | | | | | | | | | |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 316 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 10/3/94 | | | | | |
| Ø1W11 | | 945 | 8/25/94 1328 | 9/22/94 1314 | ND | ND | NA | full; bag 39 |
| Ø2W11 | | 946 | 8/25/94 1334 | 9/22/94 1313 | ND | ND | | full; bag 39 |
| Ø3W11 | | 923 | 8/24/94 1410 | 9/22/94 1035 | ND | ND | | full; bag 38 |
| Ø4W11 | | 928 | 8/25/94 0856 | 9/22/94 1053 | ND | ND | | full; bag 38 |
| Ø5W11 | | 971 | 8/30/94 1253 | lost-not retrieved | ND | ND | | full; bag 44 |
| Ø6W11 | In Area J | | | | | | | |
| Ø7W11 | | | | | | | | |
| Ø8W11 | | | | | | | | |
| Ø9W11 | | | | | | | | |
| 1ØW11 | | 1ØØØ | 9/1/94 1Ø12 | 9/27/94 1Ø5Ø | ND | ND | NA | full; bag 40 |
| 11W11 | | 1ØØ1 | 9/1/94 1Ø28 | 9/27/94 1Ø55 | ND | ND | | 13"; bag 40 |
| 12W11 | | 1ØØ2 | 9/1/94 1Ø42 | 9/27/94 1Ø57 | ND | ND | | 16"; bag 40 |
| 13W11 | | — | | | | | | Bldg here |
| 14W11 | | 1Ø57 | 9/8/94 1414 | 10/4/94 1Ø11 | ND | ND | NA | bag 41; 18" |
| 15W11 | | — | | | | | | Bldg here |
| 16W11 | | 1Ø61 | 9/8/94 152Ø | 1Ø/4/94 1ØØ4 | ND | ND | NA | 14"; bag 41 |
| 17W11 | | 1Ø62 | 9/8/94 1527 | 10/4/94 Ø953 | ND | ND | | bag 41; 17" |
| 18W11 | | 1ØØ8 | 9/1/94 1345 | 9/27/94 Ø932 | ND | ND | | full; bag 40 |
| 19W11 | | 1Ø26 | 9/6/94 1403 | 10/4/94 1Ø47 | ND | ND | | bag 42; 18" |
| 2ØW11 | | 1Ø27 | 9/6/94 1412 | 10/4/94 1Ø60 | ND | ND | | bag 42; 18" |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 317 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 |
|---|---|---|---|---|---|---|---|---|
| 21W11 | | | | | | | | Fragmentation area - |
| 22W11 | | | | | | | | access denied |
| 23W11 | | | JPH 10/11/94 | | | | | ↓ |
| 24W11 | | | | | | | | In area 3 + SDB |
| 25W11 | | | | | | | | ↓ |
| 26W11 | | | | | | | | |
| 27W11 | | | | | | | | ↓ |
| | | | | | | | | |
| | | | | | | | | |
| | | | JPH 10/3/94 | | | | | |
| | | | | | | | | |
| Ø1W12 | | 943 | 8/25/94 1314 | 9/22/94 13Ø9 | ND | ND | NA | full ; bag 38 |
| Ø2W12 | | 944 | 8/25/94 1313 | 9/22/94 13Ø4 | ND | ND | ↓ | full ; bag 39 |
| Ø3W12 | | 921 | 8/24/94 1358 | lost - unable to locate tube in riprap | ND | ND | ↓ | full ; bag 38 |
| Ø4W12 | | 922 | 8/24/94 1404 | 9/22/94 1Ø5Ø | ND | ND | ↓ | 16" ; bag 38 |
| Ø5W12 | | 929 | 8/25/94 0902 | 9/22/94 111Ø | ND | ND | ↓ | full ; bag 38 |
| Ø6W12 | In area J | | | | | | | |
| Ø7W12 | | | | | | | | |
| Ø8W12 | | | | | | | | |
| Ø9W12 | | | | | | | | |
| 1ØW12 | | 998 | 9/1/94 Ø959 | 9/27/94 1Ø46 | ND | ND | NA | full ; bag 4Ø |
| 11W12 | | 999 | 9/1/94 1ØØ3 | 9/27/94 1Ø48 | ND | ND | ↓ | full ; bag 40 |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 318 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 |
|---|---|---|---|---|---|---|---|---|
| 12W12 | } on Area 13 | | | | | | | |
| 13W12 | | | | | | | | |
| 14W12 | | | | | | | | |
| 15W12 | | 1Ø3Ø | 9/6/94 1449 | 10/4/94 1Ø35 | ND | ND | NA | bag 42; 18" |
| 16W12 | | 1Ø29 | 9/6/94 1442 | 10/4/94 1Ø37 | ND | ND | | bag 42; 18" |
| 17W12 | | 1Ø28 | 9/6/94 1434 | 10/4/94 1Ø41 | ND | ND | | bag 42; 18" |
| 18W12 | | 1Ø24 | 9/6/94 1347 | 10/4/94 1Ø43 | ND | ND | | bag 42; 18" |
| 19W12 | | 1Ø25 | 9/6/94 1356 | 10/4/94 1Ø45 | ND | ND | | bag 42; 18" |
| 2ØW12 | | 1Ø23 | 9/6/94 1336 | 10/4/94 1Ø52 | ND | ND | | bag 42, 18" |
| 21W12 | | 1Ø22 | 9/6/94 1328 | 1Ø/4/94 1Ø55 | ND | ND | | bag 42, 18" |
| 22W12 | | 1Ø21 | 9/6/94 1312 | 1Ø/4/94 1Ø58 | ND | ND | | bag 42; 18" |
| 23W12 | | 1Ø12 | 9/1/94 1434 | 9/27/94 Ø931 | ND | ND | | full; bag 40 |
| 24W12 | | 1Ø11 | 9/1/94 1429 | 9/27/94 Ø93Ø | ND | ND | | full; bag 40 |
| 25W12 | | | | | | | | on Area 3 |
| 26W12 | | JPH | 10/11/94 | | | | | |
| 27W12 | | | | | | | | |
| | | | | | | | | |
| | | | | JPH 10/3/94 | | | | |
| | | | | | | | | |
| Ø1W13 | | 941 | 8/25/94 1130 | 9/22/94 13Ø8 | ND | ND | NA | full; bag # 38 |
| Ø2W13 | | 942 | 8/25/94 1137 | 9/22/94 13ØØ | ND | ND | | full; bag 38 |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 319 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 |
|---|---|---|---|---|---|---|---|---|
| Ø3W13 | | 925 | 8/24/94 1425 | 9/22/94 1024 | ND | ND | NA | full; bag 38 |
| Ø4W13 | No samples here | | | | | | | |
| Ø5W13 | | | | | | | | |
| Ø6W13 | | | | | | | | |
| Ø7W13 | | | | | | | | |
| Ø8W13 | | | | | | | | |
| Ø9W13 | | | | | | | | |
| 1ØW13 | | | | | | | | |
| 11W13 | | | | | | | | |
| 12W13 | | | | | | | | |
| 13W13 | | | | | | | | |
| 14W13 | | | | | | | | |
| 15W13 | | | | | | | | |
| 16W13 | | | | | | | | |
| 17W13 | | | | | | | | |
| 18W13 | | | | | | | | |
| 19W13 | | | | | | | | |
| 2ØW13 | | | | | | | | |
| 21W13 | | | | | | | | |
| 22W13 | | | | | | | | |
| 23W13 | | | | | | | | |
| 24W13 | | | | | | | | |

JPH 10/3/94

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 32Ø 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| 25W13 | | 1Ø17 | 9/6/94 | Ø934 | 10/4/94 | 11Ø8 | ND | ND | NA | bag 40; 18" |
| 26W13 | | 1Ø15 | 9/6/94 | Ø9Ø7 | 10/4/94 | 11Ø5 | ND | ND | ↓ | bag 40; 16" |
| ~~27W13~~ | | | | | | | | | | |
| | | | JPH 10/3/94 | | | | | | | |
| Ø1W14 | | 939 | 8/25/94 | 1112 | 9/22/94 | 1255 | ND | ND | NA | full; bag 38 |
| Ø2W14 | | 940 | 8/25/94 | 1112 | 9/22/94 | 1252 | ND | ND | ↓ | full; bag 38 |
| Ø3W14 | | 926 | 8/24/94 | 1429 | 9/22/94 | 1Ø22 | ND | ND | ↓ | full; bag 38 |
| ~~Ø4W14~~ | JPH 10/3/94 | | | | | | | | | |
| ~~Ø5W14~~ | | | | | | | | | | |
| Ø6W14 | | 1Ø89 | 9/13/94 | 1331 | 10/11/94 | Ø92Ø | ND | ND | NA | bag 43; 8" |
| Ø7W14 | 985 | ~~984~~ | 8/31/94 | 11ØØ | 9/27/94 | 112Ø | ND | ND | ↓ | 12"; bag 44 |
| Ø8W14 | | 986 | 8/31/94 | 1113 | 9/27/94 | 1125 | ND | ND | ↓ | full; bag 44 |
| Ø9W14 | | 997 | 9/1/94 | Ø95Ø | 9/27/94 | 113Ø | ND | ND | ↓ | full; bag 40 |
| 1ØW14 | 992 | ~~988~~ | 8/31/94 | 115Ø | 9/27/94 | 1135 | ND | ND | ↓ | full; bag 44 |
| 11W14 | | 989 | 8/31/94 | 1143 | 9/27/94 | 1145 | ND | ND | ↓ | full; bag 44 |
| 12W14 | | 988 | 8/31/94 | 1138 | 9/27/94 | 115Ø | ND | ND | ↓ | full; bag 44 |
| 13W14 | | 987 | 8/31/94 | 113Ø | 9/27/94 | 115Ø | ND | ND | ↓ | full; bag 44 |
| ~~14W14~~ | JPH 10/3/94 | | | | | | | | | |
| 15W14 | | 1Ø85 | 9/13/94 | 1Ø59 | 10/11/94 | Ø936 | ND | ND | NA | bag 43; 14" |

## SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 321 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 |
|---|---|---|---|---|---|---|---|---|
| 16W14 | | | | | | | | |
| 17W14 | | | | | | | | |
| 18W14 | | | | | | | | |
| 19W14 | | | | | | | | |
| 20W14 | | | | | | | | |
| 21W14 | | | | | | | | |
| 22W14 | | | | | | | | |
| 23W14 | | | | | | | | |
| 24W14 | | | | | | | | |
| 25W14 | | 1092 | 9/13/94 1404 | 10/11/94 0953 | ND | ND | NA | bag ~~43~~ 35 JPH 9/14/94; 17" |
| 26W14 | | 1016 | 9/6/94 0919 ~~0907~~ | 10/4/94 1112 | ND | ND | ↓ | 18", bag #40 |
| 27W14 | | 1091 | 9/13/94 1355 | 10/11/94 0951 | ND | ND | ↓ | bag 43; 17" |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 01W15 | | 938 | 8/25/94 1107 | 9/22/94 1250 | ND | ND | NA | full; bag 38 |
| 02W15 | | 937 | 8/25/94 1102 | 9/22/94 1249 | ND | ND | ↓ | full bag 38 |
| 03W15 | | 930 | 8/25/94 0911 | lost wires in gravel 9/22/94 | ND | ND | ↓ | full; bag 38 |
| 04W15 | | | | | | | | |
| 05W15 | | | | | | | | |
| 06W15 | | 897 | 8/22/94 1141 | 9/7/94 1017 | ND | ND | NA | full; bag 35 |

JPH 10/3/94

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 322 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 |
|---|---|---|---|---|---|---|---|---|
| Ø7W15 | | ~~983~~ JPH 9/7/94 | ~~8/31/94 1030~~ | 9/12/94 Ø935 | ND | ND | NA | Bag #44; full |
| Ø8W15 | | 984 | 8/31/94 1Ø4Ø | 9/12/94 Ø925 | ND | ND | | full; bag 44 |
| Ø9W15 | | 983 | 8/23/94 1449 | 9/7/94 111Ø | attempted - lost in dirt | ND | | full; bag 35 - lost |
| 1ØW15 | | 982 | 8/23/94 1436 | 9/7/94 11ØØ | ND | ND | | full; bag 35 |
| 11W15 | | 979 | 8/30/94 1540 | 9/12/94 Ø93Ø | ND | ND | | 16"; bag 44 |
| 12W15 | | 981 | 8/23/94 ~~1135~~ 1133 | 9/7/94 Ø948 | ND | ND | | full; bag 35 |
| 13W15 | | 980 | 8/23/94 1121 | 9/7/94 Ø945 | ND | ND | | full; bag 35 |
| 14W15 | | — | ~~8/15/94 Ø7[illegible]~~ | | ND | ND | | ~~Tube # [illegible]~~ |
| ~~Ø7W15~~ | | — | ~~8/15/94 [illegible]~~ | ~~8/21/94 1420~~ | ND | ND | | ~~Tube # [illegible]~~ JPH 9/13/94 |
| ~~Ø7W15~~ | | — | ~~8/15/94 Ø935~~ | | ND | ND | | ~~Tube # [illegible]~~ JPH 9/13/94 |
| 14W15 | | 1Ø84 | 9/13/94 1Ø43 | 10/11/94 Ø934 | ND | ND | NA | bag 43; 12" |
| ~~13W15~~ | JPH 10/3/94 | ~~Ø9ØØ~~ | ~~9/7/~~ | ~~9/7/94 Ø945~~ | ND | ND | | |
| Ø1W16 | | 935 | 8/25/94 1050 | 9/22/94 1248 | ND | ND | | full; bag #38 |
| Ø2W16 | | 936 | 8/25/94 1056 | 9/22/94 1246 | ND | ND | | full; bag 38 |
| Ø3W16 | | 931 | 8/25/94 Ø923 | 9/22/94 Ø953 | ND | ND | | full; bag 38 |
| Ø4W16 | | 932 | 8/25/94 Ø934 | 9/22/94 1Ø17 | ND | ND | | full; bag 38 |
| Ø5W16 | | 933 | 8/25/94 Ø944 | 9/22/94 Ø947 | 400 | ND | | full; bag 38 |
| Ø6W16 | | 896 | 8/22/94 1124 | 9/6/94 1158 | ND | ND | | full; bag 34 |
| Ø7W16 | | 895 | 8/22/94 11Ø8 | 9/7/94 1Ø37 | ND | ND | | full; bag 34 |
| Ø8W16 | | 894 | 8/22/94 11ØØ | 9/7/94 1Ø25 | ND | ND | | full; bag 34 |
| Ø9W16 | | 981 | 8/31/94 Ø915 | 9/12/94 Ø94Ø | ND | ND | | full; bag 44 |
| 1ØW16 | | | | | | | | High rad area |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 323 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 |
|---|---|---|---|---|---|---|---|---|
| 11W16 | | | | | | | | High rad area |
| 12W16 | | | | | | | | Bldg |
| 13W16 | | 1014 | 8/30/94 1525 | 9/12/94 0915 | ND | ND | NA | bag 44; full |
| | | | | | | | | |
| | JPH 10/3/94 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 01W17 | | 919 | 8/24/94 1329 | 9/22/94 0836 | ND | ND | NA | full; bag 33 |
| 02W17 | | 920 | 8/24/94 1334 | 9/22/94 0940 | ND | ND | ↓ | 12"; bag 38 |
| 03W17 | | | | | | | | Bldg. |
| 04W17 | | 913 | 8/24/94 1023 | 9/22/94 0917 | ND | ND | NA | full; bag 35 |
| 05W17 | | 916 | 8/24/94 1100 | 9/22/94 0920 | ND | ND | | full; bag 35 |
| 06W17 | | 891 | 8/22/94 1026 | 9/6/94 1145 | ND | ND | | 16"; bag 34 |
| 07W17 | | 892 | 8/22/94 1034 | 9/6/94 1148 | ND | ND | | full; bag 34 |
| 08W17 | | 893 | 8/22/94 1040 | 9/6/94 1149 | ND | ND | ↓ | full; bag 34 |
| 09W17 | high rad area | | | | | | | |
| 10W17 | | | | | | | | |
| 11W17 | | | | | | | | |
| 12W17 | | 978 | 8/30/94 1510 | 9/12/94 0903 | ND | ND | NA | full; bag 44 |
| | | | | | | | | |
| | JPH 10/3/94 | | | | | | | |
| | | | | | | | | |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 Pg 324 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 10/3/94 | | | | | | | |
| Ø1W18 | | 908 | 8/24/94 Ø910 | 9/22/94 Ø833 | ND | ND | NA | 12"; bag 35 |
| Ø2W18 | | 934 | 8/26/94 0988 | lost - wire broke 9/22/94 | ND | ND | | full; bag 38 |
| Ø3W18 | | 914 | 8/24/94 1036 | 9/22/94 Ø910 | ND | ND | | full; bag 35 |
| Ø4W18 | | 915 | 8/24/94 1045 | 9/22/94 Ø912 | ND | ND | | 14"; bag 35 |
| Ø5W18 | Bldg here | | | | | | | |
| Ø6W18 | | 991 | 9/1/94 Ø825 | 9/27/94 Ø855 | ND | ND | NA | full; bag 4Ø |
| Ø7W18 | | 972 | 8/30/94 1305 | 9/12/94 Ø845 | ND | ND | | full; bag 44 |
| Ø8W18 | | 89Ø | 8/22/94 1015 | 9/7/94 1Ø08 | ND | ND | | full; bag 34 |
| Ø9W18 | | 982 | 8/31/94 Ø935 | 9/12/94 Ø848 | ND | ND | | 14"; bag 44 |
| 1ØW18 | | | | | | | | |
| 11W18 | JPH 10/3/94 | | | | | | | |
| 12W18 | | 977 | 8/30/94 1458 | 9/12/94 Ø9Ø8 | ND | ND | NA | full; bag 44 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | JPH 10/3/94 | | | | |
| | | | | | | | | |
| Ø1W19 | | 907 | 8/24/94 Ø9Ø2 | 9/22/94 Ø826 | ND | ND | NA | 12"; bag 35 |
| Ø2W19 | Not installed - near alot of tanks + cylinders | | | | | | | |
| Ø3W19 | | 9Ø9 | 8/24/94 Ø982 | 9/22/94 Ø841 | ND | ND | NA | full; bag 35 |
| Ø4W19 | | 911 | 8/24/94 Ø952 | 9/22/94 Ø842 | ND | ND | | full; bag 35 |
| Ø5W19 | | 912 | 8/24/94 Ø959 | 9/22/94 Ø846 | ND | ND | | full; bag 35 |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 325 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 |
|---|---|---|---|---|---|---|---|---|
| Ø6W19 | | 888 | 8/22/94 0856 | 9/6/94 1132 | ND | ND | NA | full; bag 34 |
| Ø7W19 | | 898 | 8/23/94 1045 | 9/6/94 1134 | ND | Out channel GOK | ↓ | 14"; bag 35 |
| ~~Ø8W19~~ | | ~~6~~ | ~~8/15/94 1045~~ | | ~~ND~~ | ~~ND~~ | | ~~Bag #1 ~8" JPH 9/15/94~~ |
| Ø9W19 | | 899 | 8/23/94 1105 | 9/7/94 Ø958 | ND | ND | NA | bag 35; full |
| 1ØW19 | | 975 | 8/30/94 1420 | 9/12/94 Ø910 | ND | ND | ↓ | full; bag 44 |
| 11W19 | | | | | | | | |
| 12W19 | JPH 10/3/94 | | | | | | | |
| ~~Ø8W19~~ | | ~~–~~ | ~~8/15/94 1055~~ | ~~8/21/94 1430~~ | ~~ND~~ | ~~ND~~ | | ~~Timer #1 ~8" JPH 9/15/94~~ |
| ~~Ø8W19~~ | | ~~–~~ | ~~8/15/94 1100~~ | | ~~ND~~ | ~~ND~~ | | ~~Timer #2 ~8" JPH 9/15/94~~ |
| 08W19 | | 889 | 8/22/94 Ø950 | ~~9/7/94 1005~~ ~~JPH 9/15/94~~ | ND | ND | NA | full; bag 34 |
| | JPH 10/3/94 | | | | | | | |
| Ø1W2Ø | | 905 | 8/24/94 Ø850 | ~~9/21/94~~ 9/22/94 Ø825 | ND | ND | NA | full; bag 35 |
| Ø2W2Ø | | 906 | 8/24/94 0856 | 9/22/94 Ø820 | ND | ND | | full; bag 35 |
| Ø3W2Ø | | 910 | 8/24/94 Ø938 | Unable to locate | ND | ND | | 10"; bag 35 |
| Ø4W2Ø | | 917 | 8/24/94 1118 | ~~8/29/94 Ø940 JPH~~ 9/22/94 1052 JPH 9/12/94 | ND | ND | | full; bag 35 |
| Ø5W2Ø | | 879 | 8/18/94 1353 | 8/29/94 1155 | ND | ND | | full; bag 34 |
| Ø6W2Ø | | 886 | 8/22/94 Ø821 | 9/6/94 1136 | ~~ND~~ | ~~ND~~ Out channel: 90A WLC Stuck | | full; bag 34 |
| Ø7W2Ø | | 887 | 8/22/94 Ø831 | 9/6/94 1139 | | 40K | ↓ | full; bag 34 |
| Ø8W2Ø | JPH 10/3/94 | | | | | | | |
| Ø9W2Ø | | | | | | | | |
| 1ØW2Ø | | 976 | 8/30/94 1426 | 9/12/94 Ø840 | ND | ND | NA | full; bag 44 |
| 11W2Ø | | 877 | 8/18/94 1141 | 8/29/94 1140 | ND | ND | ↓ | full; bag 34 |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 326 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| ~~12W20~~ | JPH 10/3/94 | | | | | | | | | |
| 4W20 | | 917 | 8/24/94 | 1124 | 8/29/94 | 0948 | ND | ND | NA | full ; Timer #1 |
| 4W20 | | 917 | 8/24/94 | 1130 | 9/6/94 | 1123 | ND | ND | ↓ | full ; Timer #2 |
| | JPH 10/3/94 | | | | | | | | | |
| 01W21 | | 835 | 8/17/94 | 0844 | 8/29/94 | 0922 | ND | ND | NA | 16" ; bag 37 |
| 02W21 | | 836 | 8/17/94 | 0852 | 8/29/94 | 0920 | ND | ND | ↓ | full ; bag 37 |
| 03W21 | | 837 | 8/17/94 | 0859 | 8/29/94 | 0940 | ND | ND | ↓ | full ; bag 37 |
| 04W21 | | 868 | 8/18/94 | 0930 | 8/29/94 | 0942 | ND | ND | ↓ | full ; bag 33 |
| 05W21 | | 864 | 8/18/94 | 0835 | 8/29/94 | 1018 | ND | ND | ↓ | full ; bag 33 |
| 06W21 | | | | | | | | | | |
| 07W21 | JPH 10/3/94 | | | | | | | | | |
| 08W21 | | 873 | 8/18/94 | 1055 | 8/29/94 | 1122 | ND | ND | NA | full ; bag 34 |
| 09W21 | | 874 | 8/18/94 | 1100 | 8/29/94 | 1125 | ND | ND | ↓ | full ; bag 34 |
| 10W21 | | 876 | 8/18/94 | 1132 | 8/29/94 | 1128 | ND | ND | ↓ | full ; bag 34 |
| 11W21 | | | | | | | | | | |
| 12W21 | | | | | | | | | | |
| | JPH 10/3/94 | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| 01W22 | | 840 | 8/17/94 | 0926 | 8/29/94 | 0926 | ND | ND | NA | full ; bag 37 |

## SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 327 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 |
|---|---|---|---|---|---|---|---|---|
| Ø2W22 | | 839 | 8/17/94 Ø917 | 8/29/94 Ø924 | ND | ND | NA | 12"; bag 37 |
| Ø3W22 | | 838 | 8/17/94 Ø907 | 8/29/94 Ø937 | ND | ND | ↓ | full; bag 37 |
| Ø4W22 | | 863 | 8/18/94 Ø830 | 8/29/94 1Ø15 | ND | ND | ↓ | full; bag 33 |
| Ø5W22 | | 862 | 8/18/94 Ø821 | 8/29/94 1Ø22 | ND | ND | ↓ | full; bag 33 |
| Ø6W22 | In Area 7 | | | | | | | |
| Ø7W22 | | | | | | | | |
| Ø8W22 | | 872 | 8/18/94 1Ø45 | 8/29/94 1113 | ND | ND | NA | full; bag 34 |
| Ø9W22 | | 875 | 8/18/94 1115 | 8/29/94 1132 | ND | ND | ↓ | full; bag 34 |
| 1ØW22 | In Area 7 | | | | | | | |
| 11W22 | | | | | | | | |
| 12W22 | | | | | | | | |
| | JPH 10/25/94 | | | | | | | |
| Ø2W23 | | 842 | 8/17/94 Ø950 | 8/29/94 Ø926 | ND | ND | NA | Timer #2; full |
| Ø1W23 | | 841 | 8/17/94 Ø936 | 8/29/94 Ø929 | ND | ND | ↓ | full; bag 37 |
| ~~Ø2W23~~ | | ~~4~~ | ~~6/14/94 16ØØ~~ | | ~~Ø~~ | ~~Ø~~ | | ~~Bag #1~~ mcc 8/17/94 |
| Ø3W23 | | 865 | 8/18/94 Ø844 | 8/29/94 1Ø1Ø | ND | ND | NA | bag 33; full |
| Ø4W23 | | 860 | 8/17/94 1554 | 8/29/94 1ØØ8 | ND | ND | ↓ | full; bag 33 |
| Ø5W23 | | 861 | 8/18/94 Ø815 | 8/29/94 1Ø25 | ND | ND | ↓ | full; bag 33 |
| Ø6W23 | In Area 7 | | | | | | | |
| Ø7W23 | | | | | | | | |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 328 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 |
|---|---|---|---|---|---|---|---|---|
| Ø8W23 | | 871 | 8/18/94 1Ø35 | 8/29/94 1116 | ND | ND | NA | full; bag 34 |
| Ø9W23 | In Area | | | | | | | |
| 1ØW23 | | | | | | | | |
| 11W23 | | | | | | | | |
| 12W23 | | | | | | | | |
| ~~Ø2W23~~ | | - | ~~6/14/94 1605~~ | ~~06/21/94 1440~~ | ~~ND~~ | ~~ND~~ | | ~~timer #1, 15" depth~~ MCC 8/12/94 |
| ~~Ø2W23~~ | | - | ~~6/14/94 161Ø~~ | | ~~ND~~ | ~~ND~~ | | ~~timer #1~~ - MCC 8/12/94 |
| Ø2W23 | | 842 | 8/17/94 Ø946 | 8/23/94 1357 | ND | ND | NA | full; bag 37 |
| Ø2W23 | | 842 | 8/17/94 Ø948 | 8/29/94 Ø927 | ND | ND | | Timer #1; full |
| Ø1W24 | | 843 | 8/17/94 1ØØ1 | 8/29/94 Ø933 | ND | ND | | 15"; bag 37 |
| Ø2W24 | | 844 | 8/17/94 1Ø17 | 8/29/94 Ø958 | ND | ND | | full; bag 37 |
| Ø3W24 | | 859 | 8/17/94 1549 | 8/29/94 1ØØ4 | ND | ND | | full; bag 33 |
| Ø4W24 | | 858 | 8/17/94 1544 | 8/29/94 1ØØ6 | ND | ND | | full; bag 33 |
| Ø5W24 | | 857 | 8/17/94 1537 | 8/29/94 1Ø3Ø | ND | ND | | full; bag 33 |
| Ø6W24 | | 866 | 8/18/94 Ø9ØØ | 8/29/94 1Ø34 | ND | ND | | full; bag 33 |
| Ø7W24 | | 87Ø | 8/18/94 1Ø25 | 8/29/94 1Ø4Ø | ND | ND | | full; bag 33 |
| Ø8W24 | | | | | | | | |
| Ø9W24 | | | | | | | | |
| 1ØW24 | | | | | | | | |
| 11W24 | | | | | | | | |
| 12W24 | | | | | | | | |
| | | | | | | | | |

JP 10/3/94

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 329 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 10/3/94 | | | | | | | |
| | | | | | | | | |
| Ø1W25 | | 845 | 8/17/94 1Ø48 | 8/29/94 Ø940 | ND | ND | NA | full; bag 37 |
| Ø2W25 | | 847 | 8/17/94 11Ø2 | 8/29/94 1ØØ2 | ND | ND | ↓ | full; bag 33 |
| Ø3W25 | | 857 | 8/17/94 1537 | 8/29/94 1ØØ4 | ND | ND | ↓ | full; bag 33 |
| Ø4W25 | | 856 | 8/17/94 1532 | 8/29/94 1Ø58 | ND | ND | ↓ | full; bag 33 |
| Ø5W25 | | 855 | 8/17/94 1526 | 8/29/94 1Ø54 | ND | ND | ↓ | full; bag 33 |
| Ø6W25 | | | | | | | | |
| Ø7W25 | JPH 10/3/94 | | | | | | | |
| Ø8W25 | | | | | | | | |
| Ø9W25 | | 980 | 8/31/94 Ø842 | 9/12/94 Ø835 | ND | ND | NA | full; bag 44 |
| | | | | | | | | |
| | | | | | | | | |
| | JPH 10/3/94 | | | | | | | |
| | | | | | | | | |
| Ø1W26 | | 846 | 8/17/94 1Ø55 | 8/29/94 Ø945 | ND | ND | NA | full; bag 33 |
| Ø2W26 | | 848 | 8/17/94 11Ø7 | 8/29/94 1Ø38 | ND | ND | ↓ | full; bag 33 |
| Ø3W26 | Not installed; in building. | | | | | | | |
| Ø4W26 | | 853 | 8/17/94 1456 | 8/29/94 1Ø48 | ND | ND | NA | full; bag 33 |
| Ø5W26 | | 854 | 8/17/94 1511 | 8/29/94 1Ø5Ø | ND | ND | ↓ | full; bag 33 |
| Ø6W26 | In area 7 | | | | | | | |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 330 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Ø7W26 | In Area 7 | | | | | | | | | |
| Ø8W26 | | 869 | 8/18/94 | Ø95Ø | 8/29/94 | 1Ø44 | ND | ND | NA | full; bag 33 |
| Ø9W26 | | 9Ø4 | 8/23/94 | 152Ø | 9/7/94 | 1Ø13 | ND | ND | | full; bag 35 |
| Ø5W26 | | 854 | 8/17/94 | 1514 | 8/23/94 | 1355 | ND | ND | | full; Timer #1 |
| Ø5W24 | | 854 | 8/17/94 | 1516 | 8/29/94 | 1Ø5Ø | ND | ND | | full; Timer #2 |
| | gpH 10/3/94 | | | | | | | | | |
| | | | | | | | | | | |
| Ø1W27 | | 856 | 8/17/94 | 1129 | 8/29/94 | Ø957 | ND | ND | NA | full; bag 33 |
| Ø2W27 | | 849 | 8/17/94 | 112Ø | 8/29/94 | Ø953 | ND | ND | | 14"; bag 33 |
| Ø3W27 | | 852 | 8/17/94 | 143Ø | 8/29/94 | 1Ø25 | ND | ND | | full; bag 33 |
| Ø4W27 | | 973 | 8/30/94 | 1335 | 9/12/94 | Ø945 | ND | ND | | full; bag 44 |
| Ø5W27 | | 974 | 8/30/94 | 1338 | 9/12/94 | Ø825 | ND | ND | | full; bag 44 |
| Ø6W27 | | | | | | | | | | |
| Ø7W27 | | | | | | | | | | |
| Ø8W27 | | | | | | | | | | |
| Ø9W27 | | | | | | | | | | |
| | | gpH 10/5/94 | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Ø1W28 | | 851 | 8/17/94 | 1137 | 8/29/94 | 1ØØ2 | ND | ND | | 16"; bag 33 |
| Ø2W28 | | 867 | 8/18/94 | Ø922 | 8/29/94 | 1ØØ6 | ND | ND | | full; bag 33 |

SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 331 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Ø3W28 | | | | | | | | | | |
| Ø4W28 | | | | | | | | | | |
| Ø5W28 | | | | | | | | | | |
| Ø6W28 | | | | | | | | | | |
| Ø7W28 | | | | | | | | | | |
| Ø8W28 | | | | | | | | | | |
| Ø9W28 | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| 20½W8½N | | 1ø64 | 9/12/94 | Ø938 | 10/11/94 | Ø834 | ND | ND | NA | bag 41; 12" |
| 25½W7½N | | 1ø65 | 9/12/94 | 1ø25 | 10/11/94 | Ø858 | ND | ND | | bag 41; 12" |
| Bldg 36 16¾N 2.5W | | 1ø67 | 9/12/94 | 14ø7 | 10/11/94 | Ø925 | ND | ND | | bag 43, 17" |
| Bldg 36 17¼N 2.5W | | 1ø68 | 9/12/94 | 1416 | 10/11/94 | Ø923 | ND | ND | | bag 43; 18" |
| 3½N 13½W | | 1ø69 | 9/12/94 | 143ø | 10/11/94 | Ø815 | ND | ND | | bag 43; 18" |
| E Pump | | 1ø72 | 9/13/94 | Ø838 | 9/27/94 | Ø9ø3 | ND | ND | | bag 43; 10" |
| S. Pump | | 1ø73 | 9/13/94 | 085ø | 9/27/94 | Ø92ø | ND | ND | | bag 43; 14" |
| W. Pump | | 1ø74 | 9/13/94 | Ø856 | 9/27/94 | Ø917 | ND | ND | | bag 43; 16" |
| N. Pump | | 1ø75 | 9/13/94 | Ø9ø3 | 9/27/94 | Ø916 | ND | ND | | bag 43; 12" |
| W Tank | | 1ø76 | 9/13/94 | Ø91ø | 9/27/94 | Ø9ø8 | ND | ND | | bag 43; 10" |
| S. Tank | | 1ø77 | 9/13/94 | Ø918 | 9/27/94 | Ø9ø2 | ND | ND | | bag 43; 17" |
| E. Tank | | 1ø78 | 9/13/94 | Ø924 | 9/27/94 | Ø9ø5 | ND | ND | | bag 43; 16" |

10/3/94

## SOIL GAS SAMPLING (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 332 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| N. Tank | | 1079 | 9/13/94 | 0931 | 9/27/94 | 0906 | ND | ND | NA | bag 43; 17" |
| S. Sep. | | 1080 | 9/13/94 | 0954 | 9/27/94 | 0909 | ND | ND | | bag 43; 14" |
| E. Sep | | 1081 | 9/13/94 | 1008 | 9/27/94 | 0913 | ND | ND | | bag 43; 8" |
| N Sep. | | 1082 | 9/13/94 | ~~1008~~ 1019 GPH 9/14/94 | 9/27/94 | 0911 | ND | ND | | bag 43; 10" |
| W. Sep | | 1083 | 9/13/94 | 1028 | 9/27/94 | 0912 | ND | ND | | bag 43; 14" |
| 13N5½W | | 1088 | 9/13/94 | 1315 | 10/11/94 | 0914 | ND | ND | | bag 43; 17" |
| 14N6 | | 1089 | 9/13/94 | 1331 | 10/11/94 | 0920 | ND | ND | | bag 43; 8" |
| 13N7 | | 1090 | 9/13/94 | 1345 | 10/11/94 | 0916 | ND | ND | | bag 43; 10" |
| 9N25.5W | | 1093 | 9/13/94 | 1414 | 10/11/94 | 0948 | ND | ND | | bag 35; 18" |
| 51 West | | 1094 | 9/13/94 | 1427 | 9/27/94 | 0904 | ND | ND | | bag 35; 10" |
| Bldg 74 SW point | | 1086 | 9/13/94 | 1114 | 10/11/94 | 0939 | ND | ND | | bag 43; ~~13"~~ 16" GPH 9/15/94 |
| Bldg 74 SE point | | 1087 | 9/13/94 | 1119 | 10/11/94 | 0941 | ND | ND | | bag 43; 16" |
| 51 East | | 1095 | 9/14/94 | 1320 | 9/27/94 | 0904 | ND | ND | | bag #1 (9/14/94); 18" |
| 8N25½W | | 1096 | 9/14/94 | 1444 | 10/11/94 | 0859 | ND | ND | | bag #1 (9/14/94); 17" |
| 8N5½W | | 1097 | 9/14/94 | 1455 | 10/11/94 | 0911 | ND | ND | | bag #1 (9/14/94); 18" |
| | | | | | | | | | | |
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| | | | | | | | | | | |
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| | | | | | | | | | | |

# Soil Gas Logbook

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# SOIL GAS
# LOG BOOK

AOCs

**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:** 09/07/94

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**TASK TEAM ACTIVITY LOG SHEET** **SOILGAS**

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

Date (mm/dd/yy): ~~08/10/94~~ 8/11/94 TIME: 0630 : 0916 PAGE 1 OF 5

Task Team Members: pg. 128

M. Cramer H. Robinson (HP)

C. HALLEY

Narrative (include time and location):

0630 Arrive on site to load equipment, catch up with log book and make sample tubes

0705 Signed burn permit

0745 At HP Bldg. 30

0755 Arrive at bottom of hill of Area J to begin the day's installation. H. Robinson already on site.

0807 Set up Area J M5; in wooded area; mulch;

0819 Install Area J M5; Full; bag 29; # 745

0820 Set up Area J L5; along side of road - low traffic; in rocky soil

0833 Install Area J L5; Full; bag 29; # 746

0834 Set up Area J K5; wooded area; rocky soil

0844 Install AJ K5; 15"; bag 29; # 747

0848 Set up Area J J5; in weeds; rocky

0855 Install Area J J5; Full; bag 29; # 748

0856 Set up Area J I5; rocky soil

0902 Install AJ I5; Full; bag 29; # 749

0907 Set up Area J M4; wooded area; rocky soil

0914 Install AJ M4; Full; bag 29; # 750

0916 Set up Area J L4; in weeds; alongside of access road - low traffic;

Daily Weather Conditions: A.M. Cloudy, ~75°F, Rainy

P.M. N/A

Recorded By Marsha L. Cramer QA Checked By Juletta Humphrey

TASK TEAM ACTIVITY LOG SHEET — SOIL GAS

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

Date (mm/dd/yy): 8/11/94 TIME: NA PAGE 2 OF 5

Task Team Members:

see page 1 of 5 pg. 129

JPH 8/22/94

Narrative (include time and location):

rocky.

0925 Install AJ L4; Full; bag ~~28~~ 29 8/10/94; # 751

0927 Set up Area J J4; ~~Full; bag 29;~~ ~~#752~~ MCC 8/10/94 in rocky soil

0934 Install AJ J4; Full; bag 29; #752

0939 Setup Area J I4; in rocky soil

0945 Install Area J I4; Full; bag 29; #753

0947 Setup Area J M3; on side of hill; rocky soil

0955 Install AJ M3; Full; bag 29; #754

0958 Setup Area J L3;

0959 Beginning to rain; will wait a while to see if it lasts.

1030 Rain stopped; will continue.

1031 Setup Area J L3; rocky soil

1041 Install AJ L3; Full; bag 29; #755

1043 Setup Area J K3; in rocky soil

1051 Install Area J K3; Full; bag 29; #756

1052 Setup Area J J3; in very rocky soil

1105 Install AJ J3; Full; bag 29; #757

1106 Setup Area J I3; in rocky soil

Daily Weather Conditions: A.M. see page 1 of 5

P.M. NA

Recorded By Mark L Crane QA Checked By Joletta Humpert

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 7/11/94 TIME: NA PAGE 3 OF 5

Task Team Members:

See page 1 of 5 pg. 130

QPH 8/22/94

Narrative (include time and location):

1114 Install AJ I3; Full; bag ~~28~~ 29 mc 8/10/94; #758
1115 Setup Area J H3; in weeds; in rocky soil
1118 Install AJ H3; Full; bag 29; #759
1133 Set up Area J L2; in rocky soil & clay
1135 Install AJ L2; bag 29; #760; Full
1136 Set up Area J M1; Rocky soil
1142 Install AJ M1; Full; bag 29; #761
Setup Area J L1; in weeds along side of access road. - low traffic; rocky soil
1148 Install AJ L1; Full; bag 29; #762
1200 Scanned hands & feet, returning to trailers.
1315 Decided to discontinue Area J due to slick conditions caused by the rain will continue with Area 61.
* Health & Safety briefing given. Topic discussed was biological hazards. - bugs. Wear repellent.
1345 Arrive at Area 61. Restake points.
1350 H. Robinson on site. He does not have the permit for this area. Contacting J. Geisler.

Daily Weather Conditions: A.M. See page 1 of 5
P.M. ~~R~~ Rain Cloudy ~80°F

Recorded By Marsha L. Gr[illegible] 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): 8/11/94 TIME: NA PAGE 4 OF 5

Task Team Members:

see page 1 of 5 pg. 131

JPH 8/22/94

Narrative (include time and location):

1404 J. Geisler on site. Gave us verbal to go ahead and get started in Area 61. Will bring permit.

1409 Set up Area 61 A5; ~25 ft. from high traffic road; firm soil

1423 Install A61 A5; Full; bag 29; # 763

1424 Setup Area 61 A4; same conditions as A5

1430 Install A61 A4; Full; bag 29; # ~~763~~ 764

1431 Setup Area 61 A3; same conditions

1436 Install A61 A3; Full; bag 29; # 765

1437 Setup Area 61 A2; ~50 ft. from high traffic road; rocky soil

1443 Install A61; A2; Full; bag 29; # 766

1444 Setup Area 61 A1; ~50 ft. from gate access high traffic; rocky soil

1448 Install A61 A1; Full; bag 29; # 767

1450 Next points are on the road returning to trailer for traffic cones & vests

1459 Return to A61. Installing timers.

Daily Weather Conditions: A.M. NA

P.M. P. Sunny ~80°F

Recorded By Mark I Crow QA Checked By Joletta Humpert

**TASK TEAM ACTIVITY LOG SHEET** — SOILGAS

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

Date (mm/dd/yy): 8/11/94 TIME: NA PAGE 5 OF 5

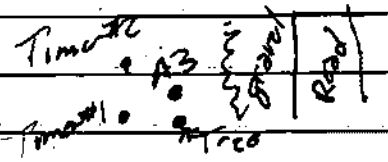
Task Team Members:

see page 1 of 5 pg. 132

JPH 8/18/94

Narrative (include time and location):

1508 Install Timer #1 A-3; full; TimeTest Job #2114
1513 Install Timer #2 A-3; full; TimeTest Job #2114




1514 Set up Area 61 B1; in loose gravel along high traffic road; rocky soil
1519 Install A61 B1; Full; bag 29; #768
1520 Setup Area 61 B2; Along side of high traffic road
1525 Install A61 B2; Full; bag 29; #769
1530 Scanned hands & feet returning to trailer
Last Entry

Daily Weather Conditions: A.M. NA
P.M. see page 4 of 5

Recorded By Mark L Cr[illegible] 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): 8/15/94 TIME: NA PAGE 1 OF 5

Task Team Members: pg. 133

M. Cramer — H. Robinson (HP)

C. Halley

Narrative (include time and location):

0700 Arrive at trailers to prepare for day's activities
0710 J. Geisler at trailers to sign burn permit
0730 H&S briefing: Topics discussed: Make sure you take a phone with each vehicle & weather conditions & actions to take were discussed
0745 At HP to get H. Robinson
0750 At Area 61.
0755 Returning to trailers for missing eqpt.
0805 Back at 61.
0817 Set up Area 61 E5; in parking lot, in asphalt ~ 7 ft. from building.
0823 Install A61 E5; Full; bag 31; #770
0824 Set up Area 61 E4; in parking lot, asphalt
0834 Install A61 E4; Full; Bag 31; #771
0836 Set up Area 61 E3; in parking lot, asphalt
0843 Install A61 E3; Full; bag 31; #772
0846 Setup Area 61 E2; in parking lot in asphalt
0853 Install A61 E2; Full; bag 31; #773
0855 Setup Area 61 E1; in parking lot in asphalt

Daily Weather Conditions: A.M. Clear, Sunny, Cool ~65°F

P.M. NA

Recorded By Mark L. Cramer 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): 08/15/94 TIME: NA PAGE 2 OF 5

Task Team Members:

see page 1 of 5 pg. 134

JPH 8/18/94

Narrative (include time and location):

0900 Install Area 61 E1; Full; bag 31; # 774
0902 Setup Area 61 D1; in garden, landscaped area, good dirt.
0904 Install A61 D1; Full; bag 31; #775
0906 Setup Area 61 D2; in parking lot in asphalt.
0915 Install A61 D2; Full; bag 31; # 776
0916 Setup Area 61 D3; in parking lot in asphalt
0928 Install Area 61 D3; 16"; bag 31; #777
0930 Setup Area 61 D4; in parking lot in asphalt
0945 Install Area 61 D4; 16"; bag 31; # 778
0950 Setup Area 61 D5; in parking lot / asphalt
1007 Install Area 61 D5; 15"; Bag 31; # 779
1010 Set up Area 61 C5; Edge of road / gravel / soil moderate traffic.
1014 Install Area 61 C5; Full; Bag 31; #780
1017 Set up Area 61 C4; Asphalt, entry to parking lot moderate traffic.
1032 Install Area 61 C4; 16"; Bag 31; #781
1037 Set-up Area 61 C3; Edge of Road; Wood chips/soil.
1041 Install Area 61 C3; Full; Bag 31; #782

Daily Weather Conditions: - A.M. see page 1 of 5

- P.M. NA

Recorded By Mandy Crane 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): 8/15/94 TIME: NA PAGE 3 OF 5

Task Team Members:

see page 1 of 5 Pg. 135

JPH 8/18/94

Narrative (include time and location):

1046 Setup Area 61 C2; Edge at Road; Wood Chips/soil; muddy

1050 Install Area 61 C2; Full; Bag 31; #783

1052 Setup Area 61 C1; on high traffic road; in asphalt

1103 Install A61CC1; Full; Bag 31; #784

1104 Setup Area 61 B3; in road, high traffic in asphalt

1117 Install A 61 B3; Full; bag 31; #785

1119 Setup Area 61 ~~B2~~ B4 in road high traffic, in asphalt

1133 Install A61 ~~B2~~ B4; Full; bag 31; #786

1134 Setup Area 61 B5; in road; high traffic, asphalt

1144 Install A61 B5; Full; bag 31; #787

1158 Scanned hands & feet returning to trailers.

1300 Securing security for tomorrow. J. Geisler on site to discuss future planning.

Daily Weather Conditions: A.M. see page 1 of 5

P.M. NA

Recorded By Mark L Crane QA Checked By Juletta Humphrey

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 8/15/94 TIME: NA PAGE 4 OF 5

Task Team Members:

see page 1 of 5 pg. 136

JPH 8/18/94

Narrative (include time and location):

1400 At Bldg 30, to secure HP
1410 At Area J
1420 Set up Area J K1, overgrown/grass & weeds, rocky soil
1425 Install AJK1; 14"; bag 31; # 788
1426 Set up Area J J1; rocky soil
1434 Install AJJ1; full; bag 31; # 789
1437 Set up Area J I1; rocky soil
1447 Install Area J I1; full; bag 31; # 790
1448 Set up Area J H1, rocky soil
1455 Install Area J H1; full; bag 31; # 791
1503 Set up Area J H2; weeds; rocky soil
1512 Install AJ H2; full; bag 31; # 792
1513 Set up Area J I2; Rocky
1517 Install Area J I2; 12"; bag 31; # 793
1520 Set up Area J J2; rocky soil
1527 Install Area J J2; full; bag 31; # 794
1532 Install Area J K2; full; bag 36; # 795
1536 Arrive at top of hill
1538 Set up Area J G2; Rock

Daily Weather Conditions: A.M. NA
P.M. Partly Cloudy, ~80°F

Recorded By Mark Z Cremeen 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): 8/15/94 TIME: N/A PAGE 5 OF 5

Task Team Members:

See page 1 of 5 Pg. 137

JH 8/18/94

Narrative (include time and location):

1547 Install Area J G2; Full; bag 36; # 796
1548 Set up Area J G1; Rocky Soil
1554 Install G1; Full; bag 36; # 797
1600 Scanned feet & hands
Returning to trailers.
LAST ENTRY

Daily Weather Conditions: A.M. N/A
P.M. See page 4 of 5

Recorded By Mark I Cram 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): 8/17/94 TIME: NA PAGE 1 OF 3

Task Team Members:

Paul Parrish

Joletta Humpert

Pg. 151

8/22/94

Narrative (include time and location):

0800 Onsite at sample trailer. Gathering equipment.
0820 Drop tubes at HP to be scanned.
0840 Gather equipment from team 1.
0843 Onsite at Area 7. Pulling remainder of tubes.
0844 Pull A2/613 0848 Pull A1/612
0852 Pull A3/614 ; Pull A4/615
0854 Pull B2/610
0856 Pull B1/611 0859 Pull B3/609 + B4/608
0902 Pull C4/607 0903 Pull C1/604
0906 Pull C3/606 0908 Pull C2/605
0910 Pull D4/601 and D3/602
0912 Pull E3/599 0916 Pull E2/598
0925 Pull D1/603 - stuck in gravel - broke tube on retrieval - wires transferred to clean tube
0939 Pull E1/597 - stuck - broke tube on retrieval - wires transferred to clean tube.
0955 Attempting to pull E4/600. Stuck under two large rocks and loose dirt. Unable to pull - "guy" wire broke when attempting retrieval. Tube left in ground - lost to rocks.

Daily Weather Conditions: A.M. Sunny 75F

P.M.

Recorded By Joletta Humpert QA Checked By Laura M. Morillon 8/23/94

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 8/17/94 TIME: NA PAGE 2 OF 3

Task Team Members:

J.H. pg. 152

P.P.

Narrative (include time and location):

0955 P.P. Patching soil gas holes at A4, B4, C4, D4 in Area 7.

1000 JH moves to Area 7 0 lines to pull.

1007 Pull 016/584

1012 Pull 017/586 — 1014 Pull 018/587

1016 Pull 019/588 — 1018 Pull 020/589

1019 Pull 021/590 — 1021 Pull S21/591

1023 Pull ~~S20~~ S20/592 — 1025 Pull S19/593

1027 Pull S18/594 — 1032 Pull S16/596 (water in hole in parking lot).

1036 Pull S17/595 (in parking lot - water 1/4 way up in hole.

1041 Pull N16/485

Back to HP to drop off Area 7 tubes. Pick up others.

1112 Pull A15/436 in Area 3

1114 Pull A16/437 (Area 3)

1115 Pull A17/438 (Area 3)

1118 Pull A18/439 (Area 3)

1120 Pull B18/440 (Area 3)

1126 Pull C14/533 and C15/534 (Area 3)

1129 Pull G9/532 (Area 3)

1134 Pull I9/452 (Area 3)

1142 Pull K11/450 (Area 3)

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/23/94

TASK TEAM ACTIVITY LOG SHEET

SOILGAS

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

TASK NO.: 34896

Date (mm/dd/yy): 8/17/94 TIME: NA PAGE 3 OF 3

Task Team Members:

J.H pg. 153

P.P

Narrative (include time and location):

1140 Attempted to pull I11/451 - gravel road - "guy" wire broke when trying to retrieve; tube not visible. After digging, not able to find tube.

1145 Pull H4/453 - hole had collapsed but was able to retrieve wires from broken tube. Wires a little mangled but placed in clean test tube.

Drive to lower part of Area J - car almost stuck - walk to the top.

1155 Pull Area J timer 2 630/K4. Drive around to top area.

1200 Pull Area J timer 2 D7/640

1205 Pull Area J timer 2 G13/617

Will fedex these to NERI tonight.

1210 Break for lunch. Organizing Area 7 tubes.

1230-1330 Sorting Area 7 tubes for shipment

1340 Off to pull Area 61 timer A3

1345 Patching soil gas locations in Area 7; G8 and all others in roadway.

1430 Completed patching. Go to Area 61 to pull timer #1. Pull A3/765. Return to trailer after picking up tubes from HP.

1500 Package Area 7 tubes and Area J #2 timers and Area 61 timer. Fedex to NERI. Airbill # 2169356372. Last Entry.

Daily Weather Conditions: A.M. NA

P.M. Warmer @ 85°F, Partly Sunny

Recorded By Joletta Humpert QA Checked By Laura M. Moulton 8/23/94

TASK TEAM ACTIVITY LOG SHEET

SOILGAS AREA J

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

Date (mm/dd/yy): 8-23-94 TIME: NA PAGE 1 OF 1

Task Team Members:

Joletta Humpert pg. 154

JPH 8/23/94

Narrative (include time and location):

1100 Received call from P. Bedard concerning results for Area J timer #1 samplers. Exposure for timers were as follows:

617 - low levels of aromatics; little of methylnaphthalene.

630 - low levels of naphthalene, methylnaphthalene, + C6 cycloalkanes.

640 - high JPH 8/23/94 relative levels of naphthalene, C4-C11 petroleum hydrocarbons.

P. Bedard asked that second timers be pulled and shipped. Still analyzing A61 timer #1 - will call in results.

1105 Called M. Cramer in field and asked her to pull #2 timers for Area J. Also #1 timers in Area 13 (A3/820 + B6/826) and two non-AOC timer #1's (see non-AOC logbook).

Will bring to office this afternoon for fedexing.

1330 P. Bedard called with Area 61 #1 timer results A3/765 - rel. high levels of terpenes. Recommended pulling second timer at 12-13 days. Will pull and send on 8/24/94.

Last Entry

See pg. 59 in nonAOC logbook for details on Area 13 timers.

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By [illegible]

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): ~~8-29-94~~ JPH 8/30/94 8/30/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Joletta Humpert pg. 163

JPH 8/30/94

Narrative (include time and location):

Called P. Bedard for exposure results for Area 61 A3/765 timer #2 - basically nothing on it. Aim for 3 week exposure time for Area 61 tubes. Will need to pull 763-769 on 9/1 and 770-787 on 9/6.

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By

**TASK TEAM ACTIVITY LOG SHEET** — SOILGAS

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

Date (mm/dd/yy): 9/6/94 TIME: NA PAGE 1 OF 2

Task Team Members:

Joletta Humpert — pg. 166

Paul Parrish

Narrative (include time and location):

0730 J.H onsite at sample trailer. Working with installation crew to plan days/weeks activities.

0830 Catching ~~up~~ JH 9/6/94 up on logbooks. Waiting for P.P. to arrive. Will pull in Area 61, Area 13 and nonADC today.

0930 Call from P.P. - will be onsite in 20 minutes.

1000 P.P. arrives - load truck.

1015 Onsite @ Area 61.

1016 Pull B5/787 - in asphalt; high traffic

1017 Pull B4/786 - in asphalt

1018 Pull B3/785 - in asphalt; traffic light

1020 Pull C1/784 - in asphalt; traffic light

1022 Pull C2/783 - in bedding beside road; light traffic

1027 Pull C3/782 - in bedding; light traffic

1030 Pull C4/781 JH 9/6/94 - in asphalt

1031 Pull C5/780 - in sand next to road

1034 Pull E5/770 - in asphalt - parking lot

1035 Pull E4/771 - in asphalt - parking lot

1037 Pull E3/772 - in asphalt - parking lot.

1042 Pull E2/773 - in asphalt - parking lot

Daily Weather Conditions: A.M. Overcast, @ 65°F, Light drizzle.

P.M. NA

Recorded By Joletta Humpert. QA Checked By [signature]

**TASK TEAM ACTIVITY LOG SHEET** **SOILGAS**

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

Date (mm/dd/yy): 9/6/94 TIME: NA PAGE 2 OF 2

Task Team Members:

J. Humpert Pg. 167

P. Parrish JPH 9/6/94

Narrative (include time and location):

1044 Pull E1/774 - in parking lot - asphalt
1047 Pull D1/775 - in bedding
1047 Pull D2/776 - in asphalt parking lot
1049 Pull D3/777 - in asphalt parking lot
1052 Pull ~~D2~~ 9/6/94 D4/778 - in asphalt parking lot
1054 Pull D5/779 - in asphalt parking lot
1100 Area 61 complete.
1105 Pulling 8N21/965 - timer #1 in nonAOC West
1112 Pulling 9N10/960 - timer #1 in nonAOC West
1117 Pulling 9N7/918 - timer #2 in non-AOC Secure
1123 Pulling 20N4/917 - timer #2 in nonAOC Secure
1132 Pulling 19N6/888
1134 Pulling 19N7/889
1136 Pulling 20N6/886
1139 Pulling 20N7/887
1145 Pulling 17N6/891
1148 Pulling 17N7/892
1149 Pulling 17N8/893
1158 Pulling 16N6/896. Brought tubes to HP for scanning. Break for lunch. On to office to work. Fedexing timers - airbill # 1558921210. Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By [illegible]

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 9/7/94 TIME: NA PAGE 1 OF ~~2~~ 3

JTD 11-4-94

Task Team Members: pg. 168

Joletta Humpert

Paul Parrish

Narrative (include time and location):

0730 Onsite at sample trailer. Prepping equipment.
0800 At gate at Bldg 35. Waiting for escort to show up so we can pull area 13.

0815 Pull F1/798
0817 Pull F2/799
0818 Pull F3/800
0819 Pull F4/801
0820 Pull F5/802
0822 Pull F6/803
0825 Pull E6/804
0827 Pull E5/805
0829 Pull E4/806
0830 Pull E3/807
0832 Pull E2/808
0834 Pull E1/809
0835 Pull D1/810
0837 Pull D2/811
0839 Pull C2/814
0841 Pull B2/816

Daily Weather Conditions: A.M. Sunny, @ 54°F

P.M. NA

Recorded By Joletta Humpert QA Checked By

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 9-7-94 TIME: NA PAGE 2 OF ~~2~~ 3

Pg. 169 MD 11-4-94

Task Team Members:

J. H.

P. P.

Narrative (include time and location):

Ø843 Pull B3/817
Ø845 Pull C3/815
Ø847 Pull D3/812
Ø849 Pull D6/813 - All tubes in security area pulled - leaving with guard. Moving to outside unsecure part of Area 13.
Ø855 Pull A1/818
Ø858 Pull C1/833
Ø9ØØ Pull A2/819
Ø9Ø2 Pull B1/832
Ø9Ø5 Pull A3/82Ø
Ø9Ø7 Pull A4/821
Ø9Ø9 Pull A5/822
Ø911 Pull A6/823
Ø913 Pull B6/826
Ø918 Pull B5/825
Ø92Ø Pull B4/824
Ø922 Pull C4/827
Ø924 Pull D4/831
Ø926 Pull D5/83Ø

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By

TASK TEAM ACTIVITY LOG SHEET — SOILGAS

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

Date (mm/dd/yy): 9/7/94 TIME: NA PAGE 3 OF 3

Task Team Members:

J.H. pg. 170

P.P.

JPH 9/7/94

Narrative (include time and location):

0930 Pull C6/829
0932 Pull C5/828
Completed Area 13. Moving to Non-AOC North to pull samplers
0945 Pull 15N13/900 - in parking lot (asphalt
0948 Pull 15N12/901 - in grass
0958 Pull 19N9/899 - in grass, weeds
1005 Pull 19N8/889
1008 Pull 18N8/890
1013 Pull 26N9/904
1017 Pull 15N6/897. Drop Area 13 tubes to HP to scan.
1025 Pull 16N8/894
1037 Pull 16N7/895. Hiking, rockclimbing to 15N9
1054 Pull 15N9/903 - attempted. "Guy wire" broke.
1100 Pull 15N10/902.
1110 15N9/903 Sacrificed - unable to ~~locate~~ JPH 9/7/94 locate tube.
Return to HP to pick up Area 61 tubes - OK to ship
1115 Return to sample trailer. Packing up Area 61 for shipment. Airbill # 1558921195. Waiting for Area 13 from HP
LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By [signature]

SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg 258 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 |
|---|---|---|---|---|---|---|---|---|
| 7N16 | | 585 | 8/2/94 0847 | 8/17/94 1041 | ND | ND | | Bag 11; 586 |
| 7N17 | | 579 | 8/2/94 1536 | 8/15/94 1003 | ND | ND | | Bag 11; Full |
| 7N18 | | 580 | 8/2/94 1540 | 8/15/94 1004 | ND | ND | | Bag 11; Full |
| 7N19 | | 581 | 8/2/94 1544 | 8/15/94 1005 | ND | ND | | Bag 22; Full |
| 7N20 | | 582 | 8/2/94 1550 | 8/15/94 1006 | ND | ND | | Bag 22; Full |
| 7N21 | | 583 | 8/2/94 1554 | 8/15/94 1007 | ND | ND | | Bag 11; Full |
| | | | | | | | | |
| | | | | | | | | |
| | | | | JPH 8/22/94 | | | | |
| | | | | | | | | |
| 61A01 | | 767 | 8/11/94 1448 | 9/1/94 0946 | ND | ND | | full; bag 29 |
| 61A02 | | 766 | 8/11/94 1443 | 9/1/94 0944 | ND | ND | | full; bag 29 |
| 61A03 | | 765 | 8/11/94 1436 | 9/1/94 0943 | ND | ND | | full; bag 29 |
| 61A04 | | 764 | 8/11/94 1430 | 9/1/94 0940 | ND | ND | | full; bag 29 |
| 61A05 | | 763 | 8/11/94 1424 | 9/1/94 0937 | ND | ND | | full; bag 29 |
| Col A03 | | 765 | 8/11/94 1508 | | ND | ND | | full; time #1 |
| Col A03 | | 765 | 8/11/94 1513 | 8/24/94 1050 | ND | ND | | full; time #2 |
| | | | | | | | | |
| | | | | JPH 8/22/94 | | | | |
| 61B01 | | 768 | 8/11/94 1519 | 9/1/94 0948 | ND | ND | | full; bag 29 |
| 61B02 | | 769 | 8/11/94 1525 | 9/1/94 0950 | ND | ND | | full; bag 29 |

## SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg. 259 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 |
|---|---|---|---|---|---|---|---|---|
| 61BØ3 | | 785 | 8/15/94 1117 | 9/6/94 1Ø18 | ND | ND | | full; bag 31 |
| 61BØ4 | | 786 | 8/15/94 1133 | 9/6/94 1Ø17 | ND | ND | | full; bag 31 |
| 61BØ5 | | 787 | 8/15/94 1144 | 9/6/94 1Ø16 | ND | ND | | full; bag 31 |
| | | | | | | | | |
| | | | | PH 8/22/94 | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 61CØ1 | | 784 | 8/15/94 1Ø3 | 9/6/94 1Ø2Ø | ND | ND | | full; bag 31 |
| 61CØ2 | | 783 | 8/15/94 1Ø5Ø | 9/6/94 1Ø22 | ND | ND | | full; bag 31 |
| 61CØ3 | | 782 | 8/15/94 1Ø41 | 9/6/94 1Ø27 | ND | ND | | full; bag 31 |
| 61CØ4 | | 781 | 8/15/94 1Ø32 | 9/6/94 1Ø3Ø | ND | ND | | 16"; bag 31 |
| 61CØ5 | | 780 | 8/15/94 1Ø4 | 9/6/94 1Ø31 | ND | ND | | full; bag 31 |
| | | | | | | | | |
| | | | | PH 8/22/94 | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 61DØ1 | | 775 | 8/15/94 Ø9Ø4 | 9/6/94 1Ø47 | ND | ND | | full; bag 31 |
| 61DØ2 | | 776 | 8/15/94 Ø915 | 9/6/94 1Ø47 | ND | ND | | full; bag 31 |
| 61DØ3 | | 777 | 8/15/94 Ø928 | 9/6/94 1Ø49 | ND | ND | | 16" ~~full~~ bag 31 |
| 61DØ4 | | 778 | 8/15/94 Ø945 | 9/6/94 1Ø52 | ND | ND | | 16"; bag 31 |
| 61DØ5 | | 779 | 8/15/94 1ØØ7 | 9/6/94 1Ø54 | ND | ND | | 15"; bag 31 |

## SOIL GAS SURVEY (PETREX)

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 pg. 260 PROJECT NO.: 34896

| LOCATION GRID ID | MOUND SAMPLE NUMBER | PETREX NUMBER | DATE / TIME PLACE | DATE / TIME RETRIEVE | FIDLER READING (CPM) CH1 | FIDLER READING (CPM) CH2 x (1000) | COC NUMBER | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| | | | | JPH 8/22/94 | | | | |
| | | | | | | | | |
| 61EØ1 | | 774 | 8/15/94 ~~0900~~ | 9/6/94 1044 | ND | ND | | bag 31; full |
| 61EØ2 | | 773 | 8/15/94 0853 | 9/6/94 1042 | ND | ND | | bag 31; full |
| 61EØ3 | | 772 | 8/15/94 0843 | 9/6/94 1037 | ND | ND | | bag 31; full |
| 61EØ4 | | 771 | 8/15/94 0823 | 9/6/94 ~~1037~~ 1035 JPH 9/6/94 | ND | ND | | bag 31; full |
| 61EØ5 | | 770 | 8/15/94 0834 | 9/6/94 1034 | ND | ND | | bag 31; full |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | JPH 8/22/94 | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 7Q16 | | 481 | 7/26/94 1425 | 8/11/94 Ø916 | ND | ND | | Bag #9, Full |

EG+G 25-02-10-02
#9508150110

A.9

## A.4 SEEP LOGBOOK

# Mound OU5

# OPs Area

# Seeps

# SEEP SAMPLING 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 2.2, SOP 3.1, SOP 5.1, SOP 6.1, SOP 6.3*

**START DATE:** 7/6/94
**END DATE:** 7/11/94

TABLE OF CONTENTS — SEEP SAMPLES

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


| PAGE 1 | FIELD LOG | PAGE | FIELD LOG |
|---|---|---|---|
| 1 | Title Page | 31 | No Entry |
| 2 | Blank Page | 32 | |
| 3 | Table of Contents | 33 | |
| 4 | | 34 | |
| 5 | | 35 | |
| 6 | | 36 | |
| 7 | | 37 | |
| 8 | | 38 | |
| 9 | | 39 | |
| 10 | | 40 | |
| 11 | Blank Page | 41 | Surface Water Quality Sampling Record 7/7/94 |
| 12 | | 42 | Surface Wtr Quality Splg Record 7/11/94 |
| 13 | Task Team Activity 7/6/94 | 43 | ~~No Entry~~ Standard Electrical Conductivity Data 1 mu 11 2194 |
| 14 | Task Team Activity 7/7/94 | 44 | No Entry |
| 15 | | 45 | Standard Alkalinity Test Record 7/8/94 |
| 16 | Task Team Activity 7/11/94 | 46 | No Entry |
| 17 | No Entry | 47 | Surface Wtr Quality Sampling Record |
| 18 | | 48 | No Entry |
| 19 | | 49 | |
| 20 | | 50 | |
| 21 | | 51 | |
| 22 | | 52+53 | JPH 9/28/94 |
| 23 | | 54 | Spl Log Sheet S01001 |
| 24 | | 55 | Surface Wtr Quality Splg Record 7/7/94 |
| 25 | | 56 | Surface Wtr Quality Splg Record 7/8/94 |
| 26 | | 57 | Sample Log Sheet S01001 |
| 27 | | ~~57~~ | JPH 9/28/94 |
| 28 | | 58 | Sample Log Sheet S02001 |
| 29 | | 59 | Surface Wtr Quality Splg Record S02001 |
| 30 | | 60 | |

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


| PAGE | FIELD LOG | PAGE | FIELD LOG |
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| 61 | Sample Log Sheet S02001 | 91 | No Entry |
| 62 | No Entry | 92 | |
| 63 | | 93 | |
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| 70 | | 100 | |
| 71 | | 101 | |
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| 75 | | 105 | |
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PROJECT NAME: EG&G MOUND OU5, OPERATIONAL AREA, PHASE 1 — PROJECT NO: 34896

| PAGE | FIELD LOG | PAGE | FIELD LOG |
|---|---|---|---|
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| 123 | | 153 | |
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| 128 | | 158 | |
| 129 | | 159 | |
| 130 | | 160 | |
| 131 | | 161 | |
| 132 | | 162 | |
| 133 | | 163 | |
| 134 | | 164 | |
| 135 | | 165 | |
| 136 | | 166 | |
| 137 | | 167 | |
| 138 | Sample Log Sheet SØ11Ø1 | 168 | |
| 139 | Surface Wtr Quality Sply Record | 169 | |
| 140 | No Entry | 170 | |
| 141 | Sample Log Sheet SØ11Ø1 | 171 | |
| 142 | No Entry | 172 | |
| 143 | | 173 | |
| 144 | | 174 | |
| 145 | | 175 | |
| 146 | | 176 | Last Page in Logbook |
| 147 | | 177 | |
| 148 | | 178 | |
| 149 | | 179 | |
| 150 | | 180 | |

**TASK TEAM ACTIVITY LOG SHEET** **SEEP SAMPLES**

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

Date (mm/dd/yy): 7/6/94 TIME: 8:00 PAGE 1 OF 1

Task Team Members:

Ron Smith (SAIC)
Joan Alvarado (SAIC)

JH 9/15/94

Narrative (include time and location):

800 R. Smith and J. Alvarado begin OU5 Ops Area walkover to identify groundwater seeps.
Last Entry

Daily Weather Conditions: A.M. Hot 90°F
P.M. NA

Recorded By Ronald E. Smith 7/6/94 QA Checked By Juletta Humpert

D6-12

**TASK TEAM ACTIVITY LOG SHEET** — **SEEP SAMPLES**

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

Date (mm/dd/yy): 02/02/94 TIME: NA PAGE 1 OF 2

Task Team Members:

Juan Alvarado

Tonya Pfaff

JPH 9/15/94

Narrative (include time and location):

Arrived at mound 08:15 collected equipment
09:00 left to develope 1st seep Tool gate meeting
09:27 began digging hole for S01001,
09:30 Seep barely moving when we arrived, after rock removed flowed increased, finished digging hole location marked with stake
09:40 begin searching for seep S02001
10:15 Digging for first hole
10:25 Found Seep for S02001
11:00 Diggins for Seep S03001 - No Water flow, Very Dry
11:28 Diggins for seep S04001 - No Water flow, Very Dry
11:42 Check status of S01001 - Flowing clear
12:58 ORP check 232.6 mV ok
12:59 DO probe check ok calibrated to 97%.
13:17 Ph Meter slope 98.8
13:20 leaving trailer - towards site
16:45 return trailer begin sample management
12:00 lunch return 12:45

JPH 9/15/94

Daily Weather Conditions: A.M. Hot 95°F Humid sunny
P.M. Hot 95°F Humid mostly sunny

Recorded By Juan A. Alvarado QA Checked By Juleta Humpert

MPLES
34896

**TASK TEAM ACTIVITY LOG SHEET** — **SEEP SAMPLES**

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

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

Task Team Members:

J.A.
T.P

JPH 9/15/94

Narrative (include time and location):

Seep S01001 is ~~in~~ near Area J south of the 14 N line and between 9W and 8 W. It is in a non-AOC area. ga 7/7/94

Seep S02001 is ~~in~~ near Area J approximately 10' south of ~~the~~ ga 7/7/94 J K11 stake. ga 7/7/94

~~Seep S03001. It is in a non-AOC area.~~ ga 7/7/94 It is in a non-AOC area.

~~Seep S02003~~

Seep S03001 is in Area 21 near stake F4.

Seep S04001 is near Area 21. It is in a non-AOC area. It is in an area bounded by stakes 8N 12W; 7N 12W; 8N 11W; 7N 11W (near center of area.

Seep ~~S0400~~ S05001 ga 7/7/94

Left mound 18:30

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By [signature] QA Checked By Juletta Humpert

Pg 15

**TASK TEAM ACTIVITY LOG SHEET** — **SEEP SAMPLES**

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

Date (mm/dd/yy): 7/11/94 TIME: NA PAGE 1 OF 1

Task Team Members:

Juan Alvarado

Tonya Pfaff

JPH 9/15/94

Narrative (include time and location):

8:00 Am arrive @ Trailer begin collecting equipment and calibration of equipment.

9:30 Am Arrive @ seep S02001 water flow minimal. Began to collect field Samples

11:00 Am Left seep S02001 return to trailer to ship samples.

11:49 Am Seep S03001 Dry. Hollowed area ~~dry~~ JA 7/11/94 dry but debris in hole from ~~night~~ JA 7/11/94 rains. No sample taken.

11:57 Am seep S04001 Dry no debris in Hollowed area.

12:22 ~~Pm~~ Seep S05001 Dry

Last Entry

Daily Weather Conditions: A.M. 75 - 80 °F Sunny

P.M. 80 - 86 °F Sunny

Recorded By Juan A. Alvarado QA Checked By Jeletta Humpert

SURFACE WATER QUALITY SAMPLING RECORD — SEEP SAMPLES

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

PAGE 1 OF 1

FACILITY CODE: MNDØØ

LOCATION ID: MNDOA (5Ø1ØØ1) LOG DATE: 7/7/94

**SAMPLING INFORMATION**

WITHDRAWAL METHOD: Grab

FILTER SIZE: NA

THERMOMETER ID: 2179 (TLC meter) 7/7/94; 11-21-94

Ec METER ID: ~~2552 [illegible] 7/7/94~~ YSI Model 3ØØØ, SN: 91D029612 HAZCON#: 2179

pH METER ID: 2552;

PUMP ID: NA

ALKALINITY KIT ID: Hach kit 20637-00

FIELD REP: Juan Alvarado

INSTRUMENT(S) USED: pH/ORP; TLC; DO (7/7/94)

**CALIBRATION INFORMATION**

DATE/TIME OF LAST Ec CALIBRATION: 7/18/94

TIME OF pH CALIBRATION: 14:ØØ (7/7/94)

FOR STANDARD SOLUTION OF pH 7, INSTRUMENT READING: 7.02 (7/7/94)

FOR STANDARD SOLUTION OF pH 4, INSTRUMENT READING: 4.00 (7/7/94)

FOR STANDARD SOLUTION OF pH 10, INSTRUMENT READING: NA

Eh OF CALIBRATION SOLUTION: 1,ØØØ microsiemens/cm

Eh READING IN CALIBRATION SOLUTION AFTER INSTRUMENT MEASUREMENT: 232.6 (7/7/94)

TEMP. OF CALIBRATION SOLUTION (° C): 25°C (7/7/94)

**SHIPPING INFORMATION**

LAB(S) SHIPPED TO: Compuchem

DATE(S) SHIPPED: 7/7/94;

METHOD OF SHIPMENT: Fed Ex

COMMENTS: N/A

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

FORM COMPLETED BY/DATE 7/7/94 — TECHNICAL REVIEWER/DATE 11-21-94

SURFACE WATER QUALITY SAMPLING RECORD — SEEP SAMPLES

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

PAGE 1 OF 1

FACILITY CODE: MND00

LOCATION ID: MND0A (602001) — LOG DATE: 7/11/94

**SAMPLING INFORMATION**

WITHDRAWAL METHOD: Grab

FILTER SIZE: N/A

THERMOMETER ID: 7025 pH meter

Ec METER ID: YSI Model 3000, SN: 91D029512, HAZCO#: 2179

pH METER ID: 7025

PUMP ID: N/A

ALKALINITY KIT ID: Hach Kit 20637-00

FIELD REP: Ruben Alvarado

INSTRUMENT(S) USED: pH/ORP; T-L-C; DO

**CALIBRATION INFORMATION**

DATE/TIME OF LAST Ec CALIBRATION: 7/18/94

TIME OF pH CALIBRATION: 0920

FOR STANDARD SOLUTION OF pH 7, INSTRUMENT READING: 7.00 } slope 100.9%

FOR STANDARD SOLUTION OF pH 4, INSTRUMENT READING: 4.00

FOR STANDARD SOLUTION OF pH 10, INSTRUMENT READING: N/A

Eh OF CALIBRATION SOLUTION: 1,000 microsiemens/cm

Eh READING IN CALIBRATION SOLUTION AFTER INSTRUMENT MEASUREMENT: 236.1

TEMP. OF CALIBRATION SOLUTION (° C): 24 °C

**SHIPPING INFORMATION**

LAB(S) SHIPPED TO: Longmont

DATE(S) SHIPPED: 7/11/94

METHOD OF SHIPMENT: Fed Ex

COMMENTS: N/A

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

FORM COMPLETED BY/DATE: [signature] 7/11/94

TECHNICAL REVIEWER/DATE: [signature] 11.21.94

STANDARD ELECTRICAL CONDUCTIVITY DATA — SEEP SAMPLES

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

FACILITY CODE: MND — LOGGER CODE: SAIC

LOG DATE: 7/18/94 — ACCEPTANCE CODE: A

MANUFACTURER/Ec METER ID: YSI Model 3000, SN: 91D029512, HAZCO# 2179

| ELECTRICAL CONDUCTIVITY OF KNOWN SOLUTIONS AT 25° C: | |
|---|---|
| KNOWN (mg/l KCl) | Ec (meter) |
| 1000 microsiemens/cm | 1.147 |
| | |
| | |

| Ec | TEMPERATURE (ºC) LAB THERMOMETER | TEMPERATURE (ºC) (Ec METER) |
|---|---|---|
| NR | 0 | NR |
| ↓ | 1 | ↓ |
| ↓ | 2 | ↓ |
| 0.877 | 3 | 16.8 |
| 0.887 | 4 | 16.1 |
| 0.899 | 5 | 16.2 |
| 0.963 | 6 | 16.2 |
| 0.923 | 7 | 16.3 |
| 0.966 | 8 | 16.5 |
| 0.975 | 9 | 16.7 |
| 0.980 | 10 | 16.8 |
| 0.982 | 11 | 17.0 |
| 0.986 | 12 | 17.1 |
| 0.990 | 13 | 17.2 |
| 0.995 | 14 | 17.4 |
| 1.001 | 15 | 17.6 |
| 1.019 | 16 | 17.8 |
| 1.030 | 17 | 18.0 |
| 1.036 | 18 | 18.4 |
| 1.048 | 19 | 18.7 |
| 1.062 | 20 | 19.2 |
| 1.077 | 21 | 19.7 |
| 1.086 | 22 | 20.1 |
| 1.099 | 23 | 20.7 |
| 1.128 | 24 | 21.8 |
| 1.147 | 25 | 22.5 |

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

L.M. Maxim 11-21-94
FORM COMPLETED BY / DATE

TECHNICAL REVIEWER / DATE 11/21/94

STANDARD ALKALINITY TEST RECORD — SEEP SAMPLES

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

FACILITY CODE UNDØØ

FIELD REP Juan Alvarado LOG DATE 7/8/94

ALKALINITY TEST KIT:

MANUFACTURER Hach ALKALINITY TEST KIT ID 20637-00

pH METER:

MANUFACTURER Orion SA-250 SERIAL NO 2552

| LAB CODE | STANDARD STANDARD ID | KNOWN VALUE (mg/l $CaCO_3$) | ALKALINITY TEST VALUE (at pH endpoint = 4.5) mg/l $CaCO_3$ |
|---|---|---|---|
| | cat # 14278-10 | 2,500 | 2336 |
| | " | 2,500 | 2388.5 |
| | " | 2,500 | 2411.5 |
| | | | |
| | | | |
| | | | |

COMMENTS 25,000 mg/L (0.5N) $Na_2CO_3$ standard. Sample diluted 90 ml DI $H_2O$ and 10 ml standard. Standard [illegible] solution 2,500 mg/L. Average of 3 runs 2379 mg/L. The % error from 2,500 mg/L of the [illegible] 7/11/93 average from 3 samples is 5.1 %. Standard deviation ($\sigma_n$) = 31.6. See pg 47 for graph

COMPLETE BOLD DATA FOR ENTRY INTO TMS

Juan A. Alvarado 7/8/94 — FORM COMPLETED BY / DATE

L. N. Hanson 11-21-94 — TECHNICAL REVIEWER / DATE

SURFACE WATER QUALITY SAMPLING RECORD — SEEP SAMPLES

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

PAGE 1 OF 1

FACILITY CODE: MND ØØ

LOCATION ID: MND OA

LOG DATE: 7/15/94

1 DTC = 1 mg/L  Titrant = 1.6 N $H_2SO_4$

DTC = digital Titrant Counts

ERROR AT 4.50: $\frac{X1 - X2}{XS} \times 100 =$ _____ %

1st = 2.23 % between run 1 and run 2

2nd = 3.21 % between run 1 and run 3

3rd = 0.96 % between run 2 and run 3

INITIAL pH ~11

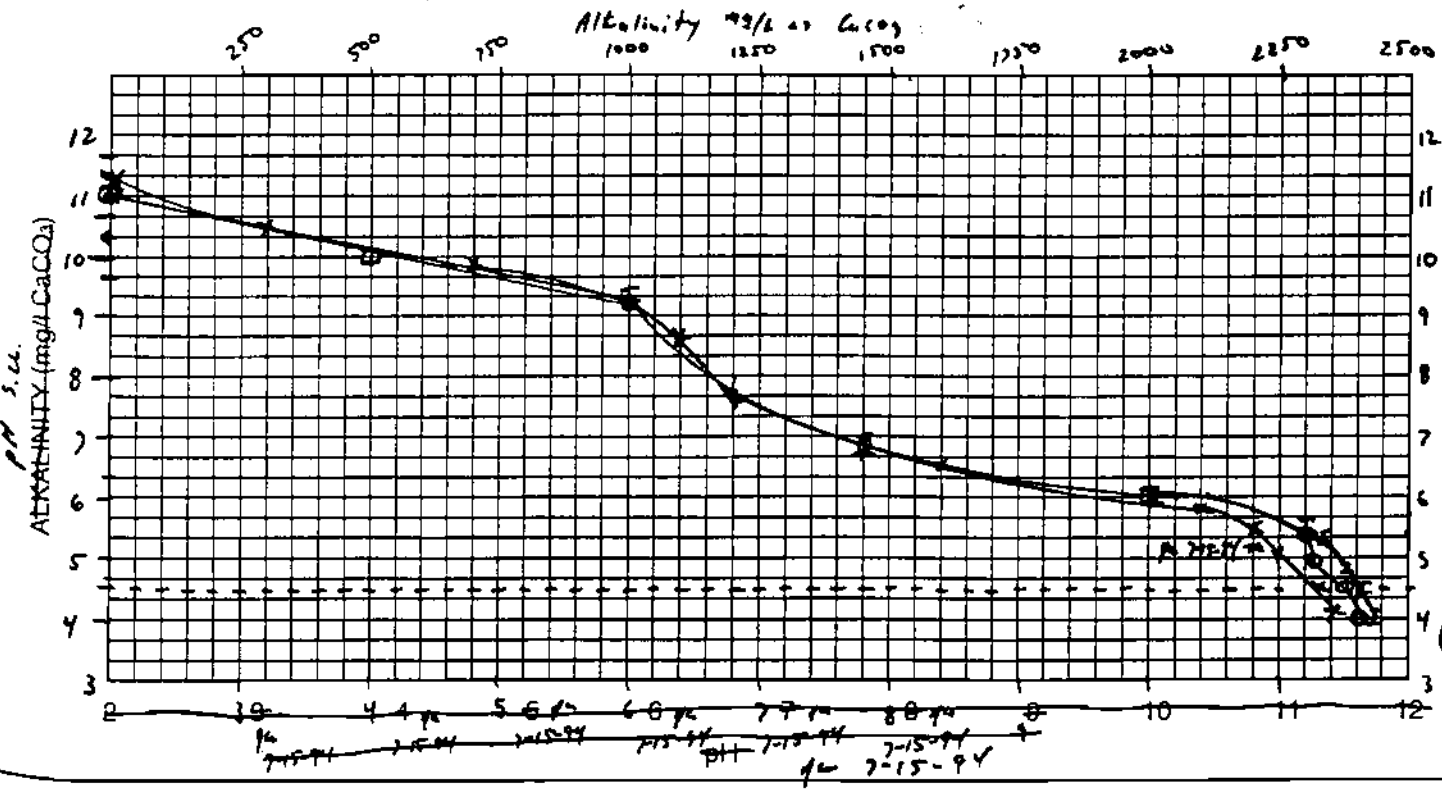
pH CHECK AFTER TITRATION

7.00 = 7.Ø5

4.00 = 4.ØØ

| pH | ALKALINITY (mg/l $CaCO_3$) 1st | 2nd | 3rd |
|---|---|---|---|
| 8.90 | DTC = 0 @ pH = 11.12 | NA | NA |
| 8.60 | DTC = 300 @ pH = 10.46 | ↓ | ↓ |
| 8.30 | DTC = 700 @ pH = 9.83 | ↓ | ↓ |
| 8.05 | DTC = 1000 @ pH = 9.24 | DTC = 0 pH = 11.01 | DTC = 0 pH = 11.04 |
| 7.80 | DTC = 1100 @ pH = 8.66 | DTC = 500 pH = 10.09 | DTC = 500 pH = 10.14 |
| 7.50 | DTC = 1300 @ pH = 7.60 | DTC = 1000 pH = 9.27 | DTC = 1000 pH = 9.31 |
| 6.50 | DTC = 1600 @ pH = 6.53 | DTC = 1500 pH = 6.80 | DTC = 1500 pH = 6.80 |
| 5.70 | DTC = 2100 @ pH = 5.79 | DTC = 2000 pH = 6.05 | DTC = 2000 pH = 6.05 |
| 5.10 | DTC = 2200 @ pH = 5.53 | DTC = 2300 pH = 5.33 | DTC = 2300 pH = 5.39 |
| 4.80 | DTC = 2300 @ pH = 5.02 | DTC = 2360 pH = 4.95 | DTC = 2390 pH = 4.82 |
| 4.50 | DTC = 2336 @ pH = 4.51 | DTC = 2388 pH = 4.51 | DTC = 2411 pH = 4.51 |
| 4.25 | DTC = 2337 @ pH = 4.49 | 2389 = DTC pH = 4.49 | DTC = 2412 pH = 4.49 |
| 4.00 | 2355 = DTC @ pH = 3.99 | DTC = 2406 pH = 3.99 | DTC = 2432 pH = 3.98 |

run 1 = X
run 2 = O
run 3 = I



# SAMPLE LOG SHEET

**PROJECT NAME:** Mound Operational Area **PROJECT NO:** 2680

SAMPLE ID NUMBER: SØ1ØØ1 DATE COLLECTED (MM/DD/YY): 7/7/94 TIME (HH:MM): ~~2:19~~ 14:19

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION:

POINT CODE: SØ1

DESCRIPTION:

SAMPLE -

MEDIA CODE: 55

DESCRIPTION: Spring/Seep Water

DEPTH Surface TO

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS: Sunny, humid, 95°

14:00 Ph probe Calibration 98.5 (Slope)

MSD/MS, DUPE, AND AMBIENT TAKEN AT SAMPLE POINT

2:17 — 63 sec per 2L — FLOW RATE ~ 0.5 GPM

Ambient ~~Acid~~ LOT. # = 83228020 / SERIAL A1077048

Volatiles taken first, due to seep clearing up TDS/TSS taken first

15:15 Finish sample - wait for water to clear

15:16 MS, MSD - clear water

15:46 Finish MS, MSD

16:42 WATER SLIGHTLY TURBID

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: [signature] (SIGNATURE) QA CHECKED BY: Joletta Humpert (SIGNATURE)

COMPL SAMF F-Fi K-Ki DISS( ALKA TEMP REDC SPEC POTE FINAI COMMI SAMPL SAMPL INITIAL ANALY LOG D. SAMPL LOCAT FACILI PROJ

## SURFACE WATER QUALITY SAMPLING RECORD — SEEP SAMPLING

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



FACILITY CODE: MNDØØ
LOT CONTROL NO.: NA
LOCATION ID: MNDOA
SAMPLE TYPE: Field F
SAMPLE ID: SØ1ØØ1
ACCEPTANCE CODE: A
LOG DATE: 7/7/94
LOGGER CODE: SAIC
ANALYICAL LAB CODE: COMP

INITIAL GROUNDWATER DEPTH (FT): Surface
SAMPLE DEPTH (FT): Surface
SAMPLING PERIOD: START 14:19
COMPLETE 16:30
SAMPLING METHOD: Grab
DATE SENT: 7/7/94

COMMENTS Seep SØ1ØØ1 is near Area J south of the 14W line and between 9W and 8W. It is in a non-AOC.

**FINAL PARAMETER MEASUREMENTS:**

| | | | BEGIN | END (16:30) |
|---|---|---|---|---|
| POTENTIAL OF HYDROGEN 7557 | pH | S.U. | 6.86 | 6.87 |
| SPECIFIC CONDUCTANCE 2179 | Ec | umhos/cm scale | 20 mu at 25°C (2.51) | 2.51 |
| REDOX POTENTIAL | Eh | mvolts | +47 | +280.2 |
| TEMPERATURE | TMP | °C | 17.3 | 15.6 |
| ALKALINITY ($CaCO_3$) | ALK | mg/l | 340 Average of 2 runs | |
| DISSOLVED OXYGEN 94C16777 | DO | mg/l | 6.71 mg/L | 6.8 |

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

| SAMPLE TYPES: | | SAMPLING METHODS: | | |
|---|---|---|---|---|
| F - FIELD | R - REPLICATE | BP - BLADDER PUMP | G - GRAB | SL - SUCTION LIFT PUMP |
| K - KNOWN | A - ACID BLANK | PP - PERISTALIC PUMP | B - BAILER | SP - SUBMERSIBLE PUMP |
| | | | AL - AIR-LIFT SAMPLER | |

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

FORM COMPLETED BY / DATE: [signature] 7/7/94

TECHNICAL REVIEWER / DATE: L.M. Hansen 11/21/94

(SIGNATURE)

(SIGNATURE)

RECORDED BY:

SURFACE WATER QUALITY SAMPLING RECORD — SEEP SAMPL

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

PAGE 1 OF 1

FACILITY CODE: MN500

LOCATION ID: S01001

LOG DATE: 7-8-94

ERROR AT 4.50: $\left| \frac{X1 - X2}{XS} \right| X 100 =$ _____ %

1st = 3.80 %

2nd = _____ %

INITIAL pH _____

DTC = Digital Titrator Counts

1 DTC = 1 mg/L

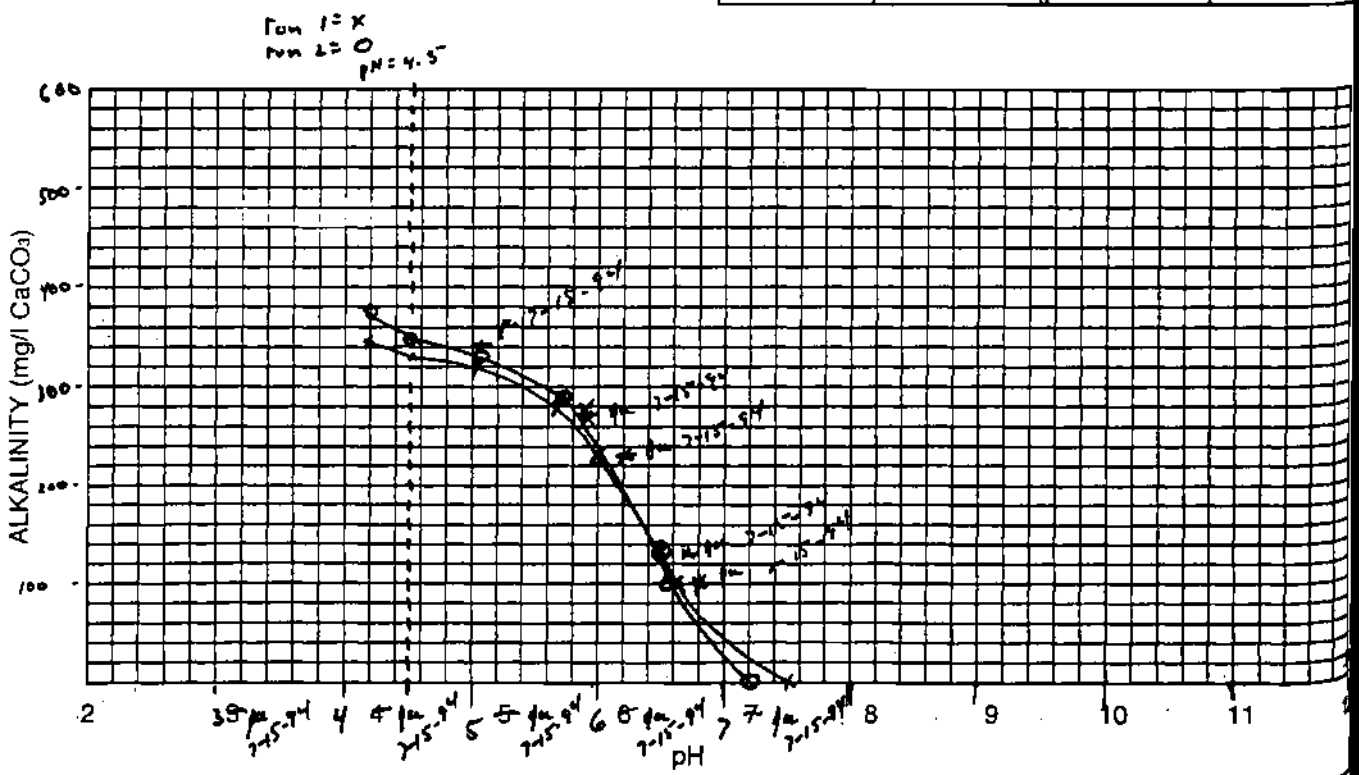
Titrant = 1.6 N $H_2SO_4$

pH CHECK AFTER TITRATION

7.00 = 7.05

4.00 = 4.00

| pH | ALKALINITY (mg/l $CaCO_3$) 1st | 2nd | 3rd |
|---|---|---|---|
| 8.90 | NA | NA | |
| 8.60 | | ↓ | |
| 8.30 | | DTC = 0 @ pH = 7.22 | |
| 8.05 | ↓ | DTC = 100 @ pH = 6.58 | |
| 7.80 | DTC = 0 @ pH = 7.33 | DTC = 127 @ pH = 6.50 | |
| 7.50 | DTC = 100 @ pH = 6.64 | DTC = 283 @ pH = 5.70 | |
| 6.50 | DTC = 130 @ pH 6.50 | DTC = 325 @ pH = 4.60 5.08 | 7-15-94 |
| 5.70 | DTC = 230 @ pH 6.04 | DTC = 342 @ pH 4.60 | |
| 5.10 | DTC = 278 @ pH 5.69 | DTC = 345 @ pH = 4.56 | |
| 4.80 | DTC = 320 @ pH 5.08 | DTC = 346 @ pH = 4.50 | |
| 4.50 | DTC = 333 @ pH 4.5 | DTC = 347 @ pH = 4.45 | |
| 4.25 | DTC = 343 @ pH = 3.57 | DTC = 356 @ pH = 4.01 | |
| 4.00 | | DTC = 357 @ pH 3.78 | |




SAMPLE LOG SHEET

Pg 50

# SAMPLE LOG SHEET

SAMPLE ID NUMBER: S01001

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-40 | Glass | CLPVOA | HCL to pH<2,4C | OAC-011 | 8219960151 | B3228020/ | COMPUC |
| 2-40 | Glass | CLPVOA - 8010 | HCL to pH<2,4C | | | Same for MC, MSD B3228020 | COMPUC |
| 2-1000 | AmbGlass | CLP SVOC | Cool,4C | | | See container lot number log | COMPUC |
| 2-1000 | AmbGlass | CLP PEST / PCB | Cool,4C | | | | COMPUC |
| 2-1000 | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 1-1000 | Poly | METALS | HNO3 to pH<2,4C | | | | COMPUC |
| 1-1000 | Poly | CYANIDE | NaOH to pH>12,4C | | | | COMPUC |
| 1-1000 | Poly | ANIONS Fl,SO4,Cl | Cool,4C | | | | COMPUC |
| 1-1000 | Poly | NO2/NO3 | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1000 | Poly | TOTAL NIT/TOTAL PHOS | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1000 | AmbGlass | TOTAL ORGANIC CARBON | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1000 | Poly | TOTAL SUSPENDED SOLIDS | Cool,4C | | | C3231020 | COMPUC |
| 1-1000 | Poly | TOTAL DISSOLVED SOLIDS | Cool,4C | | | Same for MS C4070010 MSD | COMPUC |
| 1-1000 | Poly | ALKALINITY | Cool,4C | | | See container lot number log | COMPUC |
| 1-1000 | Poly | AMMONIA | H2SO4 to pH<2,4C | | | | COMPUC |
| 2-1000 | Poly | RADS Pu,Th,U,Am | HNO3 TO PH<2 | | | | COMPUC |
| 2-1000 | Poly | RADS Ac,Ra,Sr,GAMMA | HNO3 TO PH<2 | | | | COMPUC |
| 1-1000 | Glass | TRITIUM | NONE | OAC-011 | 8219960151 | See container lot number log | COMPUC |

SAMPLE ID'S RINSATE: NA TRIP BLANK: TOA011 FIELD BLANK: A00004 FIELD DUPLICATE: S01101

RECORDED BY: Jan J. Ahmad (SIGNATURE) CHECKED BY: Joletta Humpert (SIGNATURE)

# SAMPLE LOG SHEET

**PROJECT NAME:** Mound Operational Area **PROJECT NO:** 2680

SAMPLE ID NUMBER: S02001 DATE COLLECTED (MM/DD/YY): 7/11/94 TIME (HH:MM): 9:49

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION:

POINT CODE: S02

DESCRIPTION:

SAMPLE -

MEDIA CODE: 55

DESCRIPTION: Spring/Seep Water

DEPTH SURFACE TO

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

9:49 First samples taken, minimal flow
10:16 1 liter per 2 min.
10:49 FINISH SAMPLING
11:25 PH TEST, TEMP. FLOW, AIR TEMP. 23-C

Field parameters were measured before field samples were collected. Due to keep water flow rate a follow up (i.e. second measurement) measurement was not obtained. However, pH test and water temp were taken after collection. Slightly turbid.

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: (SIGNATURE) QA CHECKED BY: Joletta Humpert (SIGNATURE)

SURFACE WATER QUALITY SAMPLING RECORD — SEEP SAMPLING

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

PAGE 1 OF 1

FACILITY CODE: MND00

LOT CONTROL NO.: NA

LOCATION ID: ~~S02001~~ 3yk 7-15-94 MND0A

SAMPLE TYPE: Grab

SAMPLE ID: S02001

ACCEPTANCE CODE: A

LOG DATE: 7/11/94

LOGGER CODE: SAIC

ANALYICAL LAB CODE:

INITIAL GROUNDWATER DEPTH (FT): Surface

SAMPLE DEPTH (FT): surface

SAMPLING PERIOD: START 09:49

COMPLETE 10:49

SAMPLING METHOD: Grab

DATE SENT: 7/11/94

COMMENTS Seep S02001 is near Area J approximately 10' south of K11 stake. It is in a non-AOC.

FINAL PARAMETER MEASUREMENTS:

| | | | |
|---|---|---|---|
| POTENTIAL OF HYDROGEN | pH | S.U. | SLOPE 101% ~~[illegible]~~ 7.02 7/11/94 |
| SPECIFIC CONDUCTANCE | Ec | umhos/cm | 2.43 @ 20 mS/cm 16° |
| REDOX POTENTIAL | Eh | mvolts | +128.6 |
| TEMPERATURE | TMP | °C | 14.6 °C |
| ALKALINITY ($CaCO_3$) | ALK | mg/l | 383 (average of both runs) |
| DISSOLVED OXYGEN | DO | mg/l | 5.03 mg/L |

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

| SAMPLE TYPES: | | SAMPLING METHODS: | | |
|---|---|---|---|---|
| F - FIELD | R - REPLICATE | BP - BLADDER PUMP | G - GRAB | SL - SUCTION LIFT PUMP |
| K - KNOWN | A - ACID BLANK | PP - PERISTALIC PUMP | B - BAILER | SP - SUBMERSIBLE PUMP |
| | | | AL - AIR-LIFT SAMPLER | |

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

[signature] 7/11/94 — FORM COMPLETED BY / DATE

L. M. Wallace 11-21-94 — TECHNICAL REVIEWER / DATE

(SIGNATURE)

(SIGNATURE)

SURFACE WATER QUALITY SAMPLING RECORD — SEEP SAMPLE

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

PAGE 1 OF 1

FACILITY CODE: MND00

LOCATION ID: S02001

LOG DATE: 7/12/94

ERROR AT 4.50: $\frac{X1 - X2}{XS}$ X 100 = _____ %

1st = 4.0 %

2nd = NA %

INITIAL pH Slope 96.3%

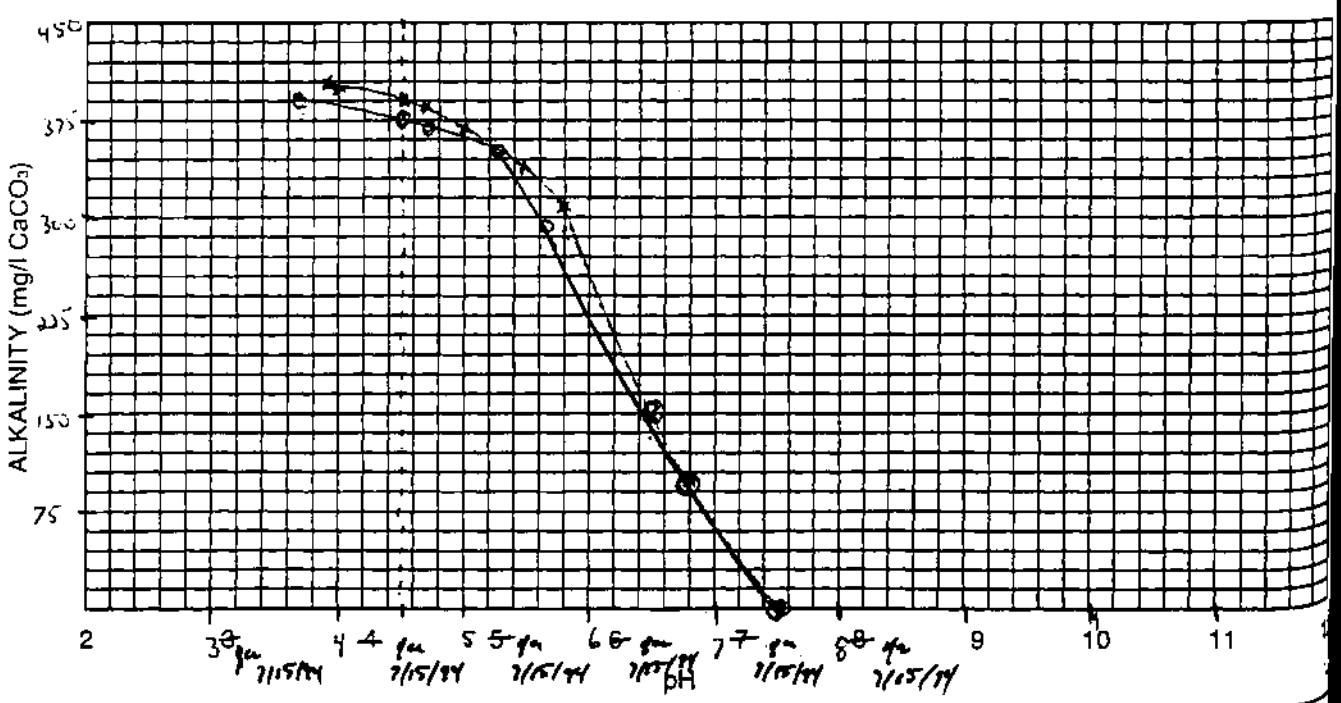
pH CHECK AFTER TITRATION

7.00 = 7.07

4.00 = 4.09

| pH | ALKALINITY (mg/l $CaCO_3$) 1st | 2nd | 3rd |
|---|---|---|---|
| 8.90 | 0 DTC @ pH 7.55 | 0 DTC @ pH 7.53 | |
| 8.60 | 100 DTC @ pH 6.79 | 100 DTC @ pH 6.80 | |
| 8.30 | 150 DTC @ pH 6.56 | 150 DTC @ pH 6.56 | |
| 8.05 | 310 DTC @ pH 5.79 | 270 DTC @ pH 5.46 | |
| 7.80 | 344 DTC @ pH 5.46 | 350 DTC @ pH 5.26 | |
| 7.50 | 370 DTC @ pH 5.01 | 370 DTC @ pH 4.72 | |
| 6.50 | 365 DTC @ pH 4.67 | 375 DTC @ pH 4.46 | |
| 5.70 | 340 DTC @ pH 4.50 | 350 DTC @ pH 3.72 | |
| 5.10 | 400 DTC @ pH 4.1 | | |
| 4.80 | 404 DTC @ pH 3.93 | | |
| 4.50 | | | |
| 4.25 | | | |
| 4.00 | | | |

Run 1 = x
Run 2 = O




SAMPLE LOG SHEET

# SAMPLE LOG SHEET

SAMPLE ID NUMBER: S02001

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-40 | Glass | CLPVOA | HCL to pH<2,4C | OAC 013 | 8119960615 | B3228020 | COMPUC |
| 2-40 | Glass | CLPVOA - 8010 | HCL to pH<2,4C | | | B3228020 | COMPUC |
| 2-1000 | AmbGlass | CLP SVOC | Cool,4C | | | See container lot number log | COMPUC |
| 2-1000 | AmbGlass | CLP PEST / PCB | Cool,4C | | | | COMPUC |
| 2-1000 | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 1-1000 | Poly | METALS | HNO3 to pH<2,4C | | | | COMPUC |
| 1-1000 | Poly | CYANIDE | NaOH to pH>12,4C | | | | COMPUC |
| 1-1000 | Poly | ANIONS Fl,SO4,Cl | Cool,4C | | | | COMPUC |
| 1-1000 | Poly | NO2/NO3 | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1000 | Poly | TOTAL NIT/TOTAL PHOS | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1000 | AmbGlass | TOTAL ORGANIC CARBON | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1000 | Poly | TOTAL SUSPENDED SOLIDS | Cool,4C | | | C4070010 | COMPUC |
| 1-1000 | Poly | TOTAL DISSOLVED SOLIDS | Cool,4C | | | C4070010 | COMPUC |
| 1-1000 | Poly | ALKALINITY | Cool,4C | | | See container lot number log | COMPUC |
| 1-1000 | Poly | AMMONIA | H2SO4 to pH<2,4C | | | | COMPUC |
| 2-1000 | Poly | RADS Pu,Th,U,Am | HNO3 TO PH<2 | | | | COMPUC |
| 2-1000 | Poly | RADS Ac,Ra,Sr,GAMMA | HNO3 TO PH<2 | | | | COMPUC |
| 1-1000 | Glass | TRITIUM | NONE | | | See container lot number log | COMPUC |

SAMPLE ID'S RINSATE: NA TRIP BLANK: TB4 013 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: [signature] (SIGNATURE) CHECKED BY: Joletta Humpert (SIGNATURE)

# SAMPLE LOG SHEET

**PROJECT NAME:** Mound Operational Area

**PROJECT NO:** 2680

SAMPLE ID NUMBER: S01101 DATE COLLECTED (MM/DD/YY): 7/7/94 TIME (HH:MM): ~~15:46~~ 14:19 JL 7/7/94

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION:

POINT CODE: S01

DESCRIPTION:

SAMPLE -

MEDIA CODE: 55

DESCRIPTION: Spring/Seep Water

DEPTH Surface TO

SAMPLE TYPE:

- [ ] GRAB
- [ ] SPATIAL COMPOSITE
- [ ] TIME COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC RINSATE
- [ ] QC FIELD BLANK
- [X] OTHER (SPECIFY) QC Field Duplicate

FIELD OBSERVATIONS:

STARTED SAMPLING 15:46
FINISHED SAMPLING 16:19
Because samples (Field Sample / MS/MSD / Dup.) were taken consecutively sample will be 14:19

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO:

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Jim R. Schmid (SIGNATURE) QA CHECKED BY: Juletta Humpert (SIGNATURE)

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SURFACE WATER QUALITY SAMPLING RECORD

SEEP SAMPLING

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

PROJECT NO.: 34896



FACILITY CODE: MND00

LOT CONTROL NO.: NA

LOCATION ID: MND0A

SAMPLE TYPE: Grab

SAMPLE ID: S0110 1

ACCEPTANCE CODE: A

LOG DATE: 7/7/94

LOGGER CODE: SAIC

ANALYICAL LAB CODE: COMP

INITIAL GROUNDWATER DEPTH (FT): surface

SAMPLE DEPTH (FT): surface

SAMPLING PERIOD: START 14:19

COMPLETE 16:30

SAMPLING METHOD: Grab

DATE SENT: 7/7/94

COMMENTS

See pg. 55

FINAL PARAMETER MEASUREMENTS:

| | | | |
|---|---|---|---|
| POTENTIAL OF HYDROGEN | pH | S.U. | See page 55 |
| SPECIFIC CONDUCTANCE | Ec | umhos/cm | |
| REDOX POTENTIAL | Eh | mvolts | |
| TEMPERATURE | TMP | °C | |
| ALKALINITY ($CaCO_3$) | ALK | mg/l | |
| DISSOLVED OXYGEN | DO | mg/l | |

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

| SAMPLE TYPES: | | SAMPLING METHODS: | | |
|---|---|---|---|---|
| F - FIELD | R - REPLICATE | BP - BLADDER PUMP | G - GRAB | SL - SUCTION LIFT PUMP |
| K - KNOWN | A - ACID BLANK | PP - PERISTALIC PUMP | B - BAILER | SP - SUBMERSIBLE PUMP |
| | | | AL - AIR-LIFT SAMPLER | |

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

James A. Schmidt 7/7/94 — FORM COMPLETED BY / DATE

L. M. Monson 11-21-94 — TECHNICAL REVIEWER / DATE

# SAMPLE LOG SHEET

SAMPLE ID NUMBER:

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-40 | Glass | CLPVOA | HCL to pH<2,4C | OAC-011 | 8219960151 | B3228020 | COMPUC |
| 2-40 | Glass | CLPVOA - 8010 | HCL to pH<2,4C | | | B3228020 | COMPUC |
| 2-1000 | AmbGlass | CLP SVOC | Cool,4C | | | See container lot number log | COMPUC |
| 2-1000 | AmbGlass | CLP PEST / PCB | Cool,4C | | | | COMPUC |
| 2-1000 | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 1-1000 | Poly | METALS | HNO3 to pH<2,4C | | | | COMPUC |
| 1-1000 | Poly | CYANIDE | NaOH to pH>12,4C | | | | COMPUC |
| 1-1000 | Poly | ANIONS Fl,SO4,Cl | Cool,4C | | | | COMPUC |
| 1-1000 | Poly | NO2/NO3 | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1000 | Poly | TOTAL NIT/TOTAL PHOS | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1000 | AmbGlass | TOTAL ORGANIC CARBON | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1000 | Poly | TOTAL SUSPENDED SOLIDS | Cool,4C | | | C3231020 | COMPUC |
| 1-1000 | Poly | TOTAL DISSOLVED SOLIDS | Cool,4C | | | C4070010 | COMPUC |
| 1-1000 | Poly | ALKALINITY | Cool,4C | | | See container lot number log | COMPUC |
| 2-1000 | Poly | RADS Pu,Th,U,Am | HNO3 TO PH<2 | | | | COMPUC |
| 2-1000 | Poly | RADS Ac,Ra,Sr,GAMMA | HNO3 TO PH<2 | | | | COMPUC |
| 1-1000 | Glass | TRITIUM | NONE | | | | COMPUC |
| 1-1000 | Poly | Ammonia | $H_2SO_4$ to pH<2-4°C | OAC-011 | 8219960151 | See container lot number log | COMPUC |

SAMPLE ID'S RINSATE: NA TRIP BLANK: NA FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: [signature] (SIGNATURE) QA CHECKED BY: Jeletta Humpert (SIGNATURE)

Pg. 141

A.5

## A.5 SAMPLE MANAGER LOGBOOK

EG & G MOUND

OU5 OPS AREA

PHASE I

SAMPLE MGR.

LOGBOOK

OPS AREA

# SAMPLE MANAGER LOG BOOK

**PROJECT TITLE:** EG&G MOUND OU5 NEW PROPERTY EXTENDED PHASE RI/FS FIELD INVESTIGATIONS

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

**ACTIVITY:** *Mound OU5 New Property 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 4.1, SOP 4.3, SOP 4.4, SOP 5.1, SOP 6.1, SOP 6.3*

**START DATE:** 6/20/94
**END DATE:** 9/14/94

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SAMPLE MANAGER OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

PROJECT NO: 34896


| PAGE | FIELD LOG | PAGE | FIELD LOG |
|---|---|---|---|
| 1 | Task Team Activity Log Sheet 6/20/94 | 31 | Task Team Activity 8/9/94 |
| 2 | Task Team Activity Log Sheet 6/21/94 | 32 | Task Team Activity 8/10/94 |
| 3 | ↓ | 33 | Task Team Activity 9/14/94 |
| 4 | Task Team Activity 6/22/94 | 34 | NO ENTRY |
| 5 | ↓ | 35 | |
| 6 | Task Team Activity 6/23/94 | 36 | |
| 7 | Task Team Activity 6/27/94 | 37 | |
| 8 | Task Team Activity 6/28/94 | 38 | |
| 9 | Task Team Activity 6/29/94 | 39 | |
| 10 | ↓ | 40 | |
| 11 | Task Team Activity 6/30/94 | 41 | |
| 12 | Task Team Activity 7/5/94 | 42 | |
| 13 | Task Team Activity 7/6/94 | 43 | |
| 14 | Task Team Activity 7/7/94 | 44 | |
| 15 | Task Team Activity 7/7/94 | 45 | |
| 16 | Task Team Activity 7/8/94 | 46 | |
| 17 | Task Team Activity 7/11/94 | 47 | |
| 18 | ↓ | 48 | |
| 19 | Task Team Activity 7/12/94 | 49 | |
| 20 | Task Team Activity 7/13/94 | 50 | |
| 21 | Task Team Activity 7/14/94 | 51 | |
| 22 | ↓ | 52 | |
| 23 | Task Team Activity 7/19/94 | 53 | |
| 24 | Task Team Activity 7/20/94 | 54 | |
| 25 | Task Team Activity 7/21/94 | 55 | |
| 26 | Task Team Activity 7/22/94 | 56 | |
| 27 | Task Team Activity 7/25/94 | 57 | |
| 28 | Task Team Activity 7/26/94 | 58 | |
| 29 | Task Team Activity 7/27/94 | 59 | |
| 30 | Task Team Activity 8/8/94 | 60 | ↓ |

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SAMPLE MANAGER
OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

PROJECT NO: 34896

| PAGE | FIELD LOG | PAGE | FIELD LOG |
|---|---|---|---|
| 61 | NO ENTRY | 91 | NO ENTRY |
| 62 | | 92 | " |
| 63 | | 93 | QA Tracking Lists |
| 64 | | 94 | |
| 65 | | 95 | |
| 66 | | 96 | |
| 67 | | 97 | |
| 68 | | 98 | |
| 69 | | 99 | |
| 70 | | 100 | Blank Page |
| 71 | | 101 | Blank Page |
| 72 | | 102 | Sample Log Sheet ERØØØ1 |
| 73 | | 103 | |
| 74 | | 104 | Sample Log Sheet ERØØØ2 |
| 75 | | 105 | |
| 76 | | 106 | Sample Log Sheet ERØØØ3 |
| 77 | | 107 | |
| 78 | | 108 | Sample Log Sheet ERØØØ4 |
| 79 | | 109 | |
| 80 | | 110 | Sample Log Sheet ERØØØ5 |
| 81 | | 111 | |
| 82 | | 112 | Sample Log Sheet ERØØØ6 |
| 83 | | 113 | |
| 84 | | 114 | No Entry |
| 85 | | 115 | |
| 86 | | 116 | Sample Log Sheet ERØØØ8 |
| 87 | | 117 | |
| 88 | | 118 | Sample Log Sheet ERØØØ9 |
| 89 | | 119 | |
| 90 | | 120 | Sample Log Sheet ERØØ1Ø |

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SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

PROJECT NO: 34896

| PAGE | FIELD LOG | PAGE | FIELD LOG |
|---|---|---|---|
| 121 | Sample Log Sheet ERØØ1Ø | 151 | Sample Log Sheet BBØØØ1 |
| 122 | Sample Log Sheet ERØØ11 | 152 | Sample Log Sheet BBØØØ2 |
| 123 | ↓ | 153 | ↓ |
| 124 | NO ENTRY | 154 | Sample Log Sheet BBØØØ3 |
| 125 | | 155 | ↓ |
| 126 | | 156 | Sample Log Sheet BBØØØ4 |
| 127 | | 157 | ↓ |
| 128 | | 158 | Sample Log Sheet BBØØØ5 |
| 129 | | 159 | ↓ |
| 130 | Blank Page | 160 | Sample Log Sheet BBØØØ6 |
| 131 | Blank Page | 161 | ↓ |
| 132 | Sample Log Sheet ABØØØ1 | 162 | NO ENTRY |
| 133 | ↓ | 163 | |
| 134 | Sample Log Sheet ABØØØ2 | 164 | |
| 135 | ↓ | 165 | |
| 136 | Sample Log Sheet ABØØØ3 | 166 | Blank Page |
| 137 | ↓ | 167 | ↓ |
| 138 | Sample Log Sheet ABØØØ4 | 168 | NO ENTRY |
| 139 | ↓ | 169 | |
| 140 | Sample Log Sheet ABØØØ5 | 170 | |
| 141 | ↓ | 171 | |
| 142 | Sample Log Sheet ABØØØ6 | 172 | |
| 143 | ↓ | 173 | |
| 144 | NO ENTRY | 174 | |
| 145 | | 175 | |
| 146 | | 176 | |
| 147 | | 177 | |
| 148 | Blank Page | 178 | |
| 149 | ↓ | 179 | |
| 150 | Sample Log Sheet BBØØØ1 | 180 | |

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Pg IV

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

PROJECT NO: 34896


| PAGE | FIELD LOG | PAGE | FIELD LOG |
|---|---|---|---|
| 181 | NO ENTRY | 211 | Sample Container Lot # Log |
| 182 | | 212 | |
| 183 | | 213 | |
| 184 | | 214 | |
| 185 | | 215 | |
| 186 | Blank Page | 216 | |
| 187 | Sample ID/COC Tracking Form | 217 | |
| 188 | | 218 | |
| 189 | | 219 | |
| 190 | | 220 | |
| 191 | | 221 | |
| 192 | | 222 | |
| 193 | NO ENTRY | 223 | |
| 194 | | 224 | |
| 195 | | 225 | NO ENTRY |
| 196 | | 226 | " |
| 197 | | 227 | Trip Blank Tracking Form |
| 198 | | 228 | NO ENTRY |
| 199 | | 229 | END OF BOOK; NO MORE ENTRIES |
| 200 | | 230 | |
| 201 | | 231 | |
| 202 | | 232 | |
| 203 | | 233 | |
| 204 | | 234 | |
| 205 | | 235 | |
| 206 | | 236 | |
| 207 | Sample Container Lot # Log | 237 | |
| 208 | | 238 | |
| 209 | | 239 | |
| 210 | | 240 | |

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY EXTENDED PHASE

TASK NO.: 34896

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

Task Team Members:

Joletta Minard pg. 1

Narrative (include time and location):

0700 Onsite - Prepping sample jars for rig.
0830 Collected equipment rinsate (ER0001) using ASTM Type II DI Water on bowl and spoons.
0930 Out working at drill rig with J. Davis. Delivering equipment to rig.
1000 Onsite at cable tool rig collecting ambient.
1030 Back to Area 7 rig, collecting samples B01001-B01003.
1045 Collected Ambient blank (AB0001) using ASTM Type II DI water. Brought B01001 and B01002 back to trailer to keep cool. gpH 6/20/94
1115 Collected sample bank blank (BB0001) in sample trailer while packaging B01002.
1200 New Property crews brought in water sample. Also more samples from Area 7 rig.
1200-1430 Packaging samples. Preserving and packaging water sample.
1430-1500 Drove to Fedex to pick up bottles and samplesavers.
1530 Returned to site with bottles. Unloaded van. gpH 6/20/94.
1600-1800 Packed eleven samplesavers. Airbill #~~9289476512~~ #9289476350. Delivered to Fedex offsite. Fast Entry.

Daily Weather Conditions: A.M. Hot! 76°F, sunny, v. humid

P.M. Hotter! 98°F, sunny, v.v. humid, rain (late)

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

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

Task Team Members:

Pg. 2

Jolitta Humpert

Erik Saylor

Narrative (include time and location):

0700 Onsite at sample trailer. Morning briefing by J. Davis. Prepping crews.

0800 Packaging B01007 collected on 6/20/94.

0900 Prepping trailer for arrival of a magnitude of sample boxes.

1130 Began prepping sample jars for B02001. Also preparing to collect ER00002.

Following conversation with A. Meyer, it was decided that a separate rinsate would be collected for surface and subsurface soil samples due to differences in parameters to be analyzed.

Surface soil samples include Bi, Li, and Mo, whereas subsurface soil samples are analyzed for Bi only.

Per A. Meyer, it was also decided that we would need to mark Ra-226 and Am-241 for water samples only. Do not mark Actinium for water or soil samples.

1200 Collected rinsate ER00002 for subsurface samples. Preserved appropriate samples and checked with

Daily Weather Conditions: A.M. Hot, 76°F, sunny

P.M. Hot, 92°F, sunny, rain late aft.

Recorded By Jolitta Humpert QA Checked By Laura M. Morrison 9/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

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

Task Team Members:

J. Humpert

E. Saylor

pg. 3

Narrative (include time and location):

litmus paper. Placed samples in fridge for holding

1230 Received B02001 for packaging. Also Received B40702 from New Property.

1400 Fedex finally arrives with close to 100 boxes (to many to count). Began unpacking bottles, blue ice and temp. strips from boxes.

1500 Sent E. Saylor to pick up sample from rig.

1530 Packaged samples - B02001.

1545 Contacted P. Bidard from NERI (soilgas) and packaged timers from non-AOC area.

1600 Instructed E. Saylor to begin packing Ops Area samplesavers.

1615 Crew returns from drill rig and delivers B02002 for packaging.

1630-1745 Packing samplesavers. Total of 8 boxes.
Airbill # 8219959451

1748-1815 Delivery to Fedex with M. Cramer.

Offsite @ 1815

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 6-22-94 TIME: NA PAGE 1 OF 2

Task Team Members:

Jolotta Humpert (SAIC) Pg. 4

Narrative (include time and location):

0720 Onsite. Prepping bottles for crews

0800-0845 Packaging sample bottles for D. Gault for PE samples

0930 Went to B04 to pick up samples from drill crew and remind them to collect duplicate and use rinsate bowl. Picked up B04001

1030 Out at cable tool rig collecting B39801. Return to trailer to package and label samples.

1100 Packaging B40501 and B40502 from hollow-stem rig.

1130 Received B04002 and B04102 (duplicate) for packaging from G. Loder - area 7.

1300 Packaging geotechnical samples from New Property - B40521, B40721, and B40821.

1430 E. Saylor went to pick up samples from Ops Area. Packaged B05001.

1500 Talked to A. Meyer. Explained to her what happened with B01007. Samples were collected for analysis on 6/20/94 and 6/21/94. Crews were stopped during collection on 6/20/94 due to a

Daily Weather Conditions: A.M. Hot, @ 80°F, sunny.

P.M. Hot, @ 90°F, sunny

Recorded By Jolotta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO: 34896

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

Task Team Members:

J.H. Pg. 5

Narrative (include time and location):

lightening alarm. Crews completed collecting B01007 on 6/21/94 - collected Rads P, T, V and two gamma spec jars. Lab contacted by A. Meyer - lab will use 6/20/94 for collection date and SAIC will use 6/20/94 for database

1530 Began packing samplesavers for NP samples Packed 4 boxes. Airbill # 8219960232

1645 Left to drop boxes at fedex

Offsite - Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA.

Recorded By Jolette Humpert QA Checked By Laura M. Morrison 8/17/94

**TASK TEAM ACTIVITY LOG SHEET** — **SAMPLE MANAGER** OPS

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

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

Task Team Members: Pg. 6

Joletta Humpert

Evelyn Meager-Hartzell

Narrative (include time and location):

0700 Onsite at sample trailer. Packing sample bottles for crews.

0730 Collecting Rinsate for NP-ER0016.

0900 Worked with EMtl to unpack sample savers.

1000 Sent EMtl to pick up samples from G. Loder

1030 Packaging samples from Area 7 (B03001 and B03002).

1200 Packaging samples from Area 7 (~~B03~~ JH 6/23/94 B03003).

1300 Went to lunch

1400 Thunderstorm rolled in - lightening alarm.

1400-1530 Rain!

1530 Received soil screening results from HP

1600 Packaging samples from Ops Area.

1630 G. Loder stated that he had another half a sample from B03 (B03004 - VOA, TOC, Lanthanides, SVOC/Pest/PCB, and Metal/Cyn samples sent - others still to be collected). Airbill # 8219960405.

Recopied COC information. Repacked boxes.

No samples shipped for New Property.

Offsite @ 1730 after assisting J. Schultheiss in packaging 049 samples. Last Entry.

Daily Weather Conditions: A.M. Hot @ 75°F

P.M. Hot @ 85°F, Rain @ 1430

Recorded By Joletta Humpert QA Checked By Laura M. Marson 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

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

Task Team Members: Pg. 7

Joletta Humpert

George Wahl

Narrative (include time and location):

0630 Onsite @ sample trailer. Working with soil gas crew to determine sampling strategy.

0700 Collecting ER0016 for New prop. rig.

0830 Packaging sample jars for drill crews.

0900 Went out to Area 7 drill rig to collect ambient and sample bank blanks.

0915 Not drilling yet. Waiting for HP to arrive.

0945 Collecting rinsate for New Prop. groundwater bailer, ER0017.

1030 Packaging samples - rinsate. Went to Area 7 rig to collect ambient. AB0002 for groundwater

1200 Received B03004, B03005, and W03001 for packaging. Collected BB0002 for Ops Area

1500 Began packaging sample savers. Received B40602 from Ops Area.

1600 Received B03006 from Ops Area.

1730 Offsite to deliver to fedex. Total of 10 boxes. Air bill # ~~821995 9786~~ 6/30/94. Last Entry. 821996 0372.

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

P.M. 80°F, cloudy

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 6-28-94 TIME: NA PAGE 1 OF 1

Task Team Members:
Joletta Humpert pg. 8
George Wahl

Narrative (include time and location):

0700 Onsite at sample trailer. Prepping sample jars for crews.
0730 Collecting rinsate ER0003 for subsurface samples.
0900 Completing paperwork.
1030 Packaging B40002; unpacking samplesavers.
1200 Sorting labels. Packaging B40901, B40902, and B03007.
*1400 Unpacking sample savers. Moving samplesavers from Weston trailer to SAIC semi-storage area with help of G. Wahl.
1530 Packaging B40001.
1545 Packaging B07001, B07101 and B07002.
1630 Packaging samples with help of G. Wahl.
1800 Total of 8 boxes. Airbill # 8219960486. Transported boxes to fedex for shipment. Offsite. Last Entry.

* Hydrogen cylinder delivered to trailer. Will store in trailer overnite to get proper security for tomorrow.

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

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

Date (mm/dd/yy): 6-29-94 TIME: NA PAGE 1 OF 2

Task Team Members: Pg. 9

Joletta Humpert

George Wahle

Narrative (include time and location):

0700 Onsite at sample trailer. Collecting rinsate for NP surface samples - ER0018. Gave bowl + spoon to MK.

0830 Collected rinsate for Ops Area groundwater sample using bailer. Preserved samples appropriately - ER0004.

1000 Packaged PE samples delivered by K. McMahan. Includes 2 VOAs, 2 SVOCs, 3 Pest/PCBs, and 2 metals samples. Called A. Meyer about how to ship them - use our COC or what?

1030 Packaged B07003 which was delivered by J. Davis. Part of B07003 was collected on 6/28/94 at 1530 (VOA, SVOC/Pest/PCB, Metal/Cyn, Explosives, and TOC). The remainder of B07003 was collected at 0828 on 6/29/94.

1115 Left to go pickup trip blanks from fedex office.

1230 Back at trailer. Packaging B40401, B40402, and B40412.

1400 Unpacking sample savers.

1500 Received B16001 from J Davis. Packaging.

Daily Weather Conditions: A.M. Warm, 73°F, Sunny, Humid

P.M. Hot, 85°F, Sunny, Rain late

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

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

Task Team Members:

J. Humpert Pg. 10

Narrative (include time and location):

1630 Received B16002 and B16003. Packaging.
1730 Finishing packaging sample savers.
8 boxes for Ops Area.
Airbill # 8219959834
1745 Offsite to deliver to fedex.
Fast Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

Date (mm/dd/yy): 6-30-94 TIME: NA : ____ PAGE 1 OF 1

Task Team Members:

Joletta Humpert pg. 11

George Wahl

Narrative (include time and location):

0720 Onsite at sample trailer. Collecting ER for B16 for Rads and VOC only.

0830 Packaging B40301, B40311, and B40302 received at 1730 on 6/29/94. Held overnight in refrigerator

1015 Unpacking sample savers and organizing sample bottles.

1100 Catching up on logbook and lunch.

1200 Packaging geotechnical samples.

1230 Packaging B16004, B16005, and W16001. Also B40201 and B40202.

1430 Packaging soil gas timers from Area 21

1500 Drill rig shut down on B16 — no more samples.

1515 Begin packaging sample savers

1630 Begin packaging geotechnical buckets for NP.

1700 Total of six sample savers for Ops Area. Air bill # 8219960350.

1800 Transported samples to fedex. Offsite @ 1800. Last Entry.

Daily Weather Conditions: A.M. Sunny @ 72°F

P.M. Sunny @ 85°F

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

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

Task Team Members:

Joletta Humpert pg. 12

Greg Schant (SAIC Auditor)

Narrative (include time and location):

0715 Onsite at sample trailer. H&S briefing by J. Davis.

0800 Collected rinsate for NP (ER0019) for sediment samples. Preserved appropriately

0930 Completing logbooks.

1000 Packaging geotech samples

1030-1215 Pulling soil gas samples in non AOC (27-41 except 32).

1230 Lunch

1240 Packaging sediment samples SD0701 and SD0801. Also packaging B13001, and B13002, + B13003.

1430 Packaging geotech shelby tubes.

1530 Begin packaging SD1401 and SD1501. Talked to A. Meyer. Mark on Bi for water samples. Ready to send PE Samples to ERA.

1615 Received B13004, B13005, and B13006 (VOC only).

1700 Sent 6 coolers for Ops Area Airbill # 8219960125.

1745 Offsite to deliver to fedex. Just Entry.

Daily Weather Conditions: A.M. 80°F, Hot, Sunny

P.M. 97°F, Hotter, sunnier, humid

Recorded By Joletta Humpert QA Checked By Laura M. Monroe 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

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

Task Team Members: pg. 13

Joletta Humpert
Greg Schank
Tonya Pfaff

Narrative (include time and location):

0715 Onsite at sample trailer. Prepping bottles for crews. Collecting ER0000 for subsurface soil samples for Area 7.

0830 Packaging shelby tubes into fedex tubes.

0900 No samples will be collected by cabletool rig. Sediment crew out sampling in NP.

0930 Received two sediment samples SD1201 and SD1301 and SD1311 (duplicate). Packaging.

1045 Received water sample (groundwater) W13001 and duplicate W13101. Packaging.

1200 Received SD1601 and SD1701. Packaging.

1400 Received SD2001 and SD1801, and SD1901. Packaging.

1530 Received SD0601. Packaging.

1530-1700. Packaging samples into sample savers.
A total of 15 boxes for Ops Area.
Airbill # 8219960081

1715. Delivery to fedex in J. Davis.
Last Entry

Daily Weather Conditions: A.M. Hot! 80°F Sunny
P.M. Hotter! 96°F Sunny

Recorded By Joletta Humpert QA Checked By Laura M. Morrow 8/17/94

**TASK TEAM ACTIVITY LOG SHEET** — SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

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

Task Team Members: Joletta Humpert Pg. 14

Narrative (include time and location):

0645 Onsite at sample trailer. Collecting rinsate for seep crew. Preserving samples.
0730 Called for Elisa - we desperately need water!!
0800 Juan informed me that he may not need a bowl for rinsate for sample collection.
0830 Began relabeling rinsate for NP area for sediment or subsurface sample for cable tool rig.
0915 Catching up on logbooks and labels.
0930-1015 Packaging and labeling sample jars for PE samples to be sent to ERA. Sent samples (jars) according to list provided by A. Meyer to
Joel Holtz
ERA
5540 Marshall St.
Arvado, CO 80002.
1100 Received sediment samples SD0901, SD0911, SD1001, and SD1101 for packaging. Labeling and packaging
1230 Ran to fedex to pick up trip blanks.
1300 Made trip to semi-trailer to pick up more boxes
1330-1430 Up to ears in boxes - unpacking for more blue ice

Daily Weather Conditions: A.M. 72°F, Sunny
P.M. Hotter, @ 92°F

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

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

Task Team Members:

J Humpert pg.15

Narrative (include time and location):

Also packing bottles for seep crew. Will collect sample plus duplicate plus MS/MSD.

1530 Received SD2301, SD2401, SD2501, and SD2701 from sediment crew. Packaging some samplesavers.

1535 Received delivery of DI water from Lamco - 55 gal drum (HDPE drum).

1645 Received seep samples from crew - began labeling and preserving. Assisted by M. Cramer, S. Abston, T. Pfaff, and J. Davis.

1830 Out of ice - will run to BP and buy ice, bag it and add to coolers.

1830 Offsite to BP

1845 Bagging ice and adding to coolers. Off to Fedex

1900 Delivery to fedex:

2 buckets (geotech) : Airbill # 2169350805 (Singleton)

7/7/94 9 containers to Conpuchem: Airbill # 8219960151

1940 Leave fedex for home.

Last Entry

Daily Weather Conditions: A.M. Hot @ 72°F, Sunny

P.M. Hotter, @ 92°F

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER 075

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 7-8-94 TIME: NA PAGE 1 OF 1

Task Team Members:
Joletta Humpert pg. 16

Narrative (include time and location):

0730 Onsite at sample trailer. Completing logbook from previous day

0800 Reviewing soil gas logbooks and tracking status of samplers.

0815-0915 Pulling samplers in non-HP area of area 22. Pulled 64-66, 70-73, 75-77. Others of 64-85 were caved in or behind a locked fence.

0930 Prepping water bottles for crew.

1000 -11:30 Cleaning sample trailer. Boxing soil gas tubes for shipment.

1200 Separating labels and custody seals from CompuChem packs.

1230 Went for lunch

1300 Prepping boxes, labels, custody seals, etc. for water samples. Bagging ice.

1530 Waiting for water sample and completing logbooks.

1600 Received water sample and MS/MSD. Begin furiously packing samples. Assisted by G. Loder and J. Devaughn. 13 boxes Airbill # 8219960652.

1715 Off to fedex. 1745 Done at fedex. Last Entry

Daily Weather Conditions: A.M. Overcast, @ 75°F, Slight breeze

P.M. Same, except partly sunny

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

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

Task Team Members:

J. Humpert pg. 17

Narrative (include time and location):

0710 Onsite at sample trailer. Collecting ER0021 at 0730 for sediment crew. Preserving + packaging.
0830 Prepping bottles for seep crew.
0845 Ran to fedex to pick up blue ice, custody seals, and trips (two of trips already have bubbles). Shipped Area 2 timers to NERI (Airbill # 2169350794) and shelby tube B4021 to Singleton (Airbill # 2169350772).
0945 Back at trailer - catching up on logbooks.
1100 Received sediment samples SD2101, SD2201, SD2101, and SD2111 (dup). Packaged samples.
1130 Received S0200 1 (seep for Ops Area). Packaging.
1300 Juan ran to get boxes for me from semi.
1320 Unpacking samplesavers.
1400 Packaging bags of ice for shipment.
1500 Received SD0101, SD0201, and SD0301. Sediment team will quit sampling for today. Need another rinsate. Received BH1002 and B4101Z (dup) from cabletool rig. Packaging.
1600 Began packing sample savers with assistance

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

P.M. Sunny 85°F

Recorded By Juletta Humpert QA Checked By Laura M. Marisa 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

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

Task Team Members:

J.H. pg. 18

Narrative (include time and location):

from Tonya Pfaff.
1700 Completed packing. Total of 6 sample savers for Ops Area. Airbill # 8219960615.
1715 offsite to deliver to fedex
1745. Leave fedex for home.
Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By Laura M. Morrica 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

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

Task Team Members:

Joletta Humpert pg. 19

Narrative (include time and location):

Onsite at 630 at guard shack - lost my dosimeter. They assigned me a new one.

0650 at sample trailer, collecting rinsate for sediment crew. Myself and Chris Halley will complete sediment sampling today.

0830 Sampling for sediments complete.

0935-1200 Pulling soil gas samplers in non-AOC with C Halley.

1200 No samples from B14 today. Task Activity notes continue in NP logbook.

Last Entry

Daily Weather Conditions: A.M. Warm, sunny, 70°F

P.M. Warmer, sunnier, 88°F

Recorded By Joletta Humpert QA Checked By Laura M. Moulton 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

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

Task Team Members:

Joletta Humpert pg. 20

Narrative (include time and location):

0715 Onsite at sample trailer. Crew still on B14 at 96'.

0800–1130 Pulling soil gas samplers in Area 22.

1200 Lunch

1230 Pulling soil gas samplers in Burn Area and Non AOC area.

1400 Talked to G Loder. Crew done at B14. Drillers still pulling augers and deconning. Will set up on B8 in Area 7.

No samples to be sent today (no samples were collected).

Last Entry

Daily Weather Conditions: A.M. Hot! 75°F, V.V. humid

P.M. Hotter! 89°F, V.V.V. humid

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

Date (mm/dd/yy): 7-14-94 TIME: NA PAGE 1 OF 2

*Task Team Members:

Joletta Humpert pg. 21

Juan Alvarado

Narrative (include time and location):

0715 Onsite at sample trailer. Prepping crew and organizing for soil gas

0800-0830 Talked with J. Geisler and Rod Long about progress of clearing areas for soil gas.

0900-1200 Pulling soil gas samplers in Non AOC.

1130 Lunch. Prepping groundwater jars for S. Abston.

1230 Packaging samples B08001 and B08002 from B08 (Ops).

1340 Completing logbook and COC.

Notes: We had tubes and our hands and feet scanned out before lunch break.

Called Singleton lab to return call of Yung Chung. They (the lab) are totally in the dark about what they are supposed to be doing. A. Meyer and N. Campbell working on this issue. Still need to resolve whether CEC (cation exchange capacity) needs to be chilled.

1500 Received B08003. Packaging samples + boxes for Compuchem. 4 boxes - airbill # 8219960700

1730 Delivery to fedex with NP samples. Last Entry

Daily Weather Conditions: A.M. Warm 75°F, v.v. humid, partly cloudy

P.M. Hot, 85°F, humid, partly sunny.

Recorded By Joletta Humpert QA Checked By Laura M. Moniz 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

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

Task Team Members:

Joletta Humpert pg. 22

Narrative (include time and location):

0700 Onsite.

0800 Area 7 rig drilling geotech samples for another project - no samples today. See NP logbook. Last Entry.

Daily Weather Conditions: A.M. Warm, humid, @ 75°F

P.M. NA

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

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

Task Team Members:

Joletta Humpert pg. 23

Narrative (include time and location):

0715 Onsite at sample trailer. All crews out.
Writing change orders.
0900 G. Loder called for ambient vials. Delivered to B09.
Picked up B09001, B09002, and B09102. Packaging.
1030 Collected sample bank blank (BB0005).
1100 Writing change orders
1130 Lunch. Meeting with soil gas crew.
1200 Received B09003, B09004, and B09005 (partial). Packaging.
1400 Prepping labels for NP Groundwater sample.
1415 Received remaining samples from B09005.
Packaging samples
1430 Delivery to Fedex. Total of seven boxes shipped to Compuchem. Airbill # 8219960556.
Last Entry

Daily Weather Conditions: A.M. Sunny, @ 75°F

P.M. Sunny, @ 88°F

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

| TASK TEAM ACTIVITY LOG SHEET | SAMPLE MANAGER OPS |
|---|---|
| PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE | TASK NO.: 34896 |

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

Task Team Members:

Jolletta Humpert Pg. 24

Narrative (include time and location):

0700 Onsite at sample trailer.
0715 Collecting rinsate ER0008 for subsurface soil.
~~JPH 7/20/94~~ 0730 Onsite at B12 acting as flag girl.
1000 Ran to guard post 2 to catch fedex truck.
1030 Packaging B12001, B12002, and B12003.
1115 Packaging ER0008. Preserving as needed.
1230 Packaging W4020I and W40211 (NP Groundwater)
1400 Begin packing water sample in coolers
1500 Receive B10001, B10002 and B10003 for packaging.
~~JPH 7/20/94~~ 1600 Begin packing samplesavers with help from G. Loder.
1730 Delivery to fedex.
1745 At fedex. Total of ~~seven~~ eleven boxes. Airbill # 821996~~8556~~ 0626.
JPH 7/20/94 JPH 7/20/94
Last Entry

Daily Weather Conditions: A.M. Sunny 80°F
P.M. Sunny 95°F

Recorded By Jolletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 7-21-94 TIME: NA PAGE 1 OF 1

• Task Team Members:

Joletta Humpert pg. 25

Narrative (include time and location):

0715 Onsite at sample trailer. Working with soil gas crew to pull samplers in SDB.
0730 Catching up on logbooks.
0915 Received groundwater sample from NP crew. W41001 (MS/MSD).
1130 ~~Up 7/21/94~~ Unpacking sampleavers.
1145 Packaging B11001, B11002, B11102, B11003 and B11004.
1230 Lunch - finish packaging above samples.
1330 Bagging ice
1430 Packing coolers and boxes and W11001 (gw).
1700 Finished packing boxes - total of 10.
Airbill # 8219960523.
Last Entry

Note: Jeff Stapleton (EG&G) called and wanted copies of our medicals (for those doing B116) and a copy of our SOP for respirators. He came over and copied these papers for HP. (x5561)

Daily Weather Conditions: A.M. Sunny, 70°F
P.M. Sunny, 95°F

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

**TASK TEAM ACTIVITY LOG SHEET** — **SAMPLE MANAGER** OPS

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

Date (mm/dd/yy): 7-22-94 TIME: NA PAGE 1 OF 1

Task Team Members:

J. Humpert pg. 26

J. Davis.

Narrative (include time and location):

1030 Onsite at sample trailer. Crew finished drilling B06. Collected B06001, B06002, and B06003. B06003 was a partial sample - crew had difficulty collecting sufficient volume.

1100 Contacted lab (M. Swift) - she instructed me on what parameters we could combine for B06003.

1 8 oz SVOC/Pest/PCB; Metal/Cyn

1 8 oz Anions

2 8 oz for rads

1 8 oz explosives.

She instructed me to write "low volume" on COC.

1105 G. Loder said they would head to B15 this afternoon. Need to collect rinsate for surface sample. Collected ER0009

1200 G. Loder decides not to start on B15 as drillers can stay busy moving barrels, etc.

1330 Received soil screening results from HP; all OK.

1400 Began packing sample savers. Total of seven boxes shipped. Airbill #. 8219959742

Last Entry

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

P.M. Sunny, 85°F

Recorded By Joletta Humpert. QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

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

Task Team Members:

J. Humpert pg. 27

Narrative (include time and location):

0715 Onsite at sample trailer.
Crew starting on B16. J. Davis not onsite today.
Ao organizing crew and working with. K. McMahan.

1030 Doctor's Appointment - will Return

1200 Receive B16006 (rads), B16007 (rads+VOA) and B16107 (dup of rads only)
Packaging.

1330 Checking QC for Ops Area. Need couple of dups on B15 Will inform team.

1400 Organizing soil gas samplers from SDB area.
Received timers from Area 3 - first set - packaged and shipped to NERL - Airbill # 2169356350.

1530 Received word that B16 complete - begin packaging samples. 2 boxes to CompuChem.
Airbill # ~~8219959742~~. 8219960302
JPH 7/25/94

1630 Offsite to Fedex
Last Entry

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

P.M. Sunny, more humid, 85°F

Recorded By J. Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

Date (mm/dd/yy): 7-26-94 TIME: NA PAGE 1 OF 1

Task Team Members:

Joletta Humpert pg. 28

Narrative (include time and location):

0715 Onsite. Crew finishing B16 - pulling augers, etc.
0730 Reviewing soil gas logbook for weekly report.
0745 Numbering 7N block map and packaging soil gas samplers.
0800 Reviewing soil gas progress with J. Davis
1000 Collecting ER0010 for subsurface sample on B15
1200 Lunch
1230 Packing soil gas samplers
1330 Checking QA for Ops Area
1430 Packing sample (ER) - no soil samples today.
1500 Offsite to Jedex delivery. 4 boxes to CompuChem. Airbill # 8219959613.
Off to office.
Last Entry

Daily Weather Conditions: A.M. Sunny, 75°F, not as humid
P.M. Sunny, 80°F

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

Date (mm/dd/yy): 7-27-94 TIME: NA PAGE 1 OF 1

Task Team Members:

Joletta Humpert pg. 29

Narrative (include time and location):

0715 Onsite. Crew starting B15

0730 Working with T. Davis to move barrels at NP boring sites.

1100 Stopped at B15 to pick up samples from crew.

1120 Packaging B15001, B15101, B15002, B15003, B15004, B15104.

1400 Out with G. Loder to pull SDB 371-380

1600 Packaged samples. Total of seven boxes to Compuchem. Airbill # 8219959926

Offsite @ 1645

Last Entry

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

P.M. Overcast, 78°F

Recorded By J. Humpert QA Checked By Laura M. Morrison 8/17/94

**TASK TEAM ACTIVITY LOG SHEET** — **SAMPLE MANAGER** OPS

**PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE** — **TASK NO.: 34896**

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

Task Team Members:
J. Humpert pg. 30

Narrative (include time and location):

0720 Onsite at sample trailer. Checking QC needs with N. Campbell. Can tie these samples in with what was previously collected. Will sample 4 points around pH building - 2 samples per location.
1200 Received B17001. Packaged
1430 Picked up B18001 and B17002 from crew at HP Bldg. Packaging.
1600 Received B18002. Packaging. Won't ship today because we don't have Soil screening results, Will wait and ship tomorrow.
1630 Offsite. Last Entry

Daily Weather Conditions: A.M. Sunny 70°F
P.M. Sunny, 85°F

Recorded By Jolitta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

Date (mm/dd/yy): 8-9-94 TIME: NA PAGE 1 OF 1

Task Team Members:

J. Humpert pg. 31

Narrative (include time and location):

0720 Onsite. Crew out at site cutting through asphalt.

0730-0900 Cleaning up equipment and deconning equipment outside trailer.

0930 Go to HP Building to check on progress of crew and pick up samples. Crew collecting B19001. Wait and retrieve. Watched process.

1030 Packing samples from 8/8/94. Received OK from HP to ship.

1230 Leaving for fedex. Will ship samples collected 8/9/94 on 8/10/94 after receiving approval from HP.

1300 Offsite to fedex. Airbill # 8219960313
5 boxes to Compuchem.
Last Entry

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

P.M. Sunny 85°F

Recorded By Joletta Humpert QA Checked By Laura M. Marsan 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

Date (mm/dd/yy): 8/10/94 TIME: NA PAGE 1 OF 1

Task Team Members:

J. Humpert pg. 32

Narrative (include time and location):

0800 Onsite at sample trailer
Packaging B19001, B19002, B20001 and B20002 for shipment.
Shipped total of 5 boxes to Compuchem.
Airbill # 8219960114.
Last Entry

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

P.M. NA

Recorded By Juletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER: OB

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

Date (mm/dd/yy): 9/14/94 TIME: NA PAGE 1 OF 1

Task Team Members: pg. 33

J. Humpert
B. Richardson
M. Obloy

JH 9/14/94

Narrative (include time and location):

0800 B.R. and M.O. onsite. Collecting soil screening samples as part of additional samples.
1100 J.H onsite with shipment of soil gas tubes. BR. and M.O. out to collect metals soil sample.
1115 Called F. Miller about sample ids for metals + explosives samples.
Note: Rinsate for explosives only was collected on 9/13/94 by B.R and M.O. (ER0011).

Container lot # for metals F3146050
Container lot # for explosives F3146050

Samples shipped to Compuchem - airbill # 8219959856. Included BB1001 (metals only); BB2001, BB2101 (dup), BB3001, BB4001, BB5001, BB6001, BB7001 (explosives only). Completes OU5 soil sampling.
Fast Entry

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

Recorded By J. Humpert QA Checked By [illegible]

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

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

~~Task Team Members:~~ JPH 8/16/94

pg. 93

* dup S01101

** MS/MSD

Narrative (include time and location):

Sediments 7/11/94

Seeps

| | Ambient | SBB | ER | Trip | COC |
|---|---|---|---|---|---|
| S01001 ** | AB0004 | BB0004 | NA | TBA011 | OAC011 |
| S02001 | ↓ | ↓ | ↓ | TBA013 | OAC013 |

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By Laura M. Marilon 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

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

~~Task Team Members:~~ SPH 8/16/94

Pg. 94

* Dup B141Ø4

** Dup BØ91Ø2

Narrative (include time and location):

Subsurface (Continued)

| Sample ID | Ambient | SBB | ER | Trip | COC# | Dup |
|---|---|---|---|---|---|---|
| ~~B141Ø4~~ SPH 8/16/94 | | | | | | |
| B16ØØ2 (VOC) | ABØØØ3-5 | BBØØØ3-5 | ERØØØ5-4 | TBAØØ7 | OACØØ7 | |
| B16ØØ3 (Rads) | NA | NA | ERØØØ5-5 | NA | OACØØ7 | |
| B16ØØ4 (VOA + Rads) | ABØØØ3-6 | BBØØØ3-6 | -6 | TBAØØ8 | OACØØ8 | |
| B16ØØ5 (VOA + Rads) | " -7 SPH 8/16/94 | " -7 | -7 | | | |
| B13ØØ2 | ABØØØ3-9 | -9 | 3-7 | TBAØØ9 | OACØØ9 | |
| B13ØØ3 | ABØØØ3-10 | -10 | 3-8 | | | |
| B13ØØ4 | ABØØØ3-11 | -11 | 3-9 | | | |
| (19) B13ØØ5 | ABØØØ3-12 | -12 | 3-10 | | | |
| B13ØØ6 (VOC) | ABØØØ3-13 | -13 | ERØØØ5-8 | TBAØØ9 | OACØØ9 | |
| B14ØØ2 | ABØØØ3-15 | -15 | ERØØØ6-1 | TBAØ11 | OACØ11 | |
| B14ØØ3 (VOC) | ABØØØ3-16 | -16 | ERØØØ5-9 | TBAØ11 | OACØ11 | |
| B14ØØ4 * | ABØØØ3-17 | -17 | ERØØØ6-2 | TBAØ12 | OACØ12 | |
| BØØØØ2 ~~B14ØØ5~~ SPH 8/16/94 | ABØØØ3-18 | -18 | ERØØØ6-3 | TBAØ14 | OACØ14 | |
| BØ8ØØ3 | -19 | -20 | ØØ6-4 | | | |
| BØ9ØØ2 ** | ABØØØ5-2 | BBØØØ5-2 | ØØ6-5 | TBAØ15 | OACØ15 | |
| BØ9ØØ3 | -3 | -3 | ØØ6-6 | | | |
| BØ9ØØ4 | -4 | -4 | ØØ6-7 | | | |

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Jolette Hungert QA Checked By Laura M. Marrar 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY EXTENDED PHASE

TASK NO.: 34896

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

~~Task Team Members:~~ JPH 8/16/94

pg. 95

* dup B11Ø2

** dup B151Ø4

Narrative (include time and location):

| Sample ID | Ambient | SBB | ER | Trip | COC | Dup. |
|---|---|---|---|---|---|---|
| BØ9ØØ5 | ABØØØ5-5 | BBØØØ5-5 | ERØØØ6-8 | TBAØ15 | OACØ15 | |
| B12ØØ3 | ABØØØ5-6 | -6 | ERØØØ6-9 | TBAØ16 | OACØ16 | |
| B12ØØ2 | -7 | -7 | ERØØØ8-1 | | | |
| ~~B12ØØ3~~ B1ØØØ2 JPH 8/16/94 | -8 | -8 | ERØØØ6-1Ø | | | |
| B1ØØØ3 | -18 | -18 | ERØØØ8-2 | | | |
| B11ØØ2 * | -12 | -12 | ERØØØ8-3 | TBAØ17 | OACØ17 | |
| B11ØØ3 | -13 | -13 | -4 | | | |
| B11ØØ4 | -14 | -14 | -5 | | | |
| BØ6ØØ2 | -16 | -16 | -6 | TBAØ18 | OACØ18 | |
| BØ6ØØ3 | -17 | -17 | -7 | | | |
| B16ØØ6 (MS/MSD only) | NA | NA | ERØØØ5 | JPH 8/16/94 ~~TB~~ NA | OACØA | |
| B16ØØ7 * (Radon VOA) | -19 | -19 | ERØØØ8-8 | TBAØ19 | OACØ19 | |
| B15ØØ2 | ABØØØ6-1 | BBØØØ6-1 | ERØØØ8-9 | TBAØ21 | OACØ21 | |
| B15ØØ3 | -2 | -2 | ERØØØ8-1Ø | | | |
| B15ØØ4 ** | -3 | -3 | ERØØØ8-1 | | | |
| B17ØØ2 ~~Field Blank~~ JPH 8/16/94 | -4 | -4 | JPH 8/16/94 | TBAØ22 | OACØ22 | |
| B18ØØ2 | -5 | -5 | | | | |
| B19ØØ2 | -6 | -6 | | TBAØ23 | OACØ23 | |
| B2ØØØ2 | -7 | -7 | | | | |

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Jeletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

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

Task Team Members:

pg. 96

× dup for explosives only (BB21Ø1)

Narrative (include time and location):

Rinsates

JPH 8/16/94

| Rinsate # | Sample # |
|---|---|
| ERØØØ1 | BØ1ØØ1 |
| ERØØØ2 | BØ5ØØ2 |

Surface Samples (cont'd from pg. 97)

| | Sample ID | Indicat | SBB | Rinsate | Trip | COC# |
|---|---|---|---|---|---|---|
| metals only | BB1ØØ1 | ABØØØ6-12 | BBØØØ6-12 | ERØØØ9 | NA | OACØ25 |
| | BB2ØØ1* | -13 | -13 | ~~ERØØ8~~ ERØØ11 | | |
| | BB3ØØ1 | -14 | -14 | | | |
| explosives only | BB4ØØ1 | -15 | -15 | | | |
| | BB5ØØ1 | -16 | -16 | | | |
| | BB6ØØ1 | -17 | -17 | | | |
| | BB7ØØ1 | -18 | -18 | | | |

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By Laura M. Marsar 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

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

~~Task Team Members:~~ JPH 8/16/94

pg. 97

* dup collected B071Ø1

** dup B151Ø1

Narrative (include time and location):

Surface Samples

| | Sample ID | Ambient | SBB | Rinsate | Trip | COC # | Dup |
|---|---|---|---|---|---|---|---|
| 1 | BØ1ØØ1 | ABØØØ1 | BBØØØ1 | ERØØØ1-1 | TBAØØ1 | OACØØ1 | |
| 2 | BØ2ØØ1 | ↓ | ↓ | -2 | TBAØØ2 | OACØØ2 | |
| 3 | BØ4ØØ1 | | | -3 | TBAØØ3 | OACØØ3 | |
| 4 | BØ5ØØ1 | | | -4 | ↓ | ↓ | |
| 5 | BØ3ØØ1 | ABØØØ1 | BBØØØ1 | ERØØØ1-5 | TBAØØ4 | OACØØ4 | |
| 1 | BØ7ØØ1* | ABØØØ3-4 | BBØØØ3-4 | ERØØØ1-6 | TBAØØ6 | OACØØ6 | |
| | BØ6ØØ1 (Rods) | NA | NA | ERØØØ5-3 | NA | OACØØ7 | |
| | B13ØØ1 | ABØØØ3-8 | BBØØØ3-8 | ERØØØ1-7 | TBAØØ9 | OACØØ9 | |
| | B14ØØ1 | ABØØØ3-14 | BBØØØ3-14 | ERØØØ1-8 | TBAØ11 | OACØ11 | |
| D | BØ8ØØ1 | ABØØØ3-19 | BBØØØ3-19 | ERØØØ1-9 | TBAØ14 | OACØ14 | |
| | BØ9ØØ1 | ABØØØ5-1 | BBØØØ5-1 | ERØØØ1-10 | TBAØ15 | OACØ15 | |
| | B12ØØ1 | ABØØØ5-9 | BBØØØ5-9 | ERØØØ9 | TBAØ16 | OACØ16 | |
| | B1ØØØ1 | -10 | -10 | ERØØØ9 | ↓ | ↓ | |
| | B11ØØ1 | -11 | -11 | ERØØØ9 | TBAØ17 | ØACØ17 | |
| | BØ6ØØ1 | -15 | -15 | ERØØØ9 | TBAØ18 | OACØ18 | |
| | B15ØØ1** | ↓ -20 | ↓ -20 | ERØØØ9-1 | TBAØ21 | OACØ21 | |
| | 319ØØ1 | ABØØØ6-8 | BBØØØ6-8 | ERØØØ9 | TBAØ23 | OACØ23 | |
| | B2ØØØ1 | -9 | -9 | | ↓ | ↓ | |
| | B18ØØ1 | -10 | -10 | | TBAØ22 | OACØ22 | |
| | B17ØØ1 | -11 | -11 | | ↓ | ↓ | |

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Jolotta Humpert QA Checked By Laura M. Morrison 8/17/94

Rinsate QAD

TASK TEAM ACTIVITY LOG SHEET

SAMPLE MANAGER: OPS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE

TASK NO.: 34896

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

~~Task Team Member~~ JPH 8/16/94

Pg. 98

* collected duplicate BØ41Ø2

Narrative (include time and location):

Subsurface Samples

| | Sample ID | Ambient | SBB | Eqpt Rinsate | Trip | COC # | Dup |
|---|---|---|---|---|---|---|---|
| 1. | BØ1ØØ2 | ABØØØ1 | BBØØØ1 | ERØØØ2 | TBAØØ1 | OACØØ1 | JPH 8/16/94 |
| 2. | BØ1ØØ3 | ↓ | ↓ | ↓ | ↓ | ↓ | |
| 3. | BØ1ØØ4 | | | | | | |
| 4. | BØ1ØØ5 | | | | | | |
| 5. | BØ1ØØ6 | | | | ↓ | ↓ | |
| 6. | BØ1ØØ7 | | | | TBAØØ2 | OACØØ2 | |
| 7. | BØ2ØØ2 | | | | TBAØØ2 | OACØØ2 | |
| 8. | BØ4ØØ2* | | | | TBAØØ3 | OACØØ3 | |
| 9. | BØ5ØØ2 | ↓ | ↓ | ↓ | ↓ | ↓ | |
| 10 | BØ3ØØ2 | ABØØØ1 | BBØØØ1 | ERØØØ2 | TBAØØ4 | OACØØ4 | |
| 11 | BØ3ØØ3 | ↓ | ↓ | ERØØØ3-2 | ↓ | ↓ | |
| 12 | BØ3ØØ4 | ↓ | ↓ | ERØØØ3-3 | TBAØØ4 TBAØØ5 | OACØØ4 OACØØ5 | |
| 13 | BØ3ØØ5 | ↓ | ↓ | ERØØØ3-4 | TBAØØ5 | OACØØ5 | |
| 14 | BØ3ØØ6 (voc) | ↓ | ↓ | ERØØØ5-1 JPH 8/17/94 | ↓ | ↓ | |
| 15 | BØ3ØØ7 (voc) | ↓ | ↓ | ERØØØ5-2 JPH 8/17/94 | TBAØØ6 | OACØØ6 | |
| 1 | BØ7ØØ2 | ABØØØ3-1* | BBØØØ3-1 | ERØØØ3-1 | TBAØØ6 | OACØØ6 | |
| 2 | BØ7ØØ3 | ② | ② | 3-5 | TBAØØ7 | OACØØ7 | |
| 3 | BØ7ØØ4 | ③ | ③ | 3-6 | ↓ | ↓ | |

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Joletta Humpert QA Checked By Laura M. Morrison 8/17/94

TASK TEAM ACTIVITY LOG SHEET — SAMPLE MANAGER: 095

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE — TASK NO.: 34896

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

Task Team Members: JPH 8/16/94 Duplicates pg. 99

* collected dup W13Ø1
* collected MS/MSD

Narrative (include time and location):

Groundwater

| Sample ID | Ambient | SBB | Trip | COC# | ER. |
|---|---|---|---|---|---|
| 1. WØ3ØØ1 | ABØØØ2 | BBØØØ2 | TBAØØ5 | OACØØ5 | ERØ1/14 |
| 2. W16ØØ1 (rads) | JPH 8/16/94 | | TBAØØ8 | OACØØ8 | ERØØØ4 |
| 3. W13ØØ1 * | ABØØØ2 | BBØØØ2 | TBAØ1Ø | OACØ1Ø | ERØØØ4 |
| W14ØØ1 ** | ↓ | ↓ | TBAØ12 | OACØ12 | ↓ |
| 4 W11Ø1 | ↓ | ↓ | TBAØ17 | OACØ17 | ERØØØ4 |
| JPH 8/16/94 | | | | | |

Last Entry

Daily Weather Conditions: A.M. NA

P.M. NA

Recorded By Jolette Humpert QA Checked By [illegible]

RINSATES

**SAMPLE LOG SHEET** OPS Pg. 102

**PROJECT NAME:** Mound Operational Area **PROJECT NO:** 2680

SAMPLE ID NUMBER: ER0001 DATE COLLECTED (MM/DD/YY): 6-20-94 TIME (HH:MM): 0830

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: ER

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 73

DESCRIPTION: RINSE WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected in sample trailer using ASTM Type II DI water. Rinsate collected using stainless steel bowl and large and small spoons deconned by G. Loder.

Rinsate for surface soil samples - tied to B01001

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ER0001 OPS PG. 103

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-40 | Glass | CLPVOA | HCL to pH<2,4C | OAC001 | 9289476350 | 13322802 | COMPUC |
| 2-1000 | AmbGlass | CLP SVOC | Cool,4C | | | H31821 0 | COMPUC |
| 2-1000 | AmbGlass | CLP PEST / PCB | Cool,4C | | | H31821 0 | COMPUC |
| 2-1000 | AmbGlass | EXPLOSIVES | Cool,4C | | | H31821 0 | COMPUC |
| 1-1000 | Poly | METALS | HNO3 to pH<2,4C | | | C4070010 | COMPUC |
| 1-1000 | Poly | CYANIDE | NaOH to pH>12,4C | | | C4070010 | COMPUC |
| 3x 1000 JPH 4/20/94 | Poly | ANIONS Fl,SO4,Cl | Cool,4C | | | C4070010 C3231020 | COMPUC |
| 1-1000 | Poly | NO2/NO3 | H2SO4 to pH<2,4C | | | C4070010 | COMPUC |
| 1-1000 | AmbGlass | TOTAL ORGANIC CARBON | H2SO4 to pH<2,4C | | | H31821 0 | COMPUC |
| 1-1000 | Poly | LANTHANIDES | HNO3 TO PH<2 | | | C3231020 | COMPUC |
| 2-1000 | Poly | RADS Pu,Th,U, AMERICIUM SB 9/18/94 | HNO3 TO PH<2 | | | C4070010 | COMPUC |
| 2-1000 | Poly | RADS Ac,Sr,GAMMA | HNO3 TO PH<2 | | | 443 C4070010 JPH 4/20/94 | COMPUC |
| 1-1000 | Glass | TRITIUM | NONE | | | H31821 0 | COMPUC |
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Pg 1/3

SAMPLE ID'S RINSATE: NA TRIP BLANK: TBA001 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Juletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

OPS

PROJECT NAME: Mound Operational Area

PG. 104

PROJECT NO: 2680

SAMPLE ID NUMBER: ER0002

DATE COLLECTED (MM/DD/YY): 6-21-94

TIME (HH:MM): 1200

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: ER

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 73

DESCRIPTION: RINSE WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected in sample trailer using ASTM Type II water over bowl and spoon

Rinsate for subsurface soil samples

Collected B05002 with this rinsate, bowl and spoon

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ERØØØ2 PG. 1Ø5 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH<2,4C | OACØØ2 | 8219959451 | B3228Ø2Ø | COMPUC |
| 2-1ØØØ | AmbGlass | CLP SVOC | Cool,4C | | | H3182Ø1Ø | COMPUC |
| 2-1ØØØ | AmbGlass | CLP PEST / PCB | Cool,4C | | | H3182Ø1Ø | COMPUC |
| 2-1ØØØ | AmbGlass | EXPLOSIVES | Cool,4C | | | H3182Ø1Ø | COMPUC |
| 1-1ØØØ | Poly | METALS | HNO3 to pH<2,4C | | | C4Ø7ØØ1Ø | COMPUC |
| 1-1ØØØ | Poly | CYANIDE | NaOH to pH>12,4C | | | C4Ø7ØØ1Ø | COMPUC |
| 3 1-1ØØØ GPH 6/21/94 | Poly | ANIONS Fl,SO4,Cl | Cool,4C | | | C4Ø7ØØ1Ø | COMPUC |
| 1-1ØØØ | Poly | NO2/NO3 | H2SO4 to pH<2,4C | | | C4Ø7ØØ1Ø | COMPUC |
| 1-1ØØØ | AmbGlass | TOTAL ORGANIC CARBON | H2SO4 to pH<2,4C | | | H3182Ø1Ø | COMPUC |
| 1-1ØØØ | Poly | LANTHANIDES | HNO3 TO PH<2 | | | C4Ø7ØØ1Ø | COMPUC |
| 2-1ØØØ | Poly | RADS Pu,Th,U,AMERICIUM SD 8/18/94 | HNO3 TO PH<2 | | | | COMPUC |
| 2-1ØØØ | Poly | RADS Ac,Sr,GAMMA | HNO3 TO PH<2 | | | | COMPUC |
| 1-1ØØØ | Glass | TRITIUM | NONE | | | H3182Ø1Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØØ2 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison (SIGNATURE) 8/17/94

N.MISCELL.

# SAMPLE LOG SHEET

OPS

PROJECT NAME: Mound Operational Area

pg. 106

PROJECT NO: 2680

SAMPLE ID NUMBER: ER0003

DATE COLLECTED (MM/DD/YY): 6-28-94

TIME (HH:MM): 0730

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: ER

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 73

DESCRIPTION: RINSE WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected in sample trailer for subsurface sample using ASTM Type II DI Water. Collected and preserved appropriately.

Associated with B07002

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ER0003 Pg. 107 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-40 | Glass | CLPVOA | HCL to pH<2,4C | 0AC006 | 821996048 6 | B3228020 | COMPUC |
| 2-1000 | AmbGlass | CLP SVOC | Cool,4C | | | H31820 10 | COMPUC |
| 2-1000 | AmbGlass | CLP PEST / PCB | Cool,4C | | | ↓ | COMPUC |
| 2-1000 | AmbGlass | EXPLOSIVES | Cool,4C | | | ↓ | COMPUC |
| 1-1000 | Poly | METALS | HNO3 to pH<2,4C | | | C32310 20 | COMPUC |
| 1-1000 | Poly | CYANIDE | NaOH to pH>12,4C | | | ↓ | COMPUC |
| 3 1-1000 SPH 6/28/94 | Poly | ANIONS Fl,SO4,Cl | Cool,4C | | | C32310 20 | COMPUC |
| 1-1000 | Poly | NO2/NO3 | H2SO4 to pH<2,4C | | | ↓ | COMPUC |
| 1-1000 | AmbGlass | TOTAL ORGANIC CARBON | H2SO4 to pH<2,4C | | | H31820 10 | COMPUC |
| 1-1000 | Poly | LANTHANIDES | HNO3 TO PH<2 | | | C32310 20 | COMPUC |
| 2-1000 | Poly | RADS Pu,Th,U, AMERICIUM SD 8/12/94 | HNO3 TO PH<2 | | | C32310 20 | COMPUC |
| 2-1000 | Poly | RADS Ac,Sr,GAMMA | HNO3 TO PH<2 | ↓ | | ↓ | COMPUC |
| 1-1000 | Glass | TRITIUM | NONE | ↓ | ↓ | H31820 10 | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBA006 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

KMISCTES.

**SAMPLE LOG SHEET** OPS

**PROJECT NAME:** Mound Operational Area pg 108 **PROJECT NO:** 2680

SAMPLE ID NUMBER: ER0004 DATE COLLECTED (MM/DD/YY): 6-29-94 TIME (HH:MM): 0830

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: ER

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 73

DESCRIPTION: RINSE WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] SPATIAL COMPOSITE
- [ ] TIME COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC RINSATE
- [ ] QC FIELD BLANK
- [ ] OTHER (SPECIFY)

FIELD OBSERVATIONS:

Collected in sample trailer using ASTM Type II Water. Collected by pouring water into bailer and then transfering to sample bottles.

Associated with W07001.

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Goletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

(SIGNATURE) (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ER0004 pg. 109 of 5

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 4 pH 6/29/94 2-40 | Glass | CLPVOA + VOA-8010 | HCL to pH<2,4C | OAC007 | 8219959834 | B3228020 | COMPUC |
| 2-1000 | AmbGlass | CLP SVOC | Cool,4C | | | H3182010 | COMPUC |
| 2-1000 | AmbGlass | CLP PEST / PCB | Cool,4C | | | | COMPUC |
| 2-1000 | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 1-1000 | Poly | METALS | HNO3 to pH<2,4C | | | C3231020 | COMPUC |
| 1-1000 | Poly | CYANIDE | NaOH to pH>12,4C | | | | COMPUC |
| 3 pH 6/29/94 1-1000 | Poly | ANIONS Fl,SO4,Cl | Cool,4C | | | | COMPUC |
| 1-1000 | Poly | NO2/NO3 | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1000 | AmbGlass | TOTAL ORGANIC CARBON | H2SO4 to pH<2,4C | | | ~~C4070010~~ H3182010 pH 6/29/94 | COMPUC |
| 1-1000 | Poly | LANTHANIDES | HNO3 TO PH<2 | | | C3231020 | COMPUC |
| 2-1000 | Poly | RADS Pu,Th,U, AMERICIUM SC 8/18/94 | HNO3 TO PH<2 | | | C4070010 | COMPUC |
| 2-1000 | Poly | RADS Ac,Sr,GAMMA | HNO3 TO PH<2 | | | C3231020 | COMPUC |
| 1-1000 | Glass | TRITIUM | NONE | | | ~~C4070010~~ H3182010 pH 6/29/94 | COMPUC |
| 1-1000 | Poly | Alkalinity | Cool, 4C | | | C3231020 | |
| 1-1000 | TKN/TP | Poly | $H_2SO_4$ to pH<2, 4C | | | | |
| 1-1000 | Poly | TSS | Cool 4C | | | | |
| | | TDS | | | | | |

SAMPLE ID'S RINSATE: NA TRIP BLANK: TBA007 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison (SIGNATURE) 8/17/94

N.MISCELL.

# SAMPLE LOG SHEET

PROJECT NAME: Mound Operational Area

pg 110

OPS

PROJECT NO: 2680

SAMPLE ID NUMBER: ER0005

DATE COLLECTED (MM/DD/YY): 6/30/94

TIME (HH:MM): 0730

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: ER

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 73

DESCRIPTION: RINSE WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [x] GRAB
- [ ] SPATIAL COMPOSITE
- [ ] TIME COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC RINSATE
- [ ] QC FIELD BLANK
- [ ] OTHER (SPECIFY)

FIELD OBSERVATIONS:

Collected rinsate for rads and VOC only in sample trailer on bowl and spoon.

Associated with B16

SAMPLE COLLECTED: [x] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [x] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

[redacted]

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ERØØØ5 pg 111 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH<2,4C | OACØØ8 | 821996Ø35Ø | B3228Ø2Ø | COMPUC |
| ~~2-1ØØØ~~ | ~~AmbGlass~~ | ~~CLP SVOC~~ | ~~Cool,4C~~ | | | | ~~COMPUC~~ |
| ~~2-1ØØØ~~ | ~~AmbGlass~~ | ~~CLP PEST / PCB~~ | ~~Cool,4C~~ | | | | ~~COMPUC~~ |
| ~~2-1ØØØ~~ | ~~AmbGlass~~ | ~~EXPLOSIVES~~ | ~~Cool,4C~~ | | | | ~~COMPUC~~ |
| ~~1-1ØØØ~~ | ~~Poly~~ | ~~METALS~~ | ~~HNO3 to pH<2,4C~~ | | | | ~~COMPUC~~ |
| ~~1-1ØØØ~~ | ~~Poly~~ | ~~CYANIDE~~ | ~~NaOH to pH>12,4C~~ | | | | ~~COMPUC~~ |
| ~~4-1ØØØ~~ | ~~Poly~~ | ~~ANIONS Fl,SO4,Cl~~ | ~~Cool,4C~~ | | | | ~~COMPUC~~ |
| ~~1-1ØØØ~~ | ~~Poly~~ | ~~NO2/NO3~~ | ~~H2SO4 to pH<2,4C~~ | | | | ~~COMPUC~~ |
| ~~1-1ØØØ~~ | ~~AmbGlass~~ | ~~TOTAL ORGANIC CARBON~~ | ~~H2SO4 to pH<2,4C~~ | | | | ~~COMPUC~~ |
| ~~1-1ØØØ~~ | ~~Poly~~ | ~~LANTHANIDES~~ | ~~HNO3 TO PH<2~~ | | | | ~~COMPUC~~ |
| 2-1ØØØ | Poly | RADS Pu,Th,U | HNO3 TO PH<2 | OACØØ8 | 821996Ø35Ø | C3231Ø2Ø | COMPUC |
| 2-1ØØØ | Poly | RADS Ac,Sr,GAMMA | HNO3 TO PH<2 | ↓ | ↓ | ↓ | COMPUC |
| 1-1ØØØ | Glass | TRITIUM | NONE | ↓ | ↓ | H3182Ø1Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØØ8 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison (SIGNATURE) 8/17/94

K.MISATES

# SAMPLE LOG SHEET

OPS

**PROJECT NAME:** Mound Operational Area

Pg 112

**PROJECT NO:** 2680

SAMPLE ID NUMBER: ERØØØ6 DATE COLLECTED (MM/DD/YY): 7-6-94 TIME (HH:MM): Ø845

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: ER

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 73

DESCRIPTION: RINSE WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] SPATIAL COMPOSITE
- [ ] TIME COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC RINSATE
- [ ] QC FIELD BLANK
- [ ] OTHER (SPECIFY)

FIELD OBSERVATIONS:

Collected in sample trailer using ASTM Type II water using bowl and spoons

Associated with B14ØØ2

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ERØØØ6 Pg 1/3 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH<2,4C | JPH 7/6/94 ~~N~~ OACØ1Ø | 821996ØØ81 | 332280ZØ | COMPUC |
| 2-1ØØØ | AmbGlass | CLP SVOC | Cool,4C | | | H3182Ø1Ø | COMPUC |
| 2-1ØØØ | AmbGlass | CLP PEST / PCB | Cool,4C | | | | COMPUC |
| 2-1ØØØ | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 1-1ØØØ | Poly | METALS | HNO3 to pH<2,4C | | | C3231Ø2Ø | COMPUC |
| 1-1ØØØ | Poly | CYANIDE | NaOH to pH>12,4C | | | C3231Ø2Ø | COMPUC |
| 1-1ØØØ | Poly | ANIONS Fl,SO4,Cl | Cool,4C | | | | COMPUC |
| 1-1ØØØ | Poly | NO2/NO3 | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1ØØØ | AmbGlass | TOTAL ORGANIC CARBON | H2SO4 to pH<2,4C | | | H3182Ø1Ø | COMPUC |
| 1-1ØØØ | Poly | LANTHANIDES | HNO3 TO PH<2 | | | C4Ø7ØØ1Ø | COMPUC |
| 2-1ØØØ | Poly | RADS Pu,Th,U | HNO3 TO PH<2 | | | | COMPUC |
| 2-1ØØØ | Poly | RADS Ac,Sr,GAMMA | HNO3 TO PH<2 | | | | COMPUC |
| 1-1ØØØ | Glass | TRITIUM | NONE | | | H3182Ø1Ø | COMPUC |
| | | | | | | | |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØ1Ø FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison (SIGNATURE) 8/17/94

KMSATES

# SAMPLE LOG SHEET

**PROJECT NAME:** Mound Operational Area

Pg 114

**PROJECT NO:** 2680

SAMPLE ID NUMBER: ER0007

DATE COLLECTED (MM/DD/YY): 7-7-94

TIME (HH:MM): 0700

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION:

POINT CODE: ER

DESCRIPTION:

SAMPLE -

MEDIA CODE: 73

DESCRIPTION: RINSE WATER

DEPTH NA TO NA NA

JPH 7/7/94

SAMPLE TYPE:

- [X] GRAB
- [ ] SPATIAL COMPOSITE
- [ ] TIME COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC RINSATE
- [ ] QC FIELD BLANK
- [ ] OTHER (SPECIFY)

FIELD OBSERVATIONS:

Collected for crews using spoon and bowl and ASTM DI Water.

Nitric Acid J.T. Baker lot no. G48031

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO:

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY: (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ERØØØ7

Pg 115

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 4-40 | Glass | CLPVOA + VOA-8Ø1Ø | HCL to pH<2,4C | | | B3228Ø2Ø | COMPUC |
| 2-1ØØØ | AmbGlass | CLP SVOC | Cool,4C | | | H3182Ø1Ø | COMPUC |
| 2-1ØØØ | AmbGlass | CLP PEST / PCB | Cool,4C | | | | COMPUC |
| 2-1ØØØ | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 1-1ØØØ | Poly | METALS | HNO3 to pH<2,4C | | | | COMPUC |
| 1-1ØØØ | Poly | CYANIDE | NaOH to pH>12,4C | | | | COMPUC |
| 1-1ØØØ | Poly | ANIONS Fl,SO4,Cl | Cool,4C | | | C3231Ø2Ø | COMPUC |
| 1-1ØØØ | Poly | NO2/NO3 | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1ØØØ | AmbGlass | TOTAL ORGANIC CARBON | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1ØØØ | Poly | LANTHANIDES | HNO3 TO PH<2 | | | | COMPUC |
| 2-1ØØØ | Poly | RADS Pu,Th,U | HNO3 TO PH<2 | | | | COMPUC |
| 2-1ØØØ | Poly | RADS Ac,Sr,GAMMA | HNO3 TO PH<2 | | | | COMPUC |
| 1-1ØØØ | Glass | TRITIUM | NONE | | | | COMPUC |
| | | | | | | | |
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JAH 7/7/94

SAMPLE ID'S RINSATE: _____ TRIP BLANK: _____ FIELD BLANK: _____ FIELD DUPLICATE: _____

RECORDED BY: _____ (SIGNATURE) QA CHECKED BY: _____ (SIGNATURE)

KMSCHES

# SAMPLE LOG SHEET

Pg 116

OPS

**PROJECT NAME:** Mound Operational Area

**PROJECT NO:** 2680

SAMPLE ID NUMBER: ER0008

DATE COLLECTED (MM/DD/YY): 7-20-94

TIME (HH:MM): 0715

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: ER

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 73

DESCRIPTION: RINSE WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [x] GRAB
- [ ] SPATIAL COMPOSITE
- [ ] TIME COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC RINSATE
- [ ] QC FIELD BLANK
- [ ] OTHER (SPECIFY) _____

FIELD OBSERVATIONS:

Collected in sample trailer using ASTM Type II water. Associated with ~~B0~~ 7/20/94 B12002.

SAMPLE COLLECTED: [x] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [x] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ERØØØ8 Pg 117 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH<2,4C | OACØ16 | B21996Ø626 | B3228Ø2Ø | COMPUC |
| 2-1ØØØ | AmbGlass | CLP SVOC | Cool,4C | | | H3182Ø1Ø | COMPUC |
| 2-1ØØØ | AmbGlass | CLP PEST / PCB | Cool,4C | | | | COMPUC |
| 2-1ØØØ | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 1-1ØØØ | Poly | METALS | HNO3 to pH<2,4C | | | C4Ø7ØØ1Ø | COMPUC |
| 1-1ØØØ | Poly | CYANIDE | NaOH to pH>12,4C | | | | COMPUC |
| 1-1ØØØ | Poly | ANIONS Fl,SO4,Cl | Cool,4C | | | C3231Ø2Ø | COMPUC |
| 1-1ØØØ | Poly | NO2/NO3 | H2SO4 to pH<2,4C | | | C4Ø7ØØ1Ø | COMPUC |
| 1-1ØØØ | AmbGlass | TOTAL ORGANIC CARBON | H2SO4 to pH<2,4C | | | H3182Ø1Ø | COMPUC |
| 1-1ØØØ | Poly | LANTHANIDES | HNO3 TO PH<2 | | | C3231Ø2Ø | COMPUC |
| 2-1ØØØ | Poly | RADS Pu,Th,U | HNO3 TO PH<2 | | | C4Ø7ØØ1Ø | COMPUC |
| 2-1ØØØ | Poly | RADS Ac,Sr,GAMMA | HNO3 TO PH<2 | | | C3231Ø2Ø | COMPUC |
| 1-1ØØØ | Glass | TRITIUM | NONE | | | H3182Ø1Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØ16 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Jolitta Humpert (SIGNATURE) QA CHECKED BY: Dana M. Morrison (SIGNATURE) 8/17/94

KMSOILES

**SAMPLE LOG SHEET**

OPS

**PROJECT NAME:** Mound Operational Area

pg 118

**PROJECT NO:** 2680

SAMPLE ID NUMBER: ER0009 DATE COLLECTED (MM/DD/YY): 7-22-94 TIME (HH:MM): 1100

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: ER

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 73

DESCRIPTION: RINSE WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected in sample trailer using ASTM Type II Water. Associated with sample (surface) B15001.

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ERØØØ9 Pg 119 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # JPH 7/22/94 | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH<2,4C | OACØ18 | 8219989742 | B3228Ø2Ø | COMPUC |
| 2-1ØØØ | AmbGlass | CLP SVOC | Cool,4C | | | H3182Ø1Ø | COMPUC |
| 2-1ØØØ | AmbGlass | CLP PEST / PCB | Cool,4C | | | | COMPUC |
| 2-1ØØØ | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 1-1ØØØ | Poly | METALS | HNO3 to pH<2,4C | | | C4Ø7ØØ1Ø | COMPUC |
| 1-1ØØØ | Poly | CYANIDE | NaOH to pH>12,4C | | | | COMPUC |
| 3 JPH 7/22/94 1-1ØØØ | Poly | ANIONS Fl,SO4,Cl | Cool,4C | | | | COMPUC |
| 1-1ØØØ | Poly | NO2/NO3 | H2SO4 to pH<2,4C | | | | COMPUC |
| 1-1ØØØ | AmbGlass | TOTAL ORGANIC CARBON | H2SO4 to pH<2,4C | | | H3182Ø1Ø | COMPUC |
| 1-1ØØØ | Poly | LANTHANIDES | HNO3 TO PH<2 | | | C4Ø7ØØ1Ø | COMPUC |
| 2-1ØØØ | Poly | RADS Pu,Th,U, Americium | HNO3 TO PH<2 | | | | COMPUC |
| 2-1ØØØ | Poly | RADS Ac,Sr,GAMMA | HNO3 TO PH<2 | | | | COMPUC |
| 1-1ØØØ | Glass | TRITIUM | NONE | | | H3182Ø1Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØ18 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Jolette Humpert (SIGNATURE) QA CHECKED BY: Laura M. Marsan (SIGNATURE) 8/17/94

! KMISCIES

# SAMPLE LOG SHEET

pg 120

**PROJECT NAME:** Mound Operational Area

OPS

**PROJECT NO:** 2680

SAMPLE ID NUMBER: ER0010 DATE COLLECTED (MM/DD/YY): 7-26-94 TIME (HH:MM): 1000

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: ER

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 73

DESCRIPTION: RINSE WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [x] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected in sample trailer using ASTM Type II water. Collected on bottle and large spoon

Associated with B15004

SAMPLE COLLECTED: [x] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [x] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ERØØ1Ø Pg 121 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH < 2,4C | OACØ2Ø | 8219959613 | B3228Ø2Ø | COMPUC |
| 2-1ØØØ | AmbGlass | CLP SVOC | Cool,4C | | | H3182Ø1Ø | COMPUC |
| 2-1ØØØ | AmbGlass | CLP PEST / PCB | Cool,4C | | | | COMPUC |
| 2-1ØØØ | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 1-1ØØØ | Poly | METALS | HNO3 to pH < 2,4C | | | C4Ø7ØØ1Ø | COMPUC |
| 1-1ØØØ | Poly | CYANIDE | NaOH to pH > 12,4C | | | | COMPUC |
| 3/ 1-1ØØØ | Poly | ANIONS Fl,SO4,Cl | Cool,4C | | | | COMPUC |
| 1-1ØØØ | Poly | NO2/NO3 | H2SO4 to pH < 2,4C | | | | COMPUC |
| 1-1ØØØ | AmbGlass | TOTAL ORGANIC CARBON | H2SO4 to pH < 2,4C | | | H3182Ø1Ø | COMPUC |
| 1-1ØØØ | Poly | LANTHANIDES | HNO3 TO PH < 2 | | | C4Ø7ØØ1Ø | COMPUC |
| 2-1ØØØ | Poly | RADS Pu,Th,U | HNO3 TO PH < 2 | | | | COMPUC |
| 2-1ØØØ | Poly | RADS Ac,Sr,GAMMA | HNO3 TO PH < 2 | | | | COMPUC |
| 1-1ØØØ | Glass | TRITIUM | NONE | | | H3182Ø1Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØ2Ø FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Hunspert (SIGNATURE) QA CHECKED BY: Laura M. Marion 8/17/94 (SIGNATURE)

9 KMSCTES

# SAMPLE LOG SHEET

pg 122

OPS

**PROJECT NAME:** Mound Operational Area

**PROJECT NO:** 2680

SAMPLE ID NUMBER: ER0011

DATE COLLECTED (MM/DD/YY): 9/13/94

TIME (HH:MM): 1500

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: ER

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 73

DESCRIPTION: RINSE WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected using bowl + spoon and Type II DI water

Collected because of 6 additional explosives samples collected on 9/14/94

SAMPLE COLLECTED: [✓] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [✓] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO:

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY: [signature] (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ERØØ11 Pg 123 095

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| ~~2-40~~ | ~~Glass~~ | ~~CLPVOA~~ | ~~HCL to pH<2,4C~~ | | | | ~~COMPUC~~ |
| ~~2-1000~~ | ~~AmbGlass~~ | ~~CLP SVOC~~ JPH 9/15/94 | ~~Cool,4C~~ | | | | ~~COMPUC~~ |
| ~~2-1000~~ | ~~AmbGlass~~ | ~~CLP PEST / PCB~~ | Cool,4C | | | | ~~COMPUC~~ |
| 2-1000 | AmbGlass | EXPLOSIVES | Cool,4C | OAC025 | 8219959856 | H318201ϕ | COMPUC |
| ~~1-1000~~ | ~~Poly~~ | ~~METALS~~ | ~~HNO3 to pH<2,4C~~ | | | | ~~COMPUC~~ |
| ~~1-1000~~ | ~~Poly~~ | ~~CYANIDE~~ | ~~NaOH to pH>12,4C~~ | | | | ~~COMPUC~~ |
| ~~1-1000~~ | ~~Poly~~ | ~~ANIONS Fl,SO4,Cl~~ | ~~Cool,4C~~ | | | | ~~COMPUC~~ |
| ~~1-1000~~ | ~~Poly~~ | ~~NO2/NO3~~ | ~~H2SO4 to pH<2,4C~~ | | | | ~~COMPUC~~ |
| ~~1-1000~~ | ~~AmbGlass~~ | ~~TOTAL ORGANIC CARBON~~ | ~~H2SO4 to pH<2,4C~~ | | | | COMPUC |
| ~~1-1000~~ | ~~Poly~~ | ~~LANTHANIDES~~ JPH 9/16/94 | HNO3 TO PH<2 | | | | ~~COMPUC~~ |
| ~~2-1000~~ | ~~Poly~~ | ~~RADS Pu,Th,U~~ | HNO3 TO PH<2 | | | | COMPUC |
| ~~2-1000~~ | ~~Poly~~ | ~~RADS Ac,Sr,GAMMA~~ | ~~HNO3 TO PH<2~~ | | | | ~~COMPUC~~ |
| ~~1-1000~~ | ~~Glass~~ | ~~TRITIUM~~ | ~~NONE~~ | | | | ~~COMPUC~~ |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: NA FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Jolotta Humpert (SIGNATURE) QA CHECKED BY: [illegible] (SIGNATURE)

KMSCOTES

# SAMPLE LOG SHEET

OPS

**PROJECT NAME:** Mound Operational Area

pg. 132

**PROJECT NO:** 2680

SAMPLE ID NUMBER: AB0001 DATE COLLECTED (MM/DD/YY): 6/20/94 TIME (HH:MM): 1045

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: AB

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 72

DESCRIPTION: ASTM WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected at drill ~~time~~ rig approx. 30' to N of rig. Collected 2 40-ml vials using ASTM Type II water. Sunny @ 95F. Rig idling at time of collection. Collecting B0003

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ABØØØ1 Pg. 133 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH<2,4C | OACØØ1 | 9289476350 | B3228Ø2Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØØ1 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Jolitta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

KMSCIES

# SAMPLE LOG SHEET

pg 134

OPS

**PROJECT NAME:** Mound Operational Area

**PROJECT NO:** 2680

SAMPLE ID NUMBER: AB0002

DATE COLLECTED (MM/DD/YY): 6-27-94

TIME (HH:MM): 1100

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: AB

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 72

DESCRIPTION: ASTM WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] SPATIAL COMPOSITE
- [ ] TIME COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC RINSATE
- [ ] QC FIELD BLANK
- [ ] OTHER (SPECIFY)

FIELD OBSERVATIONS:

Collected at B03 in Area 7 while crew collected W03001 (groundwater).

Collected by filling 2-40-ml vials with ASTM Type II water approx. 10' from rig. Rig not running. Crew using bailer to collect sample.

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: AB0002 pg 135 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-40 | Glass | CLPVOA | HCL to pH<2,4C | OAC005 | 8219960372 | B3228020 | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBA005 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison (SIGNATURE) 8/17/94

KMSCOLES

**SAMPLE LOG SHEET** OPS

**PROJECT NAME:** Mound Operational Area pg 136 **PROJECT NO:** 2680

SAMPLE ID NUMBER: AB0003 DATE COLLECTED (MM/DD/YY): 6/28/94 TIME (HH:MM): 1530

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: AB

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 72

DESCRIPTION: ASTM WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected at B07 using ASTM Type II water; associated with B070002. ~~and B070001~~ gPH 6/30/94

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: AB0003 pg 137 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-40 | Glass | CLPVOA | HCL to pH < 2,4C | DAC006 | 8219960486 | B3228020 | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBA006 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison (SIGNATURE) 8/17/94

Ambient Blanks / Kmsates

**SAMPLE LOG SHEET** pg 138

**PROJECT NAME:** Mound Operational Area

OPS

**PROJECT NO:** 2680

SAMPLE ID NUMBER: AB0004 DATE COLLECTED (MM/DD/YY): 7-7-94 TIME (HH:MM): 1419

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: AB

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 72

DESCRIPTION: ASTM WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected air location at seep S01001 using ASTM Type II Water. Collected 2 40-ml vials.

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

[redacted]

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ABØØØ4 Pg 139 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH < 2,4C | OACØ11 | 8219960151 | B3228Ø2Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØ11 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

Analyst: Kmsates

# SAMPLE LOG SHEET

OPS

Pg 140

**PROJECT NAME:** Mound Operational Area

**PROJECT NO:** 2680

SAMPLE ID NUMBER: ABØØØ5 DATE COLLECTED (MM/DD/YY): 7-19-94 TIME (HH:MM): Ø751

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: AB

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 72

DESCRIPTION: ASTM WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected at BØ9 while collecting BØ9ØØ1 using ASTM Type II water. Two 40-ml vials collected.

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY: Laura M. Marikon 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ABØØØ5 pg 141 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH < 2,4C | OACØ15 | 8219965556 | B3228Ø2Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØ15 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Juletta Hungert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

Ambient Blanks | Rinsates

# SAMPLE LOG SHEET

OPS

**PROJECT NAME:** Mound Operational Area

pg 142

**PROJECT NO:** 2680

SAMPLE ID NUMBER: AB000 6

DATE COLLECTED (MM/DD/YY): 7/27/94

TIME (HH:MM): 0852

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: AB

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 72

DESCRIPTION: ASTM WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] SPATIAL COMPOSITE
- [ ] TIME COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC RINSATE
- [ ] QC FIELD BLANK
- [ ] OTHER (SPECIFY)

FIELD OBSERVATIONS:

Collected at B15 using ASTM Type II Water.

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

RECORDED BY: _____ (SIGNATURE) [redacted] (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: ABØØØ6 pg 143 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH<2,4C | OACØ21 | 8219959926 | B322BØ2Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØ21 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Humpert (SIGNATURE) CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

Sample Book KMSOCES

**SAMPLE LOG SHEET**

pg 150

OPS

**PROJECT NAME:** Mound Operational Area

**PROJECT NO:** 2680

SAMPLE ID NUMBER: BB0001

DATE COLLECTED (MM/DD/YY): 6/20/94

TIME (HH:MM): 1115

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: BB

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 72

DESCRIPTION: ASTM WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected in sample trailer using ASTM Type II DI water when packaging B01002.

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

[redacted]

SAMPLE LOG SHEET

SAMPLE ID NUMBER: BBØØØ1 pg. 151 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH < 2,4C | OACØØ1 | 9289476350 | B3228Ø2Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØØ1 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Juliette Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/91 (SIGNATURE)

SAMPLE LOG SHEET

pg 152

OPS

PROJECT NAME: Mound Operational Area

PROJECT NO: 2680

SAMPLE ID NUMBER: BBØØØ2

DATE COLLECTED (MM/DD/YY): 6/27/94

TIME (HH:MM): 14ØØ

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: BB

DESCRIPTION: NA

FIELD OBSERVATIONS: Collected in sample trailer using ASTM Type II Water while packaging WØ3ØØ1.

SAMPLE -

MEDIA CODE: 72

DESCRIPTION: ASTM WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY Laura M. Morrison 8/17/94 (SIGNATURE)

V (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: BBØØØ2 Pg. 153 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH < 2,4C | OACØØ5 | 8219960372 | B3228Ø2Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØØ5 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison (SIGNATURE) 8/17/94

Sample Book [illegible]

**SAMPLE LOG SHEET** OPS

**PROJECT NAME:** Mound Operational Area pg 154 **PROJECT NO:** 2680

SAMPLE ID NUMBER: BB0003 DATE COLLECTED (MM/DD/YY): 6/28/94 TIME (HH:MM): 1730

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: BB

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 72

DESCRIPTION: ASTM WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected in sample trailer using ASTM Type II water while packaging B07001.

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: BBØØØ3 Pg 155 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH < 2,4C | OACØØ6 | 8219960486 | 13322802Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØØ6 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

Sample Bx. + ... \KMSATES

**SAMPLE LOG SHEET** OPS

**PROJECT NAME:** Mound Operational Area pg 156 **PROJECT NO:** 2680

SAMPLE ID NUMBER: BB0004 DATE COLLECTED (MM/DD/YY): 7-7-94 TIME (HH:MM): 1700

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: BB

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 72

DESCRIPTION: ASTM WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected in sample trailer while packaging seep sample S01001, using ASTM Type II Water. Two 40-ml vials collected

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: BB0004 pg 157 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-40 | Glass | CLPVOA | HCL to pH < 2,4C | OAC011 | 8219960151 | ~~B322802~~ ~~OAC011~~ JPH 7/7/94 | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBA011 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: J Humpert (SIGNATURE) QA CHECKED BY: Laura M. Monroe (SIGNATURE) 8/17/94

Tracking Form

Sample Book [illegible] KMSOLES

# SAMPLE LOG SHEET

OPS

PROJECT NAME: Mound Operational Area

pg 158

PROJECT NO: 2680

SAMPLE ID NUMBER: BBØØØ5 DATE COLLECTED (MM/DD/YY): 7-19-94 TIME (HH:MM): 1030

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: BB

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 72

DESCRIPTION: ASTM WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [x] GRAB
- [ ] SPATIAL COMPOSITE
- [ ] TIME COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC RINSATE
- [ ] QC FIELD BLANK
- [ ] OTHER (SPECIFY)

FIELD OBSERVATIONS: Collected in sample trailer while packaging BØ9ØØ1 using ASTM Type II water.

SAMPLE COLLECTED: [x] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [x] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: BBØØØ5 pg 159 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH < 2,4C | OACØ15 | 8219960556 | B322BØ2Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØ15 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Jeletta Humpert (SIGNATURE) QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

Sample Book [illegible] | KMSOTES

# SAMPLE LOG SHEET

OPS

PROJECT NAME: Mound Operational Area

pg. 160

PROJECT NO: 2680

SAMPLE ID NUMBER: BB0006

DATE COLLECTED (MM/DD/YY): 7/27/94

TIME (HH:MM): 1330

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: NA

POINT CODE: BB

DESCRIPTION: NA

SAMPLE -

MEDIA CODE: 72

DESCRIPTION: ASTM WATER

DEPTH NA TO NA NA

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

Collected in sample trailer using ASTM Type II water while packaging B15.

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: Joletta Humpert (SIGNATURE)

QA CHECKED BY: Laura M. Morrison 8/17/94 (SIGNATURE)

RECORDED BY: Joletta Humpert (SIGNATURE) [redacted] (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: BBØØØ6 Pg. 161 OPS

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 2-4Ø | Glass | CLPVOA | HCL to pH < 2,4C | OACØ21 | 8219959926 | B3228Ø2Ø | COMPUC |
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SAMPLE ID'S RINSATE: NA TRIP BLANK: TBAØ21 FIELD BLANK: NA FIELD DUPLICATE: NA

RECORDED BY: Joletta Humpert (SIGNATURE) CHECKED BY: Laura M. Morrison (SIGNATURE) 8/17/94

SAMPLE ID / COC TRACKINGFORM
OPS AREA PHASE I - PG 187
PROJECT NAME: EG&G MOUND OU5, ~~NEW PROPERTY - EXTENDED PHASE~~ PROJECT NO: 34896

| SAMPLE ID | MOUND SAMPLE ID | ~~MOUND COC~~ FIELD COC | LAB COC |
|---|---|---|---|
| ABØØØ1 | NR | NA | OACØØ1 |
| BØ1ØØ1 | | FAØØ1 | |
| BØ1ØØ2 | | | |
| BØ1ØØ3 | | | |
| BØ1ØØ4 | | | |
| BØ1ØØ5 | | | |
| BØ1ØØ6 | | | |
| BØ1ØØ7 | | FAØØ2 | OACØØ2 |
| BØ2ØØ1 | | FAØØ3 | OACØØ2 |
| BØ2ØØ2 | | | OACØØ2 |
| BØ4ØØ1 | | FAØØ4 | OACØØ3 |
| BØ4ØØ2 | | | OACØØ3 |
| BBØØØ1 | | NA | OACØØ1 |
| ERØØØ1 | | NA | ØACØØ1 |
| TBAØØ1 | | NA | OACØØ1 |
| TBAØØ2 | | NA | OACØØ2 |
| ERØØØ2 | | NA | ØACØØ2 |
| TBAØØ3 | | NA | OACØØ3 |
| BØ41Ø2 | | FAØØ4 | OACØØ3 |
| BØ5ØØ1 | | FAØØ5 | |
| BØ5ØØ2 | | | |
| BØ3ØØ1 | | FAØØ6 | OACØØ4 |
| BØ3ØØ2 | | | |
| TBAØØ4 | | NA | |
| BØ3ØØ3 | | FAØØ6 | |

SAMPLE ID / COC TRACKINGFORM

OPS AREA PHASE I

Pg 188

PROJECT NAME: EG&G MOUND OU5, ~~NEW PROPERTY - EXTENDED PHASE~~ PROJECT NO.: 34896

| SAMPLE ID | MOUND SAMPLE ID | MOUND LAB COC | LAB COC |
|---|---|---|---|
| BØ3ØØ4 | NR | FAØØ6, FAØØ7 | ~~OACØØ5~~ OACØØ4 |
| ABØØØ2 | | NA | OACØØ5 |
| BBØØØ2 | | | |
| TBAØØ5 | | | |
| BØ3ØØ5 | | FAØØ7 | |
| WØ3ØØ1 | | | |
| BØ3ØØ6 | | | |
| BØ7ØØ1 | | FAØØ8 | ØACØØ6 |
| BØ71Ø1 | | | |
| BØ7ØØ2 | | | |
| BØ3ØØ7 | | ~~FAØ~~ gpH 6/29/94 | |
| ERØØØ3 | | | |
| TBAØØ6 | | NA | |
| ABØØØ3 | | | |
| BBØØØ3 | | | |
| B16ØØ1 | | FAØØ9 | OACØØ7 |
| B16ØØ2 | | | |
| B16ØØ3 | | | |
| ERØØØ4 | | NA | OACØØ7 |
| BØ7ØØ4 | | FAØØ9 | |
| TBAØØ7 | | NA | |
| B16ØØ4 | | FAØ1Ø | OACØØ8 |
| B16ØØ5 | | | |
| W16ØØ1 | | | |
| ERØØØ5 | | NA | |

SAMPLE ID / COC TRACKINGFORM
OPS AREA PHASE 1 Pg 189
PROJECT NAME: EG&G MOUND OU5 ~~NEW PROPERTY - EXTENDED PHASE~~ PROJECT NO: 34896

| SAMPLE ID | MOUND SAMPLE ID | MOUND LAB COC | LAB COC |
|---|---|---|---|
| ~~TBAØØ8~~ ~~TBAØ1Ø~~ 9/14/94 | NR | NA | OACØØ8 |
| B13ØØ1 | | FAØ11 | OACØØ9 |
| B13ØØ2 | | | |
| B13ØØ3 | | | |
| B13ØØ4 | | | |
| B13ØØ5 | | | |
| B13ØØ6 | | | |
| TBAØØ9 | | NA | OACØØ9 |
| ERØØØ6 | | NA | OACØ1Ø |
| W13ØØ1 | | FAØ12 | |
| W13Ø1 (dup) | | FAØ12 | |
| TBAØ11 | | NA | OACØ11 |
| BBØØØ4 | | | OACØ11 |
| ABØØØ4 | | | |
| B14ØØ1 | | FAØ13 | |
| B14ØØ2 | | | |
| B14ØØ3 | | | |
| SØ1ØØ1 | | FAØ14 | |
| SØ11Ø1 | | | |
| B14ØØ4 | | FAØ15 | OACØ12 |
| B141Ø4 | | | |
| TBAØ12 | | NA | |
| SØ2ØØ1 | | FAØ16 | OACØ13 |
| TBNØ13 | | NA | |
| TBAØ14 | | NA | OACØ14 |

SAMPLE ID / COC TRACKINGFORM
OPS AREA PHASE 1 Pg 190
PROJECT NAME: EG&G MOUND OU5,NEW PROPERTY - EXTENDED PHASE PROJECT NO: 34896

| SAMPLE ID | MOUND SAMPLE ID | MOUND LAB COC | LAB COC |
|---|---|---|---|
| BØ8ØØ1 | NR | FAØ17 | OACØ14 |
| BØ8ØØ2 | | | |
| BØ8ØØ3 | | | |
| BBØØØ5 | | NA | OACØ15 |
| ABØØØ5 | | | |
| BØ9ØØ1 | | FAØ18 | OACØ15 |
| BØ9ØØ2 | | | |
| BØ91Ø2 | | | |
| BØ9ØØ3 | | | |
| BØ9ØØ4 | | | |
| BØ9ØØ5 | | | |
| B12ØØ1 | | FAØ19 | OACØ16 |
| B12ØØ2 | | | |
| B12ØØ3 | | | |
| B1ØØØ1 | | FAØ2Ø | OACØ16 |
| B1ØØØ2 | | | |
| B1ØØØ3 | | | |
| BØ6ØØ1 | | FAØ21 | OACØ18 |
| BØ6ØØ2 | | | |
| BØ6ØØ3 | | | |
| B11ØØ1 | | FAØ22 | OACØ17 |
| B11ØØ2 | | | |
| B111Ø2 | | | |
| B11ØØ3 | | | |
| B11ØØ4 | | | |

SAMPLE ID / COC TRACKINGFORM
OPS AREA PHASE 1
PC 191
PROJECT NAME: EG&G MOUND OU5 ~~NEW PROPERTY EXTENDED PHASE~~
PROJECT NO: 34896

| SAMPLE ID | MOUND SAMPLE ID | MOUND LAB COC | LAB COC |
|---|---|---|---|
| B16ØØ6 | NR | FAØ23 | OACØ19 |
| B16ØØ7 | | | |
| B161Ø7 | | | |
| ERØØ1Ø | | NA | OACØ2Ø |
| B15ØØ1 | | FAØ24 | OACØ21 |
| B151Ø1 | | | |
| 8/8/94 ~~B16~~ B15ØØ2 | | | |
| B15ØØ3 | | | |
| B15ØØ4 | | | |
| B151Ø4 | | | |
| ABØØØ6 | | NA | |
| BBØØØ6 | | NA | |
| B17ØØ1 | | FAØ25 | OACØ22 |
| B17ØØ2 | | | |
| B18ØØ1 | | | |
| B18ØØ2 | | | |
| B19ØØ1 | | FAØ26 | DACØ23 |
| B19ØØ2 | | | |
| B2ØØØ1 | | | |
| B2ØØØ2 | | | |
| BB1ØØ1 | | NA | OACØ25 |
| BB2ØØ1 | | | |
| BB21Ø1 | | | |
| BB3ØØ1 | | | |
| BB4ØØ1 | | | |

SAMPLE ID / COC TRACKING FORM

OPS. AREA PHASE 1 PG 192

PROJECT NAME: EG&G MOUND OU5, ~~NEW PROPERTY, EXTENDED PHASE~~ PROJECT NO: 34896

| SAMPLE ID | MOUND SAMPLE ID | MOUND LAB COC | LAB COC |
|---|---|---|---|
| BB5ØØ1 | NR | NA | GACØ25 |
| BB6ØØ1 | ↓ | ↓ | ↓ |
| BB7ØØ1 | ↓ | ↓ | ↓ |
| | LAST ENTRY | | |

SAMPLE CONTAINER LOT NUMBER LOG
OPS AREA PHASE I PC 207
PROJECT NAME: EG&G MOUND OU5 ~~NEW PROPERTY EXTENDED PHASE~~ PROJECT NO. 34896

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| BØ1ØØ2 | SOIL | Anions | F3146Ø5Ø | 6/2Ø/94 |
| | | Metals/Cyn | ↓ | |
| | | Lanthanides | G2342Ø5Ø | |
| | | VOC | ↓ | |
| | | Explosives | F3146Ø5Ø | |
| | | TOC | G2342Ø5Ø | |
| | | Gamma | F3146Ø5Ø | |
| | | Iso PTU | F3146Ø5Ø | |
| | | SVOC/Pest/PCB | ↓ | |
| BØ1ØØ1 | SOIL | Anions | F3146Ø5Ø | 6/2Ø/94 |
| | | VOC | G2342Ø5Ø | |
| | | Lanthanides | ↓ | |
| | | TOC | ↓ | |
| | | Gamma | F3146Ø5Ø | |
| | | Metal/Cyn | ↓ | |
| | | Explosives | ↓ | |
| | | Iso PTU | ↓ | |
| | | JPH 6/20/94 ~~Lantha~~ SVOC/Pest/PCB | ↓ | |
| BØ1ØØ3 | SOIL | TOC | G2342Ø5Ø | 6/20/94 |
| | | VOC | ↓ | |
| | | Lanthanides | ↓ | |
| | | Exp | F3146Ø5Ø | |
| | | Anions | ↓ | |
| | | Metal/Cyn | ↓ | |
| | | Rads-Gamma | ↓ | |
| | | Rads PTU | ↓ | |
| | | SVOC/Pest/PCB | ↓ | |
| BØ1ØØ4 | SOIL | VOC | G2342Ø5Ø | 6/20/94 |
| ↓ | ↓ | TOC | ↓ | |

SAMPLE CONTAINER LOT NUMBER LOG

OPS AREA PHASE I

PG 208

PROJECT NAME: EG&G MOUND OU5, ~~NEW PROPERTY, EXTENDED PHASE~~

PROJECT NO: 34896

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| BØ1ØØ4 | SOIL | Lanthanides | G2342Ø5Ø | 6/2Ø/94 |
| | | Anions | F3146Ø5Ø | |
| | | Exp | | |
| | | Metal/Cyn | | |
| | | Gamma | | |
| | | SVOC/Pest/PCB | | |
| | | Iso PTU | | |
| BØ1ØØ6 | SOIL | VOA | G2342Ø5Ø | 6/2Ø/94 |
| | | Lanthanides | | |
| | | TOC | | |
| | | SVOC/Pest/PCB | F3146Ø5Ø | |
| | | Iso/PTU | | |
| | | Metals/Cyn | | |
| | | Anions | | |
| | | EXP | | |
| | | Gamma | | |
| BØ1ØØ5 | SOIL | VOA | G2342Ø5Ø | 6/2Ø/94 |
| | | Lanthanides | | |
| | | TOC | | |
| | | SVOC/Pest/PCB | F3146Ø5Ø | |
| | | Iso PTU | | |
| | | Metals/Cyn | | |
| | | Anions | | |
| | | Exp | | |
| | | Gamma | | |
| 3Ø1ØØ7 | SOIL | Gamma | F3146Ø50 | 6/21/94 |
| | | Iso PTU | | |
| | | SVOC/Pest/PCB | | |
| | | Metal/Cyn | | |

pg 208

Lot # 001

Sample Bottle Inventory Blanks [illegible]

SAMPLE CONTAINER LOT NUMBER LOG
OPS AREA PHASE I
PG 209
PROJECT NAME: EG&G MOUND OU5 ~~NEW PROPERTY, EXTENDED PHASE~~
PROJECT NO: 34896

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| BØ1ØØ7 | SOIL | Anions | F3146Ø50 | 6/21/94 |
| | | Exp | | |
| | | VOC | G2342Ø5Ø | |
| | | TOC | | |
| | | Lanthanides | | |
| BØ2ØØ1 | SOIL | VOC | G2342Ø5Ø | 6/21/94 |
| | | TOC | | |
| | | Lanthan | | |
| | | Anions | F3146Ø5Ø | |
| | | Gamma | | |
| | | Metals/Cyn | | |
| | | Exp | | |
| | | Iso PTU | | |
| | | SVOC/Pest/PCB | | |
| BØ2ØØ2 | SOIL | VOC | G2342Ø5Ø | 6/21/94 |
| | | TOC | | |
| | | Lan | | |
| | | Gamma | F3146Ø50 | |
| | | Exp | | |
| | | Iso PTU | | |
| | | Metal/Cyn | | |
| | | Anion | | |
| | | SVOC/Pest/PCB | | |
| BØ4ØØ1 | SOIL | VOC | G2342Ø5Ø | 6/22/94 |
| | | TOC | | |
| | | Lanthanides | | |
| | | Anions | F3146Ø5Ø | |
| | | Iso PTU | | |
| | | Gamma | | |

Sample Bottle Lot # Log

Analyst: Brinks Kinsdes

SAMPLE CONTAINER LOT NUMBER LOG

OPS AREA PHASE I

PROJECT NAME: EG&G MOUND OU5, ~~NEW PROPERTY, EXTENDED PHASE~~

PG 210

PROJECT NO: 34806

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| BØ4ØØ1 | SOIL | SVOC/Pest/PCB | F3146Ø5Ø | 6/22/94 |
| | | Explosives | | |
| | | Metals/Cyn | | |
| BØ4ØØ2 | SOIL | VOC | G2342Ø5Ø | 6/22/94 |
| BØ4ØØ2 | SOIL | TOC | | |
| | | Lanthanides | | |
| | | Gamma | F3146Ø5Ø | |
| | | Anions | | |
| | | Iso PTU | | |
| | | Exp | | |
| | | SVOC/Pest/PCB | | |
| | | Met/Cyn | | |
| BØ41Ø2 | SOIL | TOC | G2342Ø5Ø | 6/22/94 |
| | | VOC | | |
| | | Lanthanides | | |
| | | Gamma | F3146Ø5Ø | |
| | | Anions | | |
| | | Iso PTU | | |
| | | Exp | | |
| | | SVOC/Pest/PCB | | |
| | | Metal/Cyn | | |
| BØ3ØØ1 | SOIL | TOC | G2342Ø5Ø | 6/23/94 |
| | | VOC | | |
| | | Lanthanides | | |
| | | Anions | F3146Ø5Ø | |
| | | SVOC/Pest/PCB | | |
| | | Gamma | | |
| | | Metal/Cyn | | |
| | | Iso PTU | | |

SAMPLE CONTAINER LOT NUMBER LOG
OP. AREA PHASE 1

PC 211

PROJECT NAME: EG&G MOUND OU5, ~~NEW PROPERTY, EXTENDED PHASE~~

PROJECT NO: 34896

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| B03001 | SOIL | Exp | F3146050 | 6/23/94 |
| B03002 | SOIL | TOC | G2342050 | 6/23/94 |
| | | VOC | | |
| | | Lantharides | | |
| | | Anions | F3146050 | |
| | | Gamma | | |
| | | Exp | | |
| | | Metal/Cyn | | |
| | | SVOC/Pest/PCB | | |
| B03003 | SOIL | TOC | G2342050 | 6/23/94 |
| | | VOC | | |
| | | Lanthan | | |
| | | Anion | F3146050 | |
| | | Gamma | | |
| | | Exp | | |
| | | Metal/Cyn | | |
| | | SVOC/Pest/PCB | | |
| B03004 | SOIL | TOC | G2342050 | 6/23/94 |
| | | VOC | | |
| | | Lant | | |
| | | SVOC/Pest | F3146050 | |
| | | Metal/Cyn | | |
| W03001 | WTR | Alkalinity | C3231020 | 6/27/94 |
| W03001 | | Anions | C4070010 | |
| | | Pest/PCB | H3182010 | |
| | | SVOC | | |
| | | VOA | B3228020 | |
| | | VOA - 8010 | | |
| | | Explosives | H3182010 | |

SAMPLE CONTAINER LOT NUMBER LOG

PROJECT NAME: EG&G MOUND OU5, ~~NEW PROPERTY, EXTENDED PHASE~~ OPS AREA PILOTE 1

PROJECT NO: 34896



| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| WØ3ØØ1 | WTR | Cyanide | C4Ø7ØØ1Ø | 6/27/94 |
| | | $NO_2/NO_3$ | | |
| | | Metals | | |
| | | Iso PTU | C4Ø7ØØ1Ø | |
| | | Gamma | | |
| | | TDS | C3231Ø2Ø | |
| | | TKN, TP | C4Ø7ØØ1Ø | |
| | | TSS | C4Ø7ØØ1Ø | |
| | | Lanthanides | C3231Ø2Ø | |
| BØ3ØØ4 | SOIL | Anion | ~~Exp~~ GPH 6/27/94 F3146Ø5Ø | 6/27/94 |
| | | Exp | | |
| | | Gamma | | |
| | | Iso PTU | | |
| BØ3ØØ5 | SOIL | Gamma | F3146Ø5Ø | 6/27/94 |
| | | Anions | | |
| | | Metal/cyn | | |
| | | Exp | | |
| | | Iso PTU | | |
| | | SVOC/Pest | | |
| | | VOC | G2342Ø5Ø | |
| | | TOC | | |
| | | Lanthanides | | |
| BØ3ØØ6 | SOIL | VOC | G2342Ø5Ø | 6/27/94 |
| BØ3ØØ7 | SOIL | VOC | G2342Ø5Ø | |
| BØ7ØØ1 | SOIL | VOC | G2342Ø5Ø | 6/28/94 |
| | | TOC | | |
| | | Lanthanides | | |
| | | SVOC/Pest | F3146Ø5Ø | |
| | | Metal/cyn | | |



Lot # log

Rinsates

Ambient Blanks

Sample Bank

SAMPLE CONTAINER LOT NUMBER LOG

OPS AREA PHASE I

PG 213

PROJECT NAME: EG&G MOUND OU5 ~~NEW PROPERTY, EXTENDED PHASE~~

PROJECT NO: 34896

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| B07001 | SOIL | Anion | F3146050 | 6/28/94 |
| | | Gamma | | |
| | | Iso PTU | | |
| | | Exp | | |
| B07002 | SOIL | VOC | G2342050 | 6/28/94 |
| | | TOC | | |
| | | Lan | | |
| | | Anion | F3146050 | |
| | | SVOC/Pest | | |
| | | Gamma | | |
| | | Iso PTU | | |
| | | Exp | | |
| B07101 | SOIL | VOC | G2342050 | 6/28/94 |
| | | TOC | | |
| | | Lanthanides | | |
| | | SVOC/Pest | F3146050 | |
| | | Metal/cyn | | |
| | | Anions | | |
| | | Exp | | |
| | | Gamma | | |
| | | Iso PTU | | |
| B07003 | SOIL | VOC | G2342050 | 6/29/94 |
| | | TOC | | |
| | | Lan | | |
| | | Anions | F3146050 | |
| | | SVOC/Pest | | |
| | | Metal/cyn | | |
| | | Exp | | |
| | | Gamma/Iso PTU | | |

Sample Bottle Lots Applicant Blanks Rinsates Lot # Log

SAMPLE CONTAINER LOT NUMBER LOG
OPS AREA PHASE I
PROJECT NAME: EG&G MOUND OU5, ~~NEW PROPERTY, EXTENDED PHASE~~



PROJECT NO: 34896

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| B07004 | SOIL | VOC | G2342050 | 6/29/94 |
| | | TOC | | |
| | | Lanthanides | | |
| | | Anions | F3146050 | |
| | | Gamma | | |
| | | Iso PTU | | |
| | | Exp | | |
| | | SVOC/Pest/PCB | | |
| | | Metal/Cyn | | |
| B16001 | SOIL | Gamma | F3146050 | 6/29/94 |
| | | Iso PTU | | |
| B16002 | SOIL | VOC | G2342050 | |
| B16003 | SOIL | Gamma | F3146050 | |
| | | Iso PTU | | |
| B16004 | SOIL | VOC | G2342050 | 6/29/94 |
| | | Gamma | F3146050 | |
| | | Iso PTU | | |
| B16005 | SOIL | VOC | G2342050 | 6/30/94 |
| | | Gamma | F3146050 | |
| | | Iso PTU | | |
| B13003 | SOIL | VOC | G2342050 | 7/5/94 |
| | | TOC | | |
| | | Lant. | | |
| | | SVOC/Pest | F3146050 | |
| | | Metal/Cyn | | |
| | | Anion | | |
| | | Gamma | | |
| | | Iso PTU | | |
| | | Exp | | |

SAMPLE CONTAINER LOT NUMBER LOG

OPS AREA PHASE I

PC 215

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY - EXTENDED PHASE

PROJECT NO: 34896

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| B13ØØ2 | SOIL | VOC | G2342Ø5Ø | 7/5/94 |
| | | TOC | | |
| | | Lanthanides | | |
| | | SVOC/Pest/PCB | F3146Ø5Ø | |
| | | Metal/Cyn | | |
| | | Gamma | | |
| | | Iso PTU | | |
| | | anion | | |
| | | Exp | | |
| B13ØØ1 | SOIL | VOC | G2342Ø5Ø | 7/5/94 |
| | | TOC | | |
| | | Lanthanides | | |
| | | SVOC/Pest/PCB | F3146Ø5Ø | |
| | | Metal/Cyn | | |
| | | anion | | |
| | | Exp | | |
| | | Gamma | | |
| | | Iso PTU | | |
| W13ØØ1 | Wtr | VOCs | B3228Ø2Ø | 7/6/94 |
| | | SVOC | H3182Ø1Ø | |
| | | Pest/PCB | | |
| | | Explosives | | |
| | | Alkalinity | C4Ø7ØØ1Ø | |
| | | Anions | C4Ø7ØØ1Ø | |
| | | Tritium | H3182Ø1Ø | |
| | | TSS | C4Ø7ØØ1Ø | |
| | | TDS | | |
| | | TOC | H3182Ø1Ø | |
| | | TKN/TP | C4Ø7ØØ1Ø | |

SAMPLE CONTAINER LOT NUMBER LOG

OPS AREA PHASE I

PROJECT NAME: EG&G MOUND OU5, ~~NEW PROPERTY, EXTENDED PHASE~~

PROJECT NO: 34896

PG 216

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| W13ØØ1 | WTR | $NO_2/NO_3$ | C4Ø7ØØ1Ø | 7/6/94 |
| | | Cyanide | | |
| | | Rad PTU | | |
| | | Gamma | | |
| | | Metals | | |
| W131Ø1 | WTR | VOC | B3228Ø2Ø | 7/6/94 |
| | | SVOC | H3182Ø1Ø | |
| | | Pest/PCB | | |
| | | Explosives | | |
| | | Metals | C4Ø7ØØ1Ø | |
| | | Cyanide | | |
| | | Anions | | |
| | | $NO_2/NO_3$ | | |
| | | TKN/TP | | |
| | | TOC | H3182Ø1Ø | |
| | | TDS | C4Ø7ØØ1Ø | |
| | | TSS | | |
| | | Tritium | H3182Ø1Ø | |
| | | PTU | G4Ø7ØØ1Ø | |
| | | Gamma | | |
| | | Lanthanides | | |
| B14ØØ1 | SOIL | VOC | G2342Ø5Ø | 7/7/94 |
| | | TOC | | |
| | | Lanthanides | | |
| | | SVOC/Pest | F3146Ø5Ø | |
| | | Gamma | | |
| | | Iso PTU | | |
| | | Metal/cyn | | |
| | | Anions | | |

Pg. 216

Log # 001

Sample Work

SAMPLE CONTAINER LOT NUMBER LOG

OPS AREA PHASE I

PG 217

PROJECT NAME: EG&G MOUND OU5 ~~NEW PROPERTY, EXTENDED PHASE~~ PROJECT NO: 34896

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| B14ØØ1 | SOIL | Explosives | F3146Ø5Ø | 7/7/94 |
| B14ØØ2 | SOIL | VOC | G2342Ø5Ø | ~~7/7/94~~ PH 7/8 7/7/94 |
| | | TOC | | |
| | | Lanthanides | | |
| | | Svoc/Pest | F3146Ø5Ø | |
| | | Metal/cyn | | |
| | | Anion | | |
| | | Gamma | | |
| | | Iso PTU | | |
| | | Exp | | |
| B14ØØ3 | SOIL | VOC | G2342Ø5Ø | 7/7/94 |
| B14ØØ4 | SOIL | VOC, TOC, Lanth | G2342Ø5Ø | 7/8/94 |
| | | SVOC/Pest, Anion, | F3146Ø5Ø | |
| | | Metal/cyn, Gamma, | | |
| | | Iso PTU, Exp. | | |
| SØ1ØØ1 | Wtr | VOCs | B3228Ø2Ø | 7/7/94 |
| | | All ambers | H3182Ø1Ø | |
| | | All Poly | C4Ø7ØØ1Ø | |
| SØ11Ø1 | Wtr | VOCs | B3228Ø2Ø | 7/7/94 |
| | | All ambers | H3182Ø1Ø | |
| | | All poly | C4Ø7ØØ1Ø | |
| SØ2ØØ1 | Wtr | VOC | B3228Ø2Ø | 7/11/94 |
| | | All Ambers | H3182Ø1Ø | |
| | | All poly | C4Ø7ØØ1Ø | |
| BØ8ØØ1 | SOIL | VOC | G2342Ø5Ø | 7/14/94 |
| | | TOC | | |
| | | Lanthanides | | |
| | | SVOC/Pest | F3146Ø5Ø | |
| | | Metal/Cyn | | |

SAMPLE CONTAINER LOT NUMBER LOG
OPS AREA PHASE 1

PG 218

PROJECT NAME: EG&G MOUND OU5 ~~NEW PROPERTY, EXTENDED PHASE~~ PROJECT NO: 34896

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| B08001 | SOIL | Anion | F3146050 | 7/14/94 |
| | | Gamma | | |
| | | Iso PTU | | |
| | | Exp | | |
| B08002 | SOIL | VOC | G2342050 | 7/14/94 |
| | | TOC | | |
| | | Lanthanides | | |
| | | SVOC/Pest | F3146050 | |
| | | Metal/Cyn | | |
| | | Anion | | |
| | | Gamma | | |
| | | Iso PTU | | |
| | | Exp | | |
| B08003 | SOIL | VOC | G2342050 | 7/14/94 |
| | | TOC | | |
| | | Lanthanides | | |
| | | SVOC/Pest | F3146050 | |
| | | Metal/cyn | | |
| | | Anion | | |
| | | Exp | | |
| | | Gamma | | |
| | | Iso PTU | | |
| B09001 | SOIL | VOC | G2342050 | 7/19/94 |
| | | TOC | | |
| | | Lanthanides | | |
| | | SVOC/Pest | F3146050 | |
| | | Metal/Cyn | | |
| | | Anions | | |
| | | Exp | | |

Lot # log

Sample Bank Analient Blanks

SAMPLE CONTAINER LOT NUMBER LOG

OPS AREA PHASE I

PC 219

PROJECT NAME: EG&G MOUND OU5, ~~NEW PROPERTY, EXTENDED PHASE~~

PROJECT NO: 34896

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| B09001 | SOIL | Gamma | F3146050 | 7/19/94 |
| ↓ | ↓ | Iso PTU | ↓ | ↓ |
| B09002 | SOIL | VOC | G2342050 | 7/19/94 |
| | | TOC | | |
| | | Lanthanides | ↓ | |
| | | SVOC/Pest | F3146050 | |
| | | Metal/Cyn | | |
| | | Anion | | |
| | | Gamma | | |
| | | Iso PTU | | |
| ↓ | ↓ | Exp | ↓ | ↓ |
| B09102 | SOIL | VOC | G2342050 | 7/19/94 |
| | | TOC | | |
| | | Lanthanides | ↓ | |
| | | SVOC/Pest | F3146050 | |
| | | Metal/Cyn | | |
| | | Anion | | |
| | | Exp | | |
| | | Gamma | | |
| ↓ | ↓ | Iso PTU | ↓ | ↓ |
| B09003 | SOIL | VOC; TOC; Lanth. | G2342050 | 7/19/94 |
| | | SVOC/Pest; Metal/Cyn; | F3146050 | |
| | | Gamma; Iso PTU; | | |
| ↓ | ↓ | Exp, Anions | ↓ | ↓ |
| B09004 | SOIL | VOC; TOC; Lanth | G2342050 | 7/19/94 |
| | | SVOC/Pest; Iso PTU; | F3146050 | |
| | | Metal/Cyn; Anion; | | |
| ↓ | ↓ | Gamma; Exp | ↓ | ↓ |
| | | | | |

SAMPLE CONTAINER LOT NUMBER LOG
OPS AREA PHASE I

PG 220

PROJECT NAME: EG&G MOUND OU5, NEW PROPERTY, EXTENDED PHASE

PROJECT NO: 3489

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| B0905 | SOIL | VOC; TOC; Lant | G23420500 | 7/19/94 |
| | | SVOC/Pest; Anion; | F31460500 | |
| | | Gamma; Iso PTU; | | |
| | | Exp; Metal/Cyn | | |
| B1200 1 | SOIL | VOC; TOC; Lan | G23420500 | 7/20/94 |
| | | SVOC/Pest; Anions; | F31460500 | |
| | | Gamma; Iso PTU; | | |
| | | Exp; Metal/Cyn | | |
| B12002 | SOIL | VOC; LAN; TOC | G23420500 | 7/20/94 |
| | | SVOC/Pest; Anion; | F31460500 | |
| | | Gamma; Iso PTU; | | |
| | | Exp; Metal/Cyn | | |
| B12003 | SOIL | VOC; TOC; Lan | G23420500 | 7/20/94 |
| | | SVOC/Pest; Anion; | F31460500 | |
| | | Gamma; Iso PTU; | | |
| | | Exp; Metal/Cyn | | |
| B10001 | SOIL | VOC; TOC; Lant | G23420500 | 7/20/94 |
| B10001 | | SVOC/Pest; Anion; | F31460500 | |
| | | Gamma; Iso PTU; | | |
| | | Exp; Metal/Cyn | | |
| B10002 | SOIL | VOC; TOC; Lant | G23420500 | 7/20/94 |
| | | SVOC/Pest; Anion; | F31460500 | |
| | | Gamma; Iso PTU; | | |
| | | Exp; Metal/Cyn | | |
| B10003 | SOIL | VOC; TOC; Lan | G23420500 | 7/20/94 |
| | | SVOC/Pest; Anion; | | |
| | | Gamma; Iso PTU; | | |
| | | Exp; Metal/Cyn | | |

Sample Bottle Lot # Log

Sample Bottle Lot # Log Attachment Blanks

SAMPLE CONTAINER LOT NUMBER LOG
OPS AREA PHASE I
PROJECT NAME: EG&G MOUND OU5 ~~NEW PROPERTY, EXTENDED PHASE~~ PROJECT NO: 34896

Pg 221

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| B11ØØ1 | SOIL | VOC; TOC; Lan | G2342Ø5Ø | 7/21/94 |
| | | Gamma; IsoPTU; | F3146Ø5Ø | |
| | | SVOC/Pest/Metal/Cy; | | |
| | | Anions; Exp | | |
| B11ØØ2 | SOIL | VOC; TOC; LAN | G2342Ø5Ø | 7/21/94 |
| | | SVOC/Pest; Metal/Cy; | F3146Ø50 | |
| | | Anion; Exp; | | |
| | | Gamma; IsoPTU | | |
| B11ØØ3 | SOIL | VOC; TOC; Lan | G2342Ø5Ø | 7/21/94 |
| | | SVOC/Pest; Anion; | F3146Ø5Ø | |
| | | Gamma; IsoPTU; | | |
| | | Exp; Metal/Cyn | | |
| B11ØØ4 | SOIL | VOC; TOC; Lan | G2342Ø5Ø | 7/21/94 |
| | | SVOC/Pest; Anion; | F3146Ø5Ø | |
| | | Gamma; IsoPTU; | | |
| | | Exp; Metal/Cyn | | |
| W11ØØ1 | WTR | VOAs | B3228Ø2Ø | 7/21/94 |
| | | all amber | H3182Ø1Ø | |
| | | all Poly | C4Ø7ØØ1Ø | |
| B06ØØ1 | SOIL | VOC; TOC; LAN | G2342Ø5Ø | 7/22/94 |
| | | GAMMA; ISOPTU | F3146Ø5Ø | |
| | | SVOC/Pest/Met/Cy | F3146Ø5Ø | |
| | | ANIONS/EXPLOS | F3146Ø5Ø | |
| B06ØØ2 | SOIL | VOC; TOC; LAN | G2342Ø5Ø | |
| | | GAMMA; ISO PTU | F3146Ø5Ø | |
| | | ANIONS; EXPLOS | F3146Ø5Ø | |
| | | SVOC; PP; MET; CY | F3146Ø5Ø | |
| B06ØØ3 | SOIL | VOC; TOC; Lan | G2342Ø5Ø | 7/22/94 |
| | | SVOC; PP; Met; Cy | F3146Ø50 | |

SAMPLE CONTAINER LOT NUMBER LOG
OPS AREA PHASE I

PROJECT NAME: EG&G MOUND OU5, ~~NEW PROPERTY, EXTENDED PHASE~~

PROJECT NO: 34[illegible]

P6 222

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| B0600 3 | SOIL | Anions; Exp; | F3146050 | 7/22/94 |
| ↓ | ↓ | Iso PTU; Gamma | ↓ | ↓ |
| B1600 6 | SOIL | Gamma; Iso PTU | F3146050 | 7/25/94 |
| B1600 7 | SOIL | VOA | G2342050 | 7/25/94 |
| ↓ | ↓ | Gamma; Iso PTU | F3146050 | ↓ |
| B161 07 | SOIL | Gamma; Iso PTU | F3146050 | 7/25/94 |
| B1500 1 | SOIL | VOC; TOC; Lan | G2342050 | 7/27/98 |
| ↓ | ↓ | SVOC/Pest; Anion; | F3146050 | ↓ |
| | | Metal/Cyn; Iso PTU; | | |
| ↓ | ↓ | Gamma; Exp | ↓ | ↓ |
| B1500 2 | SOIL | VOC; TOC; Lan | G2342050 | 7/27/94 |
| ↓ | ↓ | SVOC/Pest; Anion; | F3146050 | ↓ |
| | | Metal/Cyn; Gamma; | | |
| ↓ | ↓ | Iso PTU; Exp | ↓ | ↓ |
| B1500 3 | SOIL | VOC; TOC; Lan | G2342050 | 7/27/94 |
| ↓ | ↓ | SVOC/Pest; Anions; | F3146050 | ↓ |
| | | Gamma; Iso PTU; | | |
| ↓ | ↓ | Metal/Cyn; Exp | ↓ | ↓ |
| B1500 4 | SOIL | VOC, TOC, Lan | G2342050 | 7/27/94 |
| B 1500 4 | ↓ | SVOC/Pest; Anions; | F3146050 | ↓ |
| | | Gamma; Iso PTU; | | |
| ↓ | ↓ | Metal/Cyn; Exp | ↓ | ↓ |
| B1510 4 | SOIL | VOC; TOC; Lan | G2342050 | 7/27/94 |
| ↓ | ↓ | SVOC/~~Metal~~ Pest, Anion; | F3146050 | ↓ |
| | | Gamma; Iso PTU; | | |
| ↓ | ↓ | Metal/Cyn; Exp | ↓ | ↓ |
| B1700 1 | SOIL | VOC; TOC; Lan | G2342050 | 8/8/94 |
| | | SVOC/Pest; Anions; | F3146050 | ↓ |
| | | Gamma; Iso PTU | ↓ | ↓ |

Sample Bank 19[illegible] (HMI IGNT: [illegible]) Lot # Log

SAMPLE CONTAINER LOT NUMBER LOG
OPS AREA PHASE I
PG 223
PROJECT NAME: EG&G MOUND OU5,NEW PROPERTY, EXTENDED PHASE
PROJECT NO: 34896

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| B17ØØ1 | SOIL | Metal/Cyn; Exp | F3146Ø5Ø | 8/8/94 |
| B17ØØ2 | SOIL | VOC; TOC; Lan | G2342Ø5Ø | 8/8/94 |
| ↓ | ↓ | SVOC/Pest; Anion; | F3146Ø5Ø | ↓ |
| | | Gamma; IsoPTU; | ↓ | |
| ↓ | ↓ | Metal/Cyn; Exp | ↓ | ↓ |
| B18ØØ1 | SOIL | VOC; TOC; Lan | G2342Ø5Ø | 8/8/94 |
| ↓ | ↓ | SVOC/Pest; Anion; | F3146Ø5Ø | ↓ |
| | | Gamma; IsoPTU; | ↓ | |
| ↓ | ↓ | Metal/Cyn; Exp | ↓ | ↓ |
| B18ØØ2 | SOIL | SVOC/Pest; Anion; | F3146Ø5Ø | 8/8/94 |
| ↓ | ↓ | Gamma; IsoPTU; | ↓ | ↓ |
| | | Metal/Cyn; Exp | ↓ | |
| ↓ | ↓ | VOC; TOC; Lan | G2342Ø5Ø | ↓ |
| B181Ø2 | SOIL | VOC | G2342Ø5Ø | 8/8/94 |
| ↓ | ↓ | Gamma; IsoPTU | F3146Ø5Ø | ↓ |
| B19ØØ1 | SOIL | VOC; TOC; Lan | G2342Ø5Ø | 8/9/94 |
| ↓ | ↓ | SVOC/Pest; Anion; | F3146Ø5Ø | ↓ |
| | | Metal/Cyn; Exp | ↓ | |
| ↓ | ↓ | Gamma; IsoPTU | ↓ | ↓ |
| B19ØØ2 | SOIL | VOC; TOC; Lan | ~~F314~~ G2342Ø5Ø (SPH 8/16/94) | 8/9/94 |
| ↓ | ↓ | SVOC/Pest; Anion; | F3146Ø5Ø | ↓ |
| | | Gamma; IsoPTU; | ↓ | |
| ↓ | ↓ | Metal/Cyn; Exp | ↓ | ↓ |
| B2ØØØ1 | SOIL | VOC; TOC; Lan | G2342Ø5Ø | 8/9/94 |
| ↓ | ↓ | Gamma; IsoPTU; | F3146Ø5Ø | ↓ |
| | | Exp; Metal/Cyn; | ↓ | |
| ↓ | ↓ | SVOC/Pest; Anion | ↓ | ↓ |
| BB1ØØ1 | SOIL | metals | F3146Ø5Ø | 9/14/94 |
| BB2ØØ1 | ↓ | explosives | ↓ | ↓ |

SAMPLE CONTAINER LOT NUMBER LOG
OPS AREA PHASE I

PG 224

PROJECT NAME: EG&G MOUND OU5, NEW PROPERTY, EXTENDED PHASE

PROJECT NO: 348961

| SAMPLE ID | MATRIX | ANALYSIS | LOT NUMBER | DATE USED |
|---|---|---|---|---|
| B2ØØØ2 | SOIL | VOC; TOC; Lan | G2342Ø5Ø | 8/9/94 |
| | | SVOC/Pest; Exp; | F3146Ø5Ø | |
| | | Anion; Metal/Cyn; | | |
| | | Gamma; IsoPU | | |
| BB21Ø1 | Soil | explosives | F3146Ø5Ø | 9/14/94 |
| BB3ØØ1 | | | | |
| BB4ØØ1 | | | | |
| BB5ØØ1 | | | | |
| BB6ØØ1 | | | | |
| BB7ØØ1 | | | | |
| | LAST ENTRY | | | |

TRIP BLANK TRACKINGFORM
OPS AREA PHASE I

PROJECT NAME: EG&G MOUND OU5, ~~NEW PROPERTY, EXTENDED PHASE~~ PROJECT NO.: 34896

| SAMPLE ID | DATE SHIPPED | SAMPLE ID | DATE SHIPPED |
|---|---|---|---|
| TBAØØ1 | 6/2Ø/94 | NO ENTRY | — |
| TBAØØ2 | 6/21/94 | | |
| TBAØØ3 | 6/22/94 | | |
| TBAØØ4 | 6/23/94 | | |
| TBAØØ5 | 6/27/94 | | |
| TBAØØ6 | 6/28/94 | | |
| TBAØØ7 | 6/29/94 | | |
| TBAØØ8 | 6/3Ø/94 | | |
| TBAØØ9 | 7/5/94 | | |
| TBAØ1Ø | 7/6/94 | | |
| TBAØ11 | 7/7/94 | | |
| TBAØ12 | 7/8/94 | | |
| TBAØ13 | 7/11/94 | | |
| TBAØ14 | 7/14/94 | | |
| TBAØ15 | ~~7/15/94~~ 7/19/94 | | |
| TBAØ16 | 7/20/94 | | |
| TBAØ17 | 7/21/94 | | |
| TBAØ18 | 7/22/94 | | |
| TBAØ19 | 7/25/94 | | |
| TBAØ2Ø | 7/26/94 | | |
| TBAØ21 | 7/27/94 | | |
| TBAØ22 | 8/8/94 | | |
| TBAØ23 | 8/9/94 | | |
| ~~TBAØ24~~ | ~~8/10/94~~ 9/15/94 | | |
| TBAØ24 used to ship W399Ø1 samples | | | |

## A.6 BUILDING 24 SOIL BORING LOGBOOK

EG&G MOUND

OUS OPS AREA

PHASE 1

SOIL BORING

LOGBOOK

BIT-B20

(BLDG. 24)

# SOIL BORING
# LOG BOOK
# B17 B18 B19 B20

**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:** *1.1 1.3 1.4 1.5 1.6 1.8 1.15 5.1 5.2 5.3 6.1 6.2*

**START DATE:** 8-8-94
**END DATE:** 8-9-94

TABLE OF CONTENTS SOIL BORING

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


| PAGE | FIELD LOG | PAGE | FIELD LOG |
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| 2 | " " " " | 32 | NO ENTRY |
| 3 | NO ENTRY | 33 | KEY SHEET |
| 4 | NO ENTRY | 34 | NO ENTRY |
| 5 | BOREHOLE LOG B17 | 35 | ↓ |
| 6 | NO ENTRY | 36 | SAMPLE LOG SHEET B18ØØ1 |
| 7 | P.D. FIELD DATA B17 | 37 | " " " " |
| 8 | NO ENTRY | 38 | SAMPLE LOG SHEET B18ØØ2 |
| 9 | CGI FIELD DATA B17 | 39 | " " " " |
| 10 | NO ENTRY | 40 | SAMPLE LOG SHEET B181Ø2 |
| 11 | BOREHOLE PLUGGING B17 | 41 | " " " " |
| 12 | NO ENTRY | 42 | NO ENTRY |
| 13 | ↓ | 43 | ↓ |
| 14 | ↓ | 44 | ↓ |
| 15 | ↓ | 45 | TASK TEAM ACTIV. LOG SHEET, B19, 8/9/94 |
| 16 | SAMPLE LOG SHEET B17ØØ1 | 46 | NO ENTRY |
| 17 | " " " " | 47 | ↓ |
| 18 | SAMPLE LOG SHEET B17ØØ2 | 48 | ↓ |
| 19 | " " " " | 49 | BOREHOLE LOG B19 |
| 20 | NO ENTRY | 50 | NO ENTRY |
| 21 | ↓ | 51 | P.D. FIELD DATA B19 |
| 22 | ↓ | 52 | NO ENTRY |
| 23 | TASK TEAM ACTIV. LOG SHEET, B18, 8/8/94 | 53 | CGI FIELD DATA B19 |
| 24 | NO ENTRY | 54 | NO ENTRY |
| 25 | BOREHOLE LOG B18 | 55 | BOREHOLE PLUGGING B19 |
| 26 | NO ENTRY | 56 | NO ENTRY |
| 27 | P.D. FIELD DATA B18 | 57 | KEY SHEET |
| 28 | NO ENTRY | 58 | NO ENTRY |
| 29 | CGI FIELD DATA B18 | 59 | ↓ |
| 30 | NO ENTRY | 60 | SAMPLE LOG SHEET B19ØØ1 |

TABLE OF CONTENTS — SOIL BORING

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| 62 | SAMPLE LOG SHEET B19002 | 92 | |
| 63 | " " " " | 93 | |
| 64 | No ENTRY | 94 | |
| 65 | ↓ | 95 | |
| 66 | | 96 | |
| 67 | TASK TEAM ACTIVE LOG SHEET, B20, 8/9/94 | 97 | |
| 68 | No ENTRY | 98 | |
| 69 | BOREHOLE LOG B20 | 99 | |
| 70 | NO ENTRY | 100 | |
| 71 | P.D. FIELD DATA B20 | 101 | |
| 72 | NO ENTRY | 102 | |
| 73 | CGI FIELD DATA B20 | 103 | NA |
| 74 | No ENTRY. | 104 | |
| 75 | BOREHOLE PLUGGING B20 | 105 | |
| 76 | NO ENTRY | 106 | |
| 77 | KEY SHEET | 107 | |
| 78 | NO ENTRY | 108 | |
| 79 | ↓ | 109 | |
| 80 | SAMPLE LOG SHEET B20001 | 110 | |
| 81 | " " " " | 111 | |
| 82 | SAMPLE LOG SHEET B20002 | 112 | |
| 83 | " " " " | 113 | |
| 84 | No ENTRY | 114 | |
| 85 | ↓ | 115 | |
| 86 | | 116 | |
| 87 | | 117 | |
| 88 | | 118 | |
| 89 | NA | 119 | |
| 90 | | 120 | |

TASK TEAM ACTIVITY LOG SHEET — SOIL BORING B17 PG 1

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

Date (mm/dd/yy): 8/8/94 TIME: 09:30 PAGE 1 OF 2

Task Team Members:

GREG LODER SAIC

JOHN DAVIS SAIC

JEFF TACKETT MOUND HP

Narrative (include time and location):

JID 8/29/94

0930 ARRIVE AT PUMP ~~HOUSE~~, BLDG 24 TO DO FOUR SOIL BORINGS, TWO IN FRONT AND TWO IN REAR

0950 JOYCE ON SITE WITH DIGGING AND BURN PERMITS

1000 JEFF PICKS UP HIGH READINGS WITH FIDLER AND TAKES SOME SAMPLES. WE WILL NEED TO MOVE ONE LOCATION BECAUSE OF HIGH RAD

1005 TAKE B17001 SURFACE WITH SPOON AND BOWL HNU = 0.8 PPM LEL=0

1030 SOIL RESULTS BACK 26 pCi Pu AND 5.5 pCi Th WHICH ARE OK WE HIT ALOT OF GRAVEL SO WE ARE GOING TO ABANDON THIS HOLE AND MOVE 3 FT SOUTH OF SURFACE SAMPLE LOCATION BECAUSE OF WATER LINE CLEARANCE

1120 ALL KINDS OF DIFFICULTY GETTING DOWN TO 5 FT BREAK FOR LUNCH TO REGROUP

1310 BACK ON SITE TRYING SPUD BAR AND 4" BIT TO GET AROUND ROCKS BUT NO SUCCESS

1350 CONTACTED KEITH MACMAHAN REQUESTING PERMISSION TO SAMPLE @ 3' ON THIS ONE DUE TO ROCK REFUSAL, GOT THE O.K.

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

P.M. 85°F SUNNY

Recorded By [signature] QA Checked By [signature] 8/29/94

TASK TEAM ACTIVITY LOG SHEET — SOIL BORING B17-PZ2

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

Date (mm/dd/yy): 8/8/94 TIME: NA PAGE 2 OF 2

Task Team Members:

SEE PAGE 1

Narrative (include time and location):

1410 TAKE B17002 WITH AUGER @ 3' HNU = Ø
O2/LEL = Ø

1420 COMPLETED SAMPLING. WE WILL GROUT HOLE WHEN ALL OTHERS ARE SAMPLED. MOVE TO B18

LAST ENTRY

Daily Weather Conditions: A.M. NA

P.M. 85°F SUNNY

Recorded By [signature] QA Checked By [signature]

BOREHOLE LOG (SOIL) — SOIL BORING B17 05

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

Page 1 of 1

FACILITY CODE: MND21
LOCATION ID: B17
COORDINATES (FT):
NORTH NA EAST NA
GROUND ELEVATION (FT MSL)
LOCATION TYPE: BH
COMMENTS: NA

DRILLER CODE: SAIC
COMPLETION DATE 8 / 8 /1994
DIAMETER (IN): 4
DEPTH (FTFD): 3.0
CONSTRUCTION METHOD: B
ACCEPTANCE CODE: A

GROUNDWATER LEVELS

| DATE | TIME | DEPTH (FT) |
|---|---|---|
| NONE ENCOUNTERED | | |

LOCATION DESCRIPTION
3 FT FROM NORTH-EAST CORNER OF BLG 29

LITHOLOGIC LOG

LOGGER CODE: SAIC

| DEPTH (FT) | SAMPLE INTERVAL | SAMPLE RECOVERY | SAMPLE RETAINED | SAMPLE METHOD | SAMPLE ID | BLOW COUNT (PER 6 IN) | N VALUE | USCS | VISUAL DESCRIPTIONS |
|---|---|---|---|---|---|---|---|---|---|
| Ø | Ø-Ø.5 | FULL | FULL | O | B17Ø01 | NA | NA | GW | GRAVEL SURFACE LAYER |
| | | | | | | | | | MEDIUM TO FINE SAND SOME |
| | | | | | | | | | SILT AND GRAVEL. POORLY |
| | | | | | | | | | SORTED, DRY, LOOSE |
| | | | | | | | | | 10YR 4/3 BROWN |
| | | | | | | | | | |
| 3 | 3-4 | FULL | FULL | U | B17002 | NA | NA | CL | CLAY TRACE FINE SAND |
| | | | | | | | | | AND GRAVEL AND COBBLES |
| | | | | | | | | | POORLY SORTED, MOIST, SOFT |
| | | | | | | | | | VERY PLASTIC |
| | | | Last Entry | | | | | | |
| | | | | | ↓ | | | | |

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

CONSTRUCTION METHODS:
A - AIR ROTARY
B - BORED OR AUGERED
C - CABLE - TOOL
D - DUG
H - HYDRAULIC - ROTORY
J - JETTED
P - AIR - PERCUSSION
R - REVERSE ROTERY
T - TRENCHING
V - DRIVEN
W - DRIVE AND WASH
Z -OTHER (SPECIFY)

SAMPLE METHODS:
A - AUGER CUTTINGS
S - 2" O.D. 1.38" I.D. DRIVE SAMPLES
U - 3" O.D. 2.42" I.D. TUBE SAMPLES
T - 3" O.D. THIN-WALLED SHELBY TUBE
O - OTHER (SPECIFY)

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

FORM COMPLETED BY / DATE: 8/8/94 — TECHNICAL REVIEWER / DATE: Dally Brown 8/30/94

PHOTOIONIZATION DETECTOR FIELD DATA — SOIL BORING B17 p3

PROJECT NAME: EG&G MOUND OU5, OPERATION AREA — PROJECT NO: 34896

FACILITY CODE: MND21 — LOG DATE: 8/8/94

LOCATION ID: B17 — LOCATION TYPE: BH

LOGGER CODE: SAC — FIELD REP: G. LODER

PHOTOIONIZATION DETECTOR INSTRUMENT: — MODEL: PI 101

MANUFACTURER: HNU — DATE/TIME CALIBRATED: 8/8/94 ; 0730

SERIAL NO.: 0015 — ACCEPTANCE CODE: A

| CALIBRATION GASES | | | |
|---|---|---|---|
| TYPE/CYLINDER ID NO | | CONCENTRATION (PPM)/SPAN | |
| 1 ISOBUTYLENE / 072993-2 | | 1 100 | / 6.00 |
| 2 | | 2 | |

COMMENTS: NA

| TIME (HH:MM) | SAMPLE ID | OBSERVED READING (ppm) | | | | | DRILLING DEPTH (FT) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| | | DH | HS | BZ | D | OT | | |
| 1005 | B17001 | 0.8 | NR | NR | NR | NA | 0.5 | |
| 1410 | B17002 | 0 | ↓ | ↓ | ↓ | ↓ | 3.0 | |
| | | | Last Entry | | | | | |

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

LOCATION TYPES:
BH - BOREHOLES
SS - SOIL SAMPLE
SL - SURFACE LOCATION
SB - SAMPLE BOTTLE
TP - TEST PIT
WL - WELL
OT - OTHER

OBSERVED READING:
DH - DOWN HOLE
HS - HEADSPACE
D - DURING DRILLING (BZ)
BZ - BREATHING ZONE
OT - OTHER

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

FORM COMPLETED BY / DATE: 8/8/94

TECHNICAL REVIEWER / DATE: Sally S. Brown 8/30/94

COMBUSTIBLE GAS INDICATOR (CGI) MONITORING DATA — SOIL BORING B17 p9

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

**FACILITY CODE:** MND21 — **LOG DATE:** 8/8/94

**LOGGER CODE:** SAIC — FIELD REP: G. LODER

CGI MANUFACTURER: MSA — CGI MODEL NO.: 261

SERIAL NO.: 2437 — CALIBRATION DATE/TIME: NA

**ACCEPTANCE CODE:** A — BATTERY CONDITION GOOD

CALIBRATION GAS (%LEL) TYPE NA CONCENTRATION NA % LEL — CYLINDER SERIAL NO NA

CALIBRATION GAS (PPM) TYPE NA CONCENTRATION NA PPM — CYLINDER SERIAL NO NA

COMMENTS: INSTRUMENT JUST RETURNED FROM SERVICING AND CALIBRATION. NO CALIBRATION GASES AVAILABLE ON SITE

| LOCATION ID OR DESCRIPTION | COORDINATES FT NORTH | COORDINATES FT EAST | MONITORING TIME (HH:MM) | LOCATION TYPE | % LOWER EXPLOSIVE LIMIT | PPM | % OXYGEN |
|---|---|---|---|---|---|---|---|
| B17 | NA | NA | 1005 | BH | Ø | NA | 21 |
| ↓ | ↓ | ↓ | 1410 | ↓ | Ø | ↓ | 21 |
| | | | Last Entry | | | | |

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

LOCATION TYPES: BH - BOREHOLE SL - SURFACE LOCATION TP - TEST PIT WL - WELL

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

[signature] 8/5/94 — FORM COMPLETED BY / DATE

[signature] 8/30/94 — TECHNICAL REVIEWER / DATE

BOREHOLE OR WELL PLUGGING / ABANDONMENT — SOIL BORING

B17 PH

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

SITE ID NUMBER: B17 DATE PLUGGED 8 / 9 / 94

SITE COORDINATES: N: NA E: NA DEPTH BLS (ft) 3.0

TYPE OF CASING: NA

CASING DIAMETER (ID) (in.) NA GROUND ELEVATION (ft msl) NA

SCREENED ELEVATION (ft msl) NA

GEOLOGIC MATERIAL AT SCREEN NA

AMOUNT OF CASING REMOVED (ft) NA

PLUGGING MATERIAL CEMENT

APPROX. VOLUME OF PLUGGING MATERIAL (cu ft.) 15

PLUGGING METHOD POURED INTO HOLE, LEVELED AT SURFACE

REMARKS USED QUICKCRETE

LAST ENTRY

RECORDED BY: [signature] (Signature) QA CHECKED BY: [signature] (Signature)

## SAMPLE LOG SHEET

**PROJECT NAME:** Mound Operational Area **PROJECT NO:** 2680 P16

SAMPLE ID NUMBER: B17001 DATE COLLECTED (MM/DD/YY): 8/8/94 TIME (HH:MM): 1005

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: MOUND OPERATIONAL AREA

POINT CODE: B17

DESCRIPTION: OPERATIONAL AREA BORING #17

SAMPLE -

MEDIA CODE: 01

DESCRIPTION: Soil Surface (0 - 6 Inches)

DEPTH 0.00 TO ~~0.00~~ 0.50 FT

GC 8/8/94

SAMPLE TYPE:

- [X] GRAB
- [ ] SPATIAL COMPOSITE
- [ ] TIME COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC RINSATE
- [ ] QC FIELD BLANK
- [ ] OTHER (SPECIFY) _____

FIELD OBSERVATIONS:

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

NA

RECORDED BY: [signature] (SIGNATURE) QA CHECKED BY: [signature] (SIGNATURE)

RECORDED BY: [signature] (SIGNATURE) QA CHECKED BY: [signature] (SIGNATURE)

SAMPLE ID NUMBER: B17001 P17

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 1-120 | WM Glass | CLPVOA | Cool,4C | OACØ22 | 8219960313 | SEE CONTAINER LOT # LOG | COMPUC |
| 1-250 | AmbGlass | SVOC,PEST/PCB | Cool,4C | | | | COMPUC |
| 1-250 | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 94 2-250 | WM Glass | ANIONS Fl,SO4,Cl,NØ2/NØ3 | Cool,4C | | | | COMPUC |
| 1-250 | WM Glass | METALS,Cyanide | Cool,4C | | | | COMPUC |
| 1-120 | Poly | LANTHANIDES | Cool,4C | | | | COMPUC |
| 1-120 | AmbGlass | TOTAL ORGANIC CARBON | Cool,4C | | | | COMPUC |
| 2-250 | WM GLASS | RADS Ac,Sr,H3,GAMMA | NONE | | | | COMPUC |
| 2-250 | WM GLASS | RADS Pu,Th,U | NONE | | | | COMPUC |
| | | LAST ENTRY | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

SAMPLE ID'S RINSATE: ER0009 TRIP BLANK: ~~TB0022~~ TBAØ22 CL 8/8/94 FIELD BLANK: AB0006 FIELD DUPLICATE: NA

RECORDED BY: [signature] (SIGNATURE) QA CHECKED BY: [signature] 8/30/94 (SIGNATURE)

# SAMPLE LOG SHEET

**PROJECT NAME:** Mound Operational Area **PROJECT NO:** 2680 P18

SAMPLE ID NUMBER: B17002 DATE COLLECTED (MM/DD/YY): 8/8/94 TIME (HH:MM): 1410

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: MOUND OPERATIONAL AREA

POINT CODE: B17

DESCRIPTION: OPERATIONAL AREA BORING # 17

SAMPLE -

MEDIA CODE: 02

DESCRIPTION: Soil Subsurface (>6 Inches)

DEPTH ~~2.00~~ 3.00 TO ~~0.00~~ 4.00 FT

SAMPLE TYPE:

- [x] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

SAMPLE COLLECTED: [x] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [x] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

NA

RECORDED BY: (SIGNATURE) QA CHECKED BY: (SIGNATURE)

RECORDED BY: [signature] (SIGNATURE) QA CHECKED BY: [signature] (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: B17ØØ2 P19

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 1-12Ø | WM Glass | CLPVOA | Cool,4C | OACØ22 | 8219960313 | SEE CONTAINER LOT # LOG | COMPUC |
| 1-25Ø | AmbGlass | SVOC,PEST/PCB | Cool,4C | | | | COMPUC |
| 1-25Ø | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 4 2-25Ø | WM Glass | ANIONS Fl,SO4,Cl,NØ2/NØ3 | Cool,4C | | | | COMPUC |
| 1-25Ø | WM Glass | METALS,Cyanide | Cool,4C | | | | COMPUC |
| 1-12Ø | Poly | LANTHANIDES | Cool,4C | | | | COMPUC |
| 1-12Ø | AmbGlass | TOTAL ORGANIC CARBON | Cool,4C | | | | COMPUC |
| 2-25Ø | WM GLASS | RADS Ac,Sr,H3,GAMMA | NONE | | | | COMPUC |
| 2-25Ø | WM GLASS | RADS Pu,Th,U | NONE | | | | COMPUC |
| | | LAST ENTRY | | | | | |
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SAMPLE ID'S RINSATE: ERØØ1Ø TRIP BLANK: TBAØ22 FIELD BLANK: AB0006 FIELD DUPLICATE: NA

RECORDED BY: [signature] (SIGNATURE) QA CHECKED BY: [signature] (SIGNATURE)

TASK TEAM ACTIVITY LOG SHEET — SOIL BORING B18-P23

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

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

Task Team Members:

GREG LODER SAIC

JOHN DAVIS SAIC

JEFF TACKETT MOUND HP

Narrative (include time and location):

1430 TAKE B18001 SURFACE SAMPLE WITH SPOON & BOWL

1511 GOT BORING DOWN TO 3.6' AND HIT ANOTHER ROCK AFTER MOVING LOCATION ONE BECAUSE OF REFUSAL, SO WE WILL SAMPLE HERE

1513 TAKE B18002 AND B18102 HNU = Ø LEL = Ø @ 3.6'

1535 LEAVE SITE BECAUSE JEFF HAS A MEETING SAMPLES WILL NOT BE SHIPPED TODAY BECAUSE SOIL SCREENING WAS NOT DONE BY LAB. HOLE WILL BE GROUTED WHEN ALL OTHERS ARE SAMPLED

Last Entry

Daily Weather Conditions: A.M. NA

P.M. 85°F SUNNY

Recorded By [signature] QA Checked By [signature]

BOREHOLE LOG (SOIL)

SOIL BORING P25

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

PROJECT NO: 34896

Page 1 of 1

FACILITY CODE: MND21

LOCATION ID: B18

COORDINATES (FT):

NORTH NA EAST NA

GROUND ELEVATION (FT MSL)

LOCATION TYPE: BH

COMMENTS: NA

DRILLER CODE: SAIC

COMPLETION DATE 8/8/1994

DIAMETER (IN): 4"

DEPTH (FTFD): 4.5

CONSTRUCTION METHOD: B

ACCEPTANCE CODE: A

GROUNDWATER LEVELS

| DATE | TIME | DEPTH (FT) |
|---|---|---|
| NONE | ENCOUNTERED | |

LOCATION DESCRIPTION

3 FT OFF THE SOUTHEAST CORNER OF BLDG 29

LITHOLOGIC LOG

LOGGER CODE: SAIC

| DEPTH (FT) | SAMPLE INTERVAL | SAMPLE RECOVERY | SAMPLE RETAINED | SAMPLE METHOD | SAMPLE ID | BLOW COUNT (PER 6 IN) | N VALUE | USCS | VISUAL DESCRIPTIONS |
|---|---|---|---|---|---|---|---|---|---|
| Ø | Ø-Ø.5 | FULL | FULL | O | B18Ø01 | NA | NA | GM | GRAVEL SURFACE LAYER |
| | | | | | | | | | MEDIUM SAND WITH SOME |
| | | | | | | | | | SILT AND GRAVEL. DRY |
| | | | | | | | | | LOOSE POORLY SORTED |
| | | | | | | | | | 10 YR 4/3 BROWN |
| 3.5 | 3.5-4.5 | FULL | FULL | U | B18Ø02 | NA | NA | CL | 3.5-4.Ø CLAY, TRACE FINE SAND |
| | | | | | B18Ø2 | | | | GRAVEL AND COBBLES. MOIST |
| | | | | | | | | | SOFT PLASTIC BROWN |
| 4.Ø | | | | | | | | CH | 4.Ø-4.5 CLAY WITH ORGANIC |
| | | | | | | | | | MATERIAL TRACE COBBLES |
| | | | | | | | | | VERY SOFT, MOIST, VERY |
| | | | | | | | | | PLASTIC GRAY |

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

CONSTRUCTION METHODS:

A - AIR ROTARY
B - BORED OR AUGERED
C - CABLE - TOOL
D - DUG
H - HYDRAULIC - ROTORY
J - JETTED
P - AIR - PERCUSSION
R - REVERSE ROTERY
T - TRENCHING
V - DRIVEN
W - DRIVE AND WASH
Z -OTHER (SPECIFY)

SAMPLE METHODS:

A - AUGER CUTTINGS
S - 2" O.D. 1.38" I.D. DRIVE SAMPLES
U - 3" O.D. 2.42" I.D. TUBE SAMPLES
T - 3" O.D. THIN-WALLED SHELBY TUBE
O - OTHER (SPECIFY)

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

8/8/94 FORM COMPLETED BY / DATE

8/30/94 TECHNICAL REVIEWER / DATE

PHOTOIONIZATION DETECTOR FIELD DATA — SOIL BORING

P. 27

PROJECT NAME: EG&G MOUND OU5, OPERATION AREA — PROJECT NO.: 34896

FACILITY CODE: MND21 — LOG DATE: 8/8/94

LOCATION ID: B18 — LOCATION TYPE: BH

LOGGER CODE: SALL — FIELD REP: G. LODER

PHOTOIONIZATION DETECTOR INSTRUMENT: — MODEL: PI 101

MANUFACTURER: H'nu — DATE/TIME CALIBRATED: 8/8/94 ; 0730

SERIAL NO.: 0015 — ACCEPTANCE CODE: A

| CALIBRATION GASES | | | |
|---|---|---|---|
| TYPE/CYLINDER ID NO | | CONCENTRATION (PPM)/SPAN | |
| 1 ISOBUTYLENE | 07293-2 | 1 100 | 6.00 |
| 2 | | 2 | |

COMMENTS: NA

| TIME (HH:MM) | SAMPLE ID | OBSERVED READING (ppm) | | | | | DRILLING DEPTH (FT) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| | | DH | HS | BZ | D | OT | | |
| 1513 | B18002 | 0 | NA | NA | NA | NA | 3.0 | |
| | | | LAST ENTRY | | | | | |

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

LOCATION TYPES:
BH - BOREHOLES
SS - SOIL SAMPLE
SL - SURFACE LOCATION
SB - SAMPLE BOTTLE
TP - TEST PIT
WL - WELL
OT - OTHER

OBSERVED READING:
DH - DOWN HOLE
HS - HEADSPACE
D - DURING DRILLING (BZ)
BZ - BREATHING ZONE
OT - OTHER

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

8/8/94 — FORM COMPLETED BY / DATE

Sally Brown 8/30/94 — TECHNICAL REVIEWER / DATE

COMBUSTIBLE GAS INDICATOR (CGI) MONITORING DATA — SOIL BORING

P-29

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

**FACILITY CODE:** MND21 — **LOG DATE:** 8/8/94

**LOGGER CODE:** SAIC — FIELD REP: G. LODER

CGI MANUFACTURER: NSA — CGI MODEL NO.: 261

SERIAL NO.: 2437 — CALIBRATION DATE/TIME: NA

**ACCEPTANCE CODE:** A — BATTERY CONDITION GOOD

CALIBRATION GAS (%LEL) TYPE NA CONCENTRATION NA % LEL — CYLINDER SERIAL NO NA

CALIBRATION GAS (PPM) TYPE NA CONCENTRATION NA PPM — CYLINDER SERIAL NO NA

COMMENTS: INSTRUMENT JUST BACK FROM SERVICING AND CALIBRATION NO CALIBRATION GASES AVAILABLE ON SITE

| LOCATION ID OR DESCRIPTION | COORDINATES FT NORTH | COORDINATES FT EAST | MONITORING TIME (HH:MM) | LOCATION TYPE | % LOWER EXPLOSIVE LIMIT | PPM | % OXYGEN |
|---|---|---|---|---|---|---|---|
| B18 | NA | NA | 1513 | BH | Ø | NA | 21 |
| | | | Last Entry | | | | |

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

LOCATION TYPES: BH - BOREHOLE SL - SURFACE LOCATION TP - TEST PIT WL - WELL

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

8/8/94 — FORM COMPLETED BY / DATE

8/30/94 — TECHNICAL REVIEWER / DATE

BOREHOLE OR WELL PLUGGING / ABANDONMENT — SOIL BORING

P-31

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

SITE ID NUMBER: B18 DATE PLUGGED 8 / 9 / 94

SITE COORDINATES: N: NA E: NA DEPTH BLS (ft) 4.5

TYPE OF CASING: NA

CASING DIAMETER (ID) (in.) NA GROUND ELEVATION (ft msl) NA

SCREENED ELEVATION (ft msl) NA

GEOLOGIC MATERIAL AT SCREEN NA

AMOUNT OF CASING REMOVED (ft) NA

PLUGGING MATERIAL CEMENT

APPROX. VOLUME OF PLUGGING MATERIAL (cu ft.) 2.0

PLUGGING METHOD POURED INTO HOLE LEVELED WITH SURFACE

REMARKS USED QUICKCRETE

LAST ENTRY

RECORDED BY: [signature] (Signature) QA CHECKED BY: [signature] (Signature)

# SAMPLE LOG SHEET

**PROJECT NAME:** Mound Operational Area **PROJECT NO:** 2680 P. 36

SAMPLE ID NUMBER: B18001 DATE COLLECTED (MM/DD/YY): 8/8/94 TIME (HH:MM): 1430

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: MOUND OPERATIONAL AREA

POINT CODE: B18

DESCRIPTION: OPERATIONAL AREA BORING # B

SAMPLE -

MEDIA CODE: 01

DESCRIPTION: Soil Surface (0 - 6 Inches)

DEPTH 0.00 TO ~~0.00~~ 0.50 FT

AL 8/8/94

SAMPLE TYPE:

- [x] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY) _____
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

SAMPLE COLLECTED: [x] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [x] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

NA

RECORDED BY: _____ (SIGNATURE) QA CHECKED BY: _____ (SIGNATURE)

(SIGNATURE) (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: B18ØØ1

P. 37

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 1-12Ø | WM Glass | CLPVOA | Cool,4C | OAØ22 | 8219960313 | SEE CONTAINER LOT # LOG | COMPUC |
| 1-25Ø | AmbGlass | SVOC,PEST/PCB | Cool,4C | | | | COMPUC |
| 1-25Ø | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 1-25Ø | WM Glass | ANIONS Fl,SO4,Cl,NØ2/NØ3 | Cool,4C | | | | COMPUC |
| 1-25Ø | WM Glass | METALS,Cyanide | Cool,4C | | | | COMPUC |
| 1-12Ø | Poly | LANTHANIDES | Cool,4C | | | | COMPUC |
| 1-12Ø | AmbGlass | TOTAL ORGANIC CARBON | Cool,4C | | | | COMPUC |
| 2-25Ø | WM GLASS | RADS Ac,Sr,H3,GAMMA | NONE | | | | COMPUC |
| 2-25Ø | WM GLASS | RADS Pu,Th,U | NONE | | | | COMPUC |
| | | LAST ENTRY | | | | | |
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SAMPLE ID'S RINSATE: ERØØØ9 TRIP BLANK: TBAØ22 FIELD BLANK: ABØØØ6 FIELD DUPLICATE: NA

RECORDED BY: (SIGNATURE) QA CHECKED BY: (SIGNATURE)

# SAMPLE LOG SHEET

PROJECT NAME: Mound Operational Area PROJECT NO: 2680 P. 38

SAMPLE ID NUMBER: B18002 DATE COLLECTED (MM/DD/YY): 8/8/94 TIME (HH:MM): 1513

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: MOUND OPERATIONAL AREA

POINT CODE: B18

DESCRIPTION: OPERATIONAL AREA BORING #18

SAMPLE -

MEDIA CODE: 02

DESCRIPTION: Soil Subsurface (>6 Inches)

DEPTH ~~2.00~~ GL 8/8/94 3.50 TO ~~8.00~~ GL 8/8/94 4.50 FT

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

NA

RECORDED BY: (SIGNATURE) QA CHECKED BY: (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: B18ØØ2

P. 39

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 1-12Ø | WM Glass | CLPVOA | Cool,4C | CAC0ZZ | 8219960313 | SEE CONTAINER LOT # LOG | COMPUC |
| 1-25Ø | AmbGlass | SVOC,PEST/PCB | Cool,4C | | | | COMPUC |
| 1-25Ø | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 2-25Ø | WM Glass | ANIONS Fl,SO4,Cl,NØ2/NØ3 | Cool,4C | | | | COMPUC |
| 1-25Ø | WM Glass | METALS,Cyanide | Cool,4C | | | | COMPUC |
| 1-12Ø | Poly | LANTHANIDES | Cool,4C | | | | COMPUC |
| 1-12Ø | AmbGlass | TOTAL ORGANIC CARBON | Cool,4C | | | | COMPUC |
| 2-25Ø | WM GLASS | RADS Ac,Sr,H3,GAMMA | NONE | | | | COMPUC |
| 2-25Ø | WM GLASS | RADS Pu,Th,U | NONE | | | | COMPUC |
| | | | LAST ENTRY | | | | |
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SAMPLE ID'S RINSATE: ERØØ1Ø TRIP BLANK: TBAØZZ FIELD BLANK: AB0006 FIELD DUPLICATE: B18ØØ2

RECORDED BY: (SIGNATURE) QA CHECKED BY: (SIGNATURE)

# SAMPLE LOG SHEET

**PROJECT NAME:** Mound Operational Area **PROJECT NO:** 2680 p. 40

SAMPLE ID NUMBER: B18102 DATE COLLECTED (MM/DD/YY): 8/8/94 TIME (HH:MM): 1513

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: MOUND OPERATIONAL AREA

POINT CODE: B18

DESCRIPTION: OPERATIONAL AREA BORING #18

SAMPLE -

MEDIA CODE: 02

DESCRIPTION: Soil Subsurface (>6 Inches)

DEPTH ~~2.00~~ GL 8/8/94 3.50 TO ~~0.00~~ GL 8/8/94 4.50 FT

SAMPLE TYPE:

- [ ] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK
- [x] OTHER (SPECIFY) QC Field Duplicate

FIELD OBSERVATIONS:

SAMPLE COLLECTED: [x] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [x] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

NA

RECORDED BY: [signature] (SIGNATURE) QA CHECKED BY: Sally A Brown (SIGNATURE)

(SIGNATURE) (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: B181Ø2 P. 41

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 1-12Ø | WM Glass | CLPVOA | Cool,4C | OACØ22 | 8219960313 | SEE CONTAINER LOT # LOG | COMPUC |
| ~~1-25Ø~~ | ~~AmbGlass~~ | ~~SVOC,PEST/PCB~~ | ~~Cool,4C~~ | | | | ~~COMPUC~~ SB 8/31/94 |
| ~~1-25Ø~~ | ~~AmbGlass~~ | ~~EXPLOSIVES~~ | Cool,4C | | | | ~~COMPUC~~ SRB 8/31/94 |
| ~~1-25Ø~~ | ~~WM Glass~~ | ~~ANIONS Fl,SO4,Cl,NØ2/NØ3~~ | ~~Cool,4C~~ | | | | COMPUC SRB 8/31/94 |
| ~~1-25Ø~~ | ~~WM Glass~~ | ~~METALS,Cyanide~~ | ~~Cool,4C~~ | | | | ~~COMPUC~~ SRB 8/31/94 |
| ~~1-12Ø~~ | ~~Poly~~ | ~~LANTHANIDES~~ | ~~Cool,4C~~ | | | | ~~COMPUC~~ SRB 8/31/94 |
| ~~1-12Ø~~ | ~~AmbGlass~~ | ~~TOTAL ORGANIC CARBON~~ | ~~Cool,4C~~ | | | | ~~COMPUC~~ SB 8/31/94 |
| 2-25Ø | WM GLASS | RADS Ac,Sr,H3,GAMMA | NONE | OACØ22 | 8219960313 | | COMPUC |
| 2-25Ø | WM GLASS | RADS Pu,Th,U | NONE | OACØ22 | 8219960313 | | COMPUC |
| | | LAST ENTRY | | | | | |

SAMPLE ID'S RINSATE: ERØØ1Ø TRIP BLANK: TBAØ22 FIELD BLANK: ABØØØ6 FIELD DUPLICATE: B18ØØ2

RECORDED BY: (SIGNATURE) QA CHECKED BY: (SIGNATURE)

TASK TEAM ACTIVITY LOG SHEET — SOIL BORING B19 P 45

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

Date (mm/dd/yy): 8/9/94 TIME: 08 : 10 PAGE 1 OF 1

Task Team Members:

GREG LODER SAIC

JUAN ALVERADO SAIC

JEFF JACKETT MOUND HP

Narrative (include time and location):

0810 ON SITE @ B19 & B20 WITH GENERATOR AND IMPACT HAMMERS TO REMOVE ASPALT PLUG TO PERMIT SAMPLING

0825 LEAVE SITE TO RETURN EQUIPMENT TO SOIL GAS CREW AND GET OUR EQUIPMENT

0840 BACK ON SITE WAITING FOR JEFF

0855 JEFF ON SITE

0910 TAKE B19001 HNU=0 LEL=0

0935 HIT ROCK AND GOT REFUSAL DUE TO ASPHALT WE CAN'T MOVE THE LOCATION, SO WE WILL MOVE TO B20 AND TRY TO SAMPLE THERE

1300 BACK FROM LUNCH, USING HAMMER DRILL TO SEE IF WE CAN BREAK UP ROCK

1325 GOT PAST ROCK, USED SPUD BAR AND HAND AUGER TO GET TO 3.0 FT. POWER AUGER WOULD NOT PENETRATE.

1330 TAKE B19002 HNU=0 LEL=0 APPEARS TO BE JUST ROAD FILL MATERIAL

1340 MOVE BACK TO GET B20002

1600 HOLE GROUTED WITH CEMENT

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

P.M. SB 8/31/94 ~~AUA~~ 80°F PARTLY SUNNY

Recorded By [signature] QA Checked By [signature]

BOREHOLE LOG (SOIL) — SOIL BORING

B19 p.49

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

Page 1 of 1

FACILITY CODE: MND21
LOCATION ID: B9
COORDINATES (FT):
NORTH NA EAST NA
GROUND ELEVATION (FT MSL)
LOCATION TYPE: BH
COMMENTS: NA

DRILLER CODE: SAIC
COMPLETION DATE 8/9/1994
DIAMETER (IN): 4"
DEPTH (FTFD): 3.5
CONSTRUCTION METHOD: B
ACCEPTANCE CODE: A

**GROUNDWATER LEVELS**

| DATE | TIME | DEPTH (FT) |
|---|---|---|
| NONE ENCOUNTERED | | |

**LOCATION DESCRIPTION**

10' OFF NORTHWEST CORNER OF BLD 29

**LITHOLOGIC LOG**

LOGGER CODE: SAIC

| DEPTH (FT) | SAMPLE INTERVAL | SAMPLE RECOVERY | SAMPLE RETAINED | SAMPLE METHOD | SAMPLE ID | BLOW COUNT (PER 6 IN) | N VALUE | USCS | VISUAL DESCRIPTIONS |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 0-0.75 | NA | NA | NA | NA | NA | NA | NA | ASPHALT |
| | | | | | | | | | |
| 0.75 | 0.75-1.5 | FULL | FULL | O | B19001 | NA | NA | GW | MEDIUM TO VERY COARSE SAND |
| | | | | | | | | | AND GRAVEL. VERY DENSE |
| | | | | | | | | | DRY POORLY SORTED. ROAD |
| | | | | | | | | | FILL MATERIAL |
| | | | | | | | | | |
| | 3.0-3.5 | FULL | FULL | U | B19002 | NA | NA | GW | SAME AS ABOVE |
| | | | | Last Entry | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

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

CONSTRUCTION METHODS:
A - AIR ROTARY
B - BORED OR AUGERED
C - CABLE - TOOL
D - DUG
H - HYDRAULIC - ROTORY
J - JETTED
P - AIR - PERCUSSION
R - REVERSE ROTERY
T - TRENCHING
V - DRIVEN
W - DRIVE AND WASH
Z -OTHER (SPECIFY)

SAMPLE METHODS:
A - AUGER CUTTINGS
S - 2" O.D. 1.38" I.D. DRIVE SAMPLES
U - 3" O.D. 2.42" I.D. TUBE SAMPLES
T - 3" O.D. THIN-WALLED SHELBY TUBE
O - OTHER (SPECIFY)

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

8/9/94 — FORM COMPLETED BY / DATE

9/30/94 — TECHNICAL REVIEWER / DATE

## PHOTOIONIZATION DETECTOR FIELD DATA

SOIL BORING

PROJECT NAME: EG&G MOUND OU5, OPERATION AREA

PROJECT NO.: 34896

**FACILITY CODE:** MND21 **LOG DATE:** 8/9/94

**LOCATION ID:** B19 LOCATION TYPE: BH

**LOGGER CODE:** SAIC FIELD REP: G. LODGE

PHOTOIONIZATION DETECTOR INSTRUMENT: MODEL: PI 101

MANUFACTURER: H. nu DATE/TIME CALIBRATED: 8/9/94 ; 0700

SERIAL NO.: 0015 **ACCEPTANCE CODE:** A

| CALIBRATION GASES | |
|---|---|
| TYPE/CYLINDER ID NO | CONCENTRATION (PPM)/SPAN |
| 1 ISOBUTYLENE / 072993-2 | 1 100 / 6.00 |
| 2 | 2 |

COMMENTS: NA

| TIME (HH:MM) | SAMPLE ID | OBSERVED READING (ppm) | | | | | DRILLING DEPTH (FT) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| | | DH | HS | BZ | D | OT | | |
| 0910 | B19001 | 0 | NA | NA | NA | NA | 1.5 | |
| 1330 | B19002 | 0 | ↓ | ↓ | ↓ | ↓ | 3.5 | |
| | | | LAST | ENTRY | | | | |

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

LOCATION TYPES:
- BH - BOREHOLES
- SS - SOIL SAMPLE
- SL - SURFACE LOCATION
- SB - SAMPLE BOTTLE
- TP - TEST PIT
- WL - WELL
- OT - OTHER

OBSERVED READING:
- DH - DOWN HOLE
- HS - HEADSPACE
- D - DURING DRILLING (BZ)
- BZ - BREATHING ZONE
- OT - OTHER

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

8/9/94 FORM COMPLETED BY / DATE

8/30/94 / TECHNICAL REVIEWER / DATE

COMBUSTIBLE GAS INDICATOR (CGI) MONITORING DATA — SOIL BORING P-53

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

**FACILITY CODE:** MND21 **LOG DATE:** 8/9/94

**LOGGER CODE:** SAIC FIELD REP: G. LODER

CGI MANUFACTURER: MSA CGI MODEL NO.: 261

SERIAL NO.: 2437 CALIBRATION DATE/TIME: NA

**ACCEPTANCE CODE:** A BATTERY CONDITION GOOD

CALIBRATION GAS (%LEL) TYPE NA CONCENTRATION NA % LEL CYLINDER SERIAL NO NA

CALIBRATION GAS (PPM) TYPE NA CONCENTRATION NA PPM CYLINDER SERIAL NO NA

COMMENTS: INSTRUMENT JUST BACK FROM SERVICING AND CALIBRATION NO CALIBRATION GASES AVAILABLE ON SITE

| LOCATION ID OR DESCRIPTION | COORDINATES FT NORTH | COORDINATES FT EAST | MONITORING TIME (HH:MM) | LOCATION TYPE | % LOWER EXPLOSIVE LIMIT | PPM | % OXYGEN |
|---|---|---|---|---|---|---|---|
| 319 | NA | NA | 0910 | BH | Ø | NA | 21 |
| ↓ | ↓ | ↓ | 1330 | ↓ | Ø | ↓ | 21 |
| | | | LAST ENTRY | | | | |

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

LOCATION TYPES: BH - BOREHOLE SL - SURFACE LOCATION TP - TEST PIT WL - WELL

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

8/9/94 FORM COMPLETED BY / DATE

8/30/94 TECHNICAL REVIEWER / DATE

BOREHOLE OR WELL PLUGGING / ABANDONMENT

SOIL BORING P 55

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

PROJECT NO.: 34896

SITE ID NUMBER: B19 DATE PLUGGED 8 / 9 / 94

SITE COORDINATES: N: NA E: NA DEPTH BLS (ft) 3.5

TYPE OF CASING: NA

CASING DIAMETER (ID) (in.) NA GROUND ELEVATION (ft msl) NA

SCREENED ELEVATION (ft msl) NA

GEOLOGIC MATERIAL AT SCREEN NA

AMOUNT OF CASING REMOVED (ft) NA

PLUGGING MATERIAL CEMENT

APPROX. VOLUME OF PLUGGING MATERIAL (cu ft.) 1.5

PLUGGING METHOD POURED INTO HOLE, LEVELED AT SURFACE

REMARKS USED QUICKCRETE

LAST ENTRY

RECORDED BY: [signature] (Signature) QA CHECKED BY: [signature] (Signature)

# SAMPLE LOG SHEET

PROJECT NAME: Mound Operational Area

PROJECT NO: 2680

P. 60

SAMPLE ID NUMBER: B19001

DATE COLLECTED (MM/DD/YY): 8/9/94

TIME (HH:MM): 0910

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: MOUND OPERATIONAL AREA

POINT CODE: B19

DESCRIPTION: OPERATIONAL AREA BORING #19

SAMPLE -

MEDIA CODE: 01

DESCRIPTION: Soil Surface (0 - 6 Inches)

DEPTH ~~0.00~~ 0.75 TO ~~0.00~~ 1.50 FT

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

NA

RECORDED BY: (SIGNATURE)

QA CHECKED BY: (SIGNATURE)

RECORDED BY: _____ (SIGNATURE) _____ (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: B19001 P. 61

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 1-120 | WM Glass | CLPVOA | Cool,4C | OXC023 | 8219960114 | SEE CONTAINER LOT # LOG | COMPUC |
| 1-250 | AmbGlass | SVOC,PEST/PCB | Cool,4C | | | | COMPUC |
| 1-250 | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 144 2 ~~1~~-250 | WM Glass | ANIONS Fl,SO4,Cl,N02/N03 | Cool,4C | | | | COMPUC |
| 1-250 | WM Glass | METALS,Cyanide | Cool,4C | | | | COMPUC |
| 1-120 | Poly | LANTHANIDES | Cool,4C | | | | COMPUC |
| 1-120 | AmbGlass | TOTAL ORGANIC CARBON | Cool,4C | | | | COMPUC |
| 2-250 | WM GLASS | RADS Ac,Sr,H3,GAMMA | NONE | | | | COMPUC |
| 2-250 | WM GLASS | RADS Pu,Th,U | NONE | | | | COMPUC |
| | | Last Entry | | | | | |
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SAMPLE ID'S RINSATE: ER0009 TRIP BLANK: TB023 FIELD BLANK: AB0006 FIELD DUPLICATE: NA

RECORDED BY: _____ (SIGNATURE) QA CHECKED BY: _____ (SIGNATURE)

# SAMPLE LOG SHEET

PROJECT NAME: Mound Operational Area

PROJECT NO: 2680 P. 62

SAMPLE ID NUMBER: B19002

DATE COLLECTED (MM/DD/YY): 8/9/94

TIME (HH:MM): 1330

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: MOUND OPERATIONAL AREA

POINT CODE: B19

DESCRIPTION: OPERATIONAL AREA BORING #19

SAMPLE -

MEDIA CODE: 02

DESCRIPTION: Soil Subsurface (>6 Inches)

DEPTH ~~2.00~~ GL 8/9/94 3.50 TO ~~0.00~~ GL 8/9/94 4.00 FT

SAMPLE TYPE:

- [X] GRAB
- [ ] SPATIAL COMPOSITE
- [ ] TIME COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC RINSATE
- [ ] QC FIELD BLANK
- [ ] OTHER (SPECIFY)

FIELD OBSERVATIONS:

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [✓] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

NA

RECORDED BY: (SIGNATURE)

QA CHECKED BY: (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE ID NUMBER: B19002

P. 63

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 1-120 | WM Glass | CLPVOA | Cool,4C | OAC023 | 8219960114 | SEE CONTAINER LOT # LOG | COMPUC |
| 1-250 | AmbGlass | SVOC,PEST/PCB | Cool,4C | | | | COMPUC |
| 1-250 | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 1-250 | WM Glass | ANIONS Fl,SO4,Cl,N02/N03 | Cool,4C | | | | COMPUC |
| 1-250 | WM Glass | METALS,Cyanide | Cool,4C | | | | COMPUC |
| 1-120 | Poly | LANTHANIDES | Cool,4C | | | | COMPUC |
| 1-120 | AmbGlass | TOTAL ORGANIC CARBON | Cool,4C | | | | COMPUC |
| 2-250 | WM GLASS | RADS Ac,Sr,H3,GAMMA | NONE | | | | COMPUC |
| 2-250 | WM GLASS | RADS Pu,Th,U | NONE | | | | COMPUC |
| | | LAST ENTRY | | | | | |
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SAMPLE ID'S RINSATE: ER0010 TRIP BLANK: TBA023 FIELD BLANK: AB0006 FIELD DUPLICATE: NA

RECORDED BY: (SIGNATURE) QA CHECKED BY: (SIGNATURE)

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL BORING** B20 P.67

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

Date (mm/dd/yy): 8/9/94 TIME: 09 : 40 PAGE 1 OF 1

Task Team Members:

GREG LODER SAIC

JUAN ALVERADO SAIC

JEFF TACKETT MOUND HP

Narrative (include time and location):

0940 ASPHALT REMOVED EARLIER ALONG WITH B19. START SAMPLE B20001 Hnu=0 LEL=0

0955 POWER AUGER INEFFECTIVE IN HARD-PACKED SAND AND GRAVEL ROAD FILL. WE HAVE TO USE SPUD BAR AND HAND-AUGER

1100 BREAK FOR LUNCH

1300 BACK FROM LUNCH GOING TO USE HAMMER DRILL TO ASSIST DIGGING

1340 BACK ON B20 USING SPUD BAR AND HAND AUGER TO ADVANCE BOREHOLE TO 3.0 ft

1402 TAKE B20002 Hnu=0 LEL=0 LOOKS LIKE SAND AND GRAVEL ROAD FILL MATERIAL

1600 HOLE FILLED WITH CEMENT ALONG WITH B17, B18, AND B19

LAST ENTRY

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

P.M. 80°F PARTLY SUNNY

Recorded By [signature] QA Checked By [signature]

BOREHOLE LOG (SOIL) — SOIL BORING

P. 69

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

Page 1 of 1

FACILITY CODE: MND21
LOCATION ID: B20
COORDINATES (FT):
NORTH NA EAST NA
GROUND ELEVATION (FT MSL)
LOCATION TYPE: BH
COMMENTS: NA

DRILLER CODE: SAIC
COMPLETION DATE 8/9/1994
DIAMETER (IN): 4"
DEPTH (FTFD): 4.0
CONSTRUCTION METHOD: B
ACCEPTANCE CODE: A

GROUNDWATER LEVELS

| DATE | TIME | DEPTH (FT) |
|---|---|---|
| NONE ENCOUNTERED | | |

LOCATION DESCRIPTION

10' OFF THE SOUTHWEST CORNER OF BLDG 29

LITHOLOGIC LOG

LOGGER CODE: SAIC

| DEPTH (FT) | SAMPLE INTERVAL | SAMPLE RECOVERY | SAMPLE RETAINED | SAMPLE METHOD | SAMPLE ID | BLOW COUNT (PER 6 IN) | N VALUE | USCS | VISUAL DESCRIPTIONS |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 0-0.5 | NA | NA | NA | NA | NA | NA | NA | ASPHALT |
| 0.5 | 0.5-1.0 | FULL | FULL | U | B20001 | NA | NA | GW | MEDIUM TO VERY COARSE SAND AND GRAVEL, VERY DENSE DRY POORLY SORTED ROAD FILL MATERIAL |
| | 3.5-4.0 | FULL | FULL | U | B20002 | NA | NA | GW | SAME AS ABOVE |
| | | | | LAST ENTRY | | | | | |

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

CONSTRUCTION METHODS:
A - AIR ROTARY
B - BORED OR AUGERED
C - CABLE - TOOL
D - DUG
H - HYDRAULIC - ROTORY
J - JETTED
P - AIR - PERCUSSION
R - REVERSE ROTERY
T - TRENCHING
V - DRIVEN
W - DRIVE AND WASH
Z -OTHER (SPECIFY)

SAMPLE METHODS:
A - AUGER CUTTINGS
S - 2" O.D. 1.38" I.D. DRIVE SAMPLES
U - 3" O.D. 2.42" I.D. TUBE SAMPLES
T - 3" O.D. THIN-WALLED SHELBY TUBE
O - OTHER (SPECIFY)

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

8/9/94 — FORM COMPLETED BY / DATE

8/30/94 — TECHNICAL REVIEWER / DATE

## PHOTOIONIZATION DETECTOR FIELD DATA

SOIL BORING P.71

PROJECT NAME: EG&G MOUND OU5, OPERATION AREA

PROJECT NO: 34896

**FACILITY CODE:** MND21

**LOG DATE:** 8/9/94

**LOCATION ID:** B20

LOCATION TYPE: BH

**LOGGER CODE:** SAIC

FIELD REP: G. LODER

PHOTOIONIZATION DETECTOR INSTRUMENT:

MODEL: PI 101

MANUFACTURER: H·nu

DATE/TIME CALIBRATED: 8/9/94 ; 0700

SERIAL NO.: 0015

**ACCEPTANCE CODE:** A

| CALIBRATION GASES | |
|---|---|
| TYPE/CYLINDER ID NO | CONCENTRATION (PPM)/SPAN |
| 1 ISOBUTYLENE / 872993-2 | 1 100 / 6.00 |
| 2 | 2 |

COMMENTS: NA

| TIME (HH:MM) | SAMPLE ID | OBSERVED READING (ppm) | | | | | DRILLING DEPTH (FT) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| | | DH | HS | BZ | D | OT | | |
| 0940 | B20001 | 0 | NA | NA | NA | NA | 1.0 | |
| 1402 | B20002 | 0 | ↓ | ↓ | ↓ | ↓ | 4.0 | |
| | | | Last Entry | | | | | |

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

LOCATION TYPES:
- BH - BOREHOLES
- SS - SOIL SAMPLE
- SL - SURFACE LOCATION
- SB - SAMPLE BOTTLE
- TP - TEST PIT
- WL - WELL
- OT - OTHER

OBSERVED READING:
- DH - DOWN HOLE
- HS - HEADSPACE
- D - DURING DRILLING (BZ)
- BZ - BREATHING ZONE
- OT - OTHER

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

8/9/94 FORM COMPLETED BY / DATE

8/30/94 TECHNICAL REVIEWER / DATE

COMBUSTIBLE GAS INDICATOR (CGI) MONITORING DATA — SOIL BORING

P-73

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

**FACILITY CODE:** MNDZ1 **LOG DATE:** 8/9/94

**LOGGER CODE:** SAIC FIELD REP: G. LODER

CGI MANUFACTURER: MSA CGI MODEL NO.: Z61

SERIAL NO.: 2437 CALIBRATION DATE/TIME: NA

**ACCEPTANCE CODE:** A BATTERY CONDITION GOOD

CALIBRATION GAS (%LEL) TYPE NA CONCENTRATION NA % LEL CYLINDER SERIAL NO NA

CALIBRATION GAS (PPM) TYPE NA CONCENTRATION NA PPM CYLINDER SERIAL NO NA

COMMENTS: INSTRUMENT JUST RETURNED FROM SERVICING AND CALIBRATION NO CALIBRATION GASES AVAILABLE ON SITE

| LOCATION ID OR DESCRIPTION | COORDINATES FT NORTH | COORDINATES FT EAST | MONITORING TIME (HH:MM) | LOCATION TYPE | % LOWER EXPLOSIVE LIMIT | PPM | % OXYGEN |
|---|---|---|---|---|---|---|---|
| B20 | NA | NA | 0940 | BH | Ø | NA | 21 |
| ↓ | ↓ | ↓ | 1402 | ↓ | Ø | ↓ | 21 |
| | | | LAST ENTRY | | | | |
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ACCEPTANCE CODES: A - ACCEPTABLE, R - RECONNAISSANCE, U - UNACCEPTABLE, N - NOT DETERMINED

LOCATION TYPES: BH - BOREHOLE SL - SURFACE LOCATION TP - TEST PIT WL - WELL

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

8/9/94 FORM COMPLETED BY / DATE

8/30/94 TECHNICAL REVIEWER / DATE

**BOREHOLE OR WELL PLUGGING / ABANDONMENT** — **SOIL BORING**

P 75

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

SITE ID NUMBER: B20 DATE PLUGGED 8 / 9 / 94

SITE COORDINATES: N: NA DEPTH BLS (ft) 4.0
E: NA

TYPE OF CASING: NA

CASING DIAMETER (ID) (in.) NA GROUND ELEVATION (ft msl) NA

SCREENED ELEVATION (ft msl) NA

GEOLOGIC MATERIAL AT SCREEN NA

AMOUNT OF CASING REMOVED (ft) NA

PLUGGING MATERIAL CEMENT

APPROX. VOLUME OF PLUGGING MATERIAL (cu ft.) 1.5

PLUGGING METHOD POURED INTO HOLE, LEVELED AT SURFACE

REMARKS USED QUICKCRETE

LAST ENTRY

RECORDED BY: [signature] (Signature) QA CHECKED BY: [signature] (Signature)

# SAMPLE LOG SHEET

**PROJECT NAME:** Mound Operational Area **PROJECT NO:** 2680 P. 80

SAMPLE ID NUMBER: B20001 DATE COLLECTED (MM/DD/YY): 8/9/94 TIME (HH:MM): 0940

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: MOUND OPERATIONAL AREA

POINT CODE: B20

DESCRIPTION: OPERATIONAL AREA BORING #20

SAMPLE -

MEDIA CODE: 01

DESCRIPTION: Soil Surface (0 - 6 Inches)

DEPTH ~~0.00~~ 0.50 TO ~~0.00~~ 1.00 FT

SAMPLE TYPE:

- [X] GRAB
- [ ] SPATIAL COMPOSITE
- [ ] TIME COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC RINSATE
- [ ] QC FIELD BLANK
- [ ] OTHER (SPECIFY)

FIELD OBSERVATIONS:

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

NA

RECORDED BY: (SIGNATURE) QA CHECKED BY: (SIGNATURE)

SAMPLE LOG SHEET

SAMPLE I[illegible]MBER: B2ØØØ1

P. 8

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 1-12Ø | WM Glass | CLPVOA | Cool,4C | CACØ23 | 8219960114 | SEE CONTAINER LOT # LOG | COMPUC |
| 1-25Ø | AmbGlass | SVOC,PEST/PCB | Cool,4C | | | | COMPUC |
| 1-25Ø | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 1/9/94 2/1-25Ø | WM Glass | ANIONS Fl,SO4,Cl,NØ2/NØ3 | Cool,4C | | | | COMPUC |
| 1-25Ø | WM Glass | METALS,Cyanide | Cool,4C | | | | COMPUC |
| 1-12Ø | Poly | LANTHANIDES | Cool,4C | | | | COMPUC |
| 1-12Ø | AmbGlass | TOTAL ORGANIC CARBON | Cool,4C | | | | COMPUC |
| 2-25Ø | WM GLASS | RADS Ac,Sr,H3,GAMMA | NONE | | | | COMPUC |
| 2-25Ø | WM GLASS | RADS Pu,Th,U | NONE | | | | COMPUC |
| | | LAST ENTRY | | | | | |
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SAMPLE ID'S RINSATE: ERØØØ9 TRIP BLANK: TBAØ23 FIELD BLANK: ABØØØ6 FIELD DUPLICATE: NA

RECORDED BY: [signature] (SIGNATURE) QA CHECKED BY: [signature] (SIGNATURE)

# SAMPLE LOG SHEET

**PROJECT NAME:** Mound Operational Area **PROJECT NO:** 2680 p. 82

SAMPLE ID NUMBER: B20002 DATE COLLECTED (MM/DD/YY): 8/9/94 TIME (HH:MM): 1402

SAMPLING -

LOCATION CODE: MNDOA

DESCRIPTION: MOUND OPERATIONAL AREA

POINT CODE: B20

DESCRIPTION: OPERATIONAL AREA BORING #20

SAMPLE -

MEDIA CODE: 02

DESCRIPTION: Soil Subsurface (>6 Inches)

DEPTH ~~2.00~~ cl 8/9/94 3.00 TO ~~3.00~~ cl 8/9/94 4.00 FT

SAMPLE TYPE:

- [X] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

FIELD OBSERVATIONS:

SAMPLE COLLECTED: [X] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [X] YES [ ] NO FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

NA

RECORDED BY: (SIGNATURE) QA CHECKED BY: (SIGNATURE)

(SIGNATURE)

SAMPLE LOG SHEET

(SIGNATURE)

SAMPLE ID NUMBER: B2ØØØ2

p. 83

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 1-12Ø | WM Glass | CLPVOA | Cool,4C | OACØ23 | 8219960114 | SEE CONTAINER LOT # LOG | COMPUC |
| 1-25Ø | AmbGlass | SVOC,PEST/PCB | Cool,4C | | | | COMPUC |
| 1-25Ø | AmbGlass | EXPLOSIVES | Cool,4C | | | | COMPUC |
| 2-25Ø | WM Glass | ANIONS Fl,SO4,Cl,NØ2/NØ3 | Cool,4C | | | | COMPUC |
| 1-25Ø | WM Glass | METALS,Cyanide | Cool,4C | | | | COMPUC |
| 1-12Ø | Poly | LANTHANIDES | Cool,4C | | | | COMPUC |
| 1-12Ø | AmbGlass | TOTAL ORGANIC CARBON | Cool,4C | | | | COMPUC |
| 2-25Ø | WM GLASS | RADS Ac,Sr,H3,GAMMA | NONE | | | | COMPUC |
| 2-25Ø | WM GLASS | RADS Pu,Th,U | NONE | | | | COMPUC |
| | | LAST ENTRY | | | | | |
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cc 8/9/94

SAMPLE ID'S RINSATE: ERØØ1Ø TRIP BLANK: TBAØ23 FIELD BLANK: NBØØØ6 FIELD DUPLICATE: NA

RECORDED BY: (SIGNATURE) QA CHECKED BY: (SIGNATURE)

A.7

## A.7 WELL W410 LOGBOOK

# E6 & G MOUNT OUT OFF AREA!

PHASE 1

## AT LEAST FOUR LARGEST

BIG

WAIO (SDZ)

50 D
53.5 D.0
67 M
75 H
81 .5
06 K

# SOIL BORING LOG BOOK

B16 W410

**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 2.2, SOP 3.1, SOP 5.1, SOP 6.1, SOP 6.3*

**START DATE:** 6/29/94
**END DATE:** 7/20/94

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B16 W410 P.I

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


| PAGE | FIELD LOG | PAGE | FIELD LOG |
|---|---|---|---|
| 1 | Task Team Activ. Log Sheet, B16, 6/29/94 | 31 | Key Sheet |
| 2 | " " , 6/30/94 | 32 | No Entry |
| 3 | " " " | 33 | ↓ |
| 4 | " " " | 34 | Sample Log Sheet, B160001 |
| 5 | " " " | 35 | " " " " |
| 6 | " " " | 36 | Sample Log Sheet, B160002 |
| 7 | " " , 7/25/94 | 37 | " " " " |
| 8 | " " " | 38 | Sample Log Sheet, B160003 |
| 9 | " " " | 39 | " " " " |
| 10 | " " " | 40 | Sample Log Sheet, B160004 |
| 11 | Borehole Log B16 | 41 | " " " " |
| 12 | | 42 | Sample Log Sheet, B160005 |
| 13 | | 43 | " " " " |
| 14 | | 44 | Sample Log Sheet, B160006 |
| 15 | ↓ | 45 | " " " " |
| 16 | No Entry | 46 | Sample Log Sheet, B160007 |
| 17 | | 47 | " " " " |
| 18 | | 48 | No Entry |
| 19 | | 49 | |
| 20 | | 50 | |
| 21 | | 51 | |
| 22 | | 52 | |
| 23 | | 53 | |
| 24 | ↓ | 54 | |
| 25 | CGI Field Data B16 6/29/94 | 55 | |
| 26 | CGI Field Data B16 ~~6/29/94~~ 7/25/94 SA 8/31/94 | 56 | |
| 27 | FID Field Data B16 6/29/94 | 57 | |
| 28 | FID Field Data B16 7/25/94 | 58 | |
| 29 | Borehole Auging B16 | 59 | |
| 30 | Task Team Activ. Log Sheet, B16, 7/26/94 | 60 | ↓ |

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B16 W410 P. II

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 PROJECT N[redacted]48

| PAGE | FIELD LOG | PAGE | FIELD LOG |
|---|---|---|---|
| 61 | NO ENTRY | 91 | TASK TEAM ACTIV. LOG SHEET, W410, 7/6 |
| 62 | | 92 | " " , 7/7 |
| 63 | | 93 | " " " |
| 64 | | 94 | " " " |
| 65 | | 95 | " " " |
| 66 | SAMPLE LOG SHEET, B16107 | 96 | " " " |
| 67 | " " " " | 97 | " " , 7/11/ |
| 68 | NO ENTRY | 98 | " " " |
| 69 | | 99 | " " " |
| 70 | | 100 | " " " |
| 71 | | 101 | BOREHOLE LOG SHEET W410 |
| 72 | SAMPLE LOG SHEET, W16001 | 102 | |
| 73 | " " " " | 103 | [redacted] |
| 74 | NO ENTRY | 104 | NO ENTRY |
| 75 | | 105 | |
| 76 | | 106 | |
| 77 | | 107 | |
| 78 | | 108 | |
| 79 | | 109 | |
| 80 | | 110 | |
| 81 | GNDWTR. QUAL. SAMP. REC., B16; W16001 | 111 | |
| 82 | NO ENTRY | 112 | |
| 83 | GNDWTR. QUAL. SAMP. REC., B16 | 113 | |
| 84 | NO ENTRY | 114 | |
| 85 | GNDWR. QUAL. SAMP. REC., B16; W16 001 | 115 | CGI MONITORING DATA, W410, 7/7/9 |
| 86 | NO ENTRY | 116 | " " , 7/11/9 |
| 87 | STD. ELEC. CONDUCTIVITY DATA, B16 | 117 | FID FIELD DATA, W410, 7/[redacted]9 |
| 88 | NO ENTRY NO ENTRY | 118 | " " , 7/11/94 |
| 89 | ~~STD. ALKALINITY TEST RECORD, B16~~ 9710 10/5/94 | 119 | WELL PLUGGING W410 |
| 90 | | 120 | TASK TEAM ACTIV. LOG SHEET, W410, 7/12/9 |

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| 122 | TASK TEAM ACTIV. LOG SHEET, W410, 7/12/94 | 152 | |
| 123 | " " " " " " 7/13/94 | 153 | |
| 124 | SAMPLE LOG SHEET, B41001 | 154 | |
| 125 | " " " " | 155 | |
| 126 | SAMPLE LOG SHEET, B41002 | 156 | |
| 127 | " " " " | 157 | |
| 128 | SAMPLE LOG SHEET, B41012 | 158 | |
| 129 | " " " " | 159 | |
| 130 | SAMPLE LOG SHEET, W41001 | 160 | |
| 131 | " " " " | 161 | |
| 132 | NO ENTRY | 162 | |
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| 144 | | 174 | TASK TEAM ACTIV. LOG SHEET, W402, 7/19/94 |
| 145 | | 175 | GNDWTR QUAL. SAMP. REC. W410 |
| 146 | | 176 | NO ENTRY |
| 147 | | 177 | GNDWTR QUAL. SAMP. REC. W410 |
| 148 | | 178 | NO ENTRY |
| 149 | | 179 | GNDWTR QUAL. SAMP. REC. W410 |
| 150 | | 180 | NO ENTRY |

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| 182 | NO ENTRY | 212 | |
| 183 | ~~STD. ALKALINITY TEST REC. W410~~ NO ENTRY | 213 | ~~DAD~~ 10/5/94 |
| 184 | ~~STD. ALKALINITY TEST REC. W410~~ " | 214 | |
| 185 | NO ENTRY | 215 | |
| 186 | TASK TEAM ACTIVE. LOG, W410, 7/20/94 | 216 | |
| 187 | " " " | 217 | |
| 188 | WELL CONSTRUCTION DATA LOG; W410 | 218 | |
| 189 | WELL COMPLETION INFO; W410 | 219 | |
| 190 | MONITORING WELL DIAGRAM; W410 | 220 | |
| 191 | NO MORE PAGES IN BOOK - | 221 | |
| 192 | NO MORE ENTRIES | 222 | NA |
| 193 | | 223 | |
| 194 | | 224 | |
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| 200 | | 230 | |
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| 202 | | 232 | |
| 203 | | 233 | |
| 204 | | 234 | |
| 205 | | 235 | |
| 206 | | 236 | |
| 207 | | 237 | |
| 208 | | 238 | |
| 209 | | 239 | |
| 210 | | 240 | |

**TASK TEAM ACTIVITY LOG SHEET** — SOIL BORING W410 p 84-91

**PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1** — TASK NO. 34896 SB 9/11/94

Date (mm/dd/yy): 07/06/94 TIME: 1215 : 1341 PAGE 1 OF 1

Task Team Members:

Susan L Alston — Martha Cramer

07/06/94

Narrative (include time and location):

1215 Returned from lunch to trailer to find out about the lock out tag out of the overhead lights at this site G~~8~~ 4/6

Determine that we would set up on the site and be prepared to drill in the morning

1325 Arrived at W 410 and start setting up rig, traffic fencing, barrels, zones, etc

1455 Completed setting up. Driller gone after cement to top of remaining wells

1520 Added 1 94 lb bag of type I Portland Cement w/ 4% bentonite (gold seal) to bring grout to the top of W 400

1534 Arrived at W 397 and added 1 bag of type I portland cement (Miami's brand) with 4% bentonite (gold seal) to bring out to the surface

1558 Depart site after cleaning equipment used for grouting

1610 Arrive at other drill site to follow John and determine when we will lock out + tag out tomorrow

1630 Drillers + team off site

Daily Weather Conditions: A.M. NA

P.M. ≈95°F Hot Humid (Hazy)

Recorded By Susan L Alston QA Checked By [signature] 8/12/94

~~84~~ 89 91

SB 9/11/94

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL BORING**

**PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1** — W410 P-8592 — TASK NO.: 34896 — SB 9/1/94

Date (mm/dd/yy): 07/07/94 TIME: 0700 : 1341 PAGE 1 OF 5

Task Team Members:

Susan L. Alston — Martha Cramer

ALA 07/07/94

Narrative (include time and location):

0700 Arrived @ trailer to calibrate instruments, load equipment. John Davis and S. Patterson (Bowser) gone to begin lock out-tag out

0730 Arrived at W410 location to set out equipment and wait on lock out to be completed

0820 Ray Mowen (H.P.) said to come by building and tell Ray when we were ready to drill

0851 SLA 07/07/94 ~~Lay~~ Lock out-tag out completed. Joyce C gave me the excavation Permit. Going after Ray to tell him we are ready. Driller putting the mast up and preparing to drill. S. Patterson + S. Belt (Bowser)

0913 Ray (HP) on site + Jeff Duncan on site (HP)

0926 Began drilling w/ cable tool using 6 in. hammer

0929 Adding casing to guide hammer till we can start adding drilling casing

0954 Adding 5 gallons of water

0954 Bailed well out @ 5 ft BGS

0957 Continued drilling. Added 10 gal of water. 0-5 ft BGS Description

Daily Weather Conditions: A.M. ≈80°F Partly Cloudy

P.M.: NA

Recorded By Susan L. Alston QA Checked By [illegible] 8/12/94

SB 9/1/94 SB 9/1/94 92

**TASK TEAM ACTIVITY LOG SHEET** — SOIL BORING W410 P8693

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

Date (mm/dd/yy): 07/07/94 TIME: 0700 1341 PAGE 2 OF 5

Task Team Members:

Martha Cramer — Susan C. Abstor

DJC 07/07/94

Narrative (include time and location):

7.5YR 4/2 Brown silty clay w/ gravel and coarse sand mix (≈ 15%)

1004 Shut rig down due to 3 ppm on OVA downhole, 0.5 ppm in breathing zone

1006 Jeff (SHC) stopped by and had methane probe. Ray taking Jeff back to HP building

1007 Methane scrubber checked area breathing zone + down hole both 0.0 ppm. Check w/o methane scrubber again. Have hits up to 1.4 ppm → Methane causing hits. Waiting on HP's to return to continue drilling

1019 Ray M. (H.P.) back on site. Continued drilling

1022 Cleaning out bore hole @ 7ft BGS w/ bailer

5-7 ft BGS Description

7.5YR 5/3 brown silty clay w/ 50% coarse sand + 10% gravel. Fragments

1025 Continued drilling. Added 10 gal of water

1035 Cleaned out boring w/ bailer @ 14 ft BGS

7-14 ft BGS — Same as above

Daily Weather Conditions: A.M. PC 07/07/94

P.M.

Recorded By Susan C. Abstor QA Checked By [illegible] 8/12/94



SCA 8/11/94

**TASK TEAM ACTIVITY LOG SHEET** — SOIL BORING W410 P87 p94

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

Date (mm/dd/yy): ~~06~~ 07/07/94 TIME: 0700 : 1341 PAGE 3 OF 5

Task Team Members: SUA 07/07/94

Susan L. Alston — Martha Cramer

07/07/94

Narrative (include time and location):

SUA 07/07/94

~~07~~ 1041 Continued drilling. Added 5 gal of water

1056 Adding 10.5 ft of casing to bore hole

1102 Adding 7.0 ft of casing to borehole

1106 Continued drilling

1112 Stopped drilling @ 14 ft - Cleaning out hole. Put meter down - out of Hydrogen

1120 Off site for lunch

1215 Returned to trailer to find out found out that the methane scrubber was a methane probe. Taking dreager tubes back in case we have anymore hits

1315 Feeling rig. Checking OVA breathing zone - 0.0 ppm w/ regular probe.

1320 SUA 07/07/94 Continue drilling

1330 Shutting down rig 30.0 ppm down hole. Checking for benzene & vinyl chloride.

1341 Continued drilling - nothing on the Dreager tubes, can go up to 5 ppm in breathing zone

Daily Weather Conditions: A.M. NA

P.M. ~90°F Partly Cloudy

Recorded By Susan L. Alston QA Checked By [signature] 8/12/94

ad

TASK TEAM ACTIVITY LOG SHEET — SOIL BORING

W410 p88 of 95

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

Date (mm/dd/yy): 07/07/94 TIME: 0700: 1600 PAGE 4 OF 5

Task Team Members:

Martha Cramer — Susan L. Austen

07/07/94

Narrative (include time and location):

1345 Arrived Site of water

1347 Bailing well w/ bailer

14-16 ft BGS Description

80% coarse sand w/ some trace amounts of fines and ≈20% gravel

1458 Driving casing on down to 16 ft

1506 Continued drilling to 17 ft BGS

1506 Tagged hole at 16.5 ft BGS. Fine sands washing in under casing

Preparing to take a 2" split spoon

16-17 ft BGS Description

Medium sand w/ 25% fine sand

1514 Drove spoon from 17-19 ft BGS

25% fine sand w/ 75% medium to coarse sand w/ some gravels - dry

1523 Continued drilling after driving casing to 17 ft BGS

1530 Drilled to 20 ft BGS

1532 Driving 2 in split spoon

Grab sample at 17-20 ft BGS - Coarse sands & gravels

Daily Weather Conditions: A.M. 07/07/94

P.M.

Recorded By [signature] QA Checked By [signature] 8/12/94

**TASK TEAM ACTIVITY LOG SHEET** — SOIL BORING W410 P-8996

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — TASK NO.: 34896 SB 91 M4

Date (mm/dd/yy): 07/07/94 TIME 0800-1620 PAGE 5 OF 5

Task Team Members:

Susan L. Alston — Martha Crouse

JJC 07/07/94

Narrative (include time and location):

~~20-22 ft BGS Description~~ JJC 07/07/94

Same as ~~19-21~~ 17-19 ft BGS split spoon w/ increasing amounts of N6 grey crystalline angular limestone fragments at 21.5 ft BGS Dry. JJC 07/07/94

1414 Driving 5.5 ft of casing (23 ft total in ground) JJC 07/07/94

1429 Continued drilling. Added 5 gal of water.

1458 Bailed well out at 23 ft BGS.

1504 Driving 2 in split spoon 23-25 ft BGS JJC 07/07/94

23-25 ft Description - Same as 20-22 ft BGS Dry

1508 Continue drilling to 26 ft BGS

1516 Adding 5 ft of surface casing

1532 Drilled down to 26 ft BGS. Rig off to tear down to put the mask down

1539 Rig off - Mask down

1649 Off site. Drillers gone w/ John to take locks off

JJC 07/07/94

Daily Weather Conditions: A.M. JJC 07/07/94

P.M.

Recorded By Susan L Alston QA Checked By [illegible] 8/12/94

TASK TEAM ACTIVITY LOG SHEET

SOIL BORING W410 ~~90~~ 97

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

TASK NO: 34896 ~~38911~~

Date (mm/dd/yy): 07/11/94 TIME: 07:00 : 1620 PAGE 1 OF 4

Task Team Members:

Susan L Abston Martha Cramer

07/11/94

Narrative (include time and location):

0700 Arrived @ trailer to calibrate instruments load equipment

0745 Arrived @ W410 S. Pa Hrison and T Davis last out - tag out over head lines

0814 Everyone on site. S. Pa Hrison + S. Bells (Bowser) rig back up. Ray Mes (HP) on site

0835 Clean hole out to 26 ft BGS. Having to add 5 ft of casing.

0900 Driving spoon from 26-28 ft BGS

26-28 ft BGS Description

Only 25% recovery. Same as above w/ large gravel fragments.

0908 Driving casing to 28 ft BGS

0915 Driving split spoon 28-30 ft BGS

0920 Opened split spoon

28-30 ft BGS Description

50% Recovery. Saturated coarse sand and gravel (30% sand 70% gravel) Gravel becoming more rounded

0923 Added 5.5 ft of casing

SLA 07/11/94

Daily Weather Conditions: A.M. ~ 70°F Clear Sunny

P.M. NA

Recorded By Susan L Abston QA Checked By [illegible] 8/12/94

~~90~~ 97

**TASK TEAM ACTIVITY LOG SHEET** — SOIL BORING W40 p. 98

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

Date (mm/dd/yy): 07/11/94 TIME: 0700 : 1600 PAGE 2 OF 4

Task Team Members:

Susan C. Abston — Martha Cramer

07/11/94

Narrative (include time and location):

0925 Driving casing to clean hole out to 30 ft to bail out and check for recharge

0932 John Davis on site

0933 Clean hole out w/ sand pump

0940 Measure water at .2 ft on bottom letting it set

0942 TD borehole @ 30.0 ft BGS

0950 Measured water - no increase

0955 Driving 2 in spoon 30-32 ft BGS

30-32 ft BGS Description

Same as above moist

1000 Alex Bieg on site Drilling down to 32 ft BGS to drive another spoon

1006 Driving 2 in spoon from 32-34 ft BGS

1014 32-34 ft BGS Description

32-33.7 same as above

33.7-34 ft BGS fine sand 7.5YR 5/6 brown

Preparing to collect sample B41W02 at B41W12 at water table

Water at ≈ 33 ft BGS

Daily Weather Conditions: A.M. 07/11/94

P.M.

Recorded By Susan C Abston QA Checked By 8/12/94

TASK TEAM ACTIVITY LOG SHEET — SOIL BORING W4102.92 99

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA PHASE 1 — TASK NO: 34896 JB 7/11/94

Date (mm/dd/yy): 07/11/94 TIME: ~~0700~~ 1620 PAGE 3 OF

Task Team Members:

Susan L Alston — Martha Cremer

JLA 07/11/94

Narrative (include time and location):

1029 Drove 1st 3 in SS split spoon 34-36 ft BGS

1035 Opened spoon to collect sample

Top .5 ft sample gravel and sand (~50% gravel) Rest of spoon ~~B4100~~ 7.5YR5/6 brown fine sand

1044 Driving casing to 33 ft BGS. Cleaning out bore hole

1102 Collecting split spoon sample from 34-36 ft BGS

Opened 2nd split spoon sample & Composited w/ other sample

SLA 07/11/94

1123 Collected 3rd split spoon from about same depth & composited w/ other sample

1215 Break for lunch after jarring all the samples and cleaning and securing site and Ray scanning as out

SLA 07/11/94

1315 Return from lunch. Need to refill CVA

1340 Water at 34.95 BGS. Preparing to continue drilling. Ray Moss on site (HP)

1404 Adding 5.5 ft of casing to drive down

1405 Tayeb G. (Mound) on site

1451 Driving casing to 38 ft BGS

Daily Weather Conditions: A.M. NA

P.M. ~ 85° F Clear Pretty

Recorded By Susan L Alston — QA Checked By [signature] 8/12/94

99

92 in all PM

**TASK TEAM ACTIVITY LOG SHEET** — **SOIL BORING**

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

W410 p93 100

Date (mm/dd/yy): 07/11/94 TIME: 0700 - 1620 PAGE 4 OF 9

Task Team Members:

Martha Cramer — Susan L. Abston

Narrative (include time and location):

1355 Boring well out w/ sand pump

1400 Continued drilling. Added 5 gal. of water

1414 Weathered shale from - bluish grey on side of bit. NS → 38 ft BGS

1420 Driving casing on down - sand keeps coming back in hole. Drilling down → Added 5 gal of water

1515 Drilled down to 41 ft BGS. Driving a splitspoon after collecting grab sample from 37-41 ft. 90% sand (coarse) and gravel w/ 10% clay (weathered shale)

Split spoon ~~40 to 40~~ 41.0 - 41.5 ft

N4 moderately dark grey bedded weathered shale (weathered bedrock)

1520 TD of hole at 41.2 ft BGS

Not enough time to set well before leaving to tag & lock back in overhead lines. Start tearing down

1610 Driller & Rig off site after securing it

1620 Securing, cleaning and departing site

07/12/94 On pg ~~113~~ 120 of this logbook

Daily Weather Conditions: A.M. HG 07/11/94

P.M.

Recorded By Susan L Abston QA Checked By [signature] 8/12/97

BOREHOLE LOG (SOIL) — SOIL BORING W410 P94101

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



FACILITY CODE: MND 00
LOCATION ID: W410
COORDINATES (FT):
NORTH NA EAST NA
GROUND ELEVATION (FT MSL) NA
LOCATION TYPE: WL
COMMENTS: NONE

DRILLER CODE: BOWS
COMPLETION DATE 7/11/1994
DIAMETER (IN): 6
DEPTH (FTFD): 41.2
CONSTRUCTION METHOD: C
ACCEPTANCE CODE: A

GROUNDWATER LEVELS

| DATE | TIME | DEPTH (FT) | |
|---|---|---|---|
| 07/11/94 | 1346 | 32.95 | Bailer |

LOCATION DESCRIPTION: Next to spoil area along perimeter road

LITHOLOGIC LOG

LOGGER CODE: SAIC

| DEPTH (FT) | SAMPLE INTERVAL | SAMPLE RECOVERY | SAMPLE RETAINED | SAMPLE METHOD | SAMPLE ID | BLOW COUNT (PER 6 IN) | N VALUE | USCS | VISUAL DESCRIPTIONS |
|---|---|---|---|---|---|---|---|---|---|
| 0-5 | NA | NA | NA | ~~NA~~ 0 | NA | ~~NA~~ | NA | CL | 7.5YR4/2 Brown silty clay with gravel and coarse sand mix (~15%) |
| 5-7 | | | | | | CABLE TOOL BAILER | | SC | 7.5YR5/3 Brown silty clay with 50% coarse sand and 10% gravel fragment |
| 7-14 | | | | | | | — | SC | Same as above |
| 14-16 | | | | | | | — | SP | ~~Medium sand w/ 25% fine sand~~ 80% coarse sand w/ some trace of fines and ≈20% gravel |
| 16-17 | | 100% | 0 | 5 | | | — | SW | Medium sand w/ 25% fine sand |

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

CONSTRUCTION METHODS:
A - AIR ROTARY
B - BORED OR AUGERED
C - CABLE - TOOL
D - DUG
H - HYDRAULIC - ROTORY
J - JETTED
P - AIR - PERCUSSION
R - REVERSE ROTERY
T - TRENCHING
V - DRIVEN
W - DRIVE AND WASH
Z -OTHER (SPECIFY)

SAMPLE METHODS:
A - AUGER CUTTINGS
S - 2" O.D. 1.38" I.D. DRIVE SAMPLES
U - 3" O.D. 2.42" I.D. TUBE SAMPLES
T - 3" O.D. THIN-WALLED SHELBY TUBE
O - OTHER (SPECIFY) Cable tool bailer

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

FORM COMPLETED BY / DATE — TECHNICAL REVIEWER / DATE 9/12/94

94 [illegible]

BOREHOLE LOG (SOIL) — SOIL BORING W410 P95 102

PROJECT NAME: EG&G MOUND OU5 OPERATIONAL AREA, PHASE 1 — PROJECT NO: 34896 SB 11/94



FACILITY CODE: MND00 — DRILLER CODE: SAIC

LOCATION ID: TW410 — COMPLETION DATE: 7/11/1994

LITHOLOGIC LOG

| DEPTH (FT) | SAMPLE INTERVAL | SAMPLE RECOVERY | SAMPLE RETAINED | SAMPLE METHOD | SAMPLE ID | BLOW COUNT (PER 6 IN) | N VALUE | USCS | VISUAL DESCRIPTIONS |
|---|---|---|---|---|---|---|---|---|---|
| 17-19 | ~~2.5~~ | ~~100%~~ | ~~Ø~~ | ~~OS~~ | | | | SW | 25% fine sand w/ 75% |
| SW 07/07/94 | | | | SW 07/07/94 | | | | | medium to coarse sand w/ |
| | | | | | | | | | some gravels / dry |
| 20-22 | | ~~100%~~ | ~~Ø~~ | S | | | | SW | Same as 17-20 ft with |
| | | | | | | | | | increasing amounts of NVC |
| | | | | | | | | | grey crystalline angular |
| | | | | | | | | | limestone fragments at |
| | | | | | | | | | 21.5 ft BGS / dry |
| 22-25 | | | | Sand Pump | | | | SW | Same as above. |
| 26-28 | | ~~25%~~ | ~~Ø~~ | S | | | | SW | Same as above w/ |
| | | | | | | | | | large gravel frag |
| 28-30 | | ~~50%~~ | ~~Ø~~ | S | | | | GM | Coarse sand and 70% |
| | | | | | | | | | gravel. Gravel becoming |
| | | | | | | | | | more rounded. Saturated |
| 30-32 | | ~~100%~~ | ~~Ø~~ | S | | | | GM | Same as above - moist |
| SW 07/11/94 | | | | | | | | | |
| 32-33.7 | | ~~100%~~ | ~~Ø~~ | S | | | | GM | Same as above |
| 33.7-34.0 | | | | Tool S | | | | SP | Fine sand 7.5YR5/6 |
| | | | | | | | | | brown in color |
| 34-36 | | 100% | 100% | S | B410002 | | | GW | Top 1.5 ft of spoon |
| | | | | | | | | | 50% gravel 50% sand |
| | | | | | | | | | 1.5 ft of spoon 7.5YR5/6 |
| | | | | | | | | | brown fine sand |
| 37-41 | | | | Cable S | | | | | 90% coarse sand and |
| | | | | | | | | | gravel w/ 10% weathered |
| | | | | | | | | | shale fragments |

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

FORM COMPLETED BY / DATE — TECHNICAL REVIEWER / DATE 8/12/94

~~95~~ 102 SB 11/94

BOREHOLE LOG (SOIL)

SOIL BORING W410 p.96 103

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

PROJECT NO: 34896 SB-511.194



FACILITY CODE: MND 00

DRILLER CODE: SAIC

LOCATION ID: W410

COMPLETION DATE 7/11/1994

LITHOLOGIC LOG

| DEPTH (FT) | SAMPLE INTERVAL | SAMPLE RECOVERY | SAMPLE RETAINED | SAMPLE METHOD | SAMPLE ID | BLOW COUNT (PER 6 IN) | N VALUE | USCS | VISUAL DESCRIPTIONS |
|---|---|---|---|---|---|---|---|---|---|
| 41.0 | -41.5 | — | — | O | — | — | | | N4 medium dark grey |
| | | | | Cable tool drill | | | | | bedded weathered shale |
| | | | | | | | | | (weathered bedrock) |
| | | | | | | | | | TD of hole at 41.2 ft bgs |

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

FORM COMPLETED BY / DATE

TECHNICAL REVIEWER / 8/12/94

103

96

COMBUSTIBLE GAS INDICATOR (CGI) MONITORING DATA — SOIL BORING

W410 P1-108 115

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

SB 8/11/94

FACILITY CODE: MND 00 — LOG DATE: 7/7/94

LOGGER CODE: SAIC — FIELD REP: SL Alston

CGI MANUFACTURER: Industrial Scientific — CGI MODEL NO.: MX 251

SERIAL NO.: 9306099-061 — CALIBRATION DATE/TIME: 7/7/94 0710

ACCEPTANCE CODE: A — BATTERY CONDITION Good

CALIBRATION GAS (%LEL) TYPE Pentane CONCENTRATION 24 % LEL CYLINDER SERIAL NO RR-34825

CALIBRATION GAS (PPM) TYPE NA CONCENTRATION NA PPM CYLINDER SERIAL NO NA

COMMENTS: * instrument is extremely hot

| LOCATION ID OR DESCRIPTION | COORDINATES FT NORTH | COORDINATES FT EAST | MONITORING TIME (HH:MM) | LOCATION TYPE | % LOWER EXPLOSIVE LIMIT | PPM | % OXYGEN |
|---|---|---|---|---|---|---|---|
| B410 | NA | NA | 0920 | SL background | 0.0 | N | 20.9 |
| | | | 0950 | B4 | 0.0 | N | 20.9 |
| | | | 1004 | | 0.0 | N | 20.9 |
| | | | 1025 | | 0.0 | N | 20.9 |
| | | | 1040 | | 0.0 | N | 20.9 |
| | | | 1423 | | 1% | N | 20.5* |
| | | | 1450 | | 0% | N | 20.7 |
| | | | 1530 | | 0% | N | 20.7 |
| LAST ENTRY | | | | | | | |

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

LOCATION TYPES: BH - BOREHOLE SL - SURFACE LOCATION TP - TEST PIT WL - WELL

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

[signature] 7/7/94 — FORM COMPLETED BY / DATE

[signature] 8/12/94 — TECHNICAL REVIEWER / DATE

COMBUSTIBLE GAS INDICATOR (CGI) MONITORING DATA — SOIL BORING W40 P 1091

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

FACILITY CODE: MND 00 — LOG DATE: 7/11/94

LOGGER CODE: SAIC — FIELD REP: SC Alston

CGI MANUFACTURER: Industrial Scientific — CGI MODEL NO.: MX 251

SERIAL NO.: 9306049-0061 — CALIBRATION DATE/TIME: 7/11/94 0715

ACCEPTANCE CODE: A — BATTERY CONDITION: Good

CALIBRATION GAS (%LEL) TYPE: Pentane — CONCENTRATION: 24 % LEL — CYLINDER SERIAL NO: RB-34875

CALIBRATION GAS (PPM) TYPE: NA — CONCENTRATION: NA PPM — CYLINDER SERIAL NO: NA

COMMENTS: NONE

| LOCATION ID OR DESCRIPTION | COORDINATES FT NORTH | COORDINATES FT EAST | MONITORING TIME (HH:MM) | LOCATION TYPE | % LOWER EXPLOSIVE LIMIT | PPM | % OXYGE |
|---|---|---|---|---|---|---|---|
| B410 | NA | NA | 0926 | BH | 0.0 | N | 21.1 |
| | | | 1000 | BH | 0.0 | N | 21.1 |
| | | | 1400 | BH | 0.0 | N | 21.1 |
| | | | 1415 | BH | 0.4 | N | 21.9 |
| | | | 1515 | BH | 0.0 | N | 20.9 |
| LAST ENTRY | | | | | | | |

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

LOCATION TYPES: BH - BOREHOLE SL - SURFACE LOCATION TP - TEST PIT WL - WEL

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS — FORM COMPLETED BY / DATE: 7/11/94 — TECHNICAL REVIEWER / D: 8/12/94

# FLAME IONIZATION DETECTOR FIELD DATA

SOIL BORING: W410 ~~R410~~

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

PROJECT NO: 34896

FACILITY CODE: MND 00 THD 8/12/94

LOG DATE: 7/7/94 THD 8/12/94

LOCATION ID: ~~R410~~ W410

LOCATION TYPE: ~~BH~~ WL

LOGGER CODE: SAIC

FIELD REP: SL Abston

FLAME IONIZATION DETECTOR INSTRUMENT:

MANUFACTURER: Foxboro

MODEL NO.: OVA 128

SERIAL NO.: 40475

DATE/TIME CALIBRATION 7/7/94 0715

ACCEPTANCE CODE: A

| CALIBRATION GASES | |
|---|---|
| TYPE/CYLINDER ID NO. | CONCENTRATION (PPM) |
| 1 Methane 132875 | 1 100ppm |
| 2 NA | 2 NA |

COMMENTS

| TIME (HH:MM) | SAMPLE ID | OBSERVED READING (ppm) | | | | | DRILLING DEPTH (ft) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| | | DH | HS | BZ | D | OT | | |
| 0920 | R410 | NR | NR | 0.0 | | 0.0 | 0 ft | background |
| 0950 | | 0.0 | 0.0 | 0.0 | 0.0 | NA | 1 ft | using colletool |
| 1000 | | 3.0 | NR | 0.5 | NR | | 5 ft | methane |
| 1004 | | 0.0 | 0.0 | 0.0 | 0.0 | | 5 ft | using methane |
| 1005 | | 0.0 | 0.0 | 0.0 | 0.0 | | 7 ft | " |
| 1010 | | 0.0 | 0.0 | 0.0 | 0.0 | | 14 ft | " |
| 1320 | | 0.0 | 0.0 | 0.0 | 0.0 | | 14 FT | rig off |
| | | 2.0 | NR | 0.5 | NR | | 14 FT | rig on checked for benzene in bubble |
| 1345 | | 1.3 | NR | 0.5 | NR | | 16 ft. | cleaning out hole |
| 1423 | | 0.0 | NR | 0.0 | 0.0 | | 17 ft | using colletool |
| 1450 | | 0.0 | 0.0 | 0.0 | 0.0 | | 23 ft | " |
| 1530 | | 0.0 | 0.0 | 0.0 | 0.0 | | 25 ft | " |
| LAST ENTRY | | | | | | | | |

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

LOCATION TYPES:
BH - BOREHOLES
TP - TEST PIT
SS - SOIL SAMPLE
SB - SAMPLE BOTTLE
L - SURFACE LOCATION
WL - WELL
OT - OTHER (EXPLAIN)

OBSERVED READING:
DH - DOWNHOLE
HS - HEADSPACE
BZ - BREATHING ZONE
D - DURING DRILLING (BZ)
OT - OTHER

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

Richard Z Crown 7/7/94
FORM COMPLETED BY / DATE

8/12/94
TECHNICAL REVIEWER / DATE



~~110~~

FLAME IONIZATION DETECTOR FIELD DATA

SOIL BORING W410 P-111 118

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

PROJECT NO.: 34896

FACILITY CODE: MND 00

LOG DATE: 7/11/94

LOCATION ID: B410 W410

LOCATION TYPE: ~~BH~~ WL

LOGGER CODE: SAIC

FIELD REP: SL Adston

FLAME IONIZATION DETECTOR INSTRUMENT:

MANUFACTURER: Foxboro

MODEL NO.: OVA 128

SERIAL NO.: 40478

DATE/TIME CALIBRATION 7/11/94 0720

ACCEPTANCE CODE: A

| CALIBRATION GASES | |
|---|---|
| TYPE/CYLINDER ID NO. | CONCENTRATION (PPM) |
| 1 Methane / 32875 | 1 100 |
| 2 NA | 2 NA |

COMMENTS: NONE

| TIME (HH:MM) | SAMPLE ID | OBSERVED READING (ppm) DH | HS | BZ | D | OT | DRILLING DEPTH (ft) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 0910 | B410 | NR | NR | NR | NR | 0.0 | 28 | Split spoon sample |
| 0915 | | " | " | " | " | 0.0 | 30 | " |
| 0920 | | 0.0 | 0.0 | 0.0 | 0.0 | NR | 30 ft | unsuccessful |
| 0950 | | NR | NR | NR | NR | 0.0 | 32 ft | split spoon |
| 1000 | | 0.0 | 0.0 | 0.0 | 0.0 | NR | 32 ft | during cable tool drilling |
| 1005 | | NR | NR | NR | NR | 0.0 | 33-34 | split spoon sample |
| 1035 | | | | | | NR | | |
| 1125 | | | | | | 0.0 | 34-36 | split spoon sample |
| | | | | | | 0.0 | | |
| 1400 | | 0.0 | 0.0 | 0.0 | 0.0 | NR | 34 | during cable tool |
| 1415 | | 0.0 | 0.0 | 0.0 | 0.0 | NR | 40 | " |
| 1500 | | 0.0 | 0.0 | 0.0 | 0.0 | NR | 40 | " |
| | LAST ENTRY | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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

LOCATION TYPES:
BH - BOREHOLES
TP - TEST PIT
SS - SOIL SAMPLE
SB - SAMPLE BOTTLE
L - SURFACE LOCATION
WL - WELL
OT - OTHER (EXPLAIN)

OBSERVED READING:
DH - DOWNHOLE
HS - HEADSPACE
BZ - BREATHING ZONE
D - DURING DRILLING (BZ)
OT - OTHER

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

FORM COMPLETED BY / DATE: 7/11/94

TECHNICAL REVIEWER / DATE

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SD 7/11/94

BOREHOLE OR WELL PLUGGING / ABANDONMENT — SOIL BORING W410

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

SITE ID NUMBER: W410 DATE PLUGGED NA / ___

SITE COORDINATES: N: NA E: NA DEPTH BLS (ft) NA

TYPE OF CASING: NA

CASING DIAMETER (ID) (in.) NA GROUND ELEVATION (ft msl) NA

SCREENED ELEVATION (ft msl) 28.72 - 38.96

GEOLOGIC MATERIAL AT SCREEN SAND, GRAVEL, CLAY

AMOUNT OF CASING REMOVED (ft) NA

PLUGGING MATERIAL NA

APPROX. VOLUME OF PLUGGING MATERIAL (cu ft.) NA

PLUGGING METHOD NA

REMARKS WELL NOT ABANDONED. COMPLETED AS WELL SYSTEM SEE WELL COMPLETION LOG

LAST ENTRY

RECORDED BY: [signature] 8/12/94 (Signature) QA CHECKED BY: [signature] (Signature)

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07/12/94 0700 - 1415 Pg. 1 of 1

Susan L Alston
Martha Cramer

W410 P 120 113 SB 9/11/94

0700 Arrived at trailer to calibrate instruments, load equipment and have health + safety briefing
0714 John Davis + S. Patterson (BOUSER) gone to lock out - tag out overheads at W410 so we can set the well
0735 Arrived at site. Set up to take surface sample + set well
0749 Ray Moss (4P) on site.
0805 Departed site to check on drillers.
0822 Arrived back on site. Drillers still locking out
0845 Collected surface sample 0-.5 ft BGS
0855 Drillers - S. Patterson, S. Bell (BOUSER) on site
0905 Setting rig up to prepare to set well. Need to screen 29-39 ft TD bore hole @ 41.2 ft BGS no cave in over night
0925 Ready to set well. Screen #10 304SS wire bound 10.28. TOP .22 not screen. .04 ft not screen on bottom Riser 304 Stainless Steel Sch. 5 Fittings F 4/40 M/F 10.03, 10.03, 10.02
0931 Setting well. Screen 2 ft above water (31 ft BGS) as per Alex Bray
0942 1.35 ft of stick up on well riser.
Adding Global #5 sand pack. Same sand as used w/ other wells. Tremiring w/ casing pipe
0950 Added 3 bags of sand. Pulling casing up. Ray off site
1007 Added 2 bags of sand. Pulling 5.5 ft section of casing
1025 Added 4 bags of sand. Sand to 25.5 ft BGS
1035 Out of sand, Jim going other mart at the shop. Taking more than expected because @ 32 ft a wash out probably caused by pushing the 3 spoons at that depth. Going to decon pump
1042 Deconning pump + hoses
1145 Break for lunch

120 QAC: 8/12/94
113 Susan L Alston Cont pd 122 SB 9/11/94

07/12/94 1700 - 1415 Pg 2 of 2

1245 Return from lunch - Collect development equipment

1300 Return to G410

1303 Adding more sand

1308 Tremied 1 more bag of sand to 27 ft BGS
Adding bentonite pellets. Used 14 gal of water to tremie

1316 Added 1 1/2 buckets of Volclay / Pure Gold tablets
3/8 in bentonite to 23.7 ft BGS

Pulling drilling casing in order to tear rig down

1340 Casing out of borehole. Rigging down

1415 Off site to tag lines back in. Northwest
Steve securing area. Moving to G397
to begin development

AM WEATHER ≈ 75° F Partly Cloudy to Sunny.
PM WEATER ≈ 90°F Partly Cloudy to Sunny

Susan J Alston

QAd: [illegible] 8/12/94

07/12/94

W410 p ~~115~~ 122 SB 8/11/94

122
~~115~~ 8/11/94

07/13/94 1428 – 1615

W410 123
P 116
SB 7/11/94

Martha Cramer . SUSAN C. Abston

1428 Arrived @ G410 site. Preparing to grout annulus
Tagged bentonite @ 21.48 ft BGS. Some cave in
over night

1437 Mixing grout using Type I Portland Cement (Miamis
brand) w/ 4% bentonite (Aqua Gold Seal)

1507 Mixed seven bags of cement to bring to the surface
Cleaning grout plant

1510 Rain started.

1522 Rain slacked up. Put protective casing on well
add 11 in (.92 ft) to riser for a total stick
up of 27 in (2.25 ft)

1530 Lighting started - stopped work

1541 Driller ~~going~~ going after controller box and Jn's
drum moving truck

1558 Drillers support truck stuck on road which runs
along the fence at the B398 site. Slide off the
road in the mud. Not able to get it out
today we will try tomorrow

1615 Everyone off site

Susan C Abston

QAd: [illegible] 8/12/94

Cont to pg 179

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7/20/94 SB 7/11/94

W410 P-117/24

# SAMPLE LOG SHEET

PROJECT NAME: MOUND OUS OPERATION AREA PHASE I

PROJECT NO: 34896

SAMPLE ID NUMBER: B41Ø Ø1

DATE COLLECTED (MM/DD/YY): Ø7/12/94

TIME (HH:MM): Ø8:5

SAMPLING -

LOCATION CODE: MNIØNPEP

DESCRIPTION: Mound Not Property Extension/Area

POINT CODE: B41Ø

DESCRIPTION: Borehole #41C

FIELD OBSERVATIONS: Sample collected w/ stainless steel spoon + composited in a stainless steel bowl from 0-Ø.5 ft BGS weather 80°F (Hot) Sunny

SAMPLE -

MEDIA CODE: Ø1

DESCRIPTION: Soil Subsurface (Ø-.5ft) or (Ø-bin)

DEPTH Ø.Ø TO Ø.5ft BGS

SAMPLE TYPE:

- [x] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

SAMPLE COLLECTED: [x] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [x] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: (SIGNATURE)

CHECKED BY: 8/12/94 (SIGNATURE)

SAMPLE NUMBER: B41001

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 1-120 | WMGlass | CLP VOA | Cool 4°C | NPC020 | 821996065 | See Sample Log Book | CompQC |
| 250-1 | Amb Glass | SVOA, PCB, PCBs | | | | | |
| 250-1 | | Explosives | | | | | |
| 250-1 | WM Glass | Metals Cyanide | | | | | |
| 2-250 | | Anions F, SO4 Cl, NO2/NO3 | | | | | |
| 1-120 | Amb Glass | Total Organic Carbon | | | | | |
| 2-250 | WM Glass | Rad Po, Th, U | None | | | | |
| 2-250 | | Rad Ra, Sr, Ra, Gamma | | | | | |
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SAMPLE ID'S RINSATE: ER0018 TRIP BLANK: TBN015 FIELD BLANK: AB0010 FIELD DUPLICATE: NA

RECORDED BY: (SIGNATURE) QA CHECKED BY: 8/12/94 (SIGNATURE)

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W410 P119 SB 7/11/94

# SAMPLE LOG SHEET

PROJECT NAME: MOUND OU5 OPERATIONAL AREA PHASE I

PROJECT NO: 34896

SAMPLE ID NUMBER: B4117Ø2

DATE COLLECTED (MM/DD/YY): Ø7/11/94

TIME (HH:MM): 1635

SAMPLING -

LOCATION CODE: MNDNPCT

DESCRIPTION: Mound New Property

POINT CODE: B416

DESCRIPTION: Boring 416

FIELD OBSERVATIONS: Collected 3 spoons (3 in stainless steel) to composite for this sample and its duplicate. All samples collected between 34-36 ft BGS. Weather: Ø80F (Clear, Sunny)

SAMPLE -

MEDIA CODE: Ø1

DESCRIPTION: Soil Subsurface (~~0 inches~~ → 6 inches)

DEPTH ~~0.0~~ TO 36.5 ft BGS SLA Ø 7/11/94

SLA Ø7/11/94 34.Ø

JLG Ø7/11/94

126

SAMPLE TYPE:

- [x] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY) _____
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

SAMPLE COLLECTED: [x] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [x] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

JLG Ø7/11/94

RECORDED BY: [signature] (SIGNATURE)

QA CHECKED BY: [signature] 8/12/94 (SIGNATURE)

SAMPLE NUMBER: B41ØØZ W410 p +ZØ 127 TB4/1/94

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 1-12Ø | Wm Glass | CLP VOA | Cool, 4C | NPCØ14 | 8219959683 | | COMPUC |
| 1-25Ø | Amb Glass | 5 VOC, PEST/PCB | | | | | |
| 1-25Ø | ↓ | Explosives | | | | | |
| 1-25Ø | Wm Glass | Metals Cyanide | | | | | |
| 2-25Ø | ↓ | Anions, Fl, SO4 Cl, N, NO3 | | | | | |
| 1-12Ø | Amb Glass | Total Organic Carbon | ↓ | | | | |
| 2-25Ø | Wm Glass | Rad Pu, Th, U | None | | | | |
| 2-25Ø | ↓ | Rads Ac, Sr-1+3, Gamma | None | | | | |
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127 128

SAMPLE ID'S RINSATE: ERØØ2Ø TRIP BLANK: TBNØ14 FIELD BLANK: ABØØ1Ø FIELD DUPLICATE: B4/Ø12~~Ø27~~

C4 10-6-94

RECORDED BY: (SIGNATURE) QA CHECKED BY: 8/12/94 (SIGNATURE)

128

W410 P-121 8/11/94

# SAMPLE LOG SHEET

PROJECT NAME: MOUND OU5 OPERATIONAL AREA PHASE I

PROJECT NO: 34896

SAMPLE ID NUMBER: ~~B4160 2~~ 8/11/94 B41012

DATE COLLECTED (MM/DD/YY): 07/11/94

TIME (HH:MM): 1035

SAMPLING -

LOCATION CODE: MOUNDPED

DESCRIPTION: Mound Area Property

POINT CODE: B416

DESCRIPTION: Borehole 416

FIELD OBSERVATIONS: Duplicate Sample of B41602 - Same as B41602

SAMPLE -

MEDIA CODE: 01

DESCRIPTION: Soil Subsurface (>6 inches)

DEPTH 34.0 TO 36.0 FT BGS

SAMPLE TYPE:

- [x] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY)
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

SAMPLE COLLECTED: [x] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [x] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

RECORDED BY: (SIGNATURE)

QA CHECKED BY: 8/12/94 (SIGNATURE)

SAMPLE ID NUMBER: ~~B41021~~ B41012 JHP 8/12/94 W410 P 122129

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 1-125 | WM Glass | CLP VOA | Cool 4°C | NPC014 | 8219959683 | See Sample Management Log | Com-PVC |
| 1-250 | Amb Glass | SVOA, Pest /PCB | | | | | |
| 1-250 | ↓ | Explosives | | | | | |
| 1-250 | WM Glass | Metals, Cyanide | | | | | |
| 2-250 | ↓ | Anions, Fl, Sul, Chl, Nit, NO2 | | | | | |
| 1-125 | Amb Glass | Total Organic Ca, Carb | ↓ | | | | |
| 2-250 | WM Glass | Rad Ra, Th, U | None | | | | |
| 2-250 | ↓ | Rads Ra, Sr-H3, Gross α | None | ↓ | ↓ | | ↓ |
| | | | CMT Entry | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | 07/11/94 | | | | |
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SAMPLE ID'S RINSATE: ER0020 TRIP BLANK: TBN014 FIELD BLANK: AB0010 FIELD DUPLICATE: B41002

RECORDED BY: Susan J Alston (SIGNATURE) QA CHECKED BY: [signature] 8/12/94 (SIGNATURE)

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W41Ø P 123 5BT/1/94

# SAMPLE LOG SHEET

PROJECT NAME: MOUND OU5 OPERATIONAL AREA PHASE I

PROJECT NO: 34896

SAMPLE ID NUMBER: W41ØØ1

DATE COLLECTED (MM/DD/YY): 7/21/94

TIME (HH:MM): 0814

SAMPLING -

LOCATION CODE: MNOUPCP

DESCRIPTION: Mound New Property Extended Phase

POINT CODE: B41Ø

DESCRIPTION: Boring (well) 41Ø

FIELD OBSERVATIONS: ~80°F Partly Cloudy, Humid MSD sample taken

SAMPLE -

MEDIA CODE: 66

DESCRIPTION: GROUNDWATER SAMPLE

DEPTH 33.39 TO 33.39 FT BTOC

SAMPLE TYPE:

- [x] GRAB
- [ ] TIME COMPOSITE
- [ ] QC RINSATE
- [ ] OTHER (SPECIFY) _____
- [ ] SPATIAL COMPOSITE
- [ ] QC TRIP BLANK
- [ ] QC FIELD BLANK

SAMPLE COLLECTED: [x] YES [ ] NO

SAP SAMPLING PROCEDURE WAS FOLLOWED: [x] YES [ ] NO

FIELD CHANGE ORDER REFERENCE NO: NA

IF SAP WAS NOT FOLLOWED, SPECIFY WHAT DEVIATIONS WERE NECESSARY AND WHY (INCLUDE FIELD CHANGE ORDER REFERENCE NO.):

NONE

RECORDED BY: Susan Wilson (SIGNATURE)

QA CHECKED BY: [signature] 8/12/94 (SIGNATURE)

SAMPLE NUMBER: W41001 W410 P 124/31 8/20/94

| CONTAINER VOLUME (ml) | CONTAINER TYPE | METHOD NAME AND NUMBER ANALYSIS | PRESERVATIVES (TYPE/VOL) | C-O-C # | AIR BILL # | CONTAINER LOT # | LABORATORY |
|---|---|---|---|---|---|---|---|
| 4 x-40 | Glass | CLP VOA | HCL to pH <2, 4C | NPC020 | 8219959775 | | COMMUC |
| 4 x-1000 | Amb Glass | CLP SVOA | Cool 4C | | | | |
| 4 x-1000 | | CLP Pest/PCB | | | | | |
| 4 x-1000 | | Explosives | | | | | |
| 2 x 1000 | Poly | Metals | HNO3 to pH <2 4°C | | | | |
| 2 x-1000 | | Cyanide | NaOH to pH >12 4°C | | | | |
| 2 x 1000 | | Anions Fl, SO4, Cl | Cool 4°C | | | | |
| 2 x-1000 | | NO2/NO3 | H2SO4 to pH <2 4C | | | | |
| 2 x-1000 | | Total NIT/Total Phos | | | | | |
| 2 x-1000 | Amb Glass | Total organic Carbon | | | | | |
| 2 x-1000 | Poly | Total suspended solids | Cool 4°C | | | | |
| 2 x-1000 | | Total dissolved solids | | | | | |
| 2 x-1000 | | Alkalinity | | | | | |
| 4 x-1000 | | Rads Pu, Th, U, Ra | HNO3 to pH<2 | | | | |
| 4 x-1000 | | Rads Ac Cs Sr, Gamma | | | | | |
| | | | CONTENTS | | | | |
| | | | | | | | |

See Container lot # log

SAMPLE ID'S RINSATE: ER0017 TRIP BLANK: TBN019 FIELD BLANK: AB0013 FIELD DUPLICATE: NA

RECORDED BY: Susan J Nolan (SIGNATURE) QA CHECKED BY: [signature] 8/12/94 (SIGNATURE)

131

07/19/94 1531 Pg 1 of

Marina Cremer Susan L. Abster W402

1531 Arrived at W402 to begin development

1534 OVA Reading when opening the well 0.0 ppm

1537 Depth to water 24.02 BTOC

1541 Depth to TD of well 33.31 BTOC

H = 9.27

$\pi (\frac{2}{12})^2 (9.27) \times 7.49 = 1.51$

$1.51 \times 5 = 7.57$

14 gal of water to tremie sand $\times 5$ = 70 gal

77.57 gal to develop.

1545 Placing pump in bore hole - well to begin development
Grundfos Rec. - Flow 2" electrical submersible
Weather ≈ 90° F Partly Cloudy. Occassionally breezy / humid

1549 Collected initial sample. Instruments same as W397 on 7/19/94
pH 8.26 (slope 95.3) color turbid; brown
temp 15.7 °C odor none noted
cond 0.934 mmho/cm at TC 25°C

1602 Filled 1st 55 gal drum - surging well
w/ pump. Water had clear to being only slight turbid

1606 Continued pumping - very turbid brown

1613 Surging well

1616 Continue pumping water again very turbid

1621 Surging well after 110 gal of water

1624 Continued pump - very turbid - brown

1629 Stopped pumping after fill 3-55gal drums
Water clears when left just to pump but
surging brings silt into it. We will consult w/
John tomorrow about it. Security is ok

1657 Off site

Susan L Abster 174 167

8/12/94

# should be in logbook # for W402

p.175

# GROUNDWATER QUALITY SAMPLING RECORD

SOIL BORING W410 p.168

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

PAGE 1 OF 1

FACILITY CODE: MND00 — LOT CONTROL NO.: NA

LOCATION ID: W410 — SAMPLE TYPE: F

SAMPLE ID: W41001 — ACCEPTANCE CODE: A

LOG DATE: 07/19/94 — LOGGER CODE: SAIC

ANALYICAL LAB CODE: ~~Comex~~ COMP

INITIAL GROUNDWATER DEPTH (FT): ~~31.10~~ 31.14 ~~24.02~~ — SAMPLE DEPTH (FT): 35 ft

SAMPLING PERIOD: START ~~7/19/94~~ 7/20/94 — COMPLETE ~~7/20/94~~ 7/21/94 0828

SAMPLING METHOD: SP — DATE SENT: 7/21/94

COMMENTS: ALONE

**FINAL PARAMETER MEASUREMENTS:**

| | | | |
|---|---|---|---|
| POTENTIAL OF HYDROGEN | pH | S.U. | 7.32 |
| SPECIFIC CONDUCTANCE | Ec | umhos/cm | 1,791 2mz/cm TC to 25°C |
| REDOX POTENTIAL | Eh | mvolts | 167.7 |
| TEMPERATURE | TMP | °C | 14.9 |
| ALKALINITY ($CaCO_3$) | ALK | mg/l | 332 |
| DISSOLVED OXYGEN | DO | mg/l | 16% |

| TIME | TOTAL VOLUME WITHDRAWN (GALS) | TOTAL VOLUME WITHDRAWN (~~Bore Volume~~ well vol) | pH | Ec (umhos/cm) 2mz/cm TC to 25°C | TEMP (°C) | COMMENTS |
|---|---|---|---|---|---|---|
| 1322 | 0 | 0 | 7.55 | 1,762 | 20.9 | |
| NR | 2 | 1.5 | 7.88 | 1.785 | 16.4 | 2 gal |
| NR | 4 | 3 | 7.41 | 1.801 | 16.4 | 4 gal |
| NR | 6 | 4.6 | 7.31 | 1.805 | 15.9 | 6 gal stable |
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ACCEPTANCE CODES: A - ACCEPTABLE, R - RECONNAISSANCE, U - UNACCEPTABLE, N - NOT DETERMINED

| SAMPLE TYPES: | | SAMPLING METHODS: | | |
|---|---|---|---|---|
| F - FIELD | R - REPLICATE | BP - BLADDER PUMP | G - GRAB | SL - SUCTION LIFT PUMP |
| K - KNOWN | A - ACID BLANK | PP - PERISTALIC PUMP | B - BAILER | SP - SUBMERSIBLE PUMP |
| | | | AL - AIR-LIFT SAMPLER | |

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

FORM COMPLETED BY / DATE — TECHNICAL REVIEWER / DATE 8/12/94

175

~~168~~

GROUNDWATER QUALITY SAMPLING RECORD

SOIL BORING

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

PROJECT NO: 34[illegible]

PAGE ___ OF ___

FACILITY CODE: _____

LOCATION ID: _____ LOG DATE: _____

| TIME | TOTAL VOLUME WITHDRAWN | | pH | Ec (umhos/cm) | TEMP (°C) | COMMENTS |
|---|---|---|---|---|---|---|
| | (GALS) | (Bore Volume) | | | | |
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DJB 7/28/94

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GROUNDWATER QUALITY SAMPLING RECORD

SOIL BORING W410 p170

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

PROJECT NO: 334896

PAGE 1 OF 1

FACILITY CODE: MND00

LOCATION ID: W410 ; SAMPLE W41001 LOG DATE: 7/20/94

BORE VOL CALCULATION (GAL)

$\frac{d^2\pi}{4}$ $(h_1 - h_2)$ X 7.48

$\frac{(.167)^2(3.14)}{4}(41.28 - 33.39)(7.48)$ (2.25 ft of stick up)

SAMPLING INFORMATION

DEPTH OF WELL (h2) (ft): 41.28 ft BTOC

DEPTH TO WATER (h1) (ft): 33.39 ft BTOC

WELL DIAMETER (ft): 2 in

ONE BORE VOLUME (GAL): 1.3 gal

SCREENED INTERVAL (ft): 29-39 ft BGS

FIELD REP: S.L. Alston

INSTRUMENT(S) USED: TLC 3000 YSI ORION Model 250A, YSI model 59 Diss. Oxygen

WITDRAWL METHOD: SP - Submersible Pump

FILTER SIZE: #5

THERMOMETER ID: Hazco # 1422 CALIB 7/20/94

Ec METER ID: Hazco # ~~2022~~ 1422

pH METER ID: Hazco 2022

PUMP ID: NA

ALKALINITY KIT ID: 4067

CALIBRATION INFORMATION

DATE/TIME OF LAST Ec CALIBRATION: 7/28/94

TIME OF pH CALIBRATION: 0827

FOR STANDARD pH 7, INSTRUMENT READING: 7

FOR STANDARD pH 4, INSTRUMENT READING: NA

FOR STANDARD pH 10, INSTRUMENT READING: 10

Eh OF CALIBRATION SOLUTION: 1000, 10000

Eh READING IN CALIBRATION SOLUTION AFTER MEASUREMENT: 1020, 9630

TEMP OF CALIBRATION SOLUTION (°C): 19.1 °C.

SHIPPING INFORMATION

| | | | |
|---|---|---|---|
| LAB(S) SHIPPED TO: | Compuc | NA | NA |
| DATE(S) SHIPPED: | 07/21/94 | ↓ | ↓ |
| METHOD OF SHIPMENT: | Fed Ex | ↓ | ↓ |

COMMENTS: NONE

void

~~170~~ 177

GROUNDWATER QUALITY SAMPLING RECORD — SOIL BORING SB WA1D-0172

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

PAGE 1 OF 1

FACILITY CODE: MND00

LOCATION ID: W410 ; SAMPLE W41001

LOG DATE: 7/21/94

ERROR AT 4.50: $\left| \frac{X1 - X2}{XS} \right| \times 100 =$ 3.4 %

1st = 3.4 %

2nd = NA %

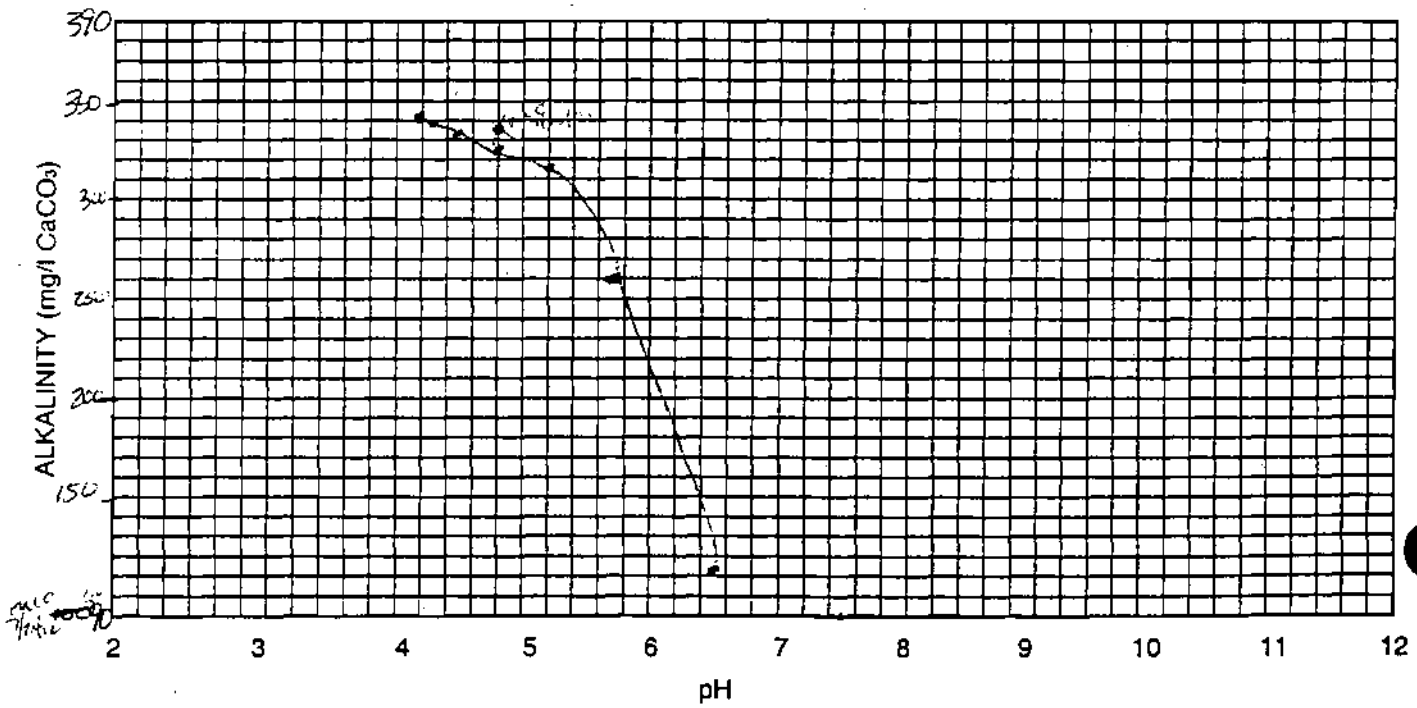
INITIAL pH 7.26

pH CHECK AFTER TITRATION

7.00 = 7.01

4.00 = 4.01

| pH | ALKALINITY (mg/l $CaCO_3$) 1st | 2nd | 3rd |
|---|---|---|---|
| 8.90 | NA | NA | NA |
| 8.60 | | | |
| 8.30 | | | |
| 8.05 | | | |
| 7.80 | | | |
| 7.50 | 0 | 0 | |
| 6.50 | 111 | 93 | |
| 5.70 | 260 | 250 | |
| 5.10 | 314 | 304 | |
| 4.80 | 326 | 315 | |
| 4.50 | 332 | 321 | |
| 4.25 | 336 | 327 | |
| 4.00 | 339 | 330 | |



p.181

STANDARD ELECTRICAL CONDUCTIVITY DATA — SOIL BORING

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

FACILITY CODE: MND00 — LOGGER CODE: SAIC

LOG DATE: 7/28/94 — ACCEPTANCE CODE: A

MANUFACTURER/Ec METER ID: TLC METER YSI MODEL 3000 SN: 91B025223 #ACCO# 1422

| ELECTRICAL CONDUCTIVITY OF KNOWN SOLUTIONS AT 25° C: | |
|---|---|
| KNOWN (mg/l KCl) | Ec (meter) |
| 1,000 | 1.170 |
| | |
| | |

| Ec | TEMPERATURE (°C) LAB THERMOMETER | TEMPERATURE (°C) (Ec METER) |
|---|---|---|
| NR | 0 | NR |
| ↓ | 1 | ↓ |
| ↓ | 2 | ↓ |
| .561 | 3 | 2.8 |
| .805 | 4 | 3.3 |
| .766 | 5 | 4.0 |
| .776 | 6 | 4.2 |
| .778 | 7 | 5.6 |
| .809 | 8 | 6.8 |
| .828 | 9 | 7.9 |
| .845 | 10 | 8.8 |
| .876 | 11 | 9.9 |
| .893 | 12 | 10.7 |
| .926 | 13 | 11.9 |
| .943 | 14 | 13.4 |
| .962 | 15 | 14.3 |
| .973 | 16 | 14.7 |
| .975 | 17 | 14.8 |
| .991 | 18 | 15.3 |
| 1.003 | 19 | 16.0 |
| 1.033 | 20 | 17.0 |
| 1.061 | 21 | 18.2 |
| 1.094 | 22 | 19.6 |
| 1.119 | 23 | 20.4 |
| 1.149 | 24 | 21.7 |
| 1.178 | 25 | 22.6 |

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

FORM COMPLETED BY / DATE: 7/28/94

TECHNICAL REVIEWER / DATE: 8/12/94

07/28/94 1044 - 1627

Susan L. Abston — Martha Cramer

~~Pal~~ of L

W416 ~~P-179~~ p. 19

1044 Decanning pump to develop W416

1115 Depart for lunch

1215 Return to trailer to pick up OVA + LEL + Labels
Driller (S. Patterson + S. Belt) preparing form for pad for W416

1250 Arrived at site

1301 OVA reading of 0.0 ppm when opening well up

1306 33.35 ft BTOC to water
41.28 ft BTOC to TD
$\pi(\frac{4}{12})^2$ 7.9893 (7.49
GLA 07/28/94

1 well vol = 1.2993 = 1.3 gal
5 well vol = 6.5
14 gal used during treming of sand × 5 = 70 gal
70 + 6.5 = 76.5 gal to develop

1311 Calibrating pH meter 7 (7 solution) 10 (10 solution) slope = 97.1
Putting pump in well

1322 Collect initial sample when begin pumping. Same instruments as used for W402 on 7/28/94
pH 6.95
temp 17.5 °C No odor noted, very turbid, brown
Cond. 1.786 mmhos/cm TC to 25°C

1345 Surged well after clearing at 25 gal. Water turbid again

1355 Surged well after 55 gallons Water turbid again

1402 Turned pump off to let water recharge + surge

1416 Continued pumping after surging - turbid again

1425 Surging well after it clearing up

1431 Continue pumping

1450 Filled 2 - 55 gal drums still a little turbid. Leaving site to find another drum - Drillers working on form for pad

1520 Returned w/ drums. Surged well

1527 Continued pumping

1530 Clear after 3 mins. Speeding up pump - slightly turbid after 125 gal.

1547 Clear after 175 gal. Taking sample for final development readings

1549 Slope 96.6 while calibrating

1551 Temp 13.6 Slightly turbid (very light brown tint)
pH 6.86
cond 1.788

1555 Pulling pump to measure water - for purging. Letting well recover

weather PM ≈90°F Partly Cloudy, Humid

Susan L Abston

186 ~~179~~ 194

CAD: 8/12/94

W410 p.187
~~p180~~ SB 9/1/94

TOS 30 ft
Screen
Water - 2 ft above

7/20/94 1044 1639

SUSAN L. Alston

Martha Cramer

pg 2 of 2

1604 Water at 33.39 ft BTOC

$\pi(\frac{4}{12})^2(7.89)(7.49)$

1 well vol. = 1.2888 = 1.3 gal

3 well vol = 3.9

1611 Placing pump back in well

1614 Initial reading Slightly turbid

pH 7.55 temp 26.9 °C cond. 1.762 2mv/cm TC to 25°C

1621 Reading after 2 gal slightly turbid

pH 7.88 temp. 16.4 °C cond 1.785 2mv/cm TC to 25°C

Slowed pumping to 2 gal/4 min

1625 Reading after 4 gal very slightly turbid

pH 7.41 temp 16.4 °C cond 1.891 2 mv/cm TC to 25°C

1629 Reading after 6 gal clear

pH 7.31 temp 15.9 °C cond 1.805 2 mv/cm TC to 25°C

well stable after 6 gal.

Cleaning site & securing well. Will sample tomorrow

1639 Departing site to decon other Redi flow pump for W399

10.28
10.03
10.03
10.02
40.36
39.00
1.36

Susan L Alston

7/21/94

0700 to 0850

Pg 1 of 1

0700 Arrived @ trailer to pickup equipment, Eckott cone 0.2 for W410

0736 Arrived @ W410 to sample

0814 Began sampling W410

0828 Final Readings

pH 7.32 > Orion model 250A, #2022 Hazco, Calibrated 0807 Slope = 100.8

cond. 1.791 2mv/cm TC to 25°C > TLC 3000 YSI > Hazco #1422

temp 14.9 °C

Redox 167.7 > same as pH > 229.4 calibration w/ Zobell sol.

Dissolved Oxygen 16% 16.30 YSI model 59 #2183 Hazco Calibrated to 97% @ 0827

0845 Post Calibration of cond 1620 (1000 solution) 9630 (10,000 solution) at 19.1 °C

0850 Cleaning site & departing

weather AM. ≈ 80°F Partly cloudy, humid

Susan L Alston

187
SB

and 2 [illegible] 1-21-94

# BOREHOLE / WELL CONSTRUCTION FIELD DATA LOG

W416 P.188

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY, EXTENDED PHASE PROJECT NO: 34896

FACILITY CODE: MND00 LOCATION ID: W416 FIELD REP: S. ABSTON

LOGGER CODE: S.L. Abston DRILLER CODE: BOWS RIG TYPE: Cable Tool

INSTALLER CODE: SAIC COMPLETION DATE: 7/12/94 ACCEPTANCE CODE: A

## BOREHOLE SUMMARY

| BIT TYPE | HOLE DIAM (in) | END DEPTH (ft) | FLUID TYPE |
|---|---|---|---|
| 6 in Cable tool | 6 in | 41.2 | Potable water |

## CASING SUMMARY

| CASING* TYPE | DESCRIPTION | DIAM (in) | END DEPTH† (ft) |
|---|---|---|---|
| P | Steel | 6 in | 2.65 |
| S | Stainless Steel | 2 in | 39.0 |

* P - Protective S - Screen O - Open N - None

† Depth from Top of Casing

## WELL CONSTRUCTION

| TYPE* CODE | DESCRIPTION | END DEPTH† (ft) |
|---|---|---|
| B | Portland Cement | 21.48 |
| S | Volclay, Bentonite Pellets | 27.0 |
| F | #5 Sand Pack | 41.2 |

* B - Backfill S - Seal F - Filter

† Depth From Ground Surface

## CONSTRUCTION TIME LOG

| ACTIVITY | START DATE | START TIME | END TIME |
|---|---|---|---|
| DRILLING | 7/7/94 | 0926 | ~~1532~~ |
| | 7/11/94 | 0835 | 1539 |
| CASING | 7/12/94 | 0931 | 1532 |
| | | | 0942 |
| FILTER PACK | 7/12/94 | 0942 | 1308 |
| SEAL | 7/12/94 | 1308 | 1316 |
| | 7/13/94 | 1437 | 1522 |
| BACKFILL | | | |
| DEVELOPMENT | 7/20/94 | 1044 | 1551 |
| OTHER | | | |

## WELL DEVELOPMENT

7/20/94 ~~7/19/94~~ Water at ~~27.02~~ 33.35 BTOC

TD of well 41.28 ft BTOC.

1 well vol = 1.3 gal 5 well vol = 6.5

~~140~~ gal of tremie water X 5 = 70 gal

Need to remove 76.5 gal

1322 Initial reading: cond = 1.796 2mhos/cm

pH = 6.95 temp = 17.5 °C, murky, very turbid

1551 Final Reading after 175 gal

pH = 6.86 temp 13.6 °C

cond = 1.788 2mhos/cm

COMMENTS: Slightly turbid - no odor

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

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

Susan J Abston — FORM COMPLETED BY / DATE

[illegible] 8/12/94 — TECHNICAL REVIEWER / DATE

## WELL COMPLETION INFORMATION

W410-9199

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY - EXTENDED PHASE

PROJECT NO: 34896

PAGE 1 OF 1

| | | | |
|---|---|---|---|
| FACILITY CODE: | MND 00 | FILTER PACK LENGTH (ft) : | 14.2 |
| LOCATION ID | W 410 | FORMATION OF COMPLETION (US/RC) : | ~~GM~~ UGM |
| ACCEPTANCE CODE: | A | WELL TYPE CLASSIFICATION: | M |
| OWNER CODE: | MND | WELL COMPLETION METHOD: | S |
| INSTALLER CODE: | SAIC | ZONE OF COMPLETION: | U |
| INSTALLATION DATE: | 7/12/94 | | |
| CASING ELEVATION (FT MSL) | | OPEN/SCREEN DEPTH (FTFD): | 38.96 |
| CASING LENGTH (FT): | 30.97 | OPEN/SCREEN LENGTH (FT): | 10.24 |
| CASING DIAMETER (IN): | 2 in | OPEN/SCREEN AREA (IN²/FT): | NR |
| SEAL END DEPTH: | 27.0 | FLOW RELATIONSHIP: | O |
| SCREEN MATERIAL: | SS | CAP MATERIAL: | SS |
| RISER MATERIAL: | SS | CAP TYPE: | SL |

**WELL TYPE CLASSIFICATIONS**
- M - MONITORING WELL
- P - PRODUCTION WELL
- T - TEST WELL
- O - OTHER (SPECIFY)

**CASING, CAP, AND RISER MATERIALS**
- BR - BRICK
- C1 - CONCRETE
- C2 - COPPER
- FI - FIBERGLASS
- GI - GALVANIZED IRON
- WI - WROUGHT IRON
- SS - STAINLESS STEEL
- OM - OTHER METAL
- TE - TEFLON
- PV - PVC
- RS - ROCK OR STONE
- ST - STEEL
- TI - TILE
- CS - COATED STEEL
- WO - WOOD
- NO - NONE
- OT - OTHER (SPECIFY)

**CAP TYPES**
- LC - LOCKING
- SL - SLIP ON
- TR - THREADED
- NO - NONE
- SC - SCREW ON
- OT - OTHER (SPECIFY)

**FLOW RELATIONSHIPS**
- U - UPGRADIENT
- D - DOWNGRADIENT
- C - CROSS GRADIENT
- O - ON SITE
- N - NOT KNOWN
- B - BACKGROUND

**ZONES OF COMPLETION**
- A - ARTESIAN
- B - ANISOTROPIC
- C - CONFINED
- H - AQUITARD
- G - AQUICLUDE
- I - ISOTROPIC
- M - MULTI-SYSTEM
- S - SEMI-CONFINED
- U - UNCONSOLIDATED

**WELL COMPLETION METHODS**
- P - POROUS CONCRETE
- F - GRAVEL PACK
- H - HORIZONTAL GALLERY
- O - OPEN END
- P - PERFORATED/SLOTTED
- S - SCREEN
- T - SAND POINT
- W - WALLED OR SHORED
- X - OPEN
- O - OTHER (SPECIFY)

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

COMPLETE BOLDED DATA FOR ENTRY INTO TIMS

Susan L Albler — FORM COMPLETED BY / DATE

[illegible] 8/12/94 — TECHNICAL REVIEWER / DATE

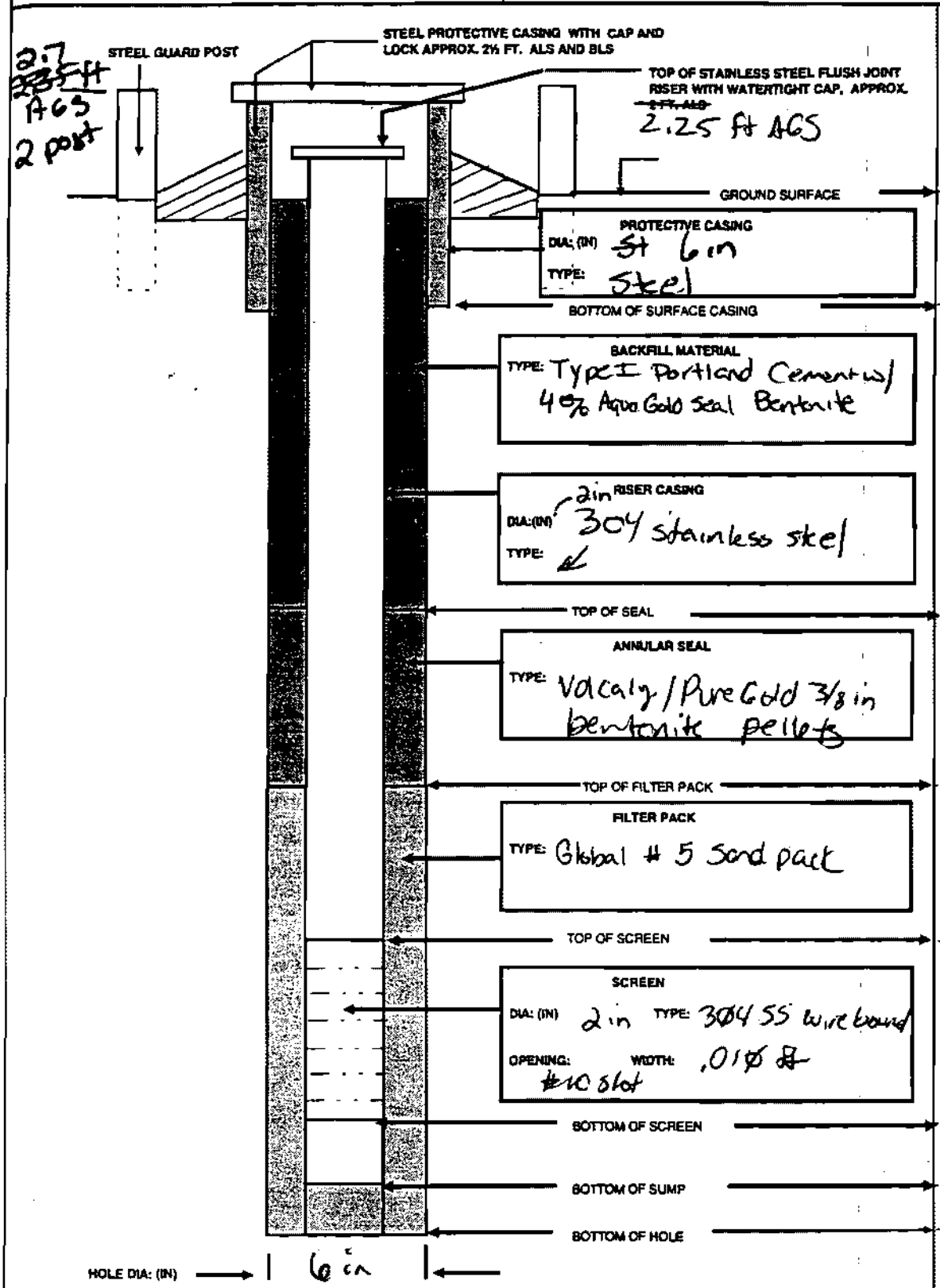
MONITORING WELL

MONITORING WELLS

PROJECT NAME: EG&G MOUND OU5 NEW PROPERTY EXTENDED PHASED

PROJECT NO. 34896

| | | |
|---|---|---|
| WELL NUMBER: W41Ø | BEGIN: Ø7/Ø7/94 | END: Ø7/13/94 |
| COORDINATES: N: NA E: | REFERENCE POINT: GROUND SURFACE | ELEVATION: NA MSL |



# APPENDIX B
# OU5 DISCUSSION PAPER

Identification of Additional Phase 1 Reconnaissance
Sampling Locations

U.S. Department of Energy
Mound Plant, Miamisburg, Ohio
March 1995

ENVIRONMENTAL RESTORATION PROGRAM

# OPERABLE UNIT 5 DISCUSSION PAPER
# IDENTIFICATION OF ADDITIONAL PHASE 1 RECONNAISSANCE SAMPLING LOCATIONS

MOUND PLANT
MIAMISBURG, OHIO

PREPARED UNDER THE DIRECTION OF:

U.S. DEPARTMENT OF ENERGY BY
EG&G MOUND APPLIED TECHNOLOGIES

BY:
SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

MARCH 1995

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2. RESULTS . . . . . 1

3. RECOMMENDATIONS . . . . . 18

## TABLES

1. Location of Potential Sites of Contamination Within OU5 . . . . . 3

## FIGURES

1. Phase 1 RI/FS Operational Area Sampling and Location of Potential Sites of Contamination

## 1. PURPOSE OF DOCUMENT

EG&G Mound Applied Technologies (EG&G) has requested a document search to identify sites located within the defined boundary of Operable Unit (OU) 5 that may require additional Remedial Investigation (RI) Phase 1 Reconnaissance efforts. This discussion paper summarizes the findings based on review of the following documents:

1. Table V.2 and Figure 1, OU9 Site Scoping Report: Volume 12 - Site Summary Report (Weston, 1993).
2. Table I.3, OU5 RI/FS Work Plan
3. Active Underground Storage Tank Plan (Dames & Moore, 1994)
4. OU9 Site Scoping Report, Volume 7 - Site Summary Report (Weston, 1993)

The identified sites of interest within OU5 are shown in Figure 1 and summarized in Table 1. Based on the proposed sampling for the RI Phase 1 Reconnaissance and the potentially hazardous substances that may be present at the identified sites, recommendations for additional sampling has been made, as appropriate.

## 2. RESULTS

Table 1. summarizes the identified sites of interest and provides the following information on each site:

- Location number - corresponds to the location of the site within OU5 as shown in Figure 1. Coordinates have been provided to assist in locating a site on Figure 1. For example Location #1 has been given coordinates 9/10N, 20/21W. This means the site of interest is located in the grid bounded by 9 North and 10 North coordinate lines and 20 West and 21 West coordinate lines.
- Site name - provides a brief description of the site based on document research.
- Reference code - provides the corresponding site number (where applicable) to Appendix A, and Figure 1 in Operable Unit 9, Site Scoping Report: Volume 12 (Weston, 1993) which were used to provide a site description, potential hazardous substance at the site, and the size of site/location for most of the identified sites.

**Table 1. Location of Potential Sites of Contamination Within OU5**
**Page 1 of 13**

| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 1 (9/10N, 20 21W) | Area C, Waste Storage Area (AKA, Drum Staging Area and Chemical Waste Storage Area) | 14 | 1 | VOCs | A |
| 2 (8N, 25W) | Area C, Lithium Burn Area (AKA, Lithium Carbonate Disposal) | 15 | 1 | Lithium Hydride | B |
| 3 (8/9N, 20/21W) | Area C, Past Hazardous Waste Storage Area (AKA, Former Equipment Storage Area and old Building 72) | 16 | 1 | Combustible, flammable liquids, waste oils, solvent-containing wastes, ignitable wastes, plating wastes, photo-processing wastes,polymeric wastes, toxic wastes | A |
| 4 (7/8N, 25/26W) | Oil Burn Structure | 17 | 1 | Aviation fuel, benzene, toluene,ethyl benzene, xylenes | A |
| 6 (7/8N, 25/26W) | Building 34, Historical Firefighting Training Pit | 19 | 1 | Diesel fuel | A |
| 7 (7/8N, 25/26W) | Building 34, Aviation Fuel Storage Tank (Tank 219) | 20 | 1 | Aviation fuel | A |
| 8 (11/12N, 19W) | Building 1 Leach Pit (Area I) | 21 | 1 | Organic solvents (primarily acetone) | B |
| 9 (11/12N, 18/19W) | Building 1 Explosives Wastewater Settling Basin (AKA Building 1 Sump) (Tank 200) (inactive) | 22 | 1 | Organic solvents; drainage of tank to evaporation pond | C |
| 10 (12N, 18W) | Building 43 Explosives Wastewater Settling Basin (AKA Building 43 Sump) (Tank 201) (inactive) | 23 | 1 | Explosives production process wastes; Outlet to drainage ditch | B |
| 11 (10/11N, 21/22W) | Building 27 Leach Pit (Area I) | 25 | 1 | Organic solvents (primarily acetone) | A |
| 12 (10/12N, 14/15W) | Building 27 Concrete Flume (Tank 217) (inactive since 1985) | 26 | 1 | Organic solvents (primarily acetone) | C |

**Table 1. Location of Potential Sites of Contamination Within OU5**
**Page 2 of 13**

| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 13 (1 1N, 21W) | Building 27 Settling Sump (Tank 218) (inactive since 1985) | 27 | 1 | Organic solvents (primarily acetone) | C |
| 14 (10/12N, 14/15W) | Building 27 Solvent/Drum Storage Area | 28 | 1 | Organic solvents (primarily acetone) | C |
| 15 (20/21N, 9/10W) | Building 51 Waste Solvent Storage Tank (Tank 220) | 37 | 1 | Organic solvents, paints, waste oils | C |
| 16 (20/21N, 10/10W) | Building 51 Waste Incinerator | 38 | 1 | Organic solvents, paints, waste oil | C |
| 17 (20/21N, 9/10W) | Building 51 Waste Incinerator Scrubber | 39 | 1 | Combustion products from Building 51 incinerator | C |
| 18 (8/14N, 22/27W) | Area 3, Thorium Drum Storage and Redrumming Area | 41 | 1 | Thorium 232 and daughters | B |
| 19 (9/10N, 24/25W) | Area A, Construction Soils from T Building | 42 | 1 | Construction soils from T-Building | B |
| 20 (14N, 20/21W) | Contaminated Soil Box Storage Area | 59 | 1 | Putonium-238 | B |
| 21 (12/13N, 26/27W) | Building 19 Soils | 63 | 1 | Cobalt-60 | B |
| 22 (13N, 26W) | Building 19 Historic Gasoline Tank (Tank 238) | 64 | 1 | Gasoline | B |
| 23 (24N, 3W) | Building 61 Area, Former Heavy Equipment Area | 65 | 1 | Waste Oil | B |
| 24 (8/9N, 20/21W) | Building 85 Waste Solvent Tank (Tank 136) | 71 | 1 | None (never used) | E |
| 25 (11/12N, 14/16W) | Area 13, Polonium-Contaminated Wood from Dayton Unit IV | 72 | 1 | Polonium-210 | B |

**Table 1. Location of Potential Sites of Contamination Within OU5**
**Page 3 of 13**

| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 26 (9/l0N, 16/17W) | Evaporator Storage Area (AKA Lower Storage Area) | 73 | 1 | Actinium-227, Cesium-137, Radium-226 | B |
| 27 (9tl0N, 15/16W) | Quonset Hut (former) | 74 | 1 | Polonium-210, Cobalt-60, Bismuth | B |
| 28 (13/14N, 15116W) | Warehouse 9 | 76 | 1 | Thorium-232 | D |
| 29 (12/lSN, 5/6W) | Warehouse 10 | 77 | 1 | Polonium-210 | D |
| 30 (23/25N, 9/10W) | Warehouse 15 | 79 | 1 | Plutonium-238 waste & sludge thorium sludge constituents | B |
| 31 (22N, I0W) | Warehouse 15A | 80 | 1 | Plutonium-238, thorium | B |
| 33 (3/4N, 13/14W) | Trash Burner Area | 261 | 1 | Pyrotechnic Material, Thermite, Freon, Acetone | H |
| 34 (17/19N, 4/6W) | Area 9, Thorium Storage and Redrumming Area (AKA Former Thorium Storage) | 267 | 1 | Plutonium-238, Thorium, Thorium sludge constitutes | B |
| 35 (16/17N, 2/3W) | Building 36 Historic Gasoline Tanks (Tanks 239 and 240) | 269 | 1 | gasoline | A,C |
| 36 (15/16N, 6/8W) | Area 10 Concrete Debris | 272 | 1 | Polonium-210; cobalt-60, plutonium-238 | B |
| 37 (13/15N, 7/8W) | Area 12, Thorium-Contaminated Soil from Area 1 | 273 | 1 | Thorium, Plutonium-238 | A |
| 38 (9/12N, 6/8W) | Area J, Hillside Disposal Area (AKA Dredged Material Disposal Area 11 a) | 277 | 1 | Paints, thinners, chemical contaminants, asbestos, Thorium, Plutonium-238 | B |

**Table 1. Location of Potential Sites of Contamination Within OU5**
**Page 4 of 13**

| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 39 (11/12N, 8/9W) | Area J, Hillside catch basin | 278 | 1 | Plutonium-238 | B |
| 40 (7/8N, 6W) | Old Firing Range Drum Storage Area | 279 | 1 | Liquid chemical waste | A |
| 41 (1/2N, 9/10W) | Waste Oil Drum Field Area | 280 | 1 | Waste oil, VOCs | B |
| 42 (1/2N, 10/11 W) | Area E, Waste Oil Spill | 281 | 1 | Waste oil | B |
| 43 (_ 20/26W) | Spoils Disposal Area/Construction Spoils Area | 282 | 1 | Plutonium-238, Thorium | B |
| 44 (3/4N, 78W) | Excavated Materials Disposal Area (AKA Rader's Hill) | 304 | 1 | Thorium | B |
| 45 (1/2N, 17/18W) | Site Survey Project Potential Hot Spot Location S0706 | 311 | 1 | Plutonium-238 | D |
| 46 (01N, 5W) | Site Survey Project Potential Hot Spot Location S0971 | 312 | 1 | Thorium | D |
| 47 (18/26N, 6/11W) | Area 7, Thorium, and Polonium Wastes | 66 | 2,4 | Plutonium-238, Thorium-232 and 238, Polonium-210, Actinium-227, Radium-226 and Cesium-137 | B |
| 48 (18/20N, 5/7W) | Area 8, Thorium-Contaminated Soils from Areas 1 and 9 | | 2,4 | | B |
| 49 (3/4N, 11/12W) | Area 22, Orphan Soil from Other Areas | 276 | 2,4 | Polonium-210, Radium-226, Cobalt-60 Plutonium-238, Cesium-237 | B |
| 50 (8/9N, 23/24W) | Historical Firefighting Training Pit | | 2,5 | Metals | F |

**Table 1. Location of Potential Sites of Contamination Within OU5**
**Page 5 of 13**

| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 51 (3/4N, 13/14W) | Pyrotechnic Waste Disposal Area (Area H) | 258 | 2,4 | Organic solvents (primarily acetone) | B |
| 53 (26/28N, 1/2W) | Warehouse 1 | | 2,5 | Never Used | B, E |
| 54 (26/27N, 9W) | Warehouse 2 | | 2,5 | Never Used | E |
| 55 (22/23N, 3/4) | Warehouse 3 | | 2,5 | Never Used | B, E |
| 56 (21/22N, 4/5W) | Warehouse 4 | | 2,5 | Never Used | B, E |
| 57 (18/19N, 5/6W) | Warehouse 5 | | 2,5 | Never Used | B, E |
| 58 (17/18N, 5/6W) | Warehouse 6 | | 2,5 | Never Used | B, E |
| 59 (14N, 13/15W) | Warehouse 7 | | 2,5 | Never Used | E |
| 60 (27N, 2/4W) | Warehouse 8 | | 2,5 | Never Used | E |
| 61 (10/ 11N, 22W) | Warehouse 11 | | 2,5 | Never Used | E |
| 62 (10/ 11 N, 3/6W) | Warehouse 12 | | 2,5 | Never Used | E |
| 63 (13N, 20/22W) | Railcar Decontamination Area | | 2,5 | | B |
| 64 (26N, 6/7W) | Site Survey Project-Identified Potential Hot Spot, Location C0007 | 307 | 2,4 | Thorium | B |

**Table 1. Location of Potential Sites of Contamination Within OU5**
**Page 6 of 13**

| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 65 (14N, 13W) | Site Survey Project-Identified Potential Hot Spot, Location S0425 | 90 | 2,4 | Thorium | D |
| 66 (8/9N, S/6W) | Site Survey Project-Identified Potential Hot Spot, Location S0647 | 310 | 2,4 | Cesium-137 | B |
| 67 (21/23N, 9/12W) | Area of Possible Elevated Thorium Activity | | 2,4 | | B |
| 68 (12/13N, 5/6W) | Alpha wastewater sump (in service)- Bldg 38 (Tank 26) | 297 | 3,4 | Wastewater from floor drains and decontamination showers | B |
| 69 (12/13N, 5/6W) | Alpha wastewater sump (in service) - Bldg 38 (Tank 27) | 298 | 3,4 | Wastewater from floor drains and decontamination showers | B |
| 70 (18/19N, 2/3W) | Sanitary waste tank (in service) - Bldg 37 (Tank 100) | 271 | 3,4 | sanitary wastes | E |
| 71 (9/10N, 24/25W) | Grit chambers (in service) - Bldg 57 (Tank 101) | 43 | 3,4 | Waters of the backwashes discharged to storm sewer, Plutonium-238 and other radionuclides | B |
| 72 (9/10N, 24/25W) | Comminutor (in service) - Bldg 57 (Tank 102) | 45 | 3,4 | Waters of the backwashes discharged to storm sewer, Plutonium-238 and other radionuclides | B |
| 73 (9/10N, 24/25W) | Equalization basin (in service) - Bldg 57 (Tank 103) | 46 | 3,4 | Waters of the backwashes discharged to storm sewer, Plutonium-238 and other radionuclides | B |

**Table 1. Location of Potential Sites of Contamination Within OU5**
**Page 7 of 13**

| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 74 (9/10N, 24/25W) | Equalization basin (in service) - Bldg 57 (Tank 104) | 47 | 3,4 | Waters of the backwashes discharged to storm sewer, Plutonium-238 and other radionuclides | B |
| 75 (9/10N, 24/25W) | Equalization basin (in service) - Bldg 57 (Tank 105) | 48 | 3,4 | Waters of the backwashes discharged to storm sewer, Plutonium-238 and other radionucl ides | B |
| 76 ((/10N, 24/25W) | Equalization basin (in service) - Bldg 57 (Tank 106) | 49 | 3,4 | Waters of the backwashes discharged to storm sewer, Plutonium-238 and other radionuclides | B |
| 77 (9/10N, 24/25W) | Aeration basin (in service) - Bldg 57 (Tank 107) | 50 | 3,4 | Waters of the backwashes discharged to storm sewer, Plutonium-238 and other radionuclides | B |
| 78 (9/10N, 24/25W) | Aeration basin (in service) - Bldg 57 (Tank 108) | 51 | 3,4 | Waters of the backwashes discharged to storm sewer, Plutonium-238 and other radionucl ides | B |
| 79 (9/lON, 24/2SW) | Clarifler (in service) - Bldg 57 (Tank 109) | 52 | 3,4 | Waters of the backwashes discharged to storm sewer, Plutonium-238 and other radionuclides | B |

**Table 1. Location of Potential Sites of Contamination Within OU5**
**Page 8 of 13**

| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 80 (9/10N, 24/25W) | Clarifier (in service) - Bldg 57 (Tank 110) | 53 | 3,4 | Waters of the backwashes discharged to storm sewer, Plutonium-238 and other radionuclides | B |
| 81 (9/10N, 24/25W) | Chlorine contact chamber (in service) - Bldg 57 (Tank 111) | 55 | 3,4 | Waters of the backwashes discharged to storm sewer, Plutonium-238 and other radionuclides | B |
| 82 (9/10N, 24/25W) | Chlorine contact chamber (in service) - Bldg 57 (Tank 112) | 56 | 3,4 | Waters of the backwashes discharged to storm sewer, Plutonium-238 and other radionuclides | B |
| 83 (9/10N, 24/25W) | Diesel fuel storage (in service) - Bldg 57 (Tank 118) | 82 | 3,4 | Diesel fuel | B |
| 84 (9/10N, 24/25W) | Diesel fuel storage tank (in service) - Bldg 57 (Tank 121) | | 3,4 | Propane | B |
| 85 (10/11N, 13/14W) | Propane storage tank - Bldg 2 (Tank 122) | 83 | 3,4 | Alpha wastewater from Building SM & 38, Plutonium-238, nitric acid | B |
| 86 (131N, 22/23W) | Alpha wasterwater pump station (removed) - Bldg 41 (Tank 208) | 177 | 3,4 | Alpha wastewater from Building SM & 38, Plutonium-238, nitric acid | D |
| 87 (13N, 22/23W) | Alpha wastewater pumpstation (removed) - Bldg 41 (Tank 209) | 178 | 3,4 | Alpha wastewater from Building SM & 38, Plutonium-238, nitric acid | D |

**Table 1. Location of Potential Sites of Contamination Within OU5**
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| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 90 (13/14N, 4t5W) | Alpha wastewater collect tank (removed) - Bldg SM (Tank 212) | 291 | 3,4 | Alpha wastewater from plutonium processing | B |
| 91 (13/14N, 4/5W) | Alpha wastewater collect tank (removed) - Bldg SM (Tank 213) | 292 | 3,4 | Alpha wastewater from plutonium processing | B |
| 92 (17N, 14/15W) | Beta wastewater sump (inactive) - Bldg HH (Tank 236) | 150 | 3,4 | Beta wastewater from restrooms & area floor drains - tritium | G |
| 93 (17N, 14/15W) | Alpha wastewater sump (closed in place) Bldg HH (Tank 237) | 151 | 3,4 | Alpha wastewater including possibly polonium 210, cobalts-60, and bismuth | G |
| 94 (11N, 21W) | Building 27 Diesel Fuel Storage Tank (Tank 123) (AKA Building 27 Propane Tank) | 30 | 4 | Tank is actually above ground | C |
| 95 (16N, 10/11W) | Underground Sanitary Sewer Line G12 | 32 | 4 | Plating solutions, Laboratory chemicals, nitric acid, hydrochloric acid, methylene chloride, strong acids and bases | B |
| 96 10/11N, 22/23W) | Underground Sanitary Sewer Line G14 EAST | 33 | 4 | Plating solutions, Laboratory chemicals, nitric acid, hydrochloric acid, methylene chloride, strong acids and bases | A |
| 97 (10/11N, 23W) | Underground Sanitary Sewer Line G14 WEST | 34 | 4 | Plating solutions, Laboratory chemicals, nitric acid, hydrochloric acid, methylene chloride, strong acids and bases | A |

**Table 1. Location of Potential Sites of Contamination Within OU5**
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| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 98 (10/11N, 24/25W) | Underground Sanitary Sewer Lines Gl9 & G14 | 35 | 4 | Plating solutions, Laboratory chemicals, nitric acid, hydrochloric acid, methylene chloride, strong acids and bases | B |
| 99 (22/23N, 7W) | Underground Sanitary Sewer Line G15 | 36 | 4 | Plating solutions, Laboratory chemicals, nitric acid, hydrochloric acid, methylene chloride, strong acids and bases | B |
| 100 (9/10N, 25/26W) | Underground Sanitary Sewer Line G5 | 31 | 4 | Organic solvents | B |
| 101 (11/12N, 26/27W) | Hazardous Waste Storage Area | 60 | 4 | Combustible, flammable liquids, waste oils, solvent-containing wastes, ignitable wastes, plating wastes, photo-processing wastes, polymeric wastes, toxic wastes | B |
| 102 (11/12N, 26/27W) | Building 72, Outdoor Hazardous Waste Storage Area | 61 | 4 | Waste oils | B |
| 103 (12N, 26/27W) | Building 72 Empty Drum Storage Area | 62 | 4 | None suspected | B |
| 104 (24N, 8/9W) | Building 29 Solvent Storage Shed | 85 | 4 | Acetone | B |
| 105 (9/10N, 14/15W) | Test Fire Residual Storage Area | 89 | 4 | Unexploded detonation devices | E |
| 106 (3/4N, 14/15W) | Retort | 262 | 4 | Explosives Programs constituents, Metals, Asbestos, Diallyl-phthalates-based plastic components | H |

**Table 1. Location of Potential Sites of Contamination Within OU5**
**Page 11 of 13**

| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 107 (13/14N, 14/15W) | Building 90 Blockhouse | 263 | 4 | Explosives Programs constituents, Metals, Asbestos, Diallyl-phthalates-based plastic components | H |
| 108 (16N, 5W) | Underground Sanitary Sewer Lines G6 & G7 | 270 | 4 | Organic solvents, plating solutions, laboratory chemicals, nitric acid, hydrochloric acid, methylene chloride, strong acids and bases | B |
| 109 (14N, 4/SW) | SM Building Solidification Unit (Room SM-I) | 293 | 4 | Plutonium-238 | B |
| 110 (12/13N, 5/6W) | WS Building Solidification unit | 294 | 4 | Plutonium-238 | B |
| 111 (12/13N, 5/6W) | Building 38 Solid Radioactive Waste Compactors (2 units) | 295 | 4 | Plutonium-238 | B |
| 112 (12N, 7W) | Building 38 West Dock Sump (Tank 25) | 296 | 3 | Precipitation and potentially spilled waste material from a radiological waste drum storage pad-Pu-238 | B |
| 113 (12/13N, 5/6W) | Building 38 Diesel Fuel Storage Tank (Tank 121) | 299 | 3 | Diesel fuel | B |
| 114 (14N, 5W) | SM Stack | 305 | 4 | Plutonium-238 | A |
| 115 (21/22N, 2/3W) | Site Survey Project Potential Hot Spot Location C0028 | 308 | 6 | Thorium | D |
| 116 (21/22N, 7W) | Site Survey Project Potential Hot Spot Location S0307 | 309 | 4 | Thorium | B |

**Table 1. Location of Potential Sites of Contamination Within OU5**
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| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 117 (4/5N, 7/8W) | Site Survey Project Potential Hot Spot Location S0982 | 313 | 4 | Thorium | D |
| 118 (22/23N, 10/11W) | Site Survey Project Potential Hot Spot Location S0166 | 236 | 4 | Plutonium-238 | B |
| 119 (18/19N10/11W) | Building 66 Lot | 40 | 4 | Plutonium-238 from unknown source | B |
| 120 (16/17N, 2/3W) | Underground Sanitary Sewer Lines | 270 | 4 | Plating Solution, Laboratory chemicals, nitric acid, hydrochloric acid, methylene chloride, strong acids and bases | A |
| 121 (15/16N, 5W) | SM Building Historic Septic Tank (Tank 241) | 287 | 4 | Plutonium-238 | B |
| 122 (4N, 14/15W) | Pyrotechnic Waste Shed | 259 | 4 | Pyrotechnic powders, pyrotechnic contaminated waste | H |
| 123 (4N, 14/15W) | Biodegration Unit | 265 | 4 | Soapy wastewater containing explosives | H |
| 124 (3/4N, 13/14W) | Thermal Treatment Unit | 260 | 4 | Antifreeze, explosive program | H |
| 125 (14/15W) | Area 1, Bulk Transfer of Thorium Drums | 283 | 4 | Thorium sludge constituent plutonium-238 | B |
| 126 (5/6N, 22/23W) | Building 85 Waste Solvent Tank (Tank 136) | 71 | 4 | Never Used | B |
| 128 (3/SN, 9/12W) | Area 22 | | 4 | | B |

**Table 1. Location of Potential Sites of Contamination Within OU5**
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| Location Number as Shown in Figure 1 | Potential Release Site | | Source | Potential Hazardous Substances | Comments |
|---|---|---|---|---|---|
| | Site Name | Reference Code | | | |
| 129 (13/15N, 5/7W) | Area 11 | | | | A |
| 130 (14/15N, 3/SW) | Warehouse 13 | | 4 | Storage of materials contaminated with radium/actinium | B |
| 131 (15/16N, 6W) | Warehouse 14 | | 4 | Storage of recoverable plutonium-238 and contaminated trash | B |
| 132 (16/18N, 6/9W) | Area 16 | | 4 | | B |
| 133 (13/16N, 2/6W) | Area 17 | | 4 | | B |
| 134 (7/8N, 8/11W) | Area 21 | | 4 | | B |
| 135 (8/9N, 8/9W) | Detonator Shack | | 4 | | H |
| 136 (20/21N, 12W) | Potential Hot Spot Location 1129 | 247 | 4 | Freon-113, TCE, 1,1,1-TCA, Tetrachloroethene | G |
| 137 (13N, 4/22W) | Area 19 | | 4 | | B |
| 138 (11N, 21W) | Building 27 Filtration System | 299 | 4 | Wastewater from explosive processes organic solvents | C |
| 139 (13N, 18W) | Building 43 Solvent Storage Tank (Tank 221) | 24 | 4 | None suspected (Never used) | C,H |

* - Refers to code designated for the site in Appendix A, Roy F. Weston, Environmental Restoration Program, Operable Unit 9, Site Scoping Report: Volume 12 - Site Summary Report, Mound Plant, October 1993

1 - Table V.2, Roy F. Weston, Environmental Restoration Program, Operable Unit 9, Site Scoping Report: Volume 12 - Site Summary Report, Mound Plant, October 1993

2 - Table 1.3., OU5, RI/FS Work Plan, August 1993

3 - Figure I, Dames & Moore, Revise Draft, Active Underground Storage Tank Plan, May 16, 1994

4 - Figure 1, Roy F. Weston, Environmental Restoration Program, Operable Unit 9, Site Scoping Report: Volume 12 - Site Summary Report, Mound Plant, October 1993

5 - OU9 Site Scoping Report, Volume 7 - Site Summary Report (Weston, 1993)

A - Additional Soil Gas Survey Recommended Based on Site Inspection

B - No additional sampling, site located at/near established survey point or under on-going activities

C - Proposed sampling on one side or around building as appropriate

D - Potential radioactive contaminated area examined under the OU5 Phase I Reconnaissance Survey. A core sample for radiological testing recommended due to insufficient proposed sampling points in the area. The sample will be taken based on site inspection.

E - No sampling required, site never used for hazardous material storage activities

F - Additional sample recommended to be tested for TAL Metals

G - Outside OU5 Range

H - Does not fall in the OU5 Phase 1 Site Reconnaissance Survey Project. Need additional guidance from EG&G.

- Source - references the source used to identify the sites. Initially, all sites listed in Table V.2, Operable Unit 9, Site Scoping Report: Volume 12 (Reference 1) were identified. Then, any additional sites identified in either Table II.3, OU5, RI/FS Work Plan (Reference 2) or Figure 1, Revised Draft, Active Underground Storage Tank Plan (Reference 3) Figure 1, Operable Unit 9, Site Scoping Report: Volume 12 - Site Summary Report (Reference 4) or OU9 Site Scoping Report, Volume 7 - Site Summary Report (Reference 5).

- Potential Hazardous Substance - identifies the potential contaminants that may be present at a site. The potential hazardous substance identified for each site are based on the data provided in Appendix A, Operable Unit 9, Site Scoping Report: Volume 12 (Weston, 1993).

- Comments - provides recommendation on whether additional sampling radiological and/or chemical is required based on the location of a site in relation to the existing soil gas sampling grid established for OU5 RI/FS Site Reconnaissance Survey and the nature of the potential contamination at a site. The sites have been classified into the following categories.

A Recommend additional soil gas survey and Mound Screening Facility sample(s). Potential location of sample(s) is shown in Figure 1. However, the final determination of whether sampling is required and the exact location of the sample should be based on a site inspection.

B No additional sampling is required since the site is located at or near an established soil gas survey sample or is covered under other on-going site activities (e.g., D&D activities in Area 1 which eliminates Sites #41, 42, and #125 from further sampling under this investigation).

C Recommend sampling on one side or around the building for sites that are located either inside a building or clustered around the building (e.g, tanks). The potential side(s) of buildings that may require sampling have been identified in Figure 1. However, the final determination of the sides of the building, if any, that should be sampled will be made based on site inspection.

D Recommend surface soil sample(s) for Mound Screening Facility analysis be taken at identified locations(s) based on the potential for radiological contamination at these locations. The proposed locations for the sample(s) are shown in Figure 1. However, the final determination of whether an additional sample is required will be based on a site inspection.

E No additional sampling is recommended for the site, since it has not been historically used in hazardous material activities.

F Recommend additional shallow soil sample(s) be taken at the identified locaitons(s) and tested for Total Analyte List (TAL) Metals based on the potential hazardous substance that may be present at the site.

G Recommend no further sampling at the site. Although site has been listed as a part of OU5 in the researced documents, it falls outside the established OU5 boundary.

H Require further guidance from EG&G since these sites do not fall within the OU5 Phase 1 Site Reconnaissance Survey Project. Most of these sites have been identified as having contained explosive materials.

## 3. RECOMMENDATIONS

The proposed recommendations for each of the 139 sites identified through the document search has been presented in Table 1. Where additional sampling has been proposed, the potential locations have been identified in Figure 1. However, all final determination for additional sampling will be based on site inspection. In general, the following sampling is recommended:

1. Soil gas sampling at the following locations:

    - (1) sample near location #1
    - (1) sample near location #2
    - (1) sample near location #4 and #7
    - (1) sample near location #6
    - (1) sample near location #11 and #96
    - (1) sample near location #29
    - (1) sample near location #35 and #120
    - (1) sample near location #37
    - (1) sample near location #40
    - (1) sample near location #51
    - (1) sample near location #97
    - (1) sample near location #100
    - (1) sample near location #129

2. Sampling on on side or around the following buildings:

    - (1) Bldg. 9 (Location #9)
    - (1) Bldg. 24 (Location #63)
    - (1) Bldg. 51 (Location #15, #16, and #17)
    - (1) Bldg. 36 (Location #35)

3. Surface soil sample(s) for Mound Screening Facility Analysis at the following locations:

    - (1) sample near location #28
    - (1) sample near location #29
    - (1) sample near location #45
    - (1) sample near location #46
    - (1) sample near locaiton #86 and #87
    - (1) sample near location #115
    - (1) sample near location #117
    - (1) sample near location #65

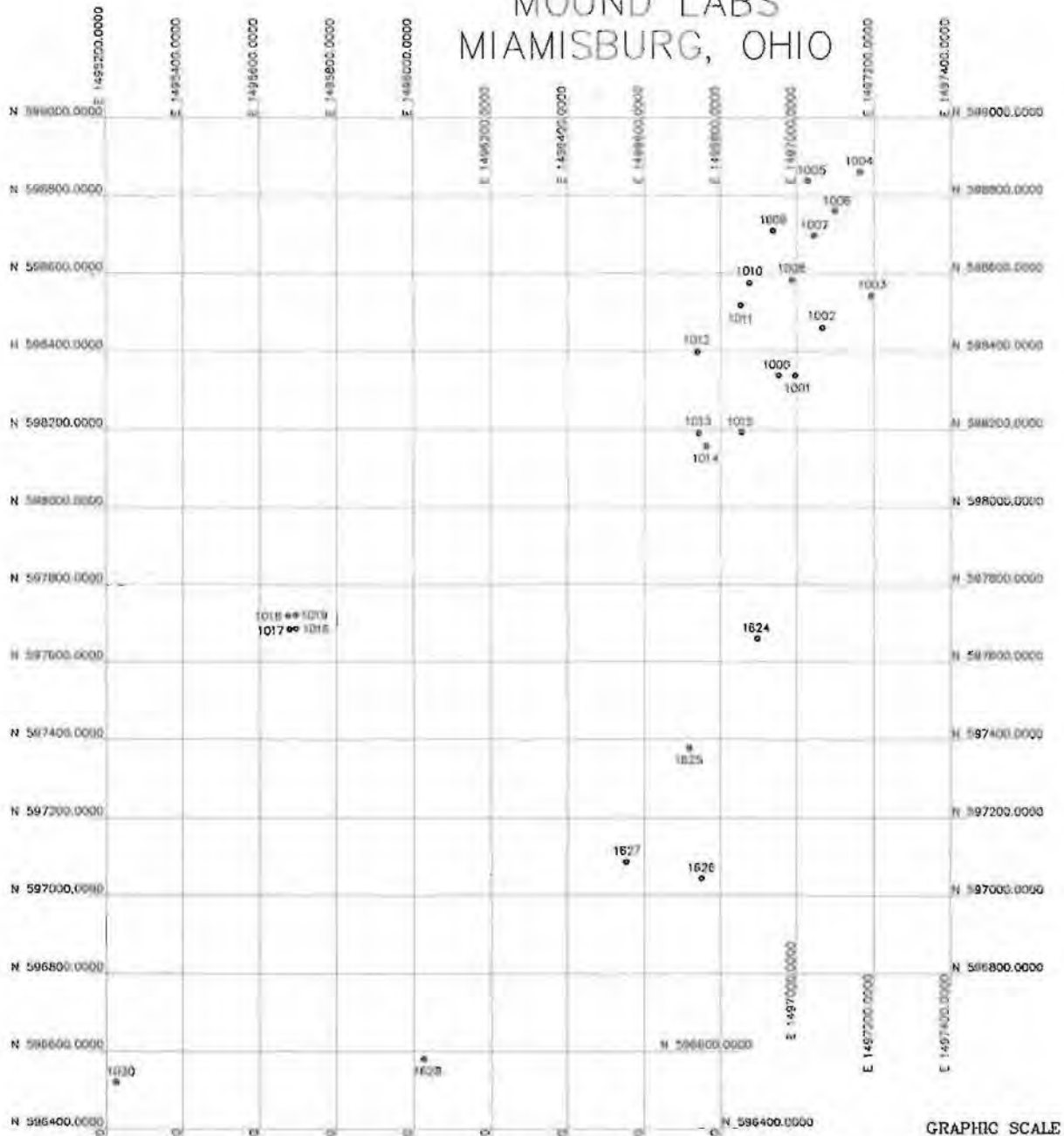
4. One sample for TAL analyses at the following location:

    - (1) sample near location #50

5. Samples for Explosive Analyses at the following locations:

    - (4) samples near location #106, #107, #122, and #123
    - (2) samples near location #33 and #124

# OPS AREA
## MOUND LABS
## MIAMISBURG, OHIO




| POINT | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|---|---|---|---|---|
| 1000 | 598338.6430 | 1496951.8500 | 802.14 | B-11 |
| 1001 | 598338.4920 | 1496995.3600 | 803.45 | B-10 |
| 1002 | 598460.5390 | 1497066.5600 | 804.74 | B-06 |
| 1003 | 598542.6060 | 1497192.2800 | 810.41 | B-05 |
| 1004 | 598860.8850 | 1497164.5700 | 808.81 | B-01 |
| 1005 | 598838.5860 | 1497028.6700 | 814.82 | B-02 |
| 1006 | 598761.4340 | 1497099.7400 | 809.52 | B-16 |
| 1007 | 598696.4910 | 1497045.0900 | 809.91 | B-03 |
| 1008 | 598583.2110 | 1496987.8100 | 805.20 | B-07 |
| 1009 | 598710.3080 | 1496937.3400 | 811.89 | B-04 |
| 1010 | 598575.4151 | 1496874.2608 | 805.83 | B-08 |
| 1011 | 598517.9882 | 1496891.6605 | 802.77 | B-09 |
| 1012 | 598399.1087 | 1496738.5499 | 795.53 | B-12 |
| 1013 | 598190.2490 | 1496742.5800 | 782.30 | B-13 |
| 1014 | 598156.8360 | 1496762.9100 | 781.93 | B-14 |
| 1015 | 598193.4340 | 1496854.2101 | 782.43 | B-15 |
| 1016 | 597580.4370 | 1495694.9600 | 740.81 | B-17 |
| 1017 | 597583.9980 | 1495677.6800 | 740.47 | B-18 |
| 1018 | 597717.9460 | 1495674.6800 | 741.98 | B-20 |
| 1019 | 597720.4050 | 1495694.8000 | 742.30 | B-19 |
| 1030 | 596520.9127 | 1495226.1001 | 715.50 | W 410 |
| NOTE: MP ELEV=715.50', CASTING ELEV=715.65', G/S ELEV=715.76' | | | | |
| 1624 | 597659.6905 | 1496895.3030 | 814.27 | S-01 |
| 1625 | 597378.2180 | 1496717.8900 | 821.30 | S-02 |
| 1626 | 597044.6970 | 1496749.0600 | 830.21 | S-03 |
| 1627 | 597087.0020 | 1496561.4900 | 829.68 | S-04 |
| 1628 | 596580.1340 | 1496027.0400 | 854.23 | S-05 |

GRAPHIC SCALE

( IN FEET )
1 inch = 200 ft.

APPENDIX C

PLATE 1B SURVEY MAP
OHIO STATE PLANE COORDINATE SYSTEM

LEGEND

⊙ LOCATED POINT  A-1 GRID LOCATION

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

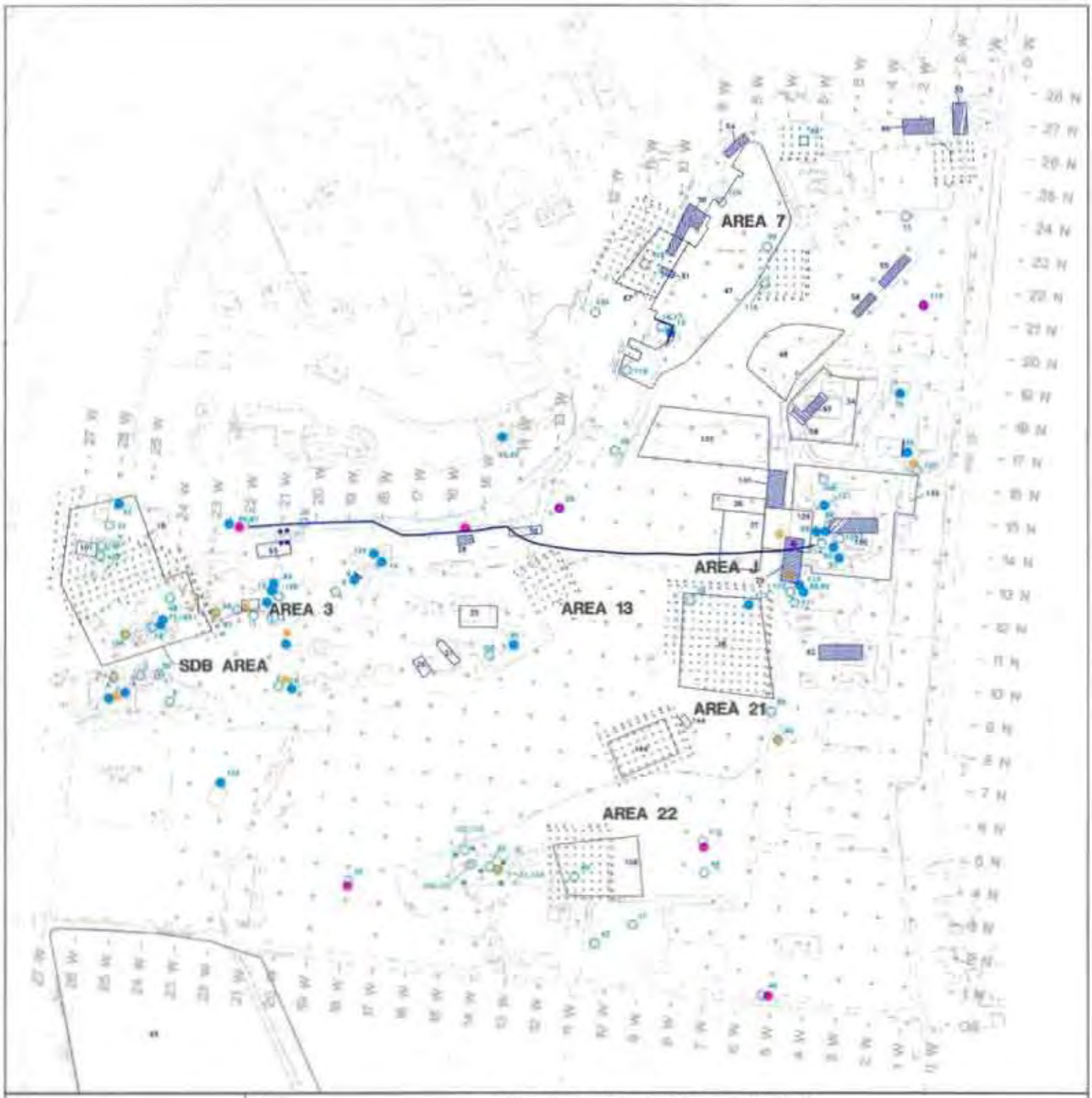
| SCALE 1"=200' | DRAWN SBM | CHECKED JPH |
|---|---|---|
| DATE 5/31/94 | JOB NO. 12952-A | |

EG+G-25-02-10-02
#9508150110

Appendix C

## APPENDIX C
## SURVEY MAPS

| | |
|---|---|
| PLATE 1A: | Survey Map of Located Grid Points Ohio State Plane Coordinate System (1927) |
| PLATE 1B: | Survey Map of Sample Locations: Well W410, Seeps, and Building 24, Ohio State Plane Coordinate System (1927) |
| PLATE 2A: | Survey Map of Located Grid Points Mound Plant Coordinate System |
| PLATE 2B: | Survey Map of Sample Locations: Well W410 Seeps, and Building 24, Mound Plant Coordinate System |




TITLE

# MOUND PLANT OPERABLE UNIT 5

## PHASE 1 RI/FS OPERATIONAL AREA SAMPLING AND LOCATION OF POTENTIAL SITES OF CONTAMINATION

Mound Plant

Location Map

N

True North

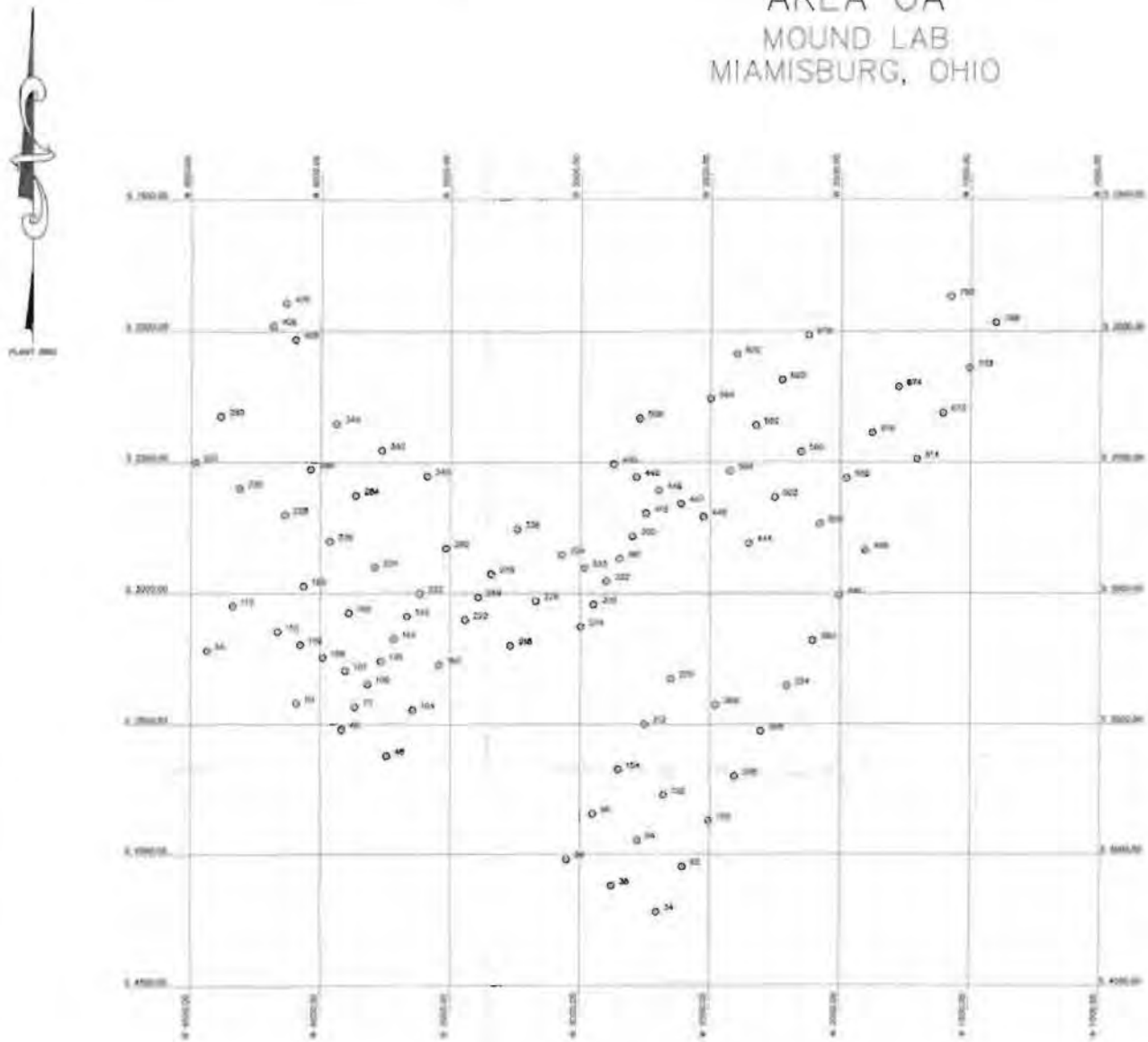
Contour Interval 10 ft

SCALE (FEET)

LEGEND

# AREA OA

## MOUND LAB
## MIAMISBURG, OHIO




| Point | South | West | SAIC Grid # | Point | South | West | SAIC Grid # |
|---|---|---|---|---|---|---|---|
| 34 | [illegible] | [illegible] | [illegible] | 289 | [illegible] | [illegible] | [illegible] |
| 36 | [illegible] | [illegible] | [illegible] | 290 | [illegible] | [illegible] | [illegible] |
| 38 | [illegible] | [illegible] | [illegible] | 291 | [illegible] | [illegible] | [illegible] |
| 40 | [illegible] | [illegible] | [illegible] | 292 | [illegible] | [illegible] | [illegible] |
| 48 | [illegible] | [illegible] | [illegible] | 324 | [illegible] | [illegible] | [illegible] |
| 50 | [illegible] | [illegible] | [illegible] | 332 | [illegible] | [illegible] | [illegible] |
| 54 | [illegible] | [illegible] | [illegible] | 333 | [illegible] | [illegible] | [illegible] |
| 70 | [illegible] | [illegible] | [illegible] | 334 | [illegible] | [illegible] | [illegible] |
| 90 | [illegible] | [illegible] | [illegible] | 336 | [illegible] | [illegible] | [illegible] |
| 94 | [illegible] | [illegible] | [illegible] | 340 | [illegible] | [illegible] | [illegible] |
| 98 | [illegible] | [illegible] | [illegible] | 342 | [illegible] | [illegible] | [illegible] |
| 108 | [illegible] | [illegible] | [illegible] | 344 | [illegible] | [illegible] | [illegible] |
| 110 | [illegible] | [illegible] | [illegible] | 361 | [illegible] | [illegible] | [illegible] |
| 116 | [illegible] | [illegible] | [illegible] | 363 | [illegible] | [illegible] | [illegible] |
| 118 | [illegible] | [illegible] | [illegible] | 366 | [illegible] | [illegible] | [illegible] |
| 120 | [illegible] | [illegible] | [illegible] | 400 | [illegible] | [illegible] | [illegible] |
| 122 | [illegible] | [illegible] | [illegible] | 408 | [illegible] | [illegible] | [illegible] |
| 124 | [illegible] | [illegible] | [illegible] | 410 | [illegible] | [illegible] | [illegible] |
| 126 | [illegible] | [illegible] | [illegible] | 435 | [illegible] | [illegible] | [illegible] |
| 130 | [illegible] | [illegible] | [illegible] | 440 | [illegible] | [illegible] | [illegible] |
| 132 | [illegible] | [illegible] | [illegible] | 444 | [illegible] | [illegible] | [illegible] |
| 134 | [illegible] | [illegible] | [illegible] | 448 | [illegible] | [illegible] | [illegible] |
| 142 | [illegible] | [illegible] | [illegible] | 457 | [illegible] | [illegible] | [illegible] |
| 164 | [illegible] | [illegible] | [illegible] | 462 | [illegible] | [illegible] | [illegible] |
| 166 | [illegible] | [illegible] | [illegible] | 466 | [illegible] | [illegible] | [illegible] |
| 168 | [illegible] | [illegible] | [illegible] | 468 | [illegible] | [illegible] | [illegible] |
| 182 | [illegible] | [illegible] | [illegible] | 489 | [illegible] | [illegible] | [illegible] |
| 208 | [illegible] | [illegible] | [illegible] | 500 | [illegible] | [illegible] | [illegible] |
| 212 | [illegible] | [illegible] | [illegible] | 502 | [illegible] | [illegible] | [illegible] |
| 218 | [illegible] | [illegible] | [illegible] | 504 | [illegible] | [illegible] | [illegible] |
| 220 | [illegible] | [illegible] | [illegible] | 508 | [illegible] | [illegible] | [illegible] |
| 222 | [illegible] | [illegible] | [illegible] | 518 | [illegible] | [illegible] | [illegible] |
| 224 | [illegible] | [illegible] | [illegible] | 520 | [illegible] | [illegible] | [illegible] |
| 228 | [illegible] | [illegible] | [illegible] | 523 | [illegible] | [illegible] | [illegible] |
| 228 | [illegible] | [illegible] | [illegible] | 524 | [illegible] | [illegible] | [illegible] |
| 230 | [illegible] | [illegible] | [illegible] | 614 | [illegible] | [illegible] | [illegible] |
| 232 | [illegible] | [illegible] | [illegible] | 618 | [illegible] | [illegible] | [illegible] |
| 240 | [illegible] | [illegible] | [illegible] | 622 | [illegible] | [illegible] | [illegible] |
| 268 | [illegible] | [illegible] | [illegible] | 632 | [illegible] | [illegible] | [illegible] |
| 268 | [illegible] | [illegible] | [illegible] | 673 | [illegible] | [illegible] | [illegible] |
| 276 | [illegible] | [illegible] | [illegible] | 674 | [illegible] | [illegible] | [illegible] |
| 274 | [illegible] | [illegible] | [illegible] | 676 | [illegible] | [illegible] | [illegible] |
| 276 | [illegible] | [illegible] | [illegible] | 730 | [illegible] | [illegible] | [illegible] |
| 278 | [illegible] | [illegible] | [illegible] | 760 | [illegible] | [illegible] | [illegible] |
| 280 | [illegible] | [illegible] | [illegible] | 760 | [illegible] | [illegible] | [illegible] |

GRAPHIC SCALE

APPENDIX C

PLATE 2A SURVEY MAP
MOUND PLANT COORDINATE SYSTEM

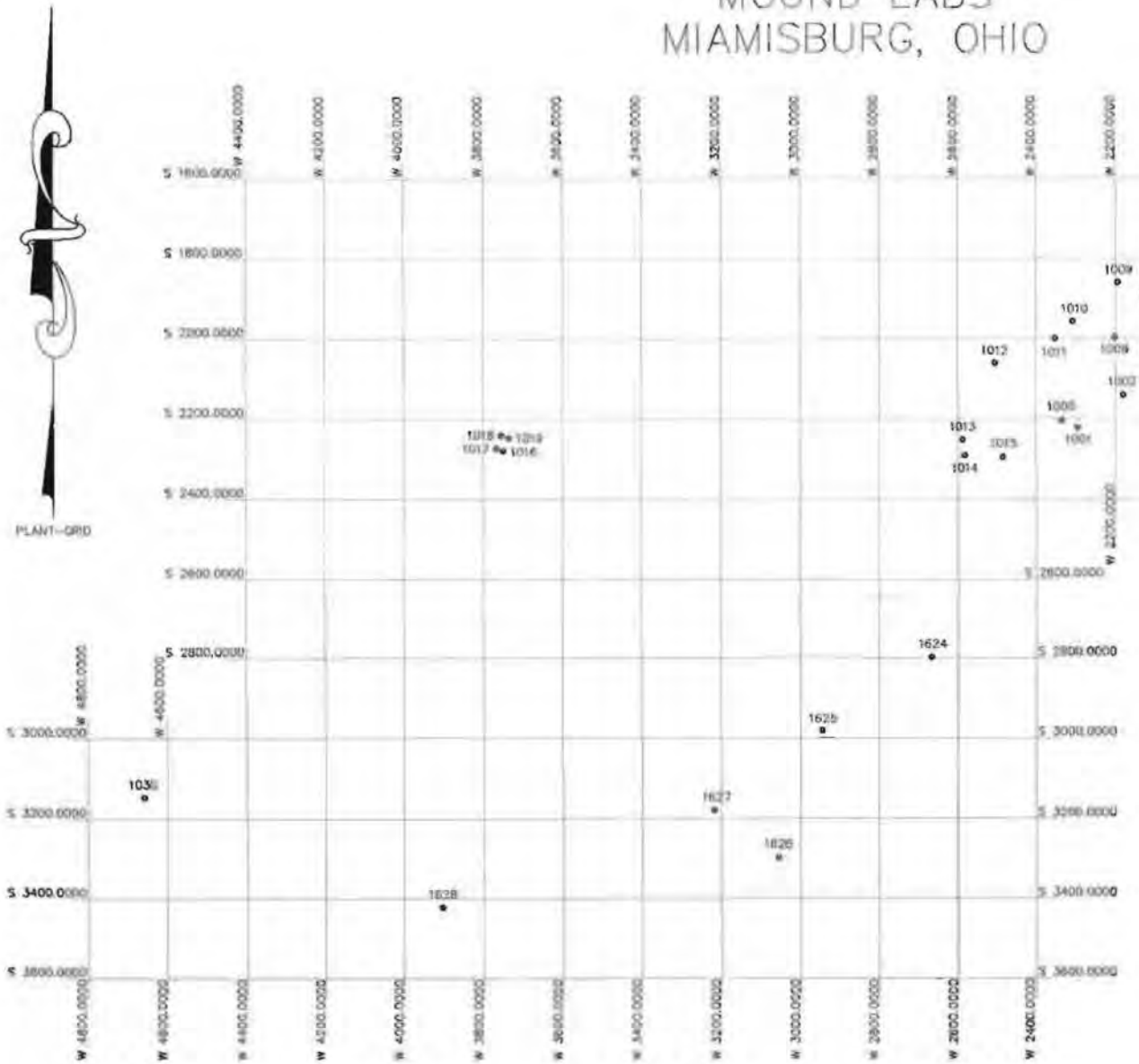
LEGEND

QUARTER POINT  A-1 WELL LOCATION

Shaw Weiss & DeNaples
Engineers & Environmental Scientists
[illegible]

SCALE 1"=200'  DRAWN [illegible]  DESIGN [illegible]
DATE 1/14/94  JOB NO. [illegible]

# OPS AREA
## MOUND LABS
## MIAMISBURG, OHIO




| POINT | SOUTH | WEST | ELEVATION | DESCRIPTION |
|---|---|---|---|---|
| 1000 | 2503.2878 | 2335.0824 | 802.14 | B-11 |
| 1001 | 2221.3985 | 2295.5005 | 803.40 | B-10 |
| 1002 | 2139.6651 | 2180.2418 | 804.74 | B-06 |
| 1003 | 2116.8833 | 2031.8484 | 810.41 | B-05 |
| 1004 | 1815.5554 | 1925.5974 | 808.81 | B-01 |
| 1005 | 1779.8051 | 2008.3021 | 814.82 | B-02 |
| 1006 | 1879.3515 | 2025.7247 | 809.52 | B-16 |
| 1007 | 1914.0867 | 2101.4955 | 809.91 | B-03 |
| 1008 | 1995.4178 | 2201.2820 | 805.20 | B-07 |
| 1009 | 1858.8233 | 2194.7401 | 811.69 | B-04 |
| 1010 | 1955.8089 | 2307.9100 | 805.83 | B-08 |
| 1011 | 1988.5708 | 2352.2148 | 802.77 | B-09 |
| 1012 | 2060.1068 | 2504.3324 | 795.53 | B-12 |
| 1013 | 2251.9770 | 2586.9429 | 782.20 | B-13 |
| 1014 | 2290.8041 | 2582.2316 | 781.93 | B-14 |
| 1015 | 2295.1912 | 2483.9674 | 782.43 | B-15 |
| 1016 | 2278.9298 | 3749.5333 | 740.81 | B-17 |
| 1017 | 2273.0987 | 3765.8644 | 740.47 | B-18 |
| 1018 | 2240.9352 | 3754.5906 | 741.99 | B-20 |
| 1019 | 2247.0157 | 3735.2336 | 742.30 | B-19 |
| 1030 | 3145.7534 | 4667.5880 | 715.50 | W 410 |
| 1624 | 2798.2368 | 2667.0337 | 814.27 | S-01 |
| 1625 | 2981.2814 | 2944.5799 | 821.20 | S-02 |
| 1626 | 3297.8902 | 3054.2724 | 859.21 | S-03 |
| 1627 | 3177.7476 | 3216.7200 | 829.68 | S-04 |
| 1628 | 3422.6920 | 3993.7170 | 854.23 | S-05 |

GRAPHIC SCALE

( IN FEET )
1 inch = 200 ft.

APPENDIX C

PLATE 2B SURVEY MAP
MOUND PLANT COORDINATE SYSTEM

LEGEND

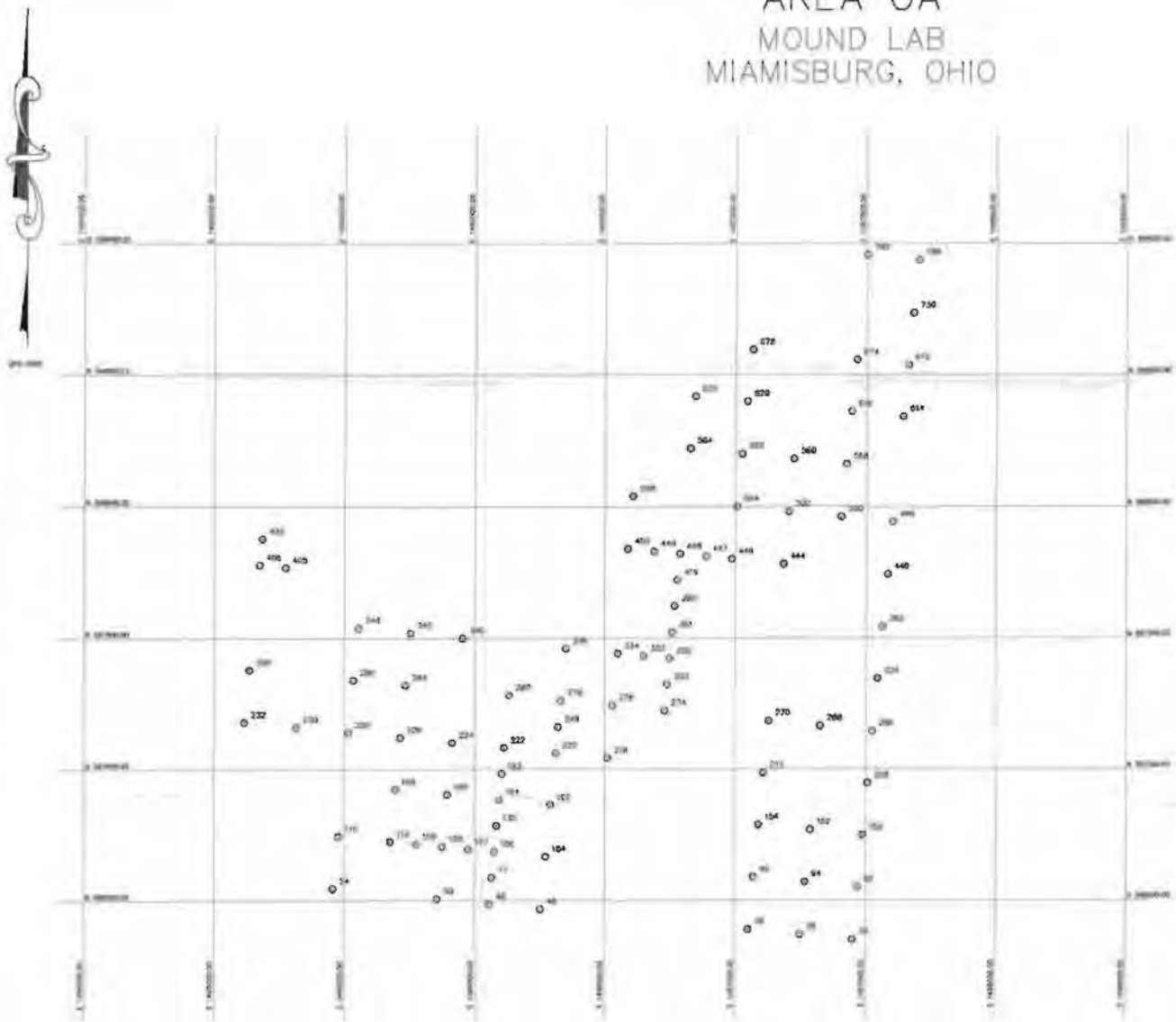
⊙ LOCATED POINT  A-1 GRID LOCATION

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

| SCALE 1"=200' | DRAWN SDW | CHECKED JPH |
|---|---|---|
| DATE 6/29/94 | JOB NO. L2952-A | |

# AREA OA

## MOUND LAB
## MIAMISBURG, OHIO



| Point | Northing | Easting | SAIC Grid # | Point | Northing | Easting | SAIC Grid # |
|---|---|---|---|---|---|---|---|
| 54 | [illegible] | [illegible] | [illegible] | 284 | [illegible] | [illegible] | [illegible] |
| 60 | [illegible] | [illegible] | [illegible] | 288 | [illegible] | [illegible] | [illegible] |
| 68 | [illegible] | [illegible] | [illegible] | 290 | [illegible] | [illegible] | [illegible] |
| 70 | [illegible] | [illegible] | [illegible] | 303 | [illegible] | [illegible] | [illegible] |
| 76 | [illegible] | [illegible] | [illegible] | 304 | [illegible] | [illegible] | [illegible] |
| 80 | [illegible] | [illegible] | [illegible] | 310 | [illegible] | [illegible] | [illegible] |
| 84 | [illegible] | [illegible] | [illegible] | 315 | [illegible] | [illegible] | [illegible] |
| 92 | [illegible] | [illegible] | [illegible] | 334 | [illegible] | [illegible] | [illegible] |
| 94 | [illegible] | [illegible] | [illegible] | 336 | [illegible] | [illegible] | [illegible] |
| 96 | [illegible] | [illegible] | [illegible] | 340 | [illegible] | [illegible] | [illegible] |
| 98 | [illegible] | [illegible] | [illegible] | 342 | [illegible] | [illegible] | [illegible] |
| 104 | [illegible] | [illegible] | [illegible] | 344 | [illegible] | [illegible] | [illegible] |
| 106 | [illegible] | [illegible] | [illegible] | 361 | [illegible] | [illegible] | [illegible] |
| 107 | [illegible] | [illegible] | [illegible] | 363 | [illegible] | [illegible] | [illegible] |
| 108 | [illegible] | [illegible] | [illegible] | 366 | [illegible] | [illegible] | [illegible] |
| 109 | [illegible] | [illegible] | [illegible] | 408 | [illegible] | [illegible] | [illegible] |
| 115 | [illegible] | [illegible] | [illegible] | 426 | [illegible] | [illegible] | [illegible] |
| 115 | [illegible] | [illegible] | [illegible] | 434 | [illegible] | [illegible] | [illegible] |
| 135 | [illegible] | [illegible] | [illegible] | 435 | [illegible] | [illegible] | [illegible] |
| 142 | [illegible] | [illegible] | [illegible] | 440 | [illegible] | [illegible] | [illegible] |
| 152 | [illegible] | [illegible] | [illegible] | 444 | [illegible] | [illegible] | [illegible] |
| 154 | [illegible] | [illegible] | [illegible] | 446 | [illegible] | [illegible] | [illegible] |
| 162 | [illegible] | [illegible] | [illegible] | 447 | [illegible] | [illegible] | [illegible] |
| 164 | [illegible] | [illegible] | [illegible] | 448 | [illegible] | [illegible] | [illegible] |
| 166 | [illegible] | [illegible] | [illegible] | 449 | [illegible] | [illegible] | [illegible] |
| 168 | [illegible] | [illegible] | [illegible] | 450 | [illegible] | [illegible] | [illegible] |
| 183 | [illegible] | [illegible] | [illegible] | 488 | [illegible] | [illegible] | [illegible] |
| 208 | [illegible] | [illegible] | [illegible] | 500 | [illegible] | [illegible] | [illegible] |
| 212 | [illegible] | [illegible] | [illegible] | 502 | [illegible] | [illegible] | [illegible] |
| 213 | [illegible] | [illegible] | [illegible] | 504 | [illegible] | [illegible] | [illegible] |
| 216 | [illegible] | [illegible] | [illegible] | 509 | [illegible] | [illegible] | [illegible] |
| 222 | [illegible] | [illegible] | [illegible] | 510 | [illegible] | [illegible] | [illegible] |
| 224 | [illegible] | [illegible] | [illegible] | 513 | [illegible] | [illegible] | [illegible] |
| 229 | [illegible] | [illegible] | [illegible] | 515 | [illegible] | [illegible] | [illegible] |
| 229 | [illegible] | [illegible] | [illegible] | 524 | [illegible] | [illegible] | [illegible] |
| 230 | [illegible] | [illegible] | [illegible] | 114 | [illegible] | [illegible] | [illegible] |
| 233 | [illegible] | [illegible] | [illegible] | 518 | [illegible] | [illegible] | [illegible] |
| 244 | [illegible] | [illegible] | [illegible] | 520 | [illegible] | [illegible] | [illegible] |
| 246 | [illegible] | [illegible] | [illegible] | 522 | [illegible] | [illegible] | [illegible] |
| 248 | [illegible] | [illegible] | [illegible] | 573 | [illegible] | [illegible] | [illegible] |
| 270 | [illegible] | [illegible] | [illegible] | 574 | [illegible] | [illegible] | [illegible] |
| 274 | [illegible] | [illegible] | [illegible] | 575 | [illegible] | [illegible] | [illegible] |
| 276 | [illegible] | [illegible] | [illegible] | 750 | [illegible] | [illegible] | [illegible] |
| 279 | [illegible] | [illegible] | [illegible] | 780 | [illegible] | [illegible] | [illegible] |
| 280 | [illegible] | [illegible] | [illegible] | 785 | [illegible] | [illegible] | [illegible] |

GRAPHIC SCALE

( IN FEET )

APPENDIX C

PLATE 1A SURVEY MAP

OHIO STATE PLANE COORDINATE SYSTEM

LEGEND

LOCATED POINT

NEW SURVEY LOCATION

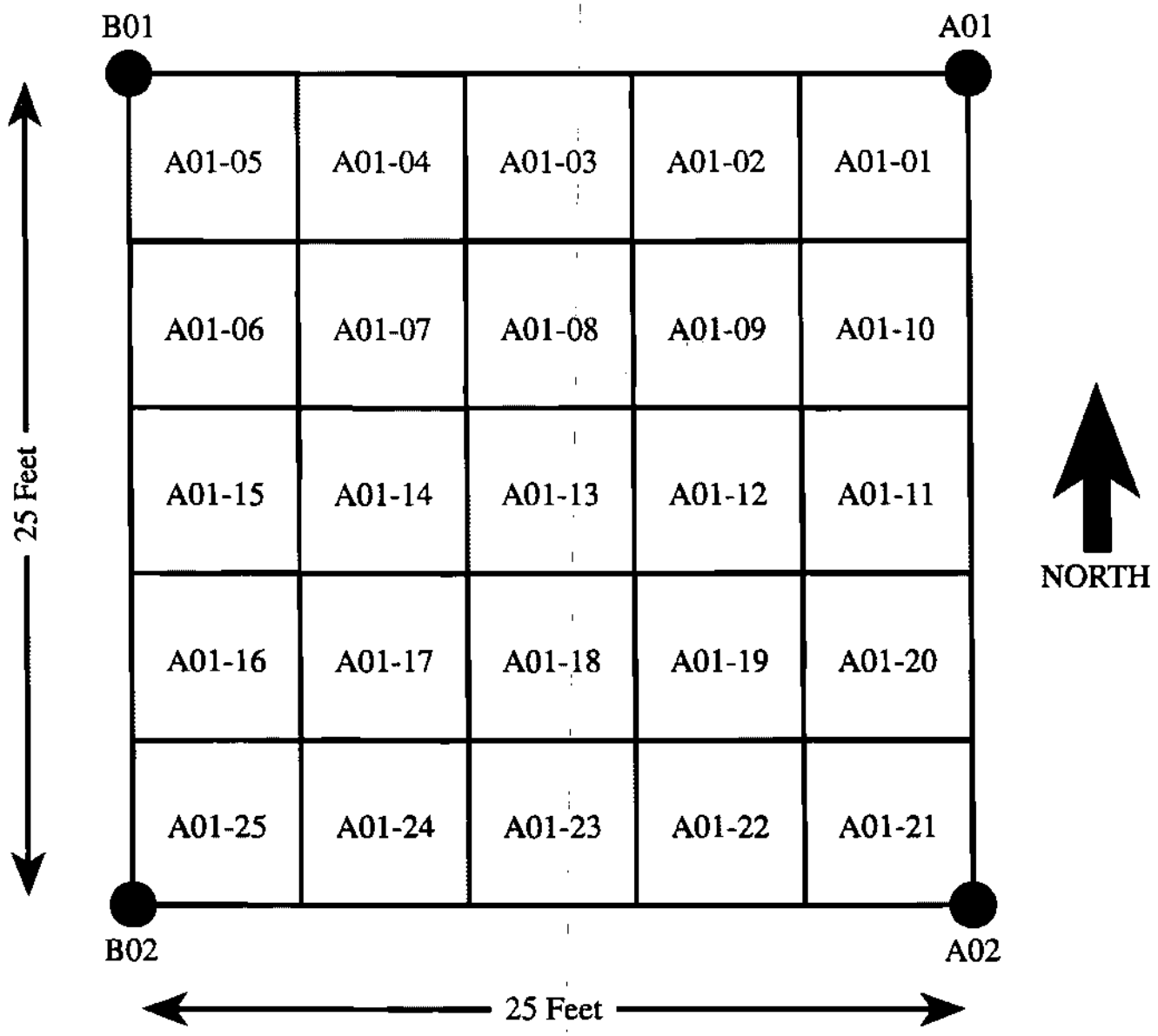
Shaw Weiss & DeNaples

Engineers & Environmental Scientists

11 West First Street • Dayton, Ohio 45402

| SCALE | 1"=200' | DRAWN | JBK | CHECKED | AJS |
|---|---|---|---|---|---|
| DATE | 7/12/94 | JOB NO. | L3902 | | |

# APPENDIX D
# RADIOLOGICAL DATA (FIDLER SURVEY & SOIL SCREENING FACILITY)




Operable Unit 5, Operational Area, Phase 1 Investigation - Generic Sampling Identification Scheme for the FIDLER survey conducted in Area 61

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 01N01 | 113 | 60 | 8.06 | 3.2 | NC | 3 | a | 1 | a |
| 01N02 | 113 | 130 | 8.06 | 8.01 | NC | 25 | b | 0.9 | a |
| 01N03 | 113 | 110 | 8.06 | 8.0 | NC | 60 | b | 1.1 | a |
| 01N04 | 113 | 75 | 8.06 | 7.0 | NC | 6 | a | 0.7 | a |
| 01N05 | 113 | 100 | 8.06 | 8.0 | NC | 15 | a | 1.3 | a |
| 01N06 | 113 | 90 | 8.06 | 7.5 | NC | 25 | b | 1.1 | a |
| 01N07 | 113 | 40 | 8.06 | 3.5 | NC | 10 | a | 0.3 | a |
| 01N14 | 113 | 120 | 8.06 | 9.0 | NC | 38 | b | 1.1 | a |
| 01N15 | 113 | 105 | 8.06 | 9.0 | NC | 34 | b | 1 | a |
| 01N16 | 210.6 | 130 | 12.22 | 9.0 | NC | NR | | NR | |
| 01N17 | 210.6 | 135 | 12.22 | 9.0 | NC | 21 | a | 0.7 | a |
| 01N18 | 210.6 | 120 | 12.22 | 9.0 | NC | 24 | a | 0.6 | a |
| 01N19 | 210.6 | 135 | 12.22 | 9.0 | NC | NR | | NR | |
| 01N21 | 170.3 | 110 | 9.72 | 7.5 | NC | NR | | NR | |
| 01N22 | 210.6 | 135 | 12.22 | 7.0 | NC | 20 | a | 0.6 | a |
| 01N23 | 210.6 | 145 | 12.22 | 7.0 | NC | 17 | a | 0.9 | a |
| 02N01 | 98.8 | 70 | 6.76 | 4.4 | NC | 12 | a | 0.5 | a |
| 02N02 | 98.8 | 90 | 6.76 | 9.0 | NC | 25 | b | 1 | a |
| 02N03 | 98.8 | 90 | 6.76 | 8.5 | NC | 21 | a | 0.9 | a |
| 02N04 | 98.8 | 30 | 6.76 | 4.5 | NC | NR | | NR | |
| 02N05 | 98.8 | 60 | 6.76 | 6.5 | NC | 19 | a | 0.8 | a |
| 02N06 | 98.8 | 60 | 6.76 | 6.0 | NC | 17 | a | 0.8 | a |
| 02N07 | 98.8 | 60 | 6.76 | 4.5 | NC | 1 | a | 0.4 | a |
| 02N08 | 98.8 | 100 | 6.76 | 6.5 | NC | NR | | NR | |
| 02N11 | 157.3 | 55 | 8.45 | 3.5 | NC | 0 | a | 0.5 | a |
| 02N14 | 98.8 | 110 | 6.76 | 8.0 | NC | 6 | a | 0.5 | a |
| 02N15 | 179.4 | 120 | 10.92 | 9.0 | NC | 37 | b | 1 | a |
| 02N16 | 179.4 | 140 | 10.92 | 9.5 | NC | 28 | b | 1 | a |
| 02N17 | 179.4 | 130 | 10.92 | 6.0 | NC | 31 | b | 0.9 | a |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 02N18 | 179.4 | 170 | 10.92 | 9.5 | NC | 40 | b | 1 | a |
| 02N19 | 179.4 | 150 | 10.92 | 10.0 | NC | 20 | a | 1 | a |
| 02N20 | 130 | 85 | 6.5 | 6.5 | NC | 18 | a | 1.3 | a |
| 02N21 | 130 | 90 | 6.5 | 6.5 | NC | NR | | NR | |
| 02N22 | 179.4 | 115 | 10.92 | 7.0 | NC | 21 | a | 0.8 | a |
| 02N23 | 179.4 | 80 | 10.92 | 6.5 | NC | 15 | a | 1 | a |
| 03N01 | 113 | 105 | 8.06 | 6.5 | NC | 38 | b | 0.7 | a |
| 03N02 | 152 | 145 | 8.45 | 8.5 | NC | 49 | b | 0.9 | a |
| 03N03 | 152 | 150 | 8.45 | 8.5 | NC | 25 | b | 1 | a |
| 03N04 | 152 | 150 | 8.45 | 9.0 | NC | 31 | b | 0.8 | a |
| 03N05 | 137.8 | 100 | 6.5 | 7.0 | NC | 9 | a | 0.9 | a |
| 03N06 | 137.8 | 100 | 6.5 | 6.0 | NC | 21 | a | 0.7 | a |
| 03N07 | 137.8 | 100 | 6.5 | 5.0 | NC | 13 | a | 0.8 | a |
| 03N13 | 170.3 | 90 | 9.72 | 6.0 | NC | 6 | a | 0.6 | a |
| 03N14 | 170.3 | 75 | 9.72 | 5.5 | NC | 9 | a | 0.5 | a |
| 03N15 | 210.6 | 150 | 12.22 | 9.5 | NC | 28 | b | 1.4 | a |
| 03N16 | 210.6 | 155 | 12.22 | 10.0 | NC | 36 | b | 0.8 | a |
| 03N17 | 210.6 | 150 | 12.22 | 10.5 | NC | 35 | b | 0.8 | a |
| 03N18 | 210.6 | 150 | 12.22 | 10.0 | NC | 46 | b | 0.7 | a |
| 03N19 | 179.4 | 160 | 10.92 | 9.0 | NC | 19 | a | 1.1 | a |
| 03N20 | 130 | 80 | 6.5 | 9.0 | NC | 24 | a | 1.6 | a |
| 03N21 | 130 | 100 | 6.5 | 8.0 | NC | 22 | a | 0.9 | a |
| 03N22 | 139 | 150 | 9.23 | 8.5 | NC | 1 | a | 1.1 | a |
| 03N23 | 139 | 100 | 9.23 | 6.5 | NC | 17 | a | 0.6 | a |
| 04N01 | 157.2 | 65 | 8.45 | 6.1 | NC | 0 | a | 0.8 | a |
| 04N02 | 98.8 | 70 | 6.72 | 4.5 | NC | 7 | a | 0.4 | a |
| 04N03 | 98.8 | 90 | 6.72 | 5.0 | NC | 25 | b | 0.8 | a |
| 04N04 | 137.8 | 120 | 6.5 | 7.0 | NC | 10 | a | 1.1 | a |
| 04N05 | 137.8 | 110 | 6.5 | 5.5 | NC | 20 | a | 1 | a |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 04N06 | 137.8 | 100 | 6.5 | 5.0 | NC | 0 | a | 0.3 | a |
| 04N6.5 | 137.8 | 1000 | 6.5 | 80 | 45 | NC | | NC | |
| 04N07 | 137.8 | 100 | 6.5 | 6.0 | NC | 19 | a | 0.8 | a |
| 04N08 | 179.4 | 100 | 10.92 | 8.5 | NC | 0 | a | 1.1 | a |
| 04N13 | 170.3 | 130 | 9.72 | 8.5 | NC | 13 | a | 0.7 | a |
| 04N14 | 170.3 | 110 | 9.72 | 6.0 | NC | 16 | a | 1.4 | a |
| 04N15 | 179.4 | 170 | 10.92 | 8.5 | NC | 19 | a | 1.2 | a |
| 04N16 | 179.4 | 140 | 10.92 | 8.0 | NC | 31 | b | 0.8 | a |
| 04N17 | 179.4 | 170 | 10.92 | 8.0 | NC | 15 | a | 1 | a |
| 04N18 | 179.4 | 160 | 10.92 | 8.5 | NC | 37 | b | 1 | a |
| 04N19 | 179.4 | 150 | 10.92 | 9.5 | NC | 35 | b | 1.5 | a |
| 04N20 | 130 | 75 | 6.5 | 5.5 | NC | 21 | a | 1.1 | a |
| 04N21 | 130 | 50 | 6.5 | 4.5 | NC | 11 | a | 0.1 | a |
| 04N22 | 157.3 | 120 | 8.45 | 8.0 | NC | 0 | a | 0.9 | a |
| 04N23 | 139 | 100 | 9.23 | 6.5 | NC | 16 | a | 0.6 | a |
| 05N02 | 253.5 | 115 | 12.48 | 9.0 | NC | 30 | b | 1.2 | a |
| 05N03 | 253.5 | 95 | 12.48 | 5.5 | NC | 16 | a | 1.3 | a |
| 05N04 | 253.5 | 115 | 12.48 | 7.5 | NC | 27 | b | 1.1 | a |
| 05N05 | 253.5 | 105 | 12.48 | 7.0 | NC | 1 | a | 0.8 | a |
| 05N06 | 184.6 | 70 | 11.7 | 4.0 | NC | 0 | a | 0.3 | a |
| 05N07 | 184.6 | 160 | 11.7 | 6.5 | NC | 0 | a | 0.8 | a |
| 05N08 | 184.6 | 125 | 11.7 | 8.5 | NC | 18 | a | 1.2 | a |
| 05N13 | 179.4 | 145 | 10.92 | 9.5 | NC | 16 | a | 1.2 | a |
| 05N14 | 179.4 | 120 | 10.92 | 7.0 | NC | 25 | b | 0.2 | a |
| 05N15 | 179.4 | 140 | 10.92 | 9.5 | NC | 41 | b | 0.5 | a |
| 05N16 | 210.6 | 140 | 12.22 | 11.0 | NC | 16 | a | 1.1 | a |
| 05N17 | 210.6 | 145 | 12.22 | 9.0 | NC | 18 | a | 1 | a |
| 05N18 | 210.6 | 165 | 12.22 | 10.5 | NC | 39 | b | 0.8 | a |
| 05N19 | 130 | 105 | 6.5 | 9.5 | NC | 7 | a | 0.9 | a |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 05N20 | 130 | 105 | 6.5 | 6.5 | NC | 18 | a | 0.9 | a |
| 05N21 | 130 | 95 | 6.5 | 6.0 | NC | 3 | a | 0.6 | a |
| 05N22 | 157.3 | 65 | 8.45 | 4.0 | NC | 20 | a | 0.9 | a |
| 05N23 | 139 | 105 | 9.23 | 6.5 | NC | 23 | a | 0.8 | a |
| 06N02 | 157.3 | 75 | 8.45 | 6.5 | NC | 19 | a | 1.3 | a |
| 06N03 | 157.3 | 120 | 8.45 | 9.0 | NC | 1 | a | 1.1 | a |
| 06N05 | 253.5 | 90 | 12.48 | 5.0 | NC | 14 | a | 1 | a |
| 06N06 | 122.2 | 90 | 5.59 | 4.5 | NC | 11 | a | 0.8 | a |
| 06N07 | 122.2 | 140 | 5.59 | 9.0 | NC | 0 | a | 1.7 | a |
| 06N08 | 184.6 | 115 | 11.7 | 9.5 | NC | 24 | a | 1.4 | a |
| 06N09 | 184.6 | 150 | 11.7 | 9.5 | NC | 33 | b | 1 | a |
| 06N11 | 179.4 | 150 | 10.92 | 9.5 | NC | 20 | a | 0.8 | a |
| 06N12 | 179.4 | 175 | 10.92 | 10.0 | NC | 10 | a | 0.8 | a |
| | | | | | | 13 | a | 0.8 | a |
| 06N13 | 179.4 | 190 | 10.92 | 9.5 | NC | 13 | a | 0.8 | a |
| 06N14 | 179.4 | 160 | 10.92 | 11.0 | NC | 30 | b | 1.3 | a |
| 06N15 | 179.4 | 165 | 10.92 | 10.0 | NC | 6 | a | 1 | a |
| 06N16 | 179.4 | 140 | 10.92 | 10.0 | NC | 29 | b | 0.8 | a |
| 06N17 | 179.4 | 150 | 10.92 | 10.0 | NC | 25 | b | 1.3 | a |
| 06N18 | 130 | 125 | 6.5 | 9.0 | NC | 7 | a | 0.9 | a |
| 06N19 | 130 | 155 | 6.5 | 7.5 | NC | 39 | b | 1.2 | a |
| 06N20 | 130 | 130 | 6.5 | 6.5 | NC | 18 | a | 1.1 | a |
| 06N21 | 130 | 80 | 6.5 | 6.5 | NC | 1 | a | 0.7 | a |
| 06N22 | 139 | 125 | 9.23 | 5.5 | NC | NR | | NR | |
| 06N23 | 139 | 85 | 9.23 | 4.0 | NC | 18 | a | 0.5 | a |
| 07N01 | 253.5 | 140 | 12.48 | 8.5 | NC | 22 | a | 1.3 | a |
| 07N02 | 115.7 | 65 | 6.11 | 4.5 | NC | 24 | a | 0.7 | a |
| 07N03 | 253.5 | 140 | 12.48 | 9.5 | NC | 21 | a | 1.5 | a |
| 07N04 | 253.5 | 135 | 12.48 | 8.5 | NC | 0 | a | 1.2 | a |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 07N05 | 253.5 | 125 | 12.48 | 8.5 | NC | 11 | a | 0.8 | a |
| 07N06 | 122.2 | 85 | 5.59 | 4.5 | NC | 3 | a | 0.3 | a |
| 07N07 | 122.2 | 120 | 5.59 | 5.5 | NC | 12 | a | 0.9 | a |
| 07N11 | 179.4 | 170 | 10.92 | 9.5 | NC | 0 | a | 0.7 | a |
| 07N12 | 179.4 | 175 | 10.92 | 10.5 | NC | 24 | a | 0.9 | a |
| 07N13 | 179.4 | 120 | 10.92 | 6.5 | NC | 7 | a | 0.6 | a |
| 07N14 | 179.4 | 100 | 10.92 | 8.5 | NC | 27 | b | 0.8 | a |
| 07N15 | 179.4 | 140 | 10.92 | 9.5 | NC | 6 | a | 1.2 | a |
| 07N16 | 179.4 | 170 | 10.92 | 10.0 | NC | 13 | a | 0.9 | a |
| 07N17 | 179.4 | 150 | 10.92 | 8.5 | NC | 0 | a | 0.8 | a |
| 07N18 | 130 | 150 | 6.5 | 10.0 | NC | 26 | b | 1.3 | a |
| 07N19 | 130 | 85 | 6.5 | 5.5 | NC | 20 | a | 1.1 | a |
| 07N20 | 157.3 | 120 | 8.45 | 6.0 | NC | 12 | a | 0.6 | a |
| 07N21 | 157.3 | 90 | 8.45 | 7.5 | NC | 7 | a | 0.7 | a |
| 07N22 | 143 | 95 | 6.63 | 5.0 | NC | 5 | a | 0.4 | a |
| | | | | | | 12 | a | 0.8 | a |
| 07N23 | 143 | 115 | 6.63 | 8.0 | NC | 11 | a | 0.8 | a |
| | | | | | | 25 | b | 1.0 | a |
| 07N24 | 143 | 100 | 6.63 | 5 | NC | 12 | a | 0.5 | a |
| | | | | | | 19 | a | 0.6 | a |
| 07N25 | 143 | 70 | 6.63 | 5 | NC | 10 | a | 0.5 | a |
| 07N26 | 143 | 90 | 6.63 | 4.5 | NC | 4 | a | 0.3 | a |
| | | | | | | 0 | a | 0.5 | a |
| 07N27 | 143 | 110 | 6.63 | 8.5 | NC | 10 | a | 0.9 | a |
| | | | | | | 3 | a | 0.7 | a |
| 08N01 | 253.5 | 175 | 12.48 | 9.5 | NC | 4 | a | 0.9 | a |
| 08N02 | 122.2 | 75 | 5.59 | 4.5 | NC | WIPE | c | WIPE | c |
| 08N03 | 122.2 | 85 | 5.59 | 4.0 | NC | WIPE | c | WIPE | c |
| 08N04 | 130 | 80 | 6.5 | 3.5 | NC | WIPE | c | WIPE | c |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 08N05 | 130 | 90 | 6.5 | 4.0 | NC | WIPE | c | WIPE | c |
| 08N06 | 122.2 | 70 | 5.59 | 4.0 | NC | 2 | a | 0.2 | a |
| 08N07 | 122.2 | 110 | 5.59 | 8.5 | NC | 7 | a | 0.6 | a |
| 08N08 | 122.2 | 115 | 5.59 | 7.5 | NC | 23 | a | 0.9 | a |
| 08N11 | 213.2 | 160 | 13.13 | 10.0 | NC | 17 | a | 1.1 | a |
| 08N12 | 213.2 | 160 | 13.13 | 10.5 | NC | 16 | a | 0.9 | a |
| 08N13 | 213.2 | 120 | 13.13 | 9.0 | NC | 22 | a | 0.7 | a |
| 08N14 | 213.2 | 120 | 13.13 | 6.5 | NC | 10 | a | 0.9 | a |
| 08N15 | 213.2 | 115 | 13.13 | 8.0 | NC | 4 | a | 0.4 | a |
| 08N16 | 130 | 120 | 6.5 | 6.0 | NC | 0 | a | 0 | a |
| 08N17 | 130 | 50 | 6.5 | 6.0 | NC | 5 | a | 0.7 | a |
| 08N18 | 130 | 50 | 6.5 | 3.0 | NC | 11 | a | 0 | a |
| 08N19 | 130 | 50 | 6.5 | 4.0 | NC | 0 | a | 0 | a |
| 08N20 | 130 | 65 | 6.5 | 5.5 | NC | WIPE | c | WIPE | c |
| 08N21 | 157.3 | 60 | 8.45 | 3.0 | NC | WIPE | c | WIPE | c |
| 08N22 | 117.0 | 60 | 8.71 | 4.5 | NC | 22 | a | 0.8 | a |
| 08N23 | 117.0 | 80 | 8.71 | 7.0 | NC | WIPE | c | WIPE | c |
| 08N24 | 157.3 | 110 | 8.45 | 7.0 | NC | 0<br>10 | a<br>a | 0.6<br>0.5 | a<br>a |
| 08N25 | 157.3 | 55 | 8.45 | 3.5 | NC | 24 | a | 0.8 | a |
| 08N26 | 157.3 | 80 | 8.45 | 4.0 | NC | 12 | a | 0.9 | a |
| 08N27 | 143 | 115 | 6.63 | 6.5 | NC | 8 | a | 1 | a |
| 09N01 | 253.5 | 170 | 12.48 | 10.5 | NC | 2 | a | 1.2 | a |
| 09N02 | 122.2 | 65 | 5.59 | 4.0 | NC | WIPE | c | WIPE | c |
| 09N03 | 122.2 | 125 | 5.59 | 5.0 | NC | WIPE | c | WIPE | c |
| 09N04 | 130 | 85 | 6.5 | 5.0 | NC | WIPE | c | WIPE | c |
| 09N05 | 122.2 | 110 | 5.59 | 5.5 | NC | 3 | a | 0.8 | a |
| 09N06 | 122.2 | 75 | 5.59 | 4.5 | NC | 0 | a | 0.2 | a |
| 09N07 | 122.2 | 120 | 5.59 | 6.0 | NC | 0 | a | 1 | a |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 09N10 | 213.2 | 90 | 13.13 | 10.0 | NC | 25 | b | 0.9 | a |
| 09N11 | 213.2 | 70 | 13.13 | 4.5 | NC | 8 | a | 0.9 | a |
| 09N12 | 213.2 | 140 | 13.13 | 9.0 | NC | 18 | a | 1.2 | a |
| 09N13 | 213.2 | 140 | 13.13 | 9.0 | NC | 7 | a | 1.5 | a |
| 09N14 | 130 | 110 | 6.5 | 6.0 | NC | 14 | a | 0.8 | a |
| 09N15 | 130 | 105 | 6.5 | 6.0 | NC | 7 | a | 0.8 | a |
| 09N16 | 130 | 60 | 6.5 | 4.5 | NC | 11 | a | 0.6 | a |
| 09N17 | 130 | 80 | 6.5 | 4.5 | NC | 2 | a | 1.1 | a |
| 09N18 | 130 | 80 | 6.5 | 4.5 | NC | NC | | NC | |
| 09N19 | 130 | 70 | 6.5 | 4.0 | NC | NC | | NC | |
| 09N20 | 130 | 75 | 6.5 | 4.5 | NC | NR | | NR | |
| 09N21 | 157.3 | 95 | 8.45 | 4.0 | NC | NR | | NR | |
| 09N22 | 117.0 | 80 | 8.71 | 6.0 | NC | NC | | NC | |
| 09N25 | 157.3 | 50 | 8.45 | 4.0 | NC | WIPE | c | WIPE | c |
| 09N26 | 157.3 | 80 | 8.45 | 4.0 | NC | NR | | NR | |
| 09N27 | 143 | 100 | 6.63 | 7.5 | NC | 13 | a | 0.6 | a |
| 10N01 | 253.5 | 180 | 12.48 | 9.5 | NC | 4 | a | 1 | a |
| 10N02 | 122.2 | 100 | 5.59 | 4.0 | NC | WIPE | c | WIPE | c |
| 10N03 | 130 | 90 | 6.5 | 5.0 | NC | WIPE | c | WIPE | c |
| 10N04 | 130 | 80 | 6.5 | 3.0 | NC | 1 | a | 0 | a |
| 10N05 | 122.2 | 85 | 5.59 | 5.0 | NC | 11 | a | 0.9 | a |
| 10N10 | 213.2 | 70 | 13.13 | 8.5 | NC | 12 | a | 0.8 | a |
| 10N11 | 213.2 | 110 | 13.13 | 6.5 | NC | 2 | a | 0.6 | a |
| 10N12 | 213.2 | 90 | 13.13 | 9.5 | NC | 21 | a | 1.1 | a |
| 10N13 | 130 | 115 | 6.5 | 5.5 | NC | 4 | a | 0.9 | a |
| 10N14 | 130 | 50 | 6.5 | 4.5 | NC | 0 | a | 0 | a |
| 10N15 | 130 | 85 | 6.5 | 5.0 | NC | 0 | a | 0.6 | a |
| 10N16 | 130 | 60 | 6.5 | 4.0 | NC | WIPE | c | WIPE | c |
| 10N17 | 130 | 80 | 6.5 | 6.0 | NC | 0 | a | 0 | a |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 10N18 | 130 | 65 | 6.5 | 4.0 | NC | 21 | a | 0.7 | a |
| 10N19 | 130 | 80 | 6.5 | 8.0 | NC | WIPE | c | WIPE | c |
| 10N20 | 152.1 | 110 | 8.45 | 6.5 | NC | 0 | a | 1 | a |
| 10N21 | 152.1 | 70 | 8.45 | 5.0 | NC | NC | | NC | |
| 10N22 | 152.1 | 85 | 8.45 | 4.0 | NC | NC | | NC | |
| 11N01 | 253.5 | 150 | 12.48 | 9.5 | NC | 4 | a | 1 | a |
| 11N02 | 122.2 | 80 | 5.59 | 4.0 | NC | WIPE | c | WIPE | c |
| 11N03 | 130 | 85 | 6.5 | 5.0 | NC | WIPE | c | WIPE | c |
| 11N04 | 130 | 90 | 6.5 | 4.5 | NC | 0 | a | 0.5 | a |
| 11N05 | 122.2 | 105 | 5.59 | 5.5 | NC | 7 | a | 0.9 | a |
| 11N10 | 213.2 | 140 | 13.13 | 10.5 | NC | 18 | a | 1 | a |
| 11N11 | 213.2 | 130 | 13.13 | 11.0 | NC | 25 | b | 0.5 | a |
| 11N12 | 213.2 | 85 | 13.13 | 7.0 | NC | 7 | a | 1.1 | a |
| 11N14 | 130 | 90 | 6.5 | 5.0 | NC | WIPE | c | WIPE | c |
| 11N16 | 183.3 | 110 | 11.05 | 7.5 | NC | 19 | a | 0.5 | a |
| 11N17 | 130 | 50 | 6.5 | 4.0 | NC | 5 | a | 0.8 | a |
| 11N18 | 157.3 | 60 | 8.45 | 4.0 | NC | WIPE | c | WIPE | c |
| 11N19 | 157.3 | 85 | 8.45 | 7.5 | NC | 18 | a | 0.3 | a |
| 11N20 | 157.3 | 100 | 8.45 | 4.5 | NC | WIPE | c | WIPE | c |
| 11N21 | 87.1 | 75 | 5.85 | 4.5 | NC | NC | | NC | |
| 11N22 | 87.1 | 75 | 5.85 | 4.5 | NC | NC | | NC | |
| 11N23 | 157.3 | 55 | 8.45 | 5.5 | NC | NC | | NC | |
| 12N01 | 253.5 | 160 | 12.48 | 9.0 | NC | 14 | a | 0.9 | a |
| 12N02 | 122.2 | 100 | 5.59 | 5.0 | NC | WIPE | c | WIPE | c |
| 12N03 | 130 | 90 | 6.5 | 5.0 | NC | 5 | a | 0.7 | a |
| 12N04 | 130 | 75 | 6.5 | 4.5 | NC | 0 | a | 0.3 | a |
| 12N05 | 130 | 110 | 6.5 | 5.0 | NC | 13 | a | 0.8 | a |
| 12N10 | 213.2 | 100 | 13.13 | 9.5 | NC | 17 | a | 0.8 | a |
| 12N11 | 213.2 | 135 | 13.13 | 8.5 | NC | 21 | a | 0.6 | a |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 12N15 | 157.3 | 65 | 8.45 | 4.0 | NC | 85 | b | 0.9 | a |
| 12N16 | 157.3 | 110 | 8.45 | 5.5 | NC | 9 | a | 0.7 | a |
| 12N17 | 157.3 | 60 | 8.45 | 3.5 | NC | WIPE | c | WIPE | c |
| 12N18 | 157.3 | 60 | 8.45 | 4.5 | NC | WIPE | c | WIPE | c |
| 12N19 | 157.3 | 55 | 8.45 | 4.5 | NC | 19 | a | 0.5 | a |
| 12N20 | 157.3 | 65 | 8.45 | 4.5 | NC | WIPE | c | WIPE | c |
| 12N21 | 157.3 | 50 | 8.45 | 3.5 | NC | WIPE | c | WIPE | c |
| 12N22 | 157.3 | 85 | 8.45 | 5.5 | NC | 16 | a | 1 | a |
| 12N23 | 157.3 | 75 | 8.45 | 5.0 | NC | WIPE | c | WIPE | c |
| 12N24 | 157.3 | 40 | 8.45 | 3.5 | NC | WIPE | c | WIPE | c |
| 13N01 | 253.5 | 180 | 12.48 | 10.0 | NC | 15 | a | 1.1 | a |
| 13N02 | 253.5 | 95 | 12.48 | 4.5 | NC | WIPE | c | WIPE | c |
| 13N03 | 130 | 110 | 6.5 | 4.5 | NC | WIPE | c | WIPE | c |
| 13N25 | 157.3 | 40 | 8.45 | 4.0 | NC | WIPE | c | WIPE | c |
| 13N26 | 157.3 | 60 | 8.45 | 4.0 | NC | WIPE | c | WIPE | c |
| 14N01 | 253.5 | 100 | 12.48 | 7.0 | NC | WIPE | c | WIPE | c |
| 14N02 | 122.2 | 80 | 5.59 | 4.5 | NC | WIPE | c | WIPE | c |
| 14N03 | 130 | 75 | 6.5 | 5.0 | NC | WIPE | c | WIPE | c |
| 14N07 | 170.3 | 100 | 9.72 | 7.0 | NC | NR | | NR | |
| 14N08 | 170.3 | 150 | 9.72 | 10.0 | NC | NR | | NR | |
| 14N09 | 170.3 | 145 | 9.72 | 10.0 | NC | NR | | NR | |
| 14N10 | 170.3 | 85 | 9.72 | 8.0 | NC | NR | | NR | |
| 14N11 | 170.3 | 115 | 9.72 | 10.0 | NC | NR | | NR | |
| 14N12 | 170.3 | 130 | 9.72 | 8.0 | NC | NR | | NR | |
| 14N13 | 157.3 | 100 | 8.45 | 5.5 | NC | NR | | NR | |
| 14N15 | 157.3 | 70 | 8.45 | 4.0 | NC | WIPE | c | WIPE | c |
| 14N25 | 157.3 | 85 | 8.45 | 7.0 | NC | 9 | a | 0.6 | a |
| 14N26 | 157.3 | 80 | 8.45 | 7.5 | NC | 8 | a | 0.7 | a |
| 14N27 | 157.3 | 150 | 8.45 | 9.0 | NC | 20 | a | 0.9 | a |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 15N01 | 253.5 | 190 | 12.48 | 10.0 | NC | 21 | a | 1.1 | a |
| 15N02 | 122.2 | 110 | 5.59 | 4.5 | NC | WIPE | c | WIPE | c |
| 15N03 | 130 | 80 | 6.5 | 6.0 | NC | 0 | a | 0 | a |
| 15N06 | 130 | 75 | 6.5 | 5.0 | NC | NR | | NR | |
| 15N07 | 170.3 | 115 | 9.72 | 8.5 | NC | 30 | b | 1 | a |
| 15N08 | 170.3 | 155 | 9.72 | 9.0 | NC | NR | | NR | |
| 15N09 | 170.3 | 125 | 9.72 | 10.5 | NC | 17<br>17 | a<br>a | 1.2<br>1.1 | a<br>a |
| 15N10 | 170.3 | 100 | 9.72 | 7.5 | NC | 19 | a | 0.9 | a |
| 15N11 | 170.3 | 120 | 9.72 | 8.5 | NC | 3 | a | 1 | a |
| 15N12 | 157.3 | 100 | 8.45 | 6.0 | NC | 17 | a | 0.6 | a |
| 15N13 | 157.3 | 85 | 8.45 | 4.5 | NC | WIPE | c | WIPE | c |
| 15N14 | 157.3 | 108 | 8.45 | 6.0 | NC | NR | | NR | |
| 16N01 | 253.5 | 170 | 10.0 | 10.5 | NC | 17 | a | 1.1 | a |
| 16N02 | 122.2 | 70 | 5.59 | 4.5 | NC | WIPE | c | WIPE | c |
| 16N03 | 130 | 100 | 6.5 | 5.0 | NC | 0 | a | 0.5 | a |
| 16N04 | 130 | 150 | 6.5 | 9.0 | NC | 78 | b | 1.2 | a |
| 16N05 | NC | NC | NC | NC | NC | 243 | b | 1.2 | a |
| 16N06 | 130 | 45 | 6.5 | 4.5 | NC | WIPE | c | WIPE | c |
| 16N07 | 170.3 | 80 | 9.72 | 5.0 | NC | 4 | a | 1 | a |
| 16N08 | 170.3 | 45 | 9.72 | 4.5 | NC | 9 | a | 0.6 | a |
| 16N09 | 170.3 | 130 | 9.72 | 7.5 | NC | NR | | NR | |
| 16N10 | 170.3 | 125 | 9.72 | 6.5 | NC | NC | | NC | |
| 16N11 | 157.3 | 110 | 8.45 | 5.5 | NC | NC | | NC | |
| 16N13 | 157.3 | 55 | 8.45 | 5.5 | NC | NR | | NR | |
| 17N01 | 253.5 | 100 | 12.48 | 5.5 | NC | 0 | a | 0.5 | a |
| 17N02 | 130 | 80 | 6.5 | 4.5 | NC | WIPE | c | WIPE | c |
| 17N04 | 130 | 80 | 6.5 | 4.0 | NC | WIPE | c | WIPE | c |
| 17N05 | 130 | 90 | 6.5 | 4.0 | NC | WIPE | c | WIPE | c |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 17N06 | 130 | 100 | 6.5 | 5.0 | NC | 0 | a | 0.9 | a |
| 17N07 | 170.3 | 130 | 9.72 | 6.5 | NC | 21 | a | 1.2 | a |
| 17N08 | 170.3 | 130 | 9.72 | 8.0 | NC | 19 | a | 1.2 | a |
| 17N09 | 170.3 | 80 | 9.72 | 5.5 | NC | NC | | NC | |
| 17N10 | 170.3 | 100 | 9.72 | 6.0 | NC | NC | | NC | |
| 17N11 | 170.3 | 90 | 9.72 | 7.0 | NC | NC | | NC | |
| 17N12 | 152.1 | 40 | 8.45 | 4.5 | NC | 6 | a | 0.6 | a |
| 18N01 | 253.5 | 185 | 12.48 | 9.0 | NC | 16 | a | 1.1 | a |
| 18N02 | 130 | 80 | 6.5 | 4.0 | NC | WIPE | c | WIPE | c |
| 18N03 | 130 | 75 | 6.5 | 5.0 | NC | WIPE | c | WIPE | c |
| 18N04 | 130 | 60 | 6.5 | 4.5 | NC | 6 | a | 0.8 | a |
| 18N06 | 130 | 90 | 6.5 | 6.5 | NC | WIPE | c | WIPE | c |
| 18N07 | 170.3 | 100 | 9.72 | 7.0 | NC | 13 | a | 0.7 | a |
| 18N08 | 170.3 | 170 | 9.72 | 11.0 | NC | 22 | a | 1.1 | a |
| 18N09 | 170.3 | 150 | 9.72 | 10.5 | NC | NR | | NR | |
| 18N12 | 152.1 | 100 | 8.45 | 6.5 | NC | 0 | a | 0.3 | a |
| 19N01 | 253.5 | 155 | 12.48 | 9.5 | NC | 3 | a | 0.6 | a |
| 19N02 | 130 | 85 | 6.5 | 4.0 | NC | NC | | NC | |
| 19N03 | 130 | 70 | 6.5 | 5.0 | NC | 4 | a | 0.8 | a |
| 19N04 | 130 | 60 | 6.5 | 4.0 | NC | WIPE | c | WIPE | c |
| 19N05 | 130 | 65 | 6.5 | 4.0 | NC | WIPE | c | WIPE | c |
| 19N06 | 130 | 60 | 6.5 | 5.0 | NC | WIPE | c | WIPE | c |
| 19N07 | 176.8 | 325 | 8.97 | 20.0 | 45 | 56 | b | 15.9 | b |
| 19N08 | 176.8 | 125 | 8.97 | 7 | NC | 25<br>39 | b<br>b | 2.4<br>0.9 | b<br>a |
| 19N09 | 176.8 | 170 | 8.97 | 9.5 | NC | 10 | a | 1.1 | a |
| 19N10 | 176.8 | 70 | 8.97 | 3.5 | NC | 3 | a | 0.2 | a |
| 20N01 | 253.5 | 95 | 12.48 | 5.0 | NC | 16 | a | 0.6 | a |
| 20N02 | 130 | 105 | 6.5 | 6.5 | NC | 8 | a | 0.7 | a |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 20N03 | 130 | 100 | 6.5 | 6.5 | NC | 0 | a | 0.3 | a |
| 20N04 | 176.8 | 110 | 8.97 | 7.5 | NC | 0 | a | 1.1 | a |
| 20N05 | 176.8 | 85 | 8.97 | 4.5 | NC | WIPE | c | WIPE | c |
| 20N06 | 176.8 | 375 | 8.97 | 22.0 | 30 | 27 | b | 2.6 | b |
| 20N07 | 176.8 | 325 | 8.97 | 22.5 | 45 | 37 | b | 14.7 | b |
| 20N10 | 157.3 | 95 | 8.45 | 4.5 | NC | 0 | a | 0.6 | a |
| 20N11 | 157.3 | 80 | 8.45 | 4.0 | NC | WIPE | c | WIPE | c |
| 21N01 | 253.5 | 140 | 12.48 | 9.5 | NC | 15 | a | 1 | a |
| | | | | | | 3 | a | 0.8 | a |
| 21N02 | 176.8 | 140 | 8.97 | 6.5 | NC | 7 | a | 1 | a |
| | | | | | | 19 | a | 0.7 | a |
| 21N03 | 176.8 | 160 | 8.97 | 8.0 | NC | 20 | a | 1.2 | a |
| 21N04 | 176.8 | 100 | 8.97 | 5.0 | NC | 9 | a | 0.5 | a |
| 21N05 | 152.1 | 110 | 8.45 | 10.0 | NC | 11 | a | 1.8 | a |
| 21N08 | 176.8 | 85 | 8.97 | 4.5 | NC | WIPE | c | WIPE | c |
| 21N09 | 176.8 | 75 | 8.97 | 4.5 | NC | WIPE | c | WIPE | c |
| 21N10 | 157.3 | 90 | 8.45 | 6.5 | NC | 19 | a | 0.9 | a |
| 22N01 | 253.5 | 145 | 12.48 | 8.5 | NC | 24 | a | 1.3 | a |
| 22N02 | 176.8 | 135 | 8.97 | 5.5 | NC | 3 | a | 0.6 | a |
| 22N03 | 176.8 | 115 | 8.97 | 6.0 | NC | 18 | a | 1.1 | a |
| 22N04 | 152.1 | 100 | 8.45 | 9.5 | NC | 19 | a | 2 | b |
| 22N05 | 152.1 | 105 | 8.45 | 8.0 | NC | 10 | a | 1.4 | a |
| 22N08 | 176.8 | 115 | 8.97 | 4.5 | NC | WIPE | c | WIPE | c |
| 22N09 | 176.8 | 95 | 8.97 | 6.0 | NC | WIPE | c | WIPE | c |
| 23N01 | 253.5 | 170 | 12.48 | 10.5 | NC | 25 | b | 0.8 | a |
| 23N02 | 176.8 | 160 | 8.97 | 5.0 | NC | 16 | a | 0.8 | a |
| | | | | | | 26 | b | 1.0 | a |
| 23N03 | 152.1 | 115 | 8.45 | 5.5 | NC | 3 | a | 1.1 | a |
| 23N04 | 152.1 | 95 | 8.45 | 6.0 | NC | 12 | a | 0.7 | a |

# APPENDIX D
## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |
| 23N05 | 152.1 | 100 | 8.45 | 7.0 | NC | 25 | b | 1.1 | a |
| 23N08 | 152.1 | 65 | 8.45 | 4.5 | NC | WIPE | c | WIPE | c |
| 24N01 | 253.5 | 150 | 12.48 | 9.5 | NC | 9 | a | 1.4 | a |
| 24N02 | 176.8 | 90 | 8.97 | 4.0 | NC | WIPE | c | WIPE | c |
| 24N03 | 176.8 | 135 | 8.97 | 6.5 | NC | 8 | a | 1.2 | a |
| 24N04 | 176.8 | 145 | 8.97 | 7.5 | NC | 21 | a | 1 | a |
| 24N05 | 176.8 | 70 | 8.97 | 4.0 | NC | WIPE | c | WIPE | c |
| 24N06 | 176.8 | 70 | 8.97 | 3.5 | NC | WIPE | c | WIPE | c |
| 24N07 | 176.8 | 70 | 8.97 | 4.5 | NC | WIPE | c | WIPE | c |
| 24N10 | 157.3 | 90 | 8.45 | 5.5 | NC | NC | | NC | |
| 25N01 | 253.5 | 145 | 12.48 | 9.0 | NC | 20 | a | 1.2 | a |
| 25N02 | 152.1 | 50 | 8.45 | 3.5 | NC | WIPE | c | WIPE | c |
| 25N04 | 130 | 50 | 6.5 | 5.5 | NC | 11 | a | 0.7 | a |
| 25N05 | 176.8 | 70 | 8.97 | 3.0 | NC | NR | | NR | |
| 25N09 | 157.3 | 65 | 8.45 | 6.0 | NC | NR | | NR | |
| 26N01 | 253.5 | 115 | 12.48 | 8.5 | NC | 14 | a | 1.2 | a |
| 26N02 | 152.1 | 100 | 8.45 | 5.5 | NC | 9 | a | 0.4 | a |
| 26N03 | 130 | 40 | 6.5 | 3.5 | NC | NC | | NC | |
| 26N04 | 152.1 | 50 | 8.45 | 4.0 | NC | WIPE | c | WIPE | c |
| 26N05 | 176.8 | 100 | 8.97 | 5.5 | NC | 14 | a | 0.7 | a |
| 26N08 | 157.3 | 85 | 8.45 | 5.0 | NC | WIPE | c | WIPE | c |
| 26N09 | 157.3 | 50 | 8.45 | 5.0 | NC | 5 | a | 0.6 | a |
| 27N01 | 253.5 | 105 | 12.48 | 5.5 | NC | 12 | a | 0.7 | a |
| 27N02 | 152.1 | 20 | 8.45 | 4.0 | NC | 19 | a | 1.1 | a |
| 27N03 | 152.1 | 75 | 8.45 | 4.0 | NC | WIPE | c | WIPE | c |
| 27N04 | 152.1 | 75 | 8.45 | 3.5 | NC | NR | | NR | |
| 27N05 | 130 | 50 | 6.5 | 3.5 | NC | NR | | NR | |
| 28N01 | 253.5 | 130 | 12.48 | 9.0 | NC | 19 | a | 1 | a |
| 28N02 | 152.1 | 80 | 8.45 | 5.0 | NC | 13 | a | 0.9 | a |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | FIDLER SURVEY DATA | | | | | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|---|---|---|---|---|
| SMPID | Contamination Criteria CH1 | FIDLER Readings CH1 | Contamination Criteria CH2 | FIDLER Readings CH2 | FIDLER Readings Out Channel | Plutonium - 238 | | Thorium - 232 | |
| | Units: CPM | Units: CPM | Units: KCPM | Units: KCPM | Units: KCPM | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | RESULTS | Note: | RESULTS | Note: |

NR - Not recorded
NC - No sample/reading taken
NA - Reading not taken; contamination criteria not exceeded.
a - Mound Soil Screening Facility detection level not exceeded.
b - Concentration at or above the Mound Soil Screening Facility detection level.
c - Results of the wipe sample were less than 20 disintegrations per minute.
CPM - Counts per minute
KCPM - Counts per-minute x 1000
pCi/g - Picocuires per gram

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61A01 | 124.8 | NA | 9.62 | NA | 9.62 | | 15 | a | 0.7 | a |
| 61A01-01 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61A01-02 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A01-03 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A01-04 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61A01-05 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A01-06 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A01-07 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A01-08 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A01-09 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61A01-10 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61A01-11 | 124.8 | NA | 9.62 | NA | 9.62 | 7.5 | NC | | NC | |
| 61A01-12 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A01-13 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A01-14 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A01-15 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A01-16 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A01-17 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A01-18 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A01-19 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61A01-20 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61A01-21 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61A01-22 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A01-23 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61A01-24 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A01-25 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A02 | 124.8 | NA | 9.62 | NA | 9.62 | | 15 | a | 0.7 | a |
| 61A02-01 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61A02-02 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |

# APPENDIX D
## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61A02-03 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A02-04 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61A02-05 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A02-06 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A02-07 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A02-08 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61A02-09 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61A02-10 | 124.8 | NA | 9.62 | NA | 9.62 | 9.0 | NC | | NC | |
| 61A02-11 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61A02-12 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A02-13 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A02-14 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61A02-15 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61A02-16 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61A02-17 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A02-18 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A02-19 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61A02-20 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61A02-21 | 124.8 | NA | 9.62 | NA | 9.62 | 9.0 | NC | | NC | |
| 61A02-22 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A02-23 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A02-24 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A02-25 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61A03 | 124.8 | NA | 9.62 | NA | 9.62 | | 17 | a | 1 | a |
| 61A03-01 | 124.8 | NA | 9.62 | NA | 9.62 | 9.0 | NC | | NC | |
| 61A03-02 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61A03-03 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61A03-04 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A03-05 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61A03-06 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A03-07 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61A03-08 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A03-09 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A03-10 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61A03-11 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61A03-12 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A03-13 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A03-14 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A03-15 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61A03-16 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61A03-17 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A03-18 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61A03-19 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61A03-20 | 124.8 | NA | 9.62 | NA | 9.62 | 8.5 | NC | | NC | |
| 61A03-21 | 124.8 | NA | 9.62 | NA | 9.62 | 9.0 | NC | | NC | |
| 61A03-22 | 124.8 | NA | 9.62 | NA | 9.62 | 6.5 | NC | | NC | |
| 61A03-23 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A03-24 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61A03-25 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A04 | 124.8 | NA | 9.62 | NA | 9.62 | | 24 | a | 0.9 | a |
| 61A04-01 | 124.8 | NA | 9.62 | NA | 9.62 | 9.0 | NC | | NC | |
| 61A04-02 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61A04-03 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A04-04 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A04-05 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A04-06 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A04-07 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A04-08 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |

# APPENDIX D
## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61A04-09 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A04-10 | 124.8 | NA | 9.62 | NA | 9.62 | 9.0 | NC | | NC | |
| 61A04-11 | 124.8 | NA | 9.62 | NA | 9.62 | 9.0 | NC | | NC | |
| 61A04-12 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A04-13 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A04-14 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A04-15 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A04-16 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A04-17 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61A04-18 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A04-19 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A04-20 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61A04-21 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61A04-22 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A04-23 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61A04-24 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61A04-25 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61A05 | 124.8 | NA | 9.62 | NA | 9.62 | | 15 | a | 1 | a |
| 61B01 | 124.8 | NA | 9.62 | NA | 9.62 | | 19 | a | 1 | a |
| 61B01-01 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61B01-02 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-03 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-04 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-05 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-06 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-07 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-08 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61B01-09 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61B01-10 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61B01-11 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61B01-12 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-13 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-14 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-15 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-16 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-17 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-18 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-19 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-20 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-21 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-22 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-23 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-24 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B01-25 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02 | 124.8 | NA | 9.62 | NA | 9.62 | | 9 | a | 0.7 | a |
| 61B02-01 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-02 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-03 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-04 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61B02-05 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61B02-06 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61B02-07 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-08 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-09 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-10 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-11 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-12 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-13 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61B02-14 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61B02-15 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61B02-16 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-17 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-18 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-19 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61B02-20 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-21 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-22 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-23 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-24 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B02-25 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61B03-01 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-02 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-03 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-04 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-05 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-06 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-07 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-08 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-09 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-10 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-11 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-12 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-13 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-14 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-15 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-16 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61B03-17 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-18 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-19 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-20 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-21 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61B03-22 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-23 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-24 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B03-25 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61B04-01 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-02 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-03 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-04 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-05 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-06 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-07 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61B04-08 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-09 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-10 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-11 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-12 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-13 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-14 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-15 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-16 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-17 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-18 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-19 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |

# APPENDIX D
## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61B04-20 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-21 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-22 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-23 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-24 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B04-25 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61B05 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61C01 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61C01-01 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61C01-02 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C01-03 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61C01-04 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61C01-05 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61C01-06 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61C01-07 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C01-08 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C01-09 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61C01-10 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61C01-11 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61C01-12 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61C01-13 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C01-14 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C01-15 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C01-16 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C01-17 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C01-18 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C01-19 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C01-20 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61C01-21 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61C01-22 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C01-23 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C01-24 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C01-25 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C02 | 124.8 | NA | 9.62 | NA | 9.62 | | 6 | a | 0.4 | a |
| 61C02-01 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C02-02 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61C02-03 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-04 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-05 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-06 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-07 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-08 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-09 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61C02-10 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C02-11 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C02-12 | 124.8 | NA | 9.62 | NA | 9.62 | 8.0 | NC | | NC | |
| 61C02-13 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-14 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-15 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-16 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-17 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-18 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-19 | 124.8 | NA | 9.62 | NA | 9.62 | 7.5 | NC | | NC | |
| 61C02-20 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C02-21 | 124.8 | NA | 9.62 | NA | 9.62 | 7.0 | NC | | NC | |
| 61C02-22 | 124.8 | NA | 9.62 | NA | 9.62 | 7.5 | NC | | NC | |
| 61C02-23 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C02-24 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |

# APPENDIX D
## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61C02-25 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03 | 124.8 | NA | 9.62 | NA | 9.62 | | 14 | a | 1 | a |
| 61C03-01 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61C03-02 | 124.8 | NA | 9.62 | NA | 9.62 | 6.5 | NC | | NC | |
| 61C03-03 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-04 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-05 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-06 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-07 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-08 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-09 | 124.8 | NA | 9.62 | NA | 9.62 | 6.5 | NC | | NC | |
| 61C03-10 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61C03-11 | 124.8 | NA | 9.62 | NA | 9.62 | 5.5 | NC | | NC | |
| 61C03-12 | 124.8 | NA | 9.62 | NA | 9.62 | 6.0 | NC | | NC | |
| 61C03-13 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-14 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-15 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-16 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C03-17 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C03-18 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-19 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-20 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-21 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-22 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C03-23 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C03-24 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C03-25 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61C04-01 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61C04-02 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-03 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C04-04 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C04-05 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-06 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C04-07 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-08 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-09 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-10 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-11 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-12 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C04-13 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C04-14 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-15 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-16 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-17 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-18 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C04-19 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-20 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61C04-21 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-22 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-23 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-24 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61C04-25 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61C05 | 124.8 | NA | 9.62 | NA | 9.62 | | 4 | a | 0.5 | a |
| 61D01 | 124.8 | NA | 9.62 | NA | 9.62 | | NC | | NC | |
| 61D01-01 | 124.8 | NA | 9.62 | NA | 9.62 | 6.5 | NC | | NC | |
| 61D01-02 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D01-03 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61D01-04 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D01-05 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D01-06 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D01-07 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D01-08 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D01-09 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D01-10 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D01-11 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D01-12 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D01-13 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D01-14 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D01-15 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D01-16 | 124.8 | NA | 9.62 | NA | 9.62 | 3.5 | NC | | NC | |
| 61D01-17 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D01-18 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D01-19 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D01-20 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D01-21 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D01-22 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D01-23 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D01-24 | 124.8 | NA | 9.62 | NA | 9.62 | 3.5 | NC | | NC | |
| 61D01-25 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D02 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61D02-01 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D02-02 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D02-03 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D02-04 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D02-05 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D02-06 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61D02-07 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D02-08 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D02-09 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D02-10 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D02-11 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D02-12 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D02-13 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D02-14 | 124.8 | NA | 9.62 | NA | 9.62 | 3.5 | NC | | NC | |
| 61D02-15 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D02-16 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D02-17 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D02-18 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D02-19 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D02-20 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D02-21 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D02-22 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D02-23 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D02-24 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D02-25 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D03 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61D03-01 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D03-02 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D03-03 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D03-04 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D03-05 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D03-06 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D03-07 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D03-08 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D03-09 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61D03-10 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D03-11 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D03-12 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D03-13 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D03-14 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D03-15 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D03-16 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D03-17 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D03-18 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D03-19 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D03-20 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D03-21 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D03-22 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D03-23 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D03-24 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D03-25 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61D04-01 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-02 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-03 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-04 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D04-05 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D04-06 | 124.8 | NA | 9.62 | NA | 9.62 | 4.0 | NC | | NC | |
| 61D04-07 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-08 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-09 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-10 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-11 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-12 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |

# APPENDIX D

## RADIOLOGICAL DATA (FIDLER SURVEY & MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | 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: |
| 61D04-13 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-14 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-15 | 124.8 | NA | 9.62 | NA | 9.62 | 5.0 | NC | | NC | |
| 61D04-16 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-17 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-18 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-19 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-20 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-21 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-22 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-23 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-24 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D04-25 | 124.8 | NA | 9.62 | NA | 9.62 | 4.5 | NC | | NC | |
| 61D05 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61E01 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61E02 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61E03 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61E04 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |
| 61E05 | 124.8 | NA | 9.62 | NA | 9.62 | | WIPE | c | WIPE | c |

NC - No sample collected because location not an original grid point
NA - Reading not taken; contamination criteria not exceeded.
NS - Sample collected but not analyzed.
a - Mound Soil Screening Facility detection level not exceeded.
c - Results of the wipe sample were less than 20 disintegrations per minute.
CPM - Counts per minute
KCPM - Counts per minute x 1000
pCi/g - Picocuires per gram

APPENDIX D

RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|
| SMPID | Plutonium - 238 | | Thorium - 232 | |
| | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | Note: | RESULTS | Note: |
| | | | | |
| | **SOIL GAS SAMPLING** | | | |
| | *FUEL AREA* | | | |
| PUMPE | 0 | a | 1.3 | a |
| PUMPW | WIPE | c | WIPE | c |
| PUMPN | WIPE | c | WIPE | c |
| PUMPS | WIPE | c | WIPE | c |
| TANKE | 4 | a | 0.4 | a |
| TANKW | WIPE | c | WIPE | c |
| TANKN | 5 | a | 0.2 | a |
| TANKS | 4 | a | 1.1 | a |
| SEPE | WIPE | c | WIPE | c |
| SEPW | WIPE | c | WIPE | c |
| SEPN | WIPE | c | WIPE | c |
| SEPS | WIPE | c | WIPE | c |
| | *ADDITIONAL LOCATIONS IN NON-AOC* | | | |
| 08N25.5 | 17 | a | 0.8 | a |
| 13N5.5 | 10 | a | 1.2 | a |
| 13N07 | 4 | a | 0.7 | a |
| 14N06 | WIPE | c | WIPE | c |
| 7.5N25.5 | 0 | a | 0.5 | a |
| 8.5N20 | 9 | a | 0.8 | a |
| 17.25N2.5 | 20 | a | 1 | a |
| 16.75N2.5 | 0 | a | 0.4 | a |
| 19.5N10 | 11 | a | 0.9 | a |
| 20.25N10.5 | 0 | a | 0.2 | a |
| 9.5N25.5 | WIPE | c | WIPE | c |
| 11.75N18.75 | WIPE | c | WIPE | c |
| 11.6N18.5 | WIPE | c | WIPE | c |
| 3.5N13.5 | WIPE | c | WIPE | c |
| 08N5.5 | WIPE | c | WIPE | c |

APPENDIX D

RADIOLOGICAL DATA (FIDLER SURVEY MOUND SOIL SCREENING FACILITY DATA) FOR NON-AOC POINTS

| | MOUND SOIL SCREENING FACILITY DATA | | | |
|---|---|---|---|---|
| SMPID | Plutonium - 238 | | Thorium - 232 | |
| | Units: pCi/g | | Units: pCi/g | |
| | RESULTS | Note: | RESULTS | Note: |
| | | | | |
| | **SOIL SCREENING SAMPLES** | | | |
| | *ADDITIONAL LOCATIONS IN NON-AOC* | | | |
| 13.25N06 | 2 | a | 0.4 | a |
| 13.5N15 | 20 | a | 0.8 | a |
| 13N22.5 | 12 | a | 0.3 | a |
| 14.3N13 | 14 | a | 0.8 | a |
| 2.5N18 | 13 | a | 1.3 | a |
| 21.5N2.5 | 25 | b | 1 | a |
| OS5W | 16 | a | 0.7 | a |
| 4.5N7.5 | 2 | a | 1 | a |
| | *SOIL SAMPLES* | | | |
| BB1001 | 8 | a | 0.4 | a |
| BB2001 | 6 | a | 0.6 | a |
| BB3001 | 5 | a | 0.7 | a |
| BB4001 | 3 | a | 0.5 | a |
| BB5001 | 7 | a | 0.1 | a |
| BB6001 | 4 | a | 0.5 | a |
| BB7001 | 8 | a | 0.4 | a |
| | *BUILDING 24* | | | |
| 17001 | 9 | a | 1.2 | a |
| 17002 | 15 | a | 1.1 | a |
| 18001 | 38 | b | 6.7 | b |
| 18002 | 18 | a | 1.3 | a |
| 19001 | 6 | a | 0.4 | a |
| 19002 | 0 | a | 0.3 | a |
| 20001 | 2 | a | 0.3 | a |
| 20002 | 11 | a | 0.5 | a |
| | *WELL W410* | | | |
| B41001 | 17 | a | 0.7 | a |
| B41002 | 0 | a | 0.8 | a |

a - Mound Soil Screening Facility detection level not exceeded.

b - Concentration at or above the Mound Soil Screening Facility detection level.

c - Results of the wipe sample were less than 20 disintegrations per minute.

CPM - Counts per minute

KCPM - Counts per minute x 1000

pCi/g - Picocuires per gram

**APPENDIX E**
**SOIL GAS SURVEY REPORT**

Final Report of the PETREX® Soil Gas Survey
Of The Non-Area of Concern, Operable Unit 5

U.S. Department of Energy Mound Facility
Miamisburg, Ohio

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

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(Plates 1 through 5 are provided separately and unbound)

## 1.0 EXECUTIVE SUMMARY

SAIC and NERI performed a Petrex passive soil gas survey of the NonAOC of Operable Unit -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 VOC's and SVOC's, particularly hydrocarbons from petroleum products and halogenated organic compounds found in various chemical products which may have been used at the facility.

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 14 and October 11, 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 hydrocarbons from fuels (and potentially from solvents) are present in the subsurface at many points within the NonAOC. Subsurface media within the Fuel Area, Area-61, and portions of the NonAOC-East may show the greatest impact by petroleum. Probable source areas of subsurface contamination by petroleum are apparatus for handling fuels in the Fuel Area, operations within or nearby Building No. 61, operations within the central portion of the NonAOC-East. Sources of petroleum effecting the subsurface of OU-5 may also exist outside the OU-5 boundary.

2. Elevated levels of halogenated hydrocarbons are present in the subsurface at numerous points within each geographic division of the NonAOC. These compounds likely derive in most part from historic land use and not from current facility operations. The areal distribution of halogenated compounds in the subsurface suggests that they have not been subject to sitewide dispersion or migration.

3. Quantitative testing of soil and groundwater from numerous Petrex soil gas sampling points is recommended as the first step in determining the environmental significance of these survey results.

## 2.0 INTRODUCTION

With the aid of Northeast Research Institute LLC (NERI), Science Applications International Corporation (SAIC) recently completed a Petrex soil gas survey of the NonArea of Concern (NonAOC) of Operable Unit -5 (OU-5) of the U. S. Department of Energy's Mound Facility in Miamisburg, Ohio. The survey of the NonAOC was performed as part of a larger soil gas survey of the entire OU-5 area including seven defined Areas of Concern.

The NonAOC encompasses the majority of the facility within the boundaries of OU-5 excepting the smaller, embedded Areas of Concern ( AOC-3, AOC-7, AOC-13, AOC-21, AOC-22, AOC-J, and Area-SDB). The NonAOC was divided-up into four geographical units, NonAOC-South, NonAOC-West, NonAOC-East, and NonAOC-North to accommodate practical limitations in field operations. Two subunits of NonAOC-North, Area-61 and the Fuel Area, were also recognized (see Plate 1). Samplers from individual geographical units were collected and analyzed as separate phases of the larger soil gas survey of OU-5.

Past and current land use within the NonAOC varies. Some portions of the NonAOC may consist of undisturbed ground while other areas may have been extensively regarded and used for storage of facility wastes. Some portions of the NonAOC currently house structures in which various chemical products are stored or processed. Due to this diverse history, subsurface contamination by numerous volatile and semivolatile organic compounds (VOC's and SVOC's) is suspected. These compounds include components of petroleum products (fuels, oils, and lubricants), coal tar products (such as creosote), halogenated and nonhalogenated solvents (such as xylenes, and PCE), and refrigerants (CFC's or Freons). The purpose of this Petrex soil gas survey was to locate areas within the NonAOC which exhibit potential subsurface contamination by VOC's and SVOC's. The information generated by this survey could then be used to 1) determine what compounds may impact soil or groundwater quality, 2) locate areas of greatest potential impact and areas where these compounds might have been buried or released, and 3) strategically plan quantitative testing of soil and groundwater to determine the regulatory significance of findings site-wide.

## 3.0 OBJECTIVES

The technical objectives of the Petrex soil gas survey of the NonAOC were to:

1. Collect and identify VOC's and SVOC's in the subsurface.

2. Report results for targeted VOC's and SVOC's and illustrate their areal distribution on-site through mapping of results.

3. Determine the location of possible sources of subsurface contamination and identify 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

The scope of work of the soil gas survey of the NonAOC specified collection and analysis of soil gas samples from a total of three hundred and ninety-six (396) sample collection points. The majority of these sample collection points was arrayed in a uniform grid which overlaid the NonAOC. The distance between sample collection points within the sampling grid was one hundred feet. This sampling grid corresponds to a rectangular coordinate system that extends 2,800 feet to the north and 2,700 feet to the west from an origin in the southeast of the facility (see Plate 1 provided with this report). Approximately twenty sample collection points were strategically located outside of the uniform rectangular grid near suspected contaminant sources areas.

The NonAOC-South encompasses approximately thirty acres or the southern one third of OU-5 (south of coordinate 7 North). A total of one hundred and thirty-one (131) Petrex soil gas sample collection points were distributed across this area. The terrain within the NonAOC-South is near level in the eastern half, but slopes downward to the west from the mid-point with an average grade of 15%.

The NonAOC-West encompasses approximately twenty-four acres immediately to the north of the NonAOC-South. The NonAOC-West extends from the western limits of OU-5 and AOC-3 eastward to AOC-21, AOC-J, and the access road on the margin of the OU-5 high security area. A total of eighty-five (85) Petrex soil gas sample collection points were distributed throughout the NonAOC-West. Except for the steep hillside on the east and southeast, the terrain within the NonAOC-West is nearly level or slopes only gently to the west. The bulk of the NonAOC-West is situated in the broad depression at the mouth of a former ravine formed by mounded property to the north, east, and southeast.

The NonAOC-East encompasses approximately fourteen acres along the central eastern border of OU-5 and includes the OU-5 high security area. A total of sixty-three (63) Petrex soil gas sample collection points were distributed throughout the NonAOC-East. The terrain within the NonAOC-East is nearly level and is situated on the western edge of a mound or plateau.

The NonAOC-North occupies approximately twenty acres of the northern and northwestern portion of OU-5 and includes the Fuel Area and Area-61 as survey area subdivisions. A total of one hundred and seventeen (117) Petrex soil gas sampling points were distributed throughout the NonAOC-North and included twelve (12) points located within the Fuel Area and twenty-five (25) points within Area-61. The NonAOC-North (and the Fuel Area and Area-61) is situated within the former ravine and on the northwest slope formed by mounded terrain to the northwest, north and southeast. The central northern portion of the NonAOC-North contains AOC-7 which was surveyed in an earlier phase of this investigation. Previous to the construction of modern structures the terrain centered on the ravine was subject to some infilling with earth and debris from other facility areas.

The Fuel Area and Area-61 were established as individual survey areas to satisfy investigation objectives relating to these two potential contaminant source areas. The Fuel Area houses several tanks, pumps and a fuel/water separator unit. This specific survey area is suspected to be a source of subsurface contamination by petroleum, especially diesel fuel and fuel oils. Area-61, which adjoins the eastern side of Building No. 61, may demonstrate subsurface contamination due, in particular, to past local facility operations.

Except for soil gas samples from eleven (11) sampling points which either could not be retrieved from the field or were accidentally mishandled during sample collection or shipping (see sample submittal and chain of custody forms) 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

All field operations for this survey were organized and performed by SAIC personnel. Because of limitations in man power and site clearance scheduling, the schedule of performance of field work within the four separate geographic units of the NonAOC (and Area-61) ranged over several months.

The duration of sampler exposure required to attain levels of VOC's and SVOC's in the samples which were best suited to analysis was determined through the use of exposure time tests specific to each NonAOC geographic unit. These "time tests" were initiated during the first few days of field work within each NonAOC geographic unit. Time test samplers were divided into pairs and installed beside several established sampling points within each NonAOC geographic unit. These time test samplers were then retrieved and analyzed following seven and fourteen days' exposure. Based on the rate of loading of compounds to the time test samplers observed over this time period, the approximate duration of exposure required by all of the samplers within a NonAOC geographic unit was determined. Time test results were communicated to site operatives as soon as sampler analyses were completed. Results were evaluated in discussions with site operatives and an optimal duration of exposure specific to the survey area was agreed upon.

Samplers were retrieved on attainment of optimal exposure. Samplers were retrieved in the approximate order in which they were installed such that all of the samplers from the same NonAOC geographic unit were exposed for approximately the same length of time despite differences in actual sampler installation and retrieval dates.

The majority of the samples from the NonAOC-South were collected between June 14 and July 21, 1994. The average length of Petrex sampler exposure within the NonAOC-South was fourteen days.

Field work within the NonAOC-West and the NonAOC-East was performed between August 24 and October 11, 1994. The average length of sampler exposure within both of these portions of the NonAOC was 30 days.

Soil gas samples from eleven points within the geographic boundaries of the NonAOC-South were collected concurrent with performance of field work on the NonAOC-West and the NonAOC-East (see Table 1). As befitted existing site conditions during this episode of field operations, the length of sampler exposure at these eleven sampling points was thirty days.

Samples from the NonAOC-North including the Fuel Area were collected between August 17 and September 27, 1994. The average length of sampler exposure within the NonAOC-North was 12 days.

Although the NonAOC-North encompassed Area-61, Area-61 was surveyed as a fifth and separate geographic unit of the NonAOC. Field work within Area-61 was performed between August 11 and September 6, 1994. The average length of sampler exposure within Area-61 was 21 days.

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 across the NonAOC. Petrex samplers were generally installed at a depth of eighteen inches below grade; however, some samplers were installed at slightly lesser depths (though no less than seven inches) where obstructions to drilling were present. To avoid potential cross contamination of sampling locations, the drill bit was decontaminated between use at each sampling point. 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.

All of the Petrex soil gas samplers were submitted via overnight courier to NERI for analysis. Samplers relating to a single geographic unit of the NonAOC were shipped from the field as a batch accompanied by dedicated travel blanks and chain of custody documents. Specific dates of shipment, receipt, and analysis are provided on attached sample submittal and chain of custody forms.

To maintain consistency in handling, the eleven soil gas samplers exposed within the NonAOC-South during field operations for the NonAOC-West and the NonAOC-East were submitted and analyzed with the appropriate NonAOC-West or NonAOC-East sampler batch.

All samplers were logged-in by NERI's laboratory on receipt. During log-in, the presence of damaged samplers or samplers missing from the specified sequence of sample identification numbers was noted.

On receipt of the batch of samplers from the NonAOC-South it was noted that the soil gas collectors within samplers #215 and #231 were damaged and missing much of the charcoal adsorbent with which they were originally coated. From the chain of custody document, it was also noted that sampler #224 was accidentally installed in the field with the liner still in place. Due to the potential compromise to sample integrity suggested by these conditions, these three samples were withheld from analysis.

Samples #910, #921, #930, #934, and #971, all from the NonAOC-East, were noted to be missing from the batch of samplers submitted as part of this phase of the investigation. Additionally, sample #942 was noted to have been shipped without a liner between cap and sampler container. As the absence of the liner left this sampler vulnerable to contamination in shipping it was withheld from analysis.

Sample #903 from the NonAOC-North was missing from the batch of samples submitted from this survey area. The chain of custody document indicated that it could not be retrieved from the field due to expansion of soil in the bore hole. Sample #765, from Area-61, was also shipped without a liner a place. As this sampler may then have become contaminated in shipping, it was excluded from analysis.

## 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

Several Petrex soil gas samplers were incorporated into the survey of each NonAOC geographic unit 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 Tables 1 through 5.

All of the travel blanks incorporated into the soil gas surveys of the NonAOC yielded no response or only a trace response to ions by which any of the volatile or semivolatile compounds targeted in this investigation are reported. These trace responses are typically the result of detection of trace levels of light weight hydrocarbons which are common to most environments. Note that levels of targeted compounds in the blanks, where detected, are two or more orders of magnitude less than those response values highlighted as anomalous on accompanying plates.

Results of analysis of the travel blanks indicate that it is unlikely that the Petrex samplers used in the surveys of the NonAOC were contaminated in shipping and storage.

7.4 Sample Duplicates

Of the three hundred and eighty-five (385) samples submitted and analyzed, thirty-two (8%) contained an additional soil gas collector element for the purpose of yielding a duplicate sample for QA analysis. These duplicate samples 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 23% from the mean. Percent variation in duplicate pair response values generally decreased (from 33% to 7%) with increasing magnitude of response. This phenomenon reflects the decreasing significance of low level instrument noise and background response relative to increasing response to targeted analytes.

2. The degree of duplication was consistent between survey phases of the NonAOC. Average percent variation from the mean ranged from 13% (observed for the Area-61 survey) to 28% (observed for the survey of the NonAOC-East).

3. 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 #890 and #3890, #975 and #3975, #1011 and #3011, and #1073 and #3073).

Based on these findings it may be concluded that although analytical response to a particular soil gas environment varied, this variation was within an acceptable range. No variation between duplicate pair responses exceeded an order of magnitude, the basis on which most of the data were organized (and contoured on attach maps) for evaluation. The variation observed within the data sets generated in the phases of the survey of the NonAOC does not affect interpretation of results or fulfillment of the stated objectives of this investigation.

## 8.0 RESULTS

8.1 Presentation

Soil gas survey results were produced through TD-MS analysis of one soil gas sample from each sample collection point.

TD-MS analysis allows for the identification of general contaminant groups (e.g., light weight aromatics) and several typically recognizable species (e.g., toluene). TD-MS analysis also allows for rapid and cost effective determination of the relative level of identified VOC's in each sample so that comparisons of these levels may be made between all samples collected from the site.

All VOC's and SVOC's contained in a soil gas sample are subjected to ionization and fragmentation in the mass spectrometer during TD-MS analysis. Individual compounds or compound groups are then identified by their unique and consistent pattern of ion abundance. The abundance of ions of any one specific atomic mass (in AMU) is translated as a "peak" on the mass spectrum. The relative level of a compound in a sample is reported from the abundance of the molecular ion (or height of the reporting peak) in ion counts. Table 2, below, lists the ions (or peaks) used to report the levels in the soil gas samples of the target compounds.

**Table 2**
**Target Compound Reporting Ions**

| Compound | Reported Ions (AMU) |
|---|---|
| Total Aromatic Hydrocarbons | sum of: 78, 92, 106, 120, 134, 148, 162, 176, 190, and 204. |
| Total Semivolatile Hydrocarbons | sum of: 128, 142, 153, 156, 178, 184, 198, 202, and 212. |
| Total $C_5$ to $C_{11}$ Petroleum Hydrocarbons | sum of: 70, 72, 78, 84, 86, 92, 98, 100, 106, 110, 112, 114, 120, 124, 126, 128, 134, 138, 140, 142, 148, 152, 154, and 156. |
| Total Halogenated Hydrocarbons | sum of: 83, 101, 130, 146, 151, and 164. |

Reported survey results represent the combined TD-MS response to numerous compounds belonging to a targeted contaminant group (e.g., total aromatics). If any one component compound of the targeted contaminant group (e.g., $C_9$ aromatics) was not identified in a sample, a response value of zero was added in its place.

The letter designations "ND" and "H" appear in the place of some TD-MS response values in Tables 1 through 5 and on Plates 2, 3, 4, and 5. The letters "ND" denote that ions by which the targeted compounds are either reported or identified were not detected in that sample. The letter "H" denotes that ions from petroleum hydrocarbons equal in mass to ions from targeted halogenated hydrocarbons were detected at levels high enough to mask the potential co-occurrence of the halogenated hydrocarbons. TD-GC/MS analysis of several samples exhibiting the highest levels of petroleum hydrocarbons is pending (see subsection 8.2, below). This analysis may resolve the potential co-occurrence of elevated levels of halogenated hydrocarbons from petroleum hydrocarbons in these samples.

Results for volatile petroleum hydrocarbons derived from samples #50, and #220 (from the NonAOC-South) and sample #892 (from the NonAOC-North) have been replaced with the symbol "T". This designation indicates that the TD-MS results yielded by these samples do not accurately represent the level of petroleum hydrocarbons in the soil gas due to interference caused by terpene compounds (see section 8.2).

Results of the survey of each geographic units of the NonAOC are presented individually in Tables 1, 2, 3, 4, and 5 in Appendix B. Soil Gas Sample Mass Spectra which best illustrate survey results are provided in Appendix C. Plates 1 through 5 illustrate the areal distribution of targeted compounds in the soil gas across the NonAOC. As these plates are oversized, they are provided separately and unbound.

TD-MS response to target compounds displayed in Plates 2 through 5 is highlighted by isopleths (contour lines). The sole purpose of these isopleths is to highlight naturally occurring differences (e.g., breaks or lows) in the range of analytical response to the target compounds. Population groupings by which isopleths were chosen are displayed in histograms of the data sets (see Appendix D). These isopleths help define areas of the site which exhibit elevated levels of the targeted compounds in the soil gas and, by doing so, aid in the interpretation of survey results.

Note, to maintain consistency in data handing and evaluation, the response to targeted compounds in the eleven samples collected within the NonAOC-South as part of field work for the NonAOC-West or the NonAOC-East have been highlighted by isopleth chosen according to population breaks observed in the NonAOC-West or NonAOC-East data sets.

## 8.2 Findings

Sample analysis indicated the occurrence of petroleum hydrocarbons common to fuels and oils, and numerous halogenated hydrocarbons common to solvents in the soil gas within each geographic division of the NonAOC. However, not all compounds were detected in all samples. The occurrence in the soil gas of targeted VOC's and SVOC's specific to each geographic division of the NonAOC is discussed below.

### 8.2.1 NonAOC-South

$C_4$ to $C_8$ petroleum hydrocarbons were detected at low to only mildly elevated levels in the majority of the samples from the NonAOC-South. The most pronounced of these hydrocarbons were the aromatics benzene, toluene, and ethylbenzene/xylenes (BTEX), and lightweight cycloalkanes/alkenes (see the mass spectrum of sample #10 and #94). The combination of lightweight petroleum hydrocarbons demonstrated by the majority of the samples likely indicates the occurrence in the subsurface of traces or very low levels of the dilute residue of well weathered fuels. The light weight aromatics and cycloalkanes/alkenes are common components of most fuels both light and heavy weight. Thus what specific products may have contributed to their presence in the subsurface is unclear. Only one sample, #219, demonstrated slightly elevated levels of higher weight hydrocarbons, including some semivolatiles, which may indicate that a heavy weight product was released nearby.

Two samples, #50 and #220, demonstrated mild interference to the identification of petroleum hydrocarbons due to the presence of terpenes. Terpenes are hydrocarbon compounds derived from plant resins. Terpenes may enter the soil gas naturally through plant growth or may be released into the environment as components of products containing terpenes (e.g., turpentine, natural oils, etc.). The recorded response levels yielded by these two samples for aromatic hydrocarbons and total petroleum hydrocarbons do not accurately reflect the level of these compounds in the soil gas due to this interference. Thus, the data are excluded from reporting and replaced with the letter "T" in Table 1 and on Plate 2 and 4. Despite this interference, and taking into account the effects of terpenes on the samples, it is apparent that only very low relative levels of aromatic hydrocarbons and total $C_5$ to $C_{11}$ petroleum hydrocarbons may be present in the soil gas at the collection points of these two samples.

Halogenated organic compounds were detected rarely in the soil gas within the NonAOC-South, but several occurrences are notable (see the mass spectra of samples #25, #86, #94, and #1069). A pronounced level of tetrachloroethene (PCE) was detected in sample #94. Pronounced levels of trichloroethene (TCE) were detected in samples #239, and #1069; and a pronounced level of dichlorobenzene was detected in sample #25. A low but distinct occurrence of trichlorotrifluoroethane (Freon-113) was also detected in sample #86.

8.2.2 NonAOC-West

Elevated levels of petroleum hydrocarbons were detected at numerous points within the NonAOC-West. Two distinct combinations of petroleum hydrocarbons were observed. One combination of compounds (exemplified by the mass spectra of samples #1025 and #1085) was typical of the composition of vapor derived from partially weathered light or medium weight fuels such as gasoline or diesel fuel. The soil gas at these points contained particularly high levels of the $C_7$ and $C_8$ aromatics toluene and ethylbenzene/xylenes. Samples #963, #964, #1001, #1025, #1026, #1043, #1048, #1056, #1059, #1061, #1062, #1066, #1084, #1085, and #1093 demonstrated the most pronounced levels of the light aromatics and other compounds commonly found in light and medium weight fuels. The purity of occurrence of light weight aromatics, and ethylbenzene/xylenes in particular, in samples #1026, #1046, #1048, #1056, #1059, #1062, #1066, and #1084 may alternately be an indication of the occurrence in the subsurface of components of industrial solvents or paint thinners (see the mass spectrum of sample #1059). Samples #961, #1008, #1015, #1022, #1035, #1041, and #1071 demonstrated elevated levels of combinations of hydrocarbons which are typical of the composition of vapor derived from weathered medium to heavy weight fuels or oils (see the mass spectra of samples #1035 and #1071). Each of these seven samples contained elevated levels of compounds, particularly cycloalkenes/dienes, ranging from $C_4$ to $C_{14}$ in weight.

The majority of the soil gas samples from the NonAOC-West demonstrated only mildly elevated levels of light weight aromatics, alkanes, cycloalkanes/alkenes, and cycloalkenes/dienes. All of these compounds are components of fuels or oils and, thus, may have originated through dispersion and migration, over time, from the same occurrences of weathered fuels or oils indicated by the samples named above. The collection points of samples containing the highest levels of petroleum hydrocarbons may correspond to source areas or former points of release of petroleum products.

Prominent levels of halogenated hydrocarbons were detected rarely within the NonAOC-West. The highest levels of PCE were detected in samples #1024, and #1028. The highest levels of TCE were detected in samples #1010, #1058, #1066, and #1096. A mildly elevated level of dichlorobenzene was detected in sample #963. Trace levels of trichloroethane (TCA) were detected in samples #964, #1001, and #1021. Low levels of trichlorofluoromethane (Freon-11) were detected in samples #964, #969, #997, #1004, #1007, #1028, #1034, #1060, and #1092 (see the mass spectrum of sample #1004).

Five samples from the NonAOC-West yielded a high response to ions derived from petroleum hydrocarbons which have the same atomic mass as the principal ions derived from the halogenated hydrocarbons also targeted by this survey (see response to total halogenated hydrocarbons in Table 2 and Plate 5). This high response and coincidence of atomic masses has masked response to halogenated hydrocarbons of similar or lesser magnitude in these samples. Of these five, only samples #1022 and #1071 contain levels of hydrocarbons capable of masking levels of halogenated hydrocarbons greater than 100,000 ion counts. To determine whether elevated levels of halogenated organics may also be present in these two samples, sample duplicates have been submitted for TD-GC/MS analysis. Chromatographic separation of individual compounds in each sample afforded by this analytical process should resolve between elevated levels of any halogenated compounds and petroleum hydrocarbons. TD-GC/MS analysis of these five samples is pending. Results will be reported as a separate document as soon as they are available.

### 8.2.3 NonAOC-East

Numerous soil gas samples from the NonAOC-East showed similar combinations of petroleum hydrocarbons. Samples #909, #911, #919, and #1067 demonstrated the most elevated levels of a combination of compounds typical of the vapor of weathered light to medium weight fuels. Furthermore, samples #912, #928, and #929 exhibited singularly high levels of toluene and ethylbenzene/xylenes which could indicate the presence in the subsurface of the components of solvents or thinners. Samples #923, #925, #946, #948, #953, #993, and #994 contained elevated levels of a combination of $C_4$ to $C_{14}$ hydrocarbons typical of the composition of vapor from weathered medium to heavy weight fuels or oils. Soil gas samples representative of the balance of the NonAOC-East principally demonstrated only low relative levels of a combination of light weight aromatics, alkanes, and cycloalkanes/alkenes which are common to most petroleum products. Similar to the findings for the NonAOC-West, results of the survey of the NonAOC-East suggest the presence of source areas or points of release of various petroleum products and

the occurrence of the subsurface dispersion and migration of components of these products to other portions of the site.

Detections of elevated levels of halogenated hydrocarbons in the soil gas within the NonAOC-East were infrequent. Prominent occurrences of PCE were noted at the collection points of samples #915, #919, and #941. Prominent occurrences of TCE were detected in the soil gas at the collection points of samples #915 and #956. No other halogenated organics were detected at elevated levels in the soil gas within the NonAOC-East.

The pronounced levels of petroleum hydrocarbons in samples #923, #946, #948, and #953 has potentially masked response to halogenated hydrocarbons greater than 100,000 ion counts. To determine whether elevated levels of halogenated organics may be present in these four samples, sample duplicates have been submitted for TD-GC/MS analysis. TD-GC/MS analysis of these four samples is pending. Results will be reported as soon as they are available.

8.2.4 NonAOC-North

High relative levels of petroleum hydrocarbons were detected at many points within the NonAOC-North, particularly in the Fuel Area and in the eastern half of the site both along the border with the NonAOC-East and at several points surrounding Building No. 61.

The majority of the sampling points within the Fuel Area demonstrated highly elevated levels of aromatic petroleum hydrocarbons, specifically toluene and ethylbenzene/xylenes (see the mass spectra of samples #1075, and #1083). Sample #1074 however, also demonstrated high relative levels of heavier weight aromatics, and medium to heavy weight alkanes, cycloalkanes/alkenes, and cycloalkenes/dienes which are common to medium and heavy weight fuels (see the mass spectrum of sample #1074). The high levels of toluene and ethylbenzene/xylenes in the soil gas at points on the periphery of the Fuel Area (such as the collection points of samples #1079 through #1083) suggest that the toluene and ethylbenzene/xylenes detected in this and other portions of the NonAOC derive wholly from fuels and not from suspected potential purer sources of these aromatics such as solvents or thinners.

Soil gas at numerous points in the east of the NonAOC-North exhibited compositions similar to that detected in the Fuel Area to the far west. Specifically, samples #847, #856, #857, #888, #896, #897, and #973 demonstrated combinations of $C_4$ to $C_{11}$ petroleum hydrocarbons typical of the composition of vapor derived from slightly weathered light to medium weight fuels. While samples #853, #855, #980, and #1014 demonstrated pronounced singular occurrences of the $C_6$ and $C_7$ aromatics toluene and ethylbenzene/xylenes. These findings suggest that the hydrocarbons in the subsurface in the eastern half of the NonAOC-North may have originated in a similar fashion as the hydrocarbons in the subsurface in the Fuel Area.

The occurrence of hydrocarbons in the soil gas at the collection points of samples #842, #862, #901, and #974 are an exception to the findings discussed above. Samples #842 and #862 both demonstrated elevated levels of $C_4$ to $C_7$ hydrocarbons of which $C_6$ alkanes (e.g., hexane, methylpentane, etc.) were the most prominent (see the mass spectrum of sample #842). Sample #901 demonstrated a mild yet distinctly elevated level of styrene (see the mass spectrum of this sample). Sample #974 yielded a very high relative level of the semivolatile compounds naphthalene and methylnaphthalene (see the mass spectrum of sample #974).

Sample #892 demonstrated mild interference to the identification of petroleum hydrocarbons due to the presence of terpenes. The recorded response levels yielded by this sample for aromatic hydrocarbons and total petroleum hydrocarbons do not accurately reflect the level of these compounds in the soil gas due to this interference. Thus, the data are excluded from reporting and replaced with the letter "T" in Table 4 and on Plate 2 and 4. Despite this interference it is apparent that only very low relative levels of aromatic hydrocarbons and total $C_5$ to $C_{11}$ petroleum hydrocarbons may be present in the soil gas at the collection point of sample #892.

Elevated levels of halogenated hydrocarbons were detected infrequently in the soil gas within the NonAOC-North, however several occurrences are notable. High relative levels of chloroform were detected in the soil gas at the two isolated collection points of samples #887 and #890. Pronounced levels of PCE were detected in the soil gas at the collection points of samples #889 and #1077, and pronounced levels of TCE were detected at the collection points of samples #889 and #976.

Four samples from the NonAOC-West yielded a high response to ions derived from petroleum hydrocarbons which may potentially mask response to halogenated hydrocarbons. However, of these four only sample #1073 contains levels of hydrocarbons high enough to mask levels of halogenated hydrocarbons greater than 100,000 ion counts. To determine whether elevated levels of halogenated organics may also be present in this sample, the duplicate of this sample has been submitted for TD-GC/MS analysis. TD-GC/MS analysis of this sample is pending. Results will be reported as soon as they are available.

Results for the NonAOC-North indicate that some of the most anomalous levels of VOC's and SVOC's in the soil gas occur in areas which are isolated from existing structures. This finding suggests that their presence in the soil gas may relate to historical land use and not to current facility practices.

8.2.5 Area-61

The soil gas within much of Area-61 exhibits elevated levels of a combination of $C_4$ to $C_{13}$ petroleum hydrocarbons characteristic of the composition of vapor from well weathered medium to heavy weight fuels (see the mass spectrum of sample #778). The soil gas at numerous points surrounding Area-61 generally demonstrates lesser, more attenuated levels of this same combination of compounds. These findings suggest that medium to heavy weight fuels have been released within or nearby Area-61.



CONTINUED

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April 7, 1995

Mr. Thomas Tank
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Dear Mr. Tank:

This letter summarizes the Thermal Desorption-Gas Chromatography/Mass Spectrometry (TD-GC/MS) results for samplers 770, 771, 772, 773, 777, 778, 923, 925, 946, 953, 974, 1072, and 1073. These samples were all from the Non-Area of Concern (NAOC)/Operable Unit-5, U. S. Department of Energy Mound Facility located in Miamisburg, Ohio.

Samplers 770 (grid coordinate E5), 771 (grid coordinate E4), 772 (grid coordinate E3), 773 (grid coordinate E2), 777 (grid coordinate D3), and 778 (grid coordinate D4) are from NAOC-North specifically within Area 61. Samplers 923 (grid coordinate 11N3W), 925 (grid coordinate 13N3W), 946 (grid coordinate 11N2W), and 953 (grid coordinate 8N3W) are from NAOC-East. Sampler 974 (grid coordinate 27N5W) is within NAOC-North. Samplers 1072 and 1073 are within NAOC-North specifically within the Fuel Area.

All of the above listed samplers, except 1072, were submitted for TD-GC/MS analysis in order to determine if halogenated hydrocarbons were present, since petroleum hydrocarbons created interference with the halogenateds. Sampler 974 was also submitted to confirm the presence of semi-volatile hydrocarbons. Sampler 1072 was submitted for aromatic hydrocarbons and $C_5$-$C_{11}$ petroleum hydrocarbons verification. The TD-GC/MS results are presented in tabular format in the enclosed table.

The relative response values reported in the enclosed table are in area units, not ion counts, as was for Thermal Desorption-Mass Spectrometry analysis (TD-MS). Since the relative response values for TD-MS and TD-GC/MS analyses are in different units, results between the two analyses can not be compared directly.

Tetrachloroethene (PCE) was confirmed in the soil gas by TD-GC/MS analysis at sampler locations 770, 772, 777, 778, 925, 953, 974. A variety of aromatic hydrocarbons were confirmed in the soil gas at all sampler locations submitted for analysis. Non-aromatic hydrocarbons, consisting of a variety of alkanes, cycloalkanes, alkenes, and dienes, were confirmed in the soil gas at all sampler locations except at location 773. Naphthalenics were confirmed in the soil gas at sampler locations 770, 772, 773, 925, 953, 974, 1072, and 1073.

It has been a pleasure to assist with this project. Please call when we can be of further service.

Respectfully submitted,

NORTHEAST RESEARCH INSTITUTE LLC

Jane Matheney Rood

Jane Matheney-Rood
Project Manager

encl.

L2114JR3/04.07.95

Elevated levels of the halogenated organic compound PCE were also detected at several points with Area-61. The most pronounced occurrence of PCE was detected in the soil gas at the collection point of sample #775.

Due to high levels of petroleum hydrocarbons it is unclear whether levels of the halogenated organics PCE and TCE (on the order of 100,000 ion counts) may also be present in samples #770, #771, #773, #777, and #778. To determine whether elevated levels of halogenated organics are present in these samples, the duplicates of these samples have been submitted for TD-GC/MS analysis. TD-GC/MS sample analysis is pending. Results will be reported as soon as they are available.

The areal distribution of the targeted compounds within the NonAOC are discussed in greater detail in section 9.0, below.

The high sensitivity to organic compounds inherent in the Petrex Technique must be considered in the evaluation of these findings. Elevated relative levels of VOC's and SVOC's in the soil gas detected in this Petrex survey may derive from concentrations of these VOC's and SVOC's in subsurface media which are below the threshold of detection of most quantitative analyses.

## 9.0 DISCUSSION

### 9.1 Distribution of Total Aromatic Hydrocarbons

Total Aromatic Hydrocarbons are reported as the combined level of $C_6$ to $C_{15}$ aromatic (benzene based) hydrocarbon compounds detected in the soil gas samples. The majority of the samples contained only the lighter weight ($C_6$ through $C_9$) aromatics. Very few samples were observed to contain $C_{10}$ and heavier aromatic hydrocarbons.

The areal distribution of Total Aromatic Hydrocarbons in the soil gas across the NonAOC is displayed by Plate 2. The areas demonstrating the greatest potential impact by aromatics are the northern and southern reaches of the NonAOC-East and large portions of the Fuel Area and Area-61.

As discussed in section 8.2.4, aromatics in the soil gas across much of the NonAOC-East occur with combinations of other hydrocarbons in mixtures which are characteristic of weathered fuels. The near isolated occurrences of $C_7$ and $C_8$ aromatics toluene and ethylbenzene/xylenes in several samples may also indicate the presence of components of solvents or thinners in the subsurface.

Note that the zone of high response to aromatics in the central western portion of the NonAOC-East is continuous to the border of the NonAOC-East where it approaches AOC-J and the large aboveground tank. This finding may indicate that the elevated levels of hydrocarbons detected in both of these survey areas are related.

As observed in the Fuel Area, the highest levels of aromatics occur in the soil gas in the vicinity of the pumps and of the separator. These findings are likely due to one or more surface or near surface releases of fuels handled in this area.

Elevated levels of aromatics occur within Area-61 principally as components of mixtures of $C_4$ to $C_{13}$ hydrocarbons common to medium to heavy weight fuels. The zone of elevated levels of aromatics with Area-61 extends the full length of the border of the survey area where it adjoins Building No. 61. This distribution may indicate that high levels of aromatics (and petroleum hydrocarbons in general) exist beneath Building No. 61 beyond survey Area-61 boundaries and may originate from sources associated with Building No. 61. Note that elevated levels of aromatics also occur in zones extending to the north and west of Building No. 61.

Spot occurrences of aromatic hydrocarbons in the soil gas across the rest of the NonAOC likely derive from various small scale releases of common petroleum products, especially fuels. It is important to note that numerous structures with the NonAOC such as paved roads, railroad spurs, and other structures to which petroleum products may be applied in building or maintenance may be sources of hydrocarbons in the near surface soil gas yet not be significant contaminants of subsurface media. The potential for this condition is exemplified by the detection of high levels of aromatics in the soil gas at the collection points of samples #229, #855, #1008, #1015, and #1022 (at grid coordinates 7N26W, 25N5W, 11N18W, 13N26W, 12N21W). This condition should be considered when evaluating results of sampling within or very near such structures.

At some locations within the NonAOC, particularly within the NonAOC-West and the NonAOC-North, elevated levels of aromatics (and other petroleum hydrocarbons) occur at points that are seemingly distant and isolated from structures which could be sources of these compounds. The detection of elevated levels of aromatics at the collection points of samples #10, #25, #889 #963,, and #1001 (from grid coordinates 2N3W, 2N18W, 19N8W, 9N11W, and 11N11W) are examples of this. These findings may indicate the occurrences of VOC's and SVOC's derive from past land use.

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. These compounds are constituents of creosote, coal tar, and other heavy, high boiling point fraction petroleum products. Naphthalene, and $C_{11}$ and $C_{12}$ alkyl naphthalenes (e.g., methylnaphthalene and ethyl- or dimethylnaphthalene) are also often found in medium to heavy weight fuels and fuel oils. A review of the mass spectra of all samples which yielded an elevated response to semivolatiles indicated that very few semivolatile compounds over $C_{11}$ in molecular weight may be present in the soil gas and that the majority of the responses derive from the presence of naphthalenics.

The distribution of semivolatile hydrocarbons in the soil gas across the NonAOC is displayed by Plate 3.

The most significant occurrences of semivolatile hydrocarbons, as determined by the number of contiguous samples exhibiting elevated response, were detected in the southern portion of NonAOC-East. The highest response levels detected in this area were detected northeast of Building No. 39, east of Building No. 102 and at the collection point of sample #953 (located south of the parking lot). Isolated occurrences of semivolatile hydrocarbons were identified east of Building No. 38, and along the property boundary located east of Building No. 36 in the NonAOC-East.

Potentially significant occurrences of semivolatile hydrocarbons were identified in the northeastern section of the NonAOC-North, which includes Area-61, and in the Fuel Area. In Area-61, elevated response levels were detected adjacent to the northeastern portion of Building No. 61 and extend east to the access road. The elevated response detected at the collection point of sample #974 (at grid coordinate 27N5W) reflects the occurrence of high levels of naphthalenics principally naphthalene and methylnaphthalene. Of all of the samples collected within the NonAOC, this one sample exhibits character most unlike vapor derived from fuels and most like vapor derived from a coal tar product.

In the Fuel area, a single sample, #1074, collected from a point adjacent to the fuel pumps exhibited a high level of semivolatile hydrocarbons. The semivolatile hydrocarbons in this sample co-occur with a broad mixture of other hydrocarbons typical of the composition of only partially weathered fuels. Isolated occurrences of semivolatile hydrocarbons were also detected west of Buildings No. 61 and No. 33, and northwest of the access road at the collection point of sample #904.

In the NonAOC-South, only one area exhibited a small zone of elevated levels of semivolatile hydrocarbons which may relate to potential subsurface contamination. This zone is was located west of Building No. 100 and extends north beyond the access road. An isolated occurrence of semivolatile hydrocarbons was also identified in the soil gas at the collection point of sample #86.

In NonAOC-West only a limited number of isolated occurrences of semivolatile hydrocarbons was identified. Most of these occurrences were detected along the access roads, however single samples exhibiting high relative levels were collected east of Buildings No. 19 and No. 94. The environmental significance of discrete detections is difficult to ascertain. They are most likely related to low level near surface soil contamination rather than potentially significant subsurface contamination. The occurrences identified in close proximity to the access roads may be related to road use and/or maintenance (i.e., oiling dirt roads to minimize dust).

As the mobility of organic compounds in the subsurface environment generally decreases with increasing molecular weight or complexity of molecular structure, high levels of $C_9$, $C_{10}$, and $C_{11}$ semivolatile compounds in the soil gas likely correspond to points of release of these and other petroleum hydrocarbons. It is equally likely that the occurrence of semivolatile hydrocarbons in the soil gas across the greater NonAOC represents small scale contamination of near surface soils and not any widespread impact to subsurface media.

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 (referred to collectively as aliphatics), plus aromatic and naphthalenic compounds. In various combinations, these compounds, together, make up the bulk of most petroleum fuels, oils, and lubricants. Total $C_5$ to $C_{11}$ petroleum hydrocarbons are reported to best illustrate the occurrence in the soil gas of petroleum product vapor of which aromatic and semivolatile compounds may not be prominent components. Although $C_4$ hydrocarbons were also detected in most samples, the levels of $C_4$ compounds are excluded from reporting as they (and lighter weight species) are commonly found in most environments.

The areal distribution of total $C_5$ to $C_{11}$ petroleum hydrocarbons in the soil gas on-site is displayed in Plate 4. Zones of elevated levels of total petroleum hydrocarbons coincide, in most instances, with zones of elevated levels of aromatic hydrocarbons. This finding supports earlier observations that the majority of the hydrocarbons in the soil gas likely derive from fuels which contain abundant levels of both aromatics and a broad assortment of aliphatic compounds. Differences between the distribution of total petroleum hydrocarbons and aromatic hydrocarbons in the soil gas apparent in a comparison of Plates 4 and 2 indicate some variation in soil gas composition from one portion of the NonAOC to another. Namely, aromatics alone occur more widely across the NonAOC-East, and may be of greater impact to the subsurface within both the Fuel Area and Area-61.

Throughout the NonAOC-South and the NonAOC-West the distribution of elevated levels of total petroleum hydrocarbon is nearly identical to that of aromatics and accentuates several large areas which may be impacted by releases of petroleum. Elevated levels of aromatic and aliphatic hydrocarbons occur in several zones surrounding AOC-3 and Area-SDB (at grid coordinates 9N25W, 9½N25½W, 12N24W, and 13N26W) . These zones likely relate to elevated levels of hydrocarbons detected at numerous points within the margins of AOC-3 and Area-SDB (see report of findings of the Petrex soil gas surveys of AOC-3 and Area-SDB. dated 10/19/94 and 10/10/94, respectively). Another zone of elevated response to total petroleum hydrocarbons occurs in the northwest of the site, northwest of the access road which parallels the northwest border of OU-5 (at grid coordinates 14N15W, 15N14W, and 16N13W). The location of this zone suggests that it may derive from a source of petroleum which resides outside of OU-5 to the northwest. Similarly, the occurrence of elevated levels of petroleum hydrocarbons on the northern border of the NonAOC-North (at grid coordinates 27N4W and 27N5W) may derive in part from sources of petroleum located further to the north.

9.4 The Distribution of Total Halogenated Hydrocarbons

Total Halogenated Hydrocarbons are reported as the combined levels in the soil gas of tetrachloroethene (PCE), trichloroethene (TCE), trichloroethane (TCA), trichlorofluoromethane (Freon-11), trichlorotrifluoroethane (Freon-113), dichlorobenzene (DCB), and chloroform. The majority of these compounds are used most often as solvents and cleaning agents. The Freons detected here may also have been used as refrigerants.

The areal distribution of halogenated hydrocarbons in the soil gas is displayed in Plate 5. 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 Tables 1 through 5 and on Plate 5 principally reflects the presence of PCE in the soil gas. Significant exceptions to this rule were the occurrence of pronounced levels of TCE at the collection points of samples #239, #956, #976, #1010, #1058, 1066, #1069, #1077, and #1096 (grid coordinates 4N14W, 9N6W, 20N10W, 9N21W, 10N14W, 10N13W, 3½N13½W, 19N10¾W, and 8N25W, respectively); dichlorobenzene at the collection point of sample #25 (grid coordinate 2N18W); and chloroform at the collection point of samples #887 and #890 (from grid coordinates 20N7W and 18N8W). The highest levels of PCE were detected in the soil gas at the collection points of samples #94, #775, #941, #1024, and #1077 (at grid coordinates 7N13W, 26¼N2¼W, 13N1W, 12N18W, and 19N10¾W).

The occurrence of elevated levels of TCE and dichlorobenzene in the soil gas at sampling points #25 and #239 is the most salient feature of the distribution of halogenated compounds within the NonAOC-South. Although the structure nearest the collection point of sample #239 may relate to a source of halogenated compounds, the collection point of sample #25 appears to be isolated from any potential source and thus may show impact due to past land use.

The occurrence of high levels of halogenated compounds in the center of the NonAOC-West may relates to nearby operations within neighboring Buildings No. 49 and No. 2. Similarly, the zone of elevated halogenated hydrocarbons located immediately to the northwest, nearby Buildings No. 36, No. 59, and No. 63 may also relate to local operations. The distribution of halogenated organics in the soil gas throughout the NonAOC is limited and suggests that any occurrence of halogenated organics in the in the subsurface is the result of localized small scale releases.

Prominent occurrences of halogenated hydrocarbons in the soil gas at points in the south of in the NonAOC-East and the NonAOC-North generally appear distant from existing structures from which they may originate. Thus, these occurrences may derive from past land use.

## 10.0 CONCLUSIONS

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

1. Elevated levels of petroleum hydrocarbons occur in the subsurface in many areas of the NonAOC and are likely the result of the release of any of various grades of fuels. However, the potential exists for some occurrences of aromatics to derive from releases of solvents or thinners.

2. The Fuel Area, Area-61, and large portions of the NonAOC-East demonstrate the greatest potential impact to the subsurface by hydrocarbons. Aromatic hydrocarbons which are components of most fuels show the greatest areal distribution within the NonAOC and may pose the greatest risk to subsurface media quality. Principal source areas of petroleum hydrocarbons within the NonAOC include the fuel pumps, separator, and aboveground fuel

storage tank within the Fuel Area, Building No. 61 or operations within Building No. 61, and operations throughout the central portion of the NonAOC-East. Potential sources of petroleum hydrocarbons from outside the NonAOC may exist to the north of the NonAOC-West and to the north of the NonAOC-North.

3. Elevated levels of hydrocarbons detected in the soil gas in the southwestern portion of the NonAOC-East may relate to anomalous levels of these same compounds detected in the earlier survey of AOC-J. Elevated levels of hydrocarbons at numerous locations in the far western sector of the NonAOC-West may relate to the occurrence of hydrocarbons in the soil gas detected in the surveys of AOC-3 and Area-SDB.

4. Elevated levels of halogenated hydrocarbon compounds occur in the subsurface within the NonAOC, but mostly only in numerous small zone which suggest only very limited subsurface impact. The locations of specific source areas of most of the halogenated compounds detected within the NonAOC are unclear. Sources of the majority of the occurrences of halogenated hydrocarbons detected in this survey likely relate to past land use.

5. The areal distribution of halogenated hydrocarbons in the soil gas site wide suggests that these compounds, where they occur in the subsurface, are not subject to widespread subsurface dispersion or migration.

6. Any verification of soil gas results for petroleum hydrocarbons should include quantitative testing of soil and groundwater from the collection points of samples #94 (at 7N13W) and #239 (at 4N14W) within the NonAOC-South; samples #1015 (at 13N26W), #1022 (at 12N21W), #1056 (at 10N15W), #1085 (at 14N15W), and #1093 (at 9½N24½W) within the NonAOC-West; samples #919 (at 11N2W), #928 (at 11N4W), and #946 (at 11N2W) within the NonAOC-East; and samples #853 (at 26N4W), #974 (at 27N5W), and #1014 (at 16N13W) within the NonAOC-North. Within Area-61 and the Fuel Area, quantitative testing should include soil and groundwater from the collection points of samples #771, #786, #1072, #1074, and #1075.

7. Any verification of soil gas results for halogenated hydrocarbons should include quantitative testing of soil and groundwater from the collection points of samples #25 (at 2N18W) and #239 (at 4N14W) from within the NonAOC-South; samples #956 (at 9N6W), #1028 (at 12N17W), and #1066 (at 10N13W) within the NonAOC-West; sample #941 (at 13N1W) from the NonAOC-East; and samples #890 (at 18N8W), #901 (at 15N12W), and #976 (at 20N10W) from within the NonAOC-North. Within Area-61 and the Fuel Area, quantitative testing should include soil and groundwater from the collection points of samples #778 and #1077.

8. The environmental significance of the existence of petroleum hydrocarbons and halogenated hydrocarbons in the subsurface can only be evaluated through quantitative testing of soil and groundwater.

## 11.0 LIMITATIONS

This report represents NERI's professional interpretation and judgment based on technical information gathered during investigative activities. Professional judgments expressed herein are restricted to facts available within the established limits of the scope of work, budget, and schedule. NERI assumes no responsibility for the existence or disclosure of conditions which did not come to its knowledge, or conditions not generally recognized as environmentally unacceptable, at the time this report was prepared.

It is NERI's specific intent that all observations and conclusions presented will be used as a guide and not necessarily a firm course of action unless explicitly stated as such. No warranties are expressed or implied and the information included in this report is not to be construed as legal advice.

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# APPENDIX A
# PETREX PROTOCOL

REVISED SEPTEMBER 1993

# PETREX ENVIRONMENTAL SOIL GAS PROTOCOL

## INTRODUCTION

The PETREX Technique provides a means by which trace quantities of gases from subsurface derived organic contaminants can be detected and collected at the earth's surface. The Technique is integrative, thereby eliminating the short-term variations associated with other gas/vapor detection methods. The PETREX Technique directly collects and records a broad range of organic compounds emanating from subsurface sources.

## SOIL GAS COLLECTOR PREPARATION

Adsorption collector wires (after construction) are cleaned by heating to 358° C in a high vacuum system. Wires are packed under an inert atmosphere in glass culture tubes. One collector out of every batch of thirty is checked for cleanliness by mass spectrometry. Another collector from the batch is checked for adsorptive capability. Based on the results, the batch of collectors is approved for release into the field.

## SOIL GAS SAMPLER INSTALLATION

The sampler consists of two or three collectors, each a ferromagnetic wire coated with an activated charcoal adsorbent in a screw top glass culture tube. Each sampler is typically placed in a shallow hole, 14-18 inches deep. The hole is backfilled and the location is marked. The sampler is left in the ground from one to thirty days, then retrieved and sealed for transportation back to the laboratory for analysis.

The PETREX soil gas sampling technique is adaptable to various surface conditions commonly encountered within survey areas. These surfaces typically include concrete, asphalt, grass, and gravel. Two installation methods are routinely utilized to adapt to these surface conditions.

The first method utilizes a coring shovel for sampler installations in grass or otherwise loosely consolidated soil conditions. The shovel cores a 14 inch deep by 2 inch diameter hole in the surface soils.

PETREX soil gas samplers are placed (open end down) at the bottom of each core hole. The samplers are then backfilled with an aluminum foil plug and the original excavated soil. To complete installation, sample locations are marked with ribbon flagging and a numbered pin flag, as well as entered into a field notebook and plotted on a field map.

The second method of sampler installation utilizes an electric rotary hammer, equipped with an 18 inch by 1.5 inch diameter drill bit, for sampler installations under concrete, asphalt, or otherwise consolidated conditions. A hole is drilled through the surface to the dimensions of the drill bit equipped to the rotary hammer.

PETREX soil gas samplers are placed at the bottom of each drilled hole. For retrieval purposes, a cleaned galvanized steel wire is attached to each sampler. Aluminum foil is used to plug each hole to approximately two inches below grade. Then each hole is capped to grade with hydraulic cement. The hydraulic cement serves as protection from the external surface environment.

To complete sampler installation, sampler locations are marked with paint (where applicable), entered into a field notebook, and plotted on a field map.

## SOIL GAS SAMPLER RETRIEVAL

PETREX soil gas samplers are retrieved following a time period that has allowed for the soil gas emanating from the subsurface environment of a survey area to equilibrate with the installed PETREX samplers. This time integration period is determined for each PETREX soil gas survey based on time calibration data or site conditions.

Retrieval operations are dependent on surface conditions and routinely consist of the following two methods.

The first method applies to grass covered or loosely consolidated soil conditions. A trowel is utilized to expose the backfilled samplers; then with a pair of tongs, the samplers are brought to the surface. At the surface, the samplers are sealed, cleaned, and labeled. Following retrieval, all debris are gathered and the core hole is backfilled with original material.

The second method applies to concrete, asphalt, or other consolidated surface conditions. A hammer and chisel is utilized to remove the hydraulic cement plug and expose the sampler. By means of the pre-attached retrieval wire, the sampler is brought to the surface. At the surface, the retrieval wire is removed and the sampler is sealed, cleaned, and labeled. Following retrieval, each drill hole is backfilled and patched with cement or asphalt.

## TIME CALIBRATION SAMPLERS

Time calibration samplers are included in PETREX soil gas surveys, as appropriate. These samplers are included as a means of monitoring the loading rates of volatile and semivolatile organic compounds (VOCs and SVOCs) emanating from the soil gas at a survey area onto the PETREX collectors.

During PETREX sampler installation, two sets of three to five time calibration samplers are also installed at survey sample locations that best represent the range of soil gas response for the survey area. These representative locations are determined based on previous soils and/or groundwater studies and other site specific conditions such as gradient and potential source areas.

The first set of time calibration samplers are generally retrieved within a week or less following the initial installation and the second set one week later. Often, permanent on-site personnel are instructed to perform time calibration sampler retrieval.

Lengths of exposure periods of the survey samplers for each survey are determined based on the results of each respective set of time calibration samplers. Time calibration samplers are usually analyzed within 24 hours upon receipt at the laboratory. At the first indication of significant relative ion count intensities and significant total ion count values, the decision is made to retrieve the entire complement of survey samplers.

If there are no significant relative ion count intensities detected from the second set of time calibration samplers, then the survey samplers are allowed to equilibrate in the field for a maximum time period of up to 30 days. The average environmental PETREX soil gas survey requires a collector integration period of one day to two weeks.

## METHOD QA/QC

Within every survey sampler, the two or three collector wires should have adsorbed identical compounds. Like compounds on separate collectors relate an acceptable quality assurance (QA) during the survey's analysis. The first wire is analyzed by Thermal Desorption/Mass Spectrometry (TD/MS). The data from the first wire is reported on the relative response maps. The second wire is retained for analysis by Thermal Desorption-Gas Chromatography/Mass Spectrometry (TD-GC/MS), if warranted by the initial TD/MS analysis of the second wire.

Approximately ten percent of the total PETREX survey samplers contain three collector wires. The third collector wire, a QC collector wire, is used by the operator to test the mass spectrometer's operating conditions prior to survey analysis. Some of these quality control (QC) collectors are also used to check the mass spectrometer sensitivity during survey analysis. In addition, the QC collector may be used to compare the reproducibility of the detected VOCs.

## TRAVEL BLANKS

Two PETREX samplers, each containing a single collector wire, are included with each PETREX soil gas survey as travel blanks. These blanks are analyzed with the survey samplers to indicate whether there may have been contamination introduced to the survey samplers during installation or shipment. If compounds other than normal atmospherics (e.g., $CO_2$, $H_20$, $N_2$, and Ar) are detected on the blanks, these results are taken into consideration in the data presentation. This process, an initial step to data interpretation, involves the correction of ion count values of the detected blank contaminants from the entire survey's data set. The resulting ion count values are provided on the relative response maps.

## MASS SPECTROMETER TUNING

An Extranuclear Quadrupole C-50 Mass Spectrometer or similar instrument, equipped with a Curie-point pyrolysis/thermal desorption inlet, is used for collector analysis. Mass assignment and resolution are manually adjusted using a Perfluorotributylamine (PFTBA) standard or a built-in tuning program, depending on the instrument. A linear correction, based on the known spectrum of PFTBA, is calculated. This correction is applied to a second PFTBA spectrum. If correct mass (M/Z) values are obtained, the operator proceeds to the next tuning step. If not, Step 1 is repeated until correct masses are obtained.

Peak intensity ratios are set from the major peaks in the PFTBA spectrum using the following values:

| Mass (M/Z) | | Spectrum Intensities |
|---|---|---|
| 69 | = | 100% |
| 131 | = | 48% $\pm$ 5% |
| 219 | = | 50% $\pm$ 5% |

During tuning, the ion signal for mass (M/Z) 69 of PFTBA is measured at a preset sample pressure and detector voltage and compared to previous values at the same setting.

Electron energy is set to 70 electron volts. All other operating parameters, such as scans, scan range, and mass offset, are established in the computer program. These values may only be changed by the laboratory manager.

Tuning is performed at the beginning of a run so that an individual survey is analyzed at the same set of instrument conditions. The samplers are analyzed in random order.

## LABORATORY ANALYSIS

Periodic machine background and blank PETREX collector analyses are performed to assure that there is no carry-over between successive collectors. If there are peaks present which are not related to atmospheric gases, the supervisor is notified and the mass spectrometer is shut down and cleaned as necessary.

A written sample number record is kept during the analysis to prevent accidental cross numbering. The mass spectrometer control program contains appropriate "flag statements" that prompt the operator with a warning if an input sample number has already been analyzed. The operator then checks the current number, along with the disk storage location of the previously entered number to identify the true numbering situation.

## COMPOUND IDENTIFICATION

Compound identification is based on molecular weight, compound fragmentation, and isotope distribution, as applicable. Each VOC exhibits a unique mass spectral signature. NERI maintains a large library of spectra of individual compounds, accessible by computer. In addition, the company maintains a large library of mass spectra of commonly used chemical mixtures; e.g., gasolines, diesels, industrial oils and solvents, coatings, plastics, etc. These spectra are used to assist in both compound and mixture identifications.

The ion count response of an indicator peak(s), representative of the compound and away from interference by other compounds, is extracted for data presentation and mapping.

## INTERPRETATION OF SOIL GAS DATA

Soil gas data (including PETREX) reflect volatile and semivolatile organics collected at a point in the near surface. The sources of these volatile organics may be in the stratigraphic column and/or in groundwater below the collection point. Thus, the organics can be derived from surface spills, deposition, or migration into the deeper vadose zone, and groundwater. The soil gas survey reveals the areal extent of contamination and is the optimum guide in identifying areas in order to develop a vertical profile, including the drilling of soil borings and monitoring wells.

Soil gas data are always semi-quantitative in that multiple sources in soil and/or groundwater cannot be differentiated. However, the higher ion responses are representative of higher concentrations in the subsurface, given that geologic conditions are relatively consistent.

Due to chemical differences between individual compounds, including their ability to both adsorb and desorb from the charcoal PETREX collector element, it is invalid to compare the ion count of a compound at one sampling location to that of another compound.

Patterns of compound distribution in the soil gas, as detected at the surface, can be strongly influenced by irregularities in the near surface and subsurface environment through which the soil gas diffuses. These irregularities include subsurface man-made structures, such as concrete foundations, drainage systems, and wells, and such naturally occurring structures as fractured and unfractured bedrock, clay, and shale lenses.

Other factors influencing the soil gas signal include ground and surface water, the free carbon content of soils, microbiotic activity in the soil, and natural and synthetic ground cover.

All of these factors indicate that the most powerful use of soil gas data is in reconnaissance; identifying and mapping the relative abundance of the widest array of chemical species and mixtures. Efforts to relate soil gas response directly to groundwater or soil contaminant concentrations is generally not regarded as productive owing to the assumptions that are required for heterogeneity and source distribution.

## RELATIVE RESPONSE DETERMINATION AND MAPPING

The relative response values are reported as the ion counts of indicator peaks for any given compound or mixture. Sample locations on a base map are digitized as X-Y coordinates and ion counts for the reported compounds are plotted at respective locations.

Mapping of the ion counts occurs after contour intervals for each compound or component class are determined. In order to establish the contour intervals, factors such as statistical analysis of ion count distribution, physiochemical considerations, and component-source material relationships (if known) are taken into account for each compound or class, in each area, on an individual basis. Each map is then contoured by hand. The resultant contour zones for each compound or component class in each area are color coded on a relative basis depending on whether the data are interpreted to be of high, moderate to high, moderate, etc., intensity. The response values found on each of the response maps are color coded and contoured on this basis.

# APPENDIX B
# TABLE 1

Table 1: NonAOC-South Petrex Soil Gas Survey Results

NERI Project: 2114-2E
Site: Operable Unit -5, USDOE Mound Facility
Analysis: Thermal Desorption - Mass Spectrometry
Date of Analysis: 8/11/94
Units: Ion Counts

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 1 | 69,169 | 1,264 | 112,240 | ND |
| 2 | 104,993 | ND | 205,463 | 52,256 |
| 3 | 49,050 | ND | 182,582 | ND |
| 7 | 1,091,996 | 2,464 | 1,563,045 | ND |
| 8 | 118,660 | ND | 256,808 | ND |
| 9 | 160,181 | ND | 291,233 | ND |
| 10 | 1,118,059 | 1,092 | 1,614,551 | ND |
| 11 | 316,701 | ND | 580,640 | ND |
| 12 | 344,699 | 4,812 | 622,337 | ND |
| 13 | 171,388 | ND | 221,117 | ND |
| 14 | 159,243 | ND | 212,852 | ND |
| 2014 (e) | 334,651 | ND | 390,971 | ND |
| 15 | 468,596 | ND | 590,114 | ND |
| 16 | 96,232 | ND | 143,289 | ND |
| 17 | 7,850 | ND | 15,530 | ND |
| 18 | 270,261 | ND | 326,343 | ND |
| 19 | 296,748 | ND | 435,836 | ND |
| 2019 (e) | 175,326 | ND | 238,063 | ND |
| 20 | 86,185 | ND | 98,148 | ND |
| 21 | 4,579 | ND | 4,579 | 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) |
|---|---|---|---|---|
| 22 | 23,840 | ND | 26,086 | ND |
| 23 | 312,424 | ND | 406,905 | ND |
| 24 | 150,460 | ND | 157,590 | ND |
| 25 | 147,144 | ND | 406,250 | 2,481,563 |
| 26 | ND | ND | 1,316 | 37,029 |
| 27 | 39,452 | ND | 91,516 | ND |
| 28 | 787,417 | 4,172 | 1,670,243 | ND |
| 29 | 662,869 | ND | 1,039,718 | ND |
| 30 | 248,771 | ND | 479,068 | ND |
| 2030 (e) | 225,844 | ND | 454,791 | ND |
| 31 | 1,349,327 | ND | 2,432,240 | ND |
| 32 | 85,547 | ND | 220,155 | ND |
| 33 | 415,628 | ND | 887,145 | ND |
| 34 | 241,824 | ND | 822,441 | ND |
| 35 | 1,135,220 | 2,327 | 2,476,454 | ND |
| 36 | 675,880 | ND | 965,066 | ND |
| 37 | 122,117 | ND | 209,555 | ND |
| 2037 (e) | 111,484 | ND | 210,123 | ND |
| 38 | 225,605 | ND | 478,659 | ND |
| 39 | 148,673 | ND | 262,759 | ND |
| 40 | 293,585 | ND | 757,484 | ND |
| 41 | 576,719 | ND | 1,082,495 | 9,005 |
| 42 | 5,905 | ND | 7,052 | ND |
| 43 | ND | ND | 9,571 | ND |
| 44 | 48,500 | ND | 123,063 | ND |
| 45 | 4,102 | ND | 33,081 | ND |
| 46 | 27,038 | ND | 53,360 | ND |
| 47 | 12,577 | ND | 35,225 | 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) |
|---|---|---|---|---|
| 48 | 140,949 | ND | 235,583 | ND |
| 49 | 2,105 | ND | 6,484 | ND |
| 50 | T | ND | T | ND |
| 51 | 8,811 | ND | 24,889 | ND |
| 52 | 3,149 | ND | 11,592 | ND |
| 53 | 144,727 | ND | 425,571 | ND |
| 86 | 139,235 | 18,763 | 257,644 | 29,937 |
| 2086 (e) | 71,479 | 10,022 | 131,274 | 16,340 |
| 87 | 150,334 | ND | 391,801 | 10,115 |
| 88 | 16,630 | ND | 16,630 | ND |
| 89 | 1,072 | ND | 2,358 | ND |
| 90 | 87,895 | ND | 184,935 | ND |
| 91 | 7,761 | ND | 12,194 | ND |
| 92 | 41,338 | ND | 42,619 | ND |
| 93 | 962 | ND | 2,161 | ND |
| 94 | 2,892,814 | 3,134 | 8,156,307 | 122,777 |
| 95 | 45,617 | ND | 48,528 | ND |
| 206 | 338,466 | ND | 698,269 | 26,568 |
| 207 | 11,825 | ND | 12,809 | ND |
| 208 | 353,809 | ND | 870,381 | ND |
| 209 | 365,015 | ND | 594,968 | ND |
| 210 | 116,821 | ND | 276,152 | ND |
| 211 | 88,298 | ND | 240,955 | ND |
| 212 | 519,367 | 1,218 | 848,700 | ND |
| 213 | 74,744 | ND | 134,977 | ND |
| 214 | 70,452 | ND | 99,010 | 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) |
|---|---|---|---|---|
| 216 | 583,402 | 20,316 | 924,070 | ND |
| 217 | 131,197 | ND | 176,572 | ND |
| 2217 (e) | 111,173 | 1,591 | 158,499 | 1,476 |
| 218 | 769,932 | 8,507 | 1,622,856 | ND |
| 219 | 175,145 | 71,014 | 830,559 | ND |
| 220 | T | ND | T | ND |
| 221 | 57,961 | ND | 85,895 | ND |
| 222 | 125,575 | ND | 281,182 | ND |
| 223 | 508,222 | ND | 1,263,111 | 8,783 |
| 225 | 107,925 | 1,173 | 185,399 | ND |
| 226 | 503,834 | ND | 952,251 | ND |
| 227 | 71,884 | ND | 107,932 | ND |
| 228 | 45,925 | ND | 97,090 | ND |
| 229 | 1,044,786 | ND | 2,338,352 | ND |
| 230 | 104,747 | ND | 242,338 | 1,148 |
| 232 | 79,236 | ND | 177,211 | ND |
| 233 | 905,196 | ND | 1,575,045 | ND |
| 234 | 491,167 | ND | 898,007 | 15,907 |
| 235 | 445,896 | ND | 875,540 | 13,307 |
| 236 | 1,461,063 | ND | 1,706,548 | ND |
| 237 | 80,748 | ND | 147,205 | ND |
| 238 | 30,460 | ND | 32,482 | ND |
| 239 | 4,568,544 | 2,635 | 8,946,541 | 2,330,151 |
| 240 | 436,154 | ND | 860,642 | 61,580 |
| 241 | 24,929 | ND | 61,916 | ND |
| 242 | 18,190 | ND | 18,190 | ND |
| 2242 (e) | 3,825 | ND | 3,825 | 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) |
|---|---|---|---|---|
| 243 | 137,786 | ND | 298,587 | ND |
| 244 | 276,356 | ND | 406,297 | 83,692 |
| 245 | 75,140 | ND | 146,437 | ND |
| 246 | 727,170 | ND | 2,076,169 | ND |
| 247 | 41,908 | ND | 55,083 | ND |
| 248 | 104,018 | ND | 117,634 | ND |
| 249 | 100,275 | ND | 142,436 | ND |
| 250 | 45,935 | ND | 49,369 | ND |
| 251 | 86,883 | ND | 174,872 | ND |
| 252 | 13,680 | ND | 34,833 | ND |
| 2252 (e) | 20,340 | ND | 52,676 | ND |
| 253 | 295,379 | ND | 632,550 | ND |
| 254 | 66,441 | ND | 103,367 | ND |
| 255 | 98,316 | ND | 214,914 | ND |
| 256 | 331,958 | ND | 689,355 | ND |
| 2256 (e) | 416,144 | ND | 801,603 | ND |
| 257 | 230,380 | ND | 378,804 | ND |
| 258 | 3,107 | ND | 3,107 | ND |
| 259 | 45,747 | ND | 72,497 | ND |
| 260 | 1,243 | ND | 2,220 | ND |
| 261 | 97,297 | ND | 187,971 | ND |
| 262 | 336,676 | ND | 767,672 | ND |
| 263 | 16,709 | ND | 30,138 | 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) |
|---|---|---|---|---|
| 264 | 18,323 | ND | 27,303 | ND |
| 265 | 94,476 | ND | 191,839 | ND |
| 966 (g) | 458,297 | ND | 711,186 | ND |
| 967 (g) | 513,849 | ND | 795,431 | ND |
| 968 (g) | 24,517 | ND | 39,547 | ND |
| 969 (g) | 1,026,609 | ND | 3,581,041 | 62,512 |
| 970 (g) | 475 | ND | 2,339 | ND |
| 995 (g) | 53,947 | ND | 72,579 | ND |
| 996 (g) | 91,438 | ND | 229,578 | 4,580 |
| 1019 (i) | 603,041 | ND | 1,622,376 | 2,891 |
| 3019 (e)(i) | 282,849 | ND | 707,015 | ND |
| 1020 (i) | 195,978 | ND | 437,475 | 2,669 |
| 1033 (g) | 318,395 | 1,082 | 796,134 | 10,732 |
| 1069 (g) | 93,520 | ND | 518,182 | 338,945 |
| 5001 * | ND | ND | ND | ND |
| 5002 * | ND | ND | ND | ND |
| 5003 * | ND | ND | ND | ND |
| 5004 * | ND | ND | ND | ND |
| 5005 * | ND | ND | ND | ND |

Key:
(a) Intensity of response to ions of atomic masses 78, 92, 106, 120, 134, 148, 162, 176, 190, and 204.
(b) Intensity of response to ions of atomic masses 128, 142, 153, 156, 178, 184, 198, 202, and 212.
(c) Intensity of response to ions of atomic masses 70, 72, 78, 84, 86, 92, 98, 100, 106, 110, 112, 114, 120, 124, 126, 128, 134, 138, 140, 142, 148, 152, 154, and 156.
(d) Intensity of response to ions of atomic masses 101, 130, 146, 151, and 164.
(e) Duplicate of preceding sample.
(g) Sample was collected and analyzed in performance of the survey of NonAOC-West.
(i) Sample was collected and analyzed in performance of the survey of NonAOC-East.
T High levels of terpenes have interfered with the identification of petroleum hydrocarbons in this sample; see text.
ND The targeted compounds were not detected in this sample.
* Travel Blank

Table 2: NonAOC-West Petrex Soil Gas Survey Results

NERI Project: 2114-12E
Site: Operable Unit -5, USDOE Mound Facility
Analysis: Thermal Desorption - Mass Spectrometry
Date of Analysis: 11/9/94
Units: Ion Counts

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 960 | 96,754 | ND | 133,532 | ND |
| 961 | 96,168 | 17,847 | 252,774 | ND |
| 962 | 163,227 | 6,282 | 857,891 | 14,042 |
| 963 | 4,463,226 | 661 | 8,718,631 | 64,329 |
| 964 | 1,595,598 | 1,777 | 4,935,736 | 76,118 |
| 965 | 18,681 | ND | 26,923 | 4,059 |
| 3965 (e) | 59,565 | ND | 92,096 | 9,676 |
| 985 | 1,870,642 | ND | 2,083,892 | 12,235 |
| 986 | 13,330 | ND | 33,175 | ND |
| 987 | 44,471 | ND | 55,422 | 21,817 |
| 988 | 6,946 | ND | 7,523 | ND |
| 989 | 12,809 | ND | 31,342 | 9,357 |
| 990 | 35,340 | ND | 53,952 | ND |
| 997 | 151,633 | ND | 218,806 | 4,029 |
| 998 | 43,572 | ND | 168,614 | ND |
| 999 | 90,367 | ND | 174,261 | ND |
| 1000 | 32,263 | 566 | 52,507 | ND |
| 1001 | 3,302,976 | 1,383 | 6,947,527 | 62,601 |
| 1002 | 19,565 | ND | 26,720 | ND |

Table 2 (cont'd)

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 1003 | 15,224 | ND | 23,491 | ND |
| 3003 (e) | 16,767 | ND | 21,433 | ND |
| 1004 | 15,011 | ND | 22,813 | 12,568 |
| 1005 | 5,348 | ND | 17,829 | ND |
| 1006 | 4,310 | ND | 9,932 | ND |
| 1007 | 125,202 | 1,311 | 1,077,032 | 37,147 |
| 1008 | 2,670,853 | 642,824 | 7,889,389 | H |
| 1009 | 181,361 | 1,126 | 355,107 | ND |
| 1010 | 519,683 | 19,490 | 771,907 | 334,370 |
| 1011 | 1,973,408 | 23,694 | 3,044,283 | ND |
| 3011 (e) | 1,099,838 | 9,380 | 1,789,157 | ND |
| 1012 | 270,880 | 16,958 | 811,312 | ND |
| 1013 | 447,257 | 9,488 | 713,551 | 7,086 |
| 1015 | 7,570,760 | 1,200,505 | 30,786,838 | H |
| 1016 | 90,441 | 3,482 | 267,646 | 9,791 |
| 1017 | 969,669 | ND | 1,602,679 | 82,778 |
| 1018 | 144,201 | ND | 282,144 | ND |
| 1021 | 34,733 | ND | 68,783 | 4,170 |
| 1022 | 4,231,332 | 1,103,597 | 18,183,317 | H |
| 1023 | 769,994 | 11,505 | 1,668,310 | ND |
| 1024 | 130,944 | ND | 265,177 | 313,351 |
| 1025 | 8,682,028 | 859 | 15,211,532 | ND |
| 1026 | 4,072,598 | ND | 4,843,147 | ND |
| 1027 | 537,182 | 17,907 | 926,347 | ND |
| 1028 | 133,858 | ND | 382,748 | 346,233 |
| 1029 | 4,319 | ND | 6,644 | 52,367 |
| 3029 (e) | 4,328 | ND | 9,276 | 46,352 |
| 1030 | 146,209 | ND | 259,449 | ND |
| 1034 | 14,156 | ND | 27,051 | 5,065 |

Table 2 (cont'd)

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 1035 | 2,087,712 | 208,961 | 4,036,897 | H |
| 1039 | 546,090 | 9,996 | 741,506 | ND |
| 3039 (e) | 516,065 | 21,227 | 733,093 | ND |
| 1040 | 169,260 | 960 | 370,073 | 3,677 |
| 1041 | 161,457 | 27,579 | 414,156 | ND |
| 1043 | 13,388,803 | 35,887 | 22,611,601 | 37,483 |
| 1044 | 107,749 | ND | 197,715 | ND |
| 1045 | 285,417 | ND | 566,535 | 4,393 |
| 1046 | 1,405,580 | 4,890 | 1,861,211 | ND |
| 1047 | 12,522 | ND | 25,068 | ND |
| 1048 | 2,994,722 | 617 | 3,566,067 | ND |
| 1049 | 148,446 | ND | 261,085 | ND |
| 1050 | 435,979 | ND | 1,290,385 | ND |
| 1051 | 66,445 | 2,646 | 107,123 | ND |
| 3051 (e) | 64,919 | 752 | 112,256 | ND |
| 1052 | 351,489 | ND | 934,775 | ND |
| 1053 | 8,013 | 1,173 | 23,389 | ND |
| 1054 | 291,951 | ND | 669,428 | ND |
| 1055 | 678,469 | ND | 1,033,700 | ND |
| 1056 | 12,436,663 | 10,089 | 20,643,468 | 6,304 |
| 3056 (e) | 12,445,999 | 13,823 | 21,137,796 | 8,479 |
| 1057 | 143,302 | ND | 278,241 | 9,994 |
| 1058 | 64,010 | 715 | 203,391 | 658,498 |
| 1059 | 1,374,524 | ND | 1,653,721 | ND |
| 1060 | 96,253 | ND | 538,094 | 3,146 |
| 1061 | 1,149,777 | 29,835 | 1,849,738 | ND |
| 1062 | 2,936,682 | 29,676 | 4,166,768 | ND |
| 1063 | 64,232 | ND | 147,109 | ND |
| 1064 | 444,736 | 645 | 916,632 | ND |
| 1065 | 862,915 | 9,049 | 1,900,950 | 7,322 |

Table 2 (cont'd)

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 1066 | 6,571,465 | 15,104 | 7,553,729 | 892,683 |
| 1070 | 58,029 | ND | 183,636 | 3,689 |
| 1071 | 4,057,383 | 579,124 | 9,891,577 | H |
| 1084 | 4,169,821 | 527 | 4,386,123 | ND |
| 1085 | 9,507,325 | 191,946 | 13,224,274 | ND |
| 1086 | 64,076 | 1,562 | 234,446 | 8,137 |
| 1087 | 28,610 | ND | 66,209 | 8,451 |
| 3087 (e) | 38,480 | ND | 83,398 | 7,390 |
| 1088 | 906,789 | 18,388 | 1,303,668 | 21,699 |
| 1089 | 1,639,124 | 25,764 | 2,449,468 | ND |
| 1090 | 140,017 | ND | 289,557 | 19,858 |
| 1091 | 2,507 | ND | 2,507 | ND |
| 1092 | 88,618 | 1,896 | 252,302 | 17,004 |
| 1093 | 21,843,637 | 1,389,465 | 29,658,830 | ND |
| 1096 | 395,678 | 1,440 | 1,161,588 | 168,226 |
| 6001 * | ND | ND | 544 | ND |
| 6002 * | 2,315 | ND | 2,315 | ND |
| 6003 * | ND | ND | ND | ND |

Key: (a) Intensity of response to ions of atomic masses 78, 92, 106, 120, 134, 148, 162, 176, 190, and 204.
(b) Intensity of response to ions of atomic masses 128, 142, 153, 156, 178, 184, 198, 202, and 212.
(c) Intensity of response to ions of atomic masses 70, 72, 78, 84, 86, 92, 98, 100, 106, 110, 112, 114, 120, 124, 126, 128, 134, 138, 140, 142, 148, 152, 154, and 156.
(d) Intensity of response to ions of atomic masses 101, 130, 146, 151, and 164.
(e) Duplicate of preceding sample.
H High levels of petroleum hydrocarbons have interfered with the identification of halogenated hydrocarbons in this sample; see text.
T High levels of terpenes have interfered with the identification of petroleum hydrocarbons in this sample; see text.
ND The targeted compounds were not detected in this sample.
* Travel Blank

Table 3: NonAOC-East Petrex Soil Gas Survey Results

NERI Project: 2114-11E
Site: Operable Unit -5, USDOE Mound Facility
Analysis: Thermal Desorption - Mass Spectrometry
Date of Analysis: 11/7/94
Units: Ion Counts

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 905 | 527,794 | 948 | 1,033,136 | ND |
| 906 | 429,572 | 1,738 | 896,401 | ND |
| 907 | 50,849 | ND | 178,291 | ND |
| 908 | 52,162 | ND | 115,415 | ND |
| 909 | 1,485,269 | 11,379 | 3,157,673 | 5,493 |
| 911 | 1,737,343 | 18,849 | 3,164,476 | ND |
| 912 | 1,436,387 | 741 | 1,895,678 | ND |
| 913 | 1,348,448 | 10,185 | 2,424,800 | ND |
| 914 | 1,013,033 | 3,942 | 2,427,024 | ND |
| 915 | 38,590 | ND | 103,682 | 40,930 |
| 916 | 418,814 | 732 | 671,798 | ND |
| 917 | 83,547 | ND | 160,147 | ND |
| 918 | 366,896 | 661 | 502,058 | ND |
| 919 | 6,078,070 | 172,960 | 11,565,340 | 49,731 |
| 920 | 1,185,029 | 5,925 | 2,268,265 | 9,752 |
| 3920 (e) | 407,311 | 3,117 | 740,848 | 774 |
| 922 | 2,024,751 | 21,260 | 4,988,003 | 10,535 |
| 923 | 1,313,093 | 380,022 | 9,495,872 | H |
| 924 | 1,585,590 | 10,253 | 2,684,402 | ND |
| 925 | 1,727,911 | 158,310 | 4,545,396 | H |
| 926 | 1,133,788 | ND | 1,348,935 | ND |
| 927 | 208,608 | ND | 487,052 | ND |

Table 3 (cont'd)

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 928 | 6,007,442 | 3,757 | 7,107,733 | ND |
| 929 | 2,008,370 | 2,262 | 2,362,546 | ND |
| 931 | 69,434 | ND | 145,130 | 7,684 |
| 932 | 895,805 | 22,674 | 1,813,531 | 3,710 |
| 933 | 212,721 | 1,318 | 409,844 | ND |
| 3933 (e) | 290,619 | 1,085 | 545,454 | ND |
| 935 | 35,622 | ND | 77,758 | ND |
| 936 | 1,747,145 | 1,958 | 2,189,497 | ND |
| 937 | 285,579 | 15,300 | 558,625 | ND |
| 938 | 32,397 | ND | 87,508 | ND |
| 939 | 1,316,847 | 17,307 | 1,946,211 | ND |
| 940 | 271,761 | 11,940 | 1,067,475 | ND |
| 941 | 68,087 | ND | 136,895 | 89,852 |
| 943 | 556,338 | 62,567 | 1,252,076 | ND |
| 944 | 693,489 | 17,947 | 1,153,016 | ND |
| 945 | 11,146 | ND | 27,040 | ND |
| 3945 (e) | 22,847 | ND | 36,199 | ND |
| 946 | 5,097,206 | 744,700 | 11,542,658 | H |
| 947 | 26,174 | ND | 47,160 | ND |
| 948 | 2,040,788 | 523,786 | 7,967,383 | H |
| 949 | 31,404 | ND | 38,467 | ND |
| 950 | 895,096 | 21,091 | 2,177,092 | ND |
| 951 | 46,578 | 972 | 83,537 | ND |
| 952 | 2,694,874 | 18,209 | 3,770,493 | ND |
| 953 | 3,555,860 | 428,043 | 8,681,974 | H |

Table 3 (cont'd)

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 954 | 1,680,434 | 56,946 | 3,323,604 | ND |
| 3954 (e) | 1,348,754 | 68,130 | 2,689,278 | ND |
| 955 | 254,128 | ND | 593,114 | 28,897 |
| 956 | 442,516 | ND | 1,135,507 | 82,175 |
| 957 | 460,827 | ND | 591,556 | ND |
| 958 | 1,140,143 | ND | 1,650,207 | 16,314 |
| 959 | 17,432 | ND | 21,911 | ND |
| 992 | 304,278 | 24,323 | 529,474 | ND |
| 993 | 1,431,291 | 61,014 | 4,352,842 | ND |
| 994 | 2,267,130 | 126,878 | 3,669,273 | ND |
| 1042 | 14,151 | ND | 30,395 | ND |
| 1067 | 1,364,742 | 29,674 | 2,233,362 | ND |
| 1068 | 20,990 | ND | 27,830 | ND |
| 1097 | 1,094,615 | 2,681 | 1,848,572 | ND |
| 7001 * | ND | ND | ND | ND |
| 7002 * | ND | ND | ND | ND |
| 7003 * | 745 | ND | 1,438 | 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, 151, and 164.
(e) Duplicate of preceding sample.
H High levels of petroleum hydrocarbons have interfered with the identification of halogenated hydrocarbons in this sample; see text.
T High levels of terpenes have interfered with the identification of petroleum hydrocarbons in this sample; see text.
ND The targeted compounds were not detected in this sample.
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Table 4: NonAOC-North Petrex Soil Gas Survey Results

NERI Project: 2114-10E
Site: Operable Unit -5, USDOE Mound Facility
Analysis: Thermal Desorption - Mass Spectrometry
Date of Analysis: 11/8/94
Units: Ion Counts

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 835 | 66,210 | ND | 143,115 | ND |
| 836 | 191,012 | ND | 530,527 | ND |
| 837 | 324,673 | 2,080 | 758,043 | ND |
| 838 | 149,216 | 6,336 | 354,810 | ND |
| 839 | 38,128 | ND | 75,320 | ND |
| 840 | 221,963 | 1,205 | 488,405 | ND |
| 841 | 43,467 | ND | 88,315 | ND |
| 842 | 575,850 | 16,250 | 3,239,990 | ND |
| 843 | 22,044 | 3,159 | 78,827 | ND |
| 844 | 1,083,124 | 3,796 | 1,681,444 | ND |
| 845 | 71,722 | 40,888 | 221,570 | ND |
| 846 | 64,713 | ND | 93,407 | ND |
| 3846 (e) | 99,719 | ND | 150,289 | ND |
| 847 | 4,159,528 | 56,159 | 6,378,489 | ND |
| 848 | 72,309 | 36,488 | 221,161 | 7,754 |
| 849 | 51,021 | ND | 143,898 | ND |
| 850 | 294,446 | ND | 475,900 | ND |
| 851 | 10,157 | ND | 28,589 | ND |
| 852 | 1,040,856 | 22,254 | 1,836,670 | ND |
| 853 | 5,341,738 | 1,220 | 6,356,322 | ND |
| 854 | 6,872 | ND | 20,218 | ND |
| 855 | 2,355,601 | 814 | 3,018,589 | ND |
| 856 | 5,779,252 | 86,005 | 9,804,778 | 10,084 |
| 857 | 4,891,676 | 48,792 | 7,056,956 | ND |

Table 4 (cont'd)

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 858 | 17,751 | ND | 38,321 | ND |
| 859 | 63,269 | ND | 112,992 | ND |
| 860 | 4,469 | ND | 14,963 | ND |
| 861 | 3,241 | ND | 8,519 | ND |
| 862 | 81,929 | ND | 268,425 | 8,347 |
| 3862 (e) | 119,259 | ND | 435,287 | 13,451 |
| 863 | 211,830 | 48,446 | 488,411 | ND |
| 864 | 31,827 | ND | 60,770 | ND |
| 865 | 276,591 | ND | 680,193 | ND |
| 866 | 332,054 | 11,447 | 724,350 | 16,506 |
| 3866 (e) | 272,440 | 6,951 | 555,885 | 11,448 |
| 867 | 323,265 | 761 | 1,054,664 | ND |
| 868 | 22,326 | ND | 43,566 | 51,737 |
| 869 | 413,806 | 6,035 | 1,229,747 | ND |
| 870 | 105,465 | 12,156 | 272,168 | ND |
| 871 | 262,537 | 13,383 | 709,554 | 39,392 |
| 3871 (e) | 117,156 | 4,180 | 350,827 | 18,146 |
| 872 | 179,121 | 2,716 | 518,546 | ND |
| 873 | 215,400 | ND | 383,982 | ND |
| 874 | 997,234 | 9,698 | 2,035,141 | ND |
| 875 | 93,866 | 15,159 | 216,791 | ND |
| 876 | 91,518 | ND | 160,738 | 4,348 |
| 877 | 997,444 | 49,913 | 2,306,808 | 2,040 |
| 879 | 619,446 | 35,834 | 1,230,011 | ND |
| 886 | 294,275 | 462 | 574,432 | 3,992 |
| 887 (f) | 600,046 | 4,035 | 1,054,346 | 484,476 |
| 888 | 5,315,457 | 36,969 | 9,565,092 | 67,782 |
| 889 | 3,540,952 | 4,865 | 8,657,091 | 118,701 |
| 890 (f) | 36,315 | 6,488 | 151,227 | 1,370,283 |
| 3890 (e)(f) | 18,704 | 4,258 | 115,026 | 1,199,030 |
| 891 | 250,039 | ND | 472,369 | 8,234 |
| 892 | T | ND | T | ND |

Table 4 (cont'd)

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 893 | 29,557 | ND | 45,556 | ND |
| 894 | 152,976 | ND | 338,477 | ND |
| 895 | 226,315 | ND | 400,003 | ND |
| 896 | 3,921,286 | 86,244 | 7,202,920 | ND |
| 897 | 2,892,152 | 93,427 | 5,475,698 | ND |
| 3897 (e) | 6,465,295 | 106,916 | 10,972,839 | ND |
| 898 | 134,161 | ND | 259,743 | ND |
| 899 | 428,096 | ND | 757,235 | ND |
| 900 | 954,933 | 14,976 | 1,418,695 | 8,495 |
| 901 | 97,164 | 1,169 | 138,613 | ND |
| 902 | 148,344 | ND | 221,410 | ND |
| 904 | 1,147,124 | 95,534 | 2,610,925 | 1,990 |
| 972 | 222,569 | ND | 426,707 | ND |
| 973 | 9,003,947 | 229,746 | 13,073,275 | H |
| 974 | 7,780,673 | 7,015,960 | 24,166,931 | H |
| 975 | 563,924 | ND | 887,565 | 36,262 |
| 3975 (e) | 259,145 | ND | 375,901 | 20,054 |
| 976 | 354,934 | 689 | 646,966 | 453,690 |
| 977 | 590,399 | ND | 1,013,721 | ND |
| 978 | 24,838 | 8,237 | 35,360 | 24,668 |
| 979 | 13,428 | ND | 17,668 | ND |
| 980 | 1,008,988 | ND | 1,295,839 | ND |
| 981 | 19,173 | ND | 33,539 | ND |
| 982 | 12,114 | 602 | 35,833 | ND |
| 983 | 56,332 | ND | 87,561 | 18,898 |
| 984 | 299,283 | 1,951 | 831,403 | 37,025 |
| 991 | 2,937,566 | 22,143 | 4,787,530 | ND |
| 1014 | 4,097,578 | 4,855 | 5,666,688 | 25,019 |
| 1072 | 10,954,078 | 49,812 | 12,297,858 | 18,013 |
| 1073 | 3,084,241 | 849,005 | 10,254,085 | H |
| 3073 (e) | 4,644,141 | 1,374,870 | 15,240,276 | H |

Table 4 (cont'd)

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 1074 | 1,077,488 | 310,921 | 3,334,270 | H |
| 1075 | 5,024,920 | 190,818 | 8,157,950 | ND |
| 1076 | 98,846 | ND | 150,244 | 11,278 |
| 1077 | 179,495 | 637 | 313,677 | 253,075 |
| 1078 | 292,004 | ND | 384,717 | 27,102 |
| 1079 | 878,182 | ND | 1,047,284 | ND |
| 1080 | 476,919 | ND | 688,052 | ND |
| 1081 | 1,359,839 | ND | 1,737,634 | ND |
| 1082 | 2,366,016 | ND | 2,549,371 | ND |
| 1083 | 6,566,476 | ND | 7,262,620 | ND |
| 3083 (e) | 5,727,584 | ND | 6,343,712 | ND |
| 1094 | 36,255 | ND | 65,413 | 14,484 |
| 1095 | 48,524 | ND | 79,645 | 27,164 |
| 8001 * | ND | ND | ND | ND |
| 8002 * | ND | ND | ND | ND |
| 8003 * | ND | ND | ND | ND |

Key:
(a) Intensity of response to ions of atomic masses 78, 92, 106, 120, 134, 148, 162, 176, 190, and 204.
(b) Intensity of response to ions of atomic masses 128, 142, 153, 156, 178, 184, 198, 202, and 212.
(c) Intensity of response to ions of atomic masses 70, 72, 78, 84, 86, 92, 98, 100, 106, 110, 112, 114, 120, 124, 126, 128, 134, 138, 140, 142, 148, 152, 154, and 156.
(d) Intensity of response to ions of atomic masses 83, 101, 130, 146, 151, and 164.
(e) Duplicate of preceding sample.
(f) A pronounced level of chloroform was detected in this sample.
H High levels of petroleum hydrocarbons have interfered with the identification of halogenated hydrocarbons in this sample; see
T High levels of terpenes have interfered with the identification of petroleum hydrocarbons in this sample; see text.
ND The targeted compounds were not detected in this sample.
* Travel Blank

Table 5: Area 61 Petrex Soil Gas Survey Results

NERI Project: 2114-8E
Site: Operable Unit -5, USDOE Mound Facility
Analysis: Thermal Desorption - Mass Spectrometry
Date of Analysis: 11/3/94
Units: Ion Counts

| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 763 | 467,540 | 1,600 | 813,681 | 13,615 |
| 764 | 953,682 | 1,679 | 2,118,209 | ND |
| 766 | 375,676 | ND | 772,452 | ND |
| 767 | 408,937 | 963 | 829,573 | 8,622 |
| 768 | 999,796 | 7,478 | 2,218,590 | 253,202 |
| 769 | 1,254,539 | 52,783 | 3,443,297 | ND |
| 770 | 3,877,620 | 276,140 | 8,407,022 | H |
| 771 | 8,480,611 | 1,407,598 | 25,595,904 | H |
| 772 | 4,350,242 | 821,542 | 11,500,184 | H |
| 773 | 1,911,827 | 302,483 | 3,752,773 | H |
| 774 | 960,913 | 4,106 | 1,709,376 | 19,902 |
| 775 | 81,078 | ND | 208,594 | 265,376 |
| 776 | 2,249,373 | 123,409 | 3,898,339 | H |
| 777 | 3,636,953 | 551,343 | 7,718,058 | H |
| 778 | 6,346,766 | 1,412,373 | 16,199,706 | H |
| 779 | 5,839,868 | 43,335 | 11,970,315 | 98,905 |
| 2779 (e) | 5,270,280 | 63,789 | 10,780,447 | 61,565 |

Table 5 (cont'd)

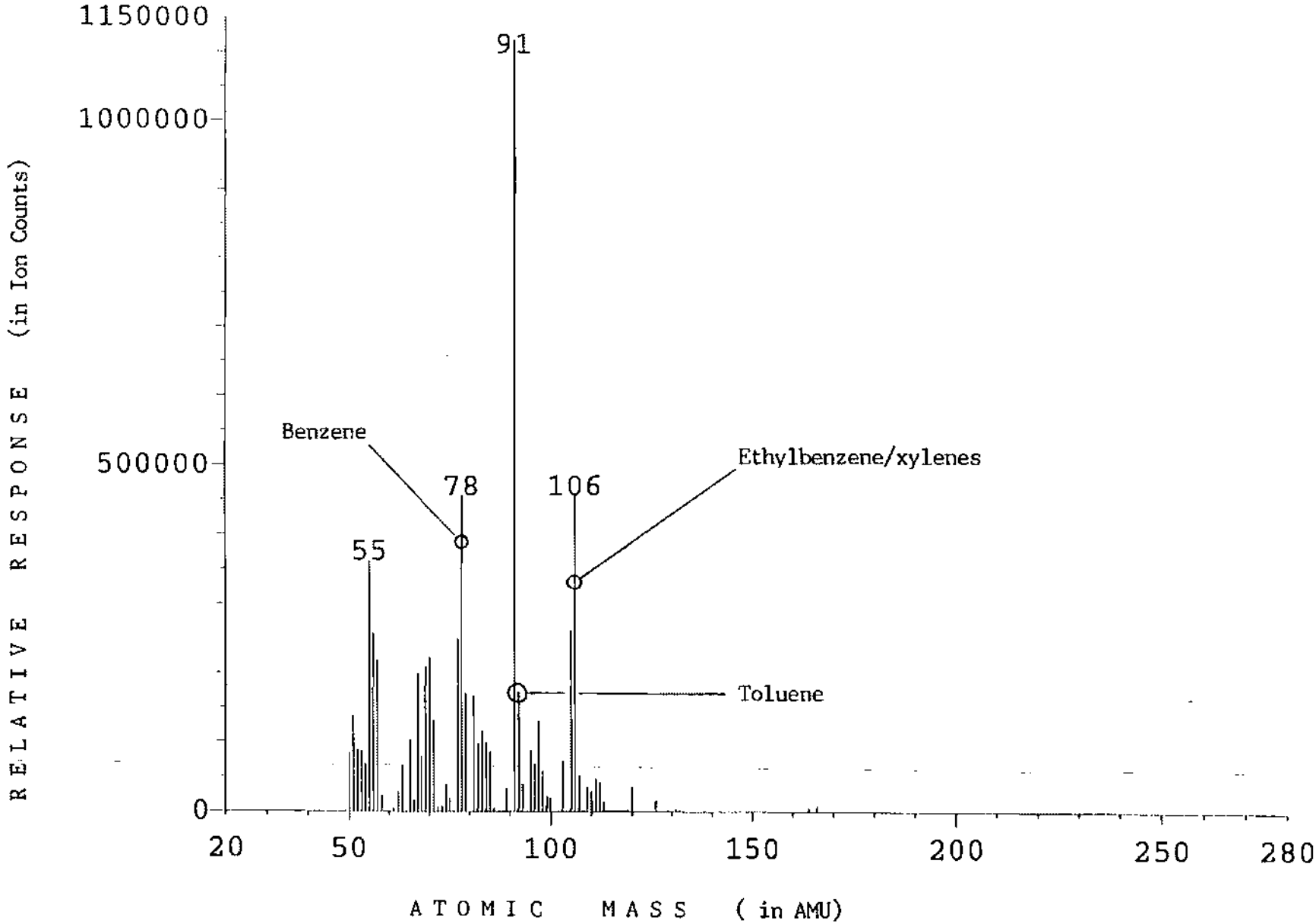
| Sample # | Total Aromatic Hydrocarbons (a) | Total Semivolatile Hydrocarbons (b) | Total C5 to C11 Petroleum Hydrocarbons (c) | Total Halogenated Hydrocarbons (d) |
|---|---|---|---|---|
| 780 | 1,033,253 | 136,573 | 4,124,223 | 146,740 |
| 781 | 6,271,897 | 192,977 | 13,186,665 | 73,589 |
| 782 | 467,828 | 1,927 | 1,194,855 | 68,176 |
| 783 | 358,711 | 1,186 | 712,116 | 3,763 |
| 784 | 5,910,388 | 238,454 | 14,875,542 | H |
| 785 | 6,587,106 | 104,819 | 16,269,308 | 18,287 |
| 786 | 7,038,893 | 83,542 | 13,372,139 | 35,237 |
| 787 | 6,492,820 | 99,183 | 18,775,340 | 7,849 |
| 9001 * | 20,012 | ND | 36,233 | 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, 151, and 164.
(e) Duplicate of preceding sample.
H High levels of petroleum hydrocarbons have interfered with the identification of halogenated hydrocarbons in this sample; see text.
T High levels of terpenes have interfered with the identification of petroleum hydrocarbons in this sample; see text.
ND The targeted compounds were not detected in this sample.
* Travel Blank

# APPENDIX C
# SAMPLE MASS SPECTRA

Sample Number

C:\data\2114-2\0010.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



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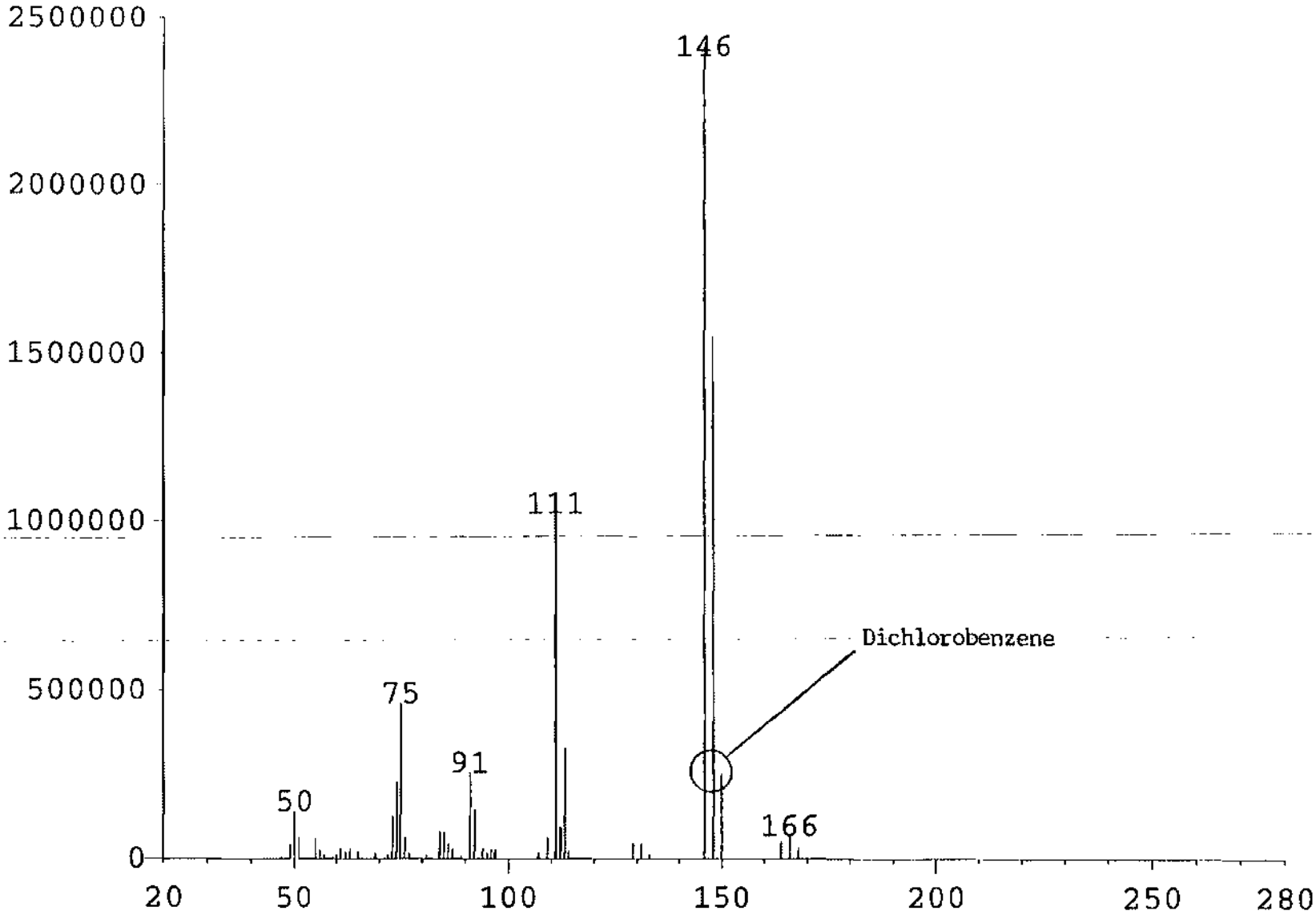

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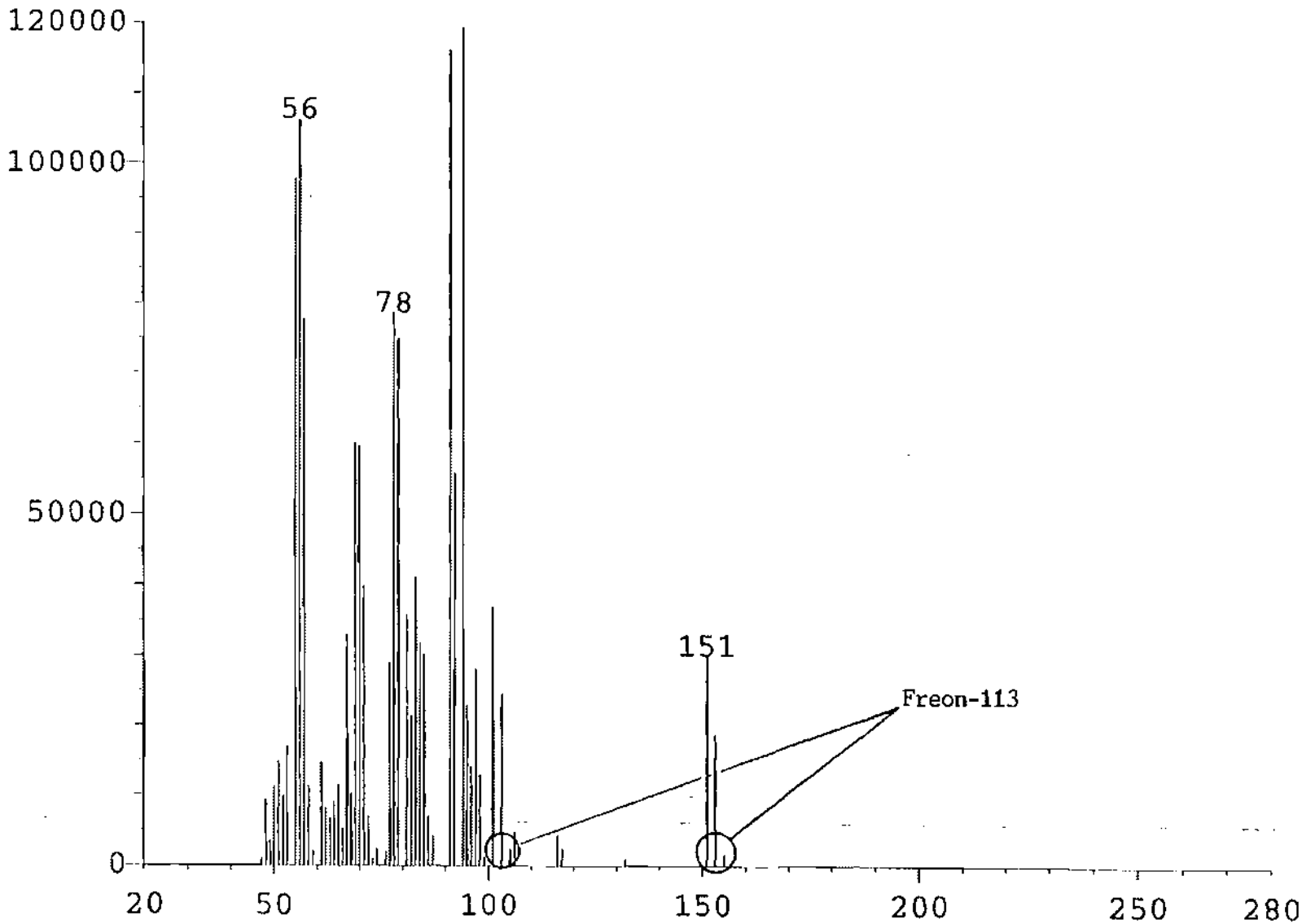

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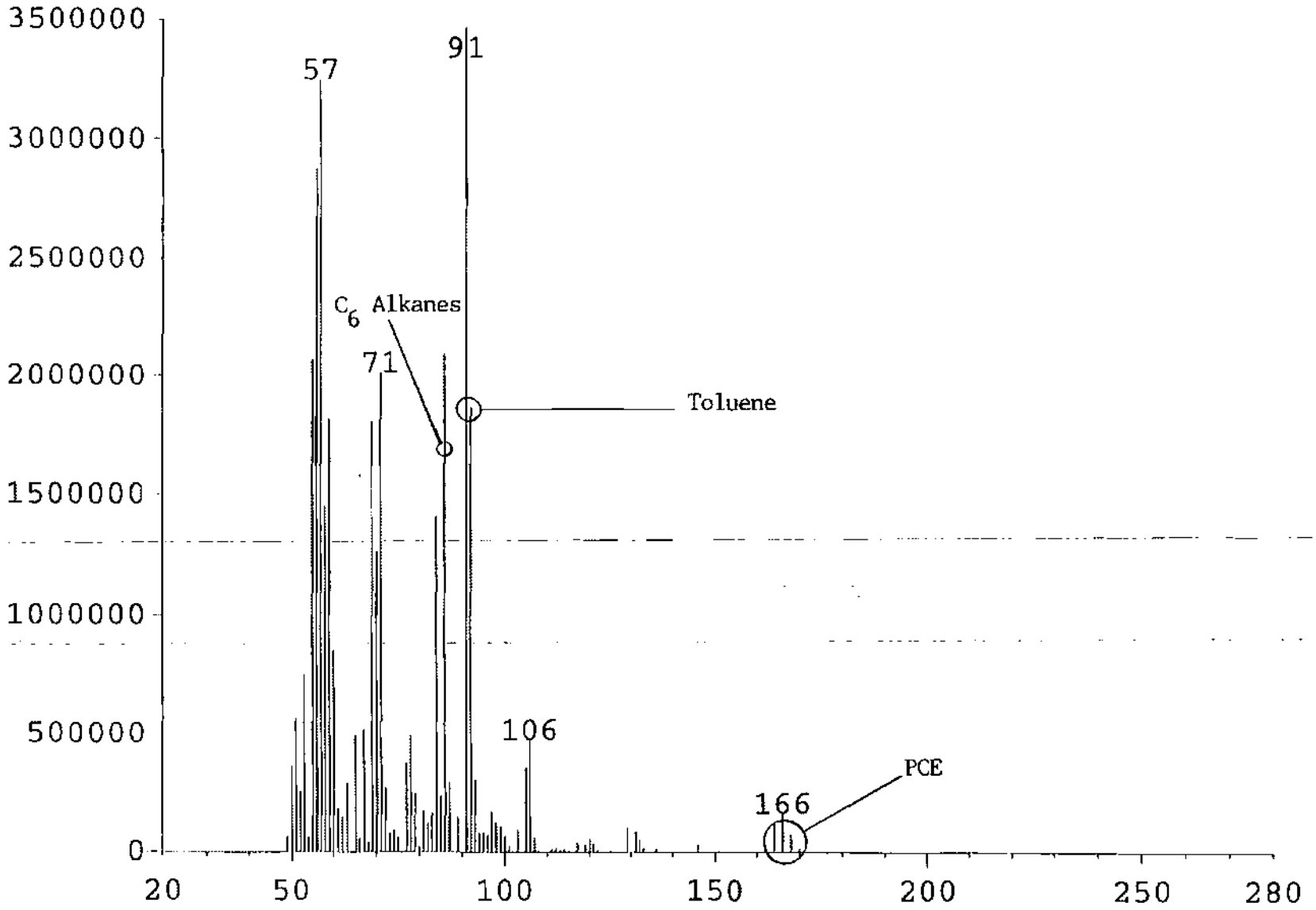

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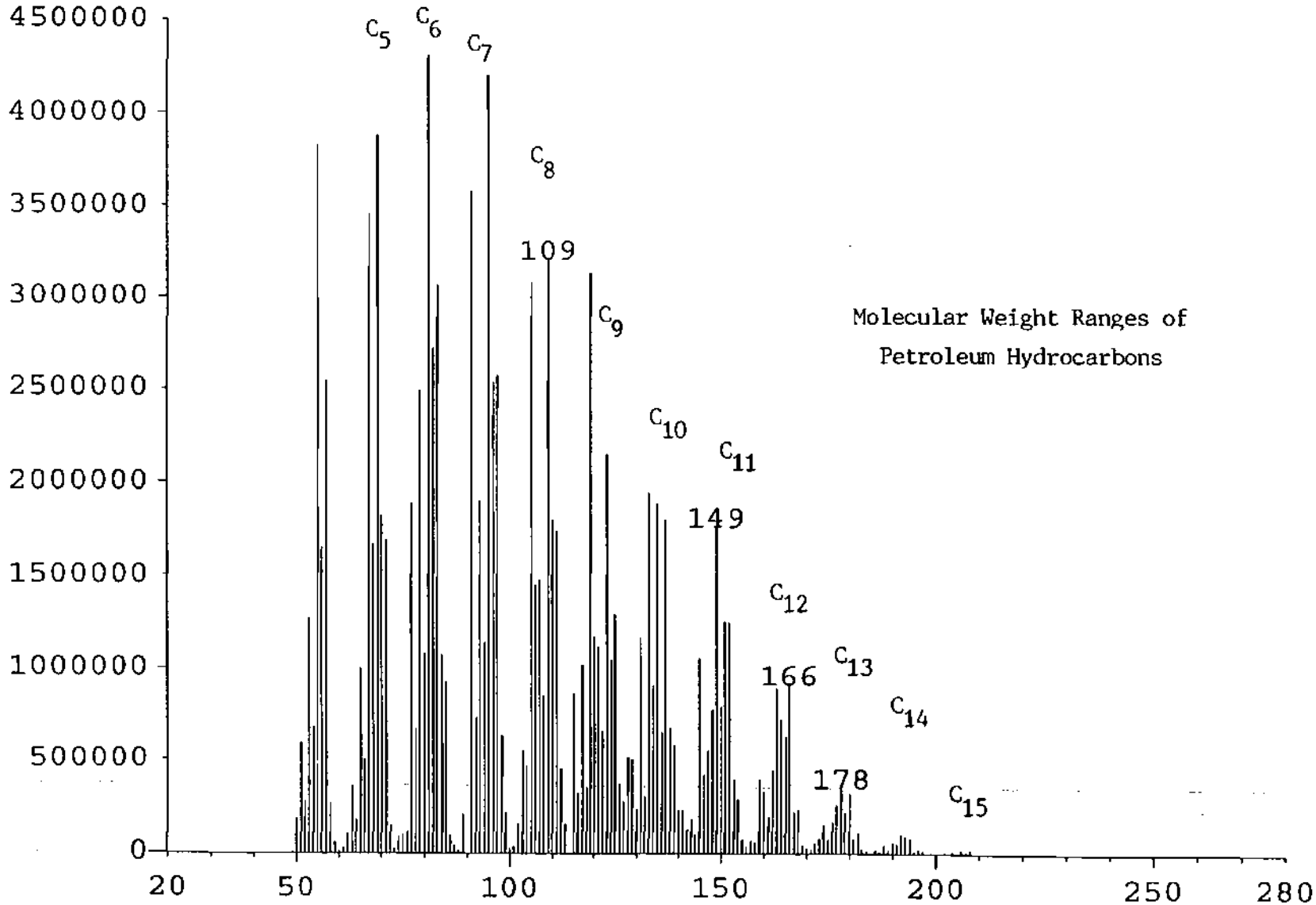

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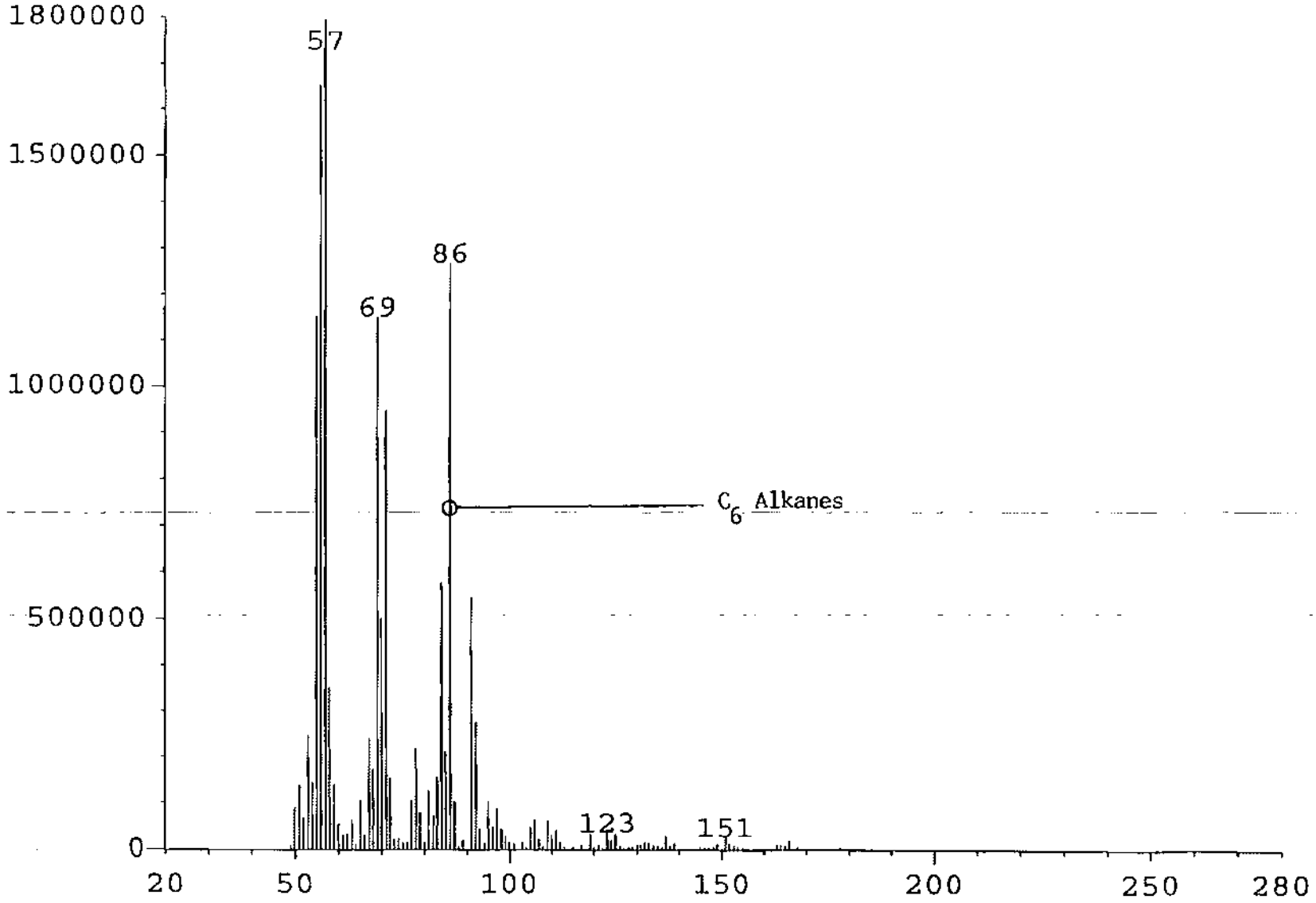

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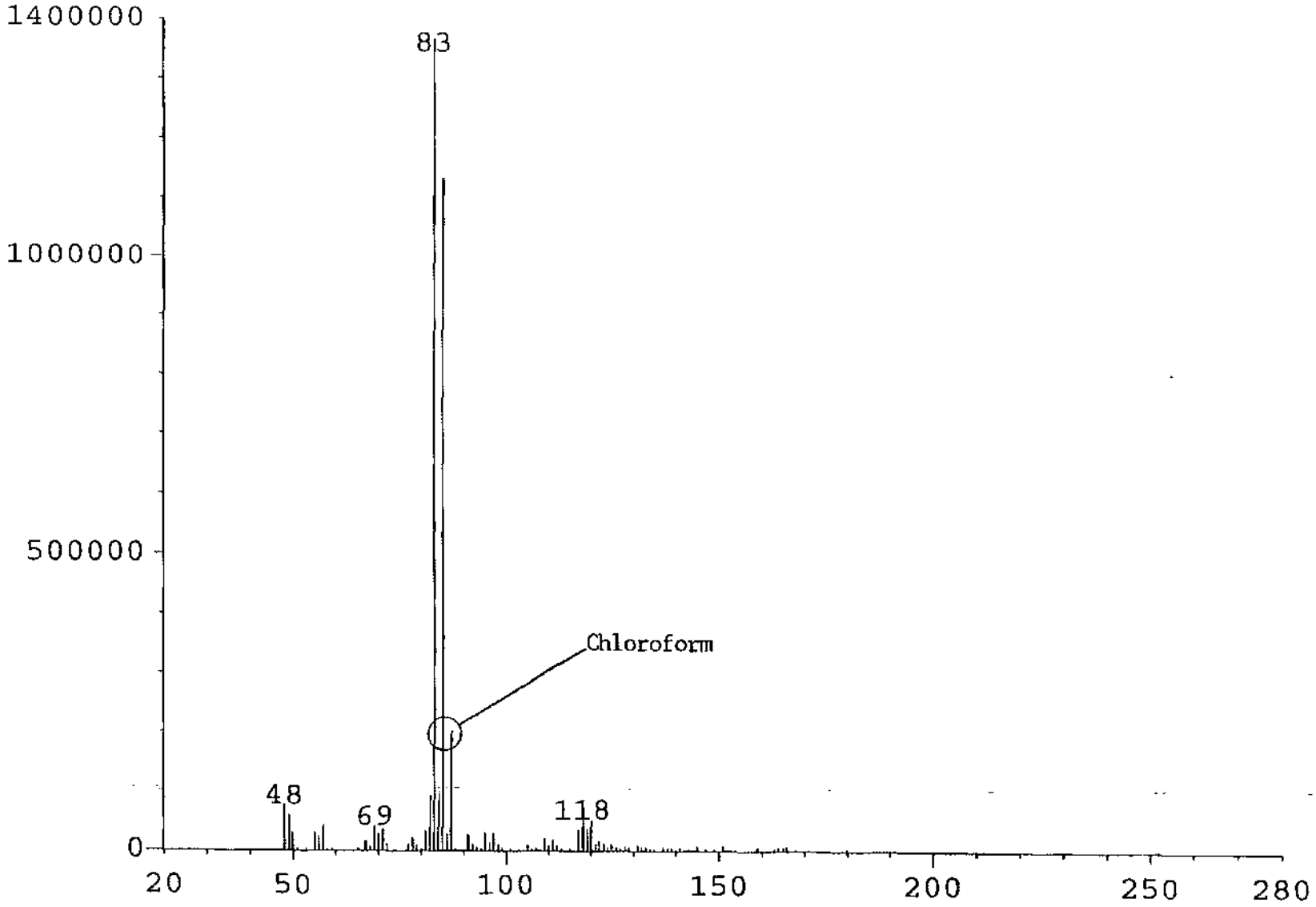
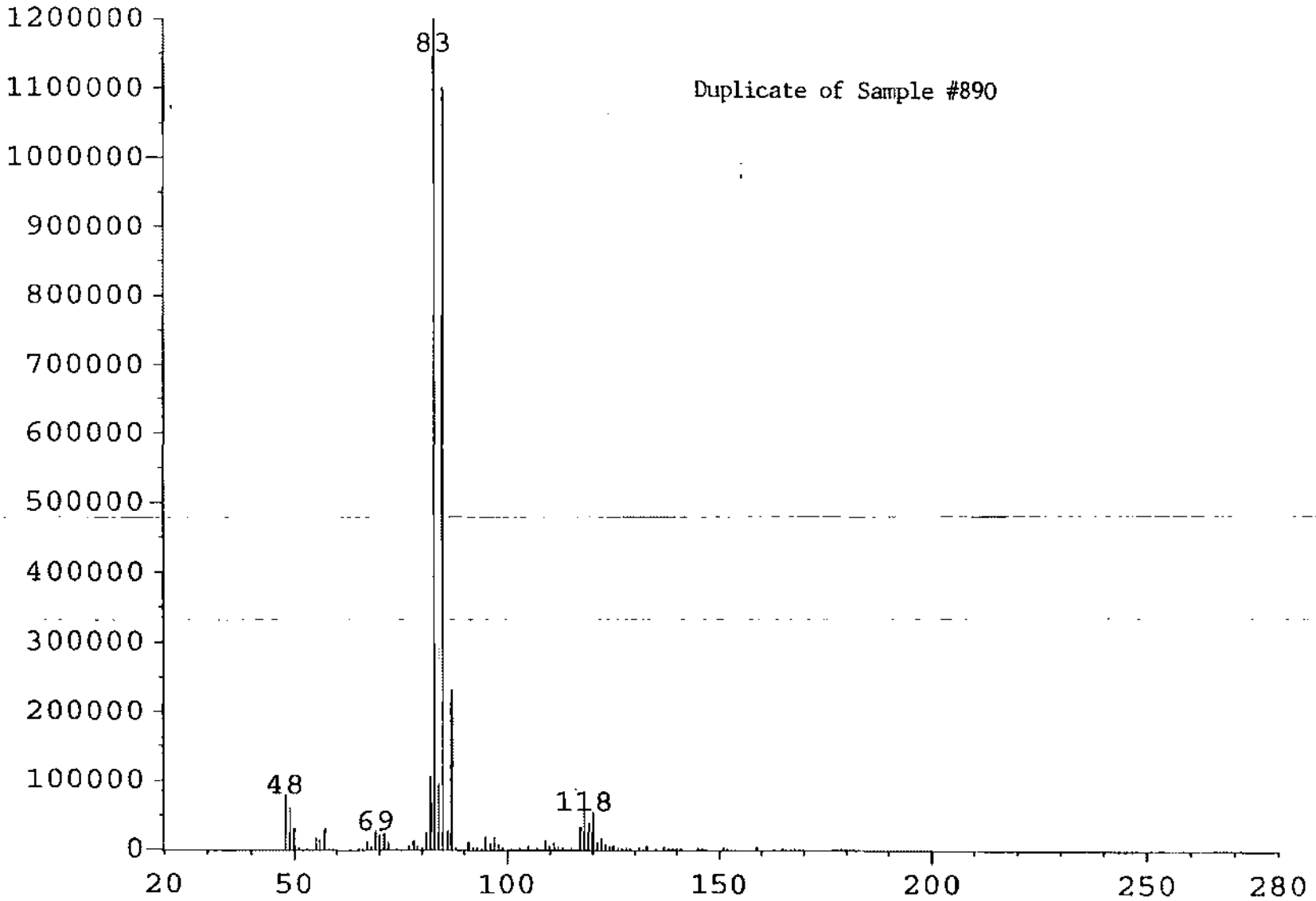
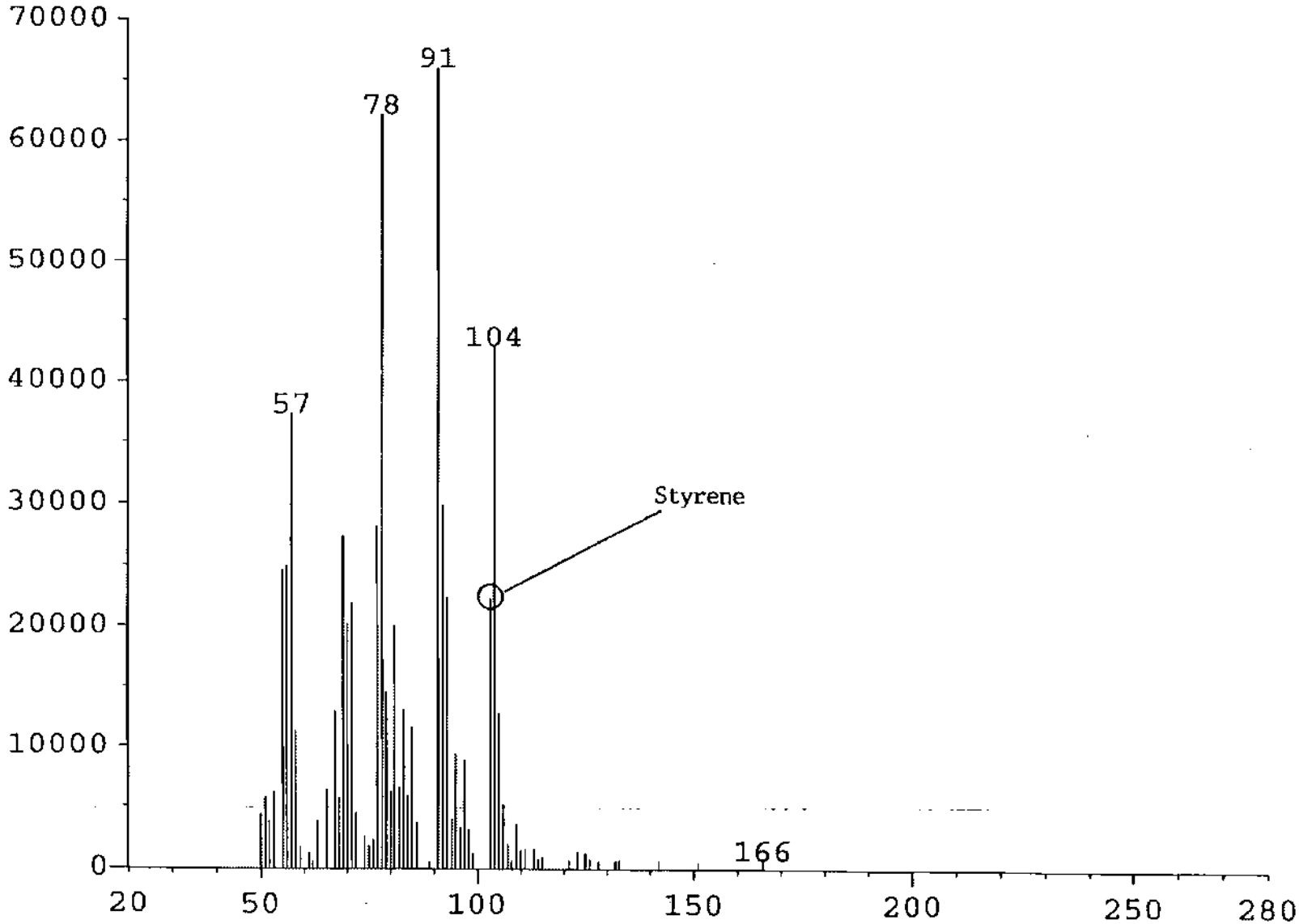


C:\DATA\2114-10\3890.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



C:\DATA\2114-10\0901.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



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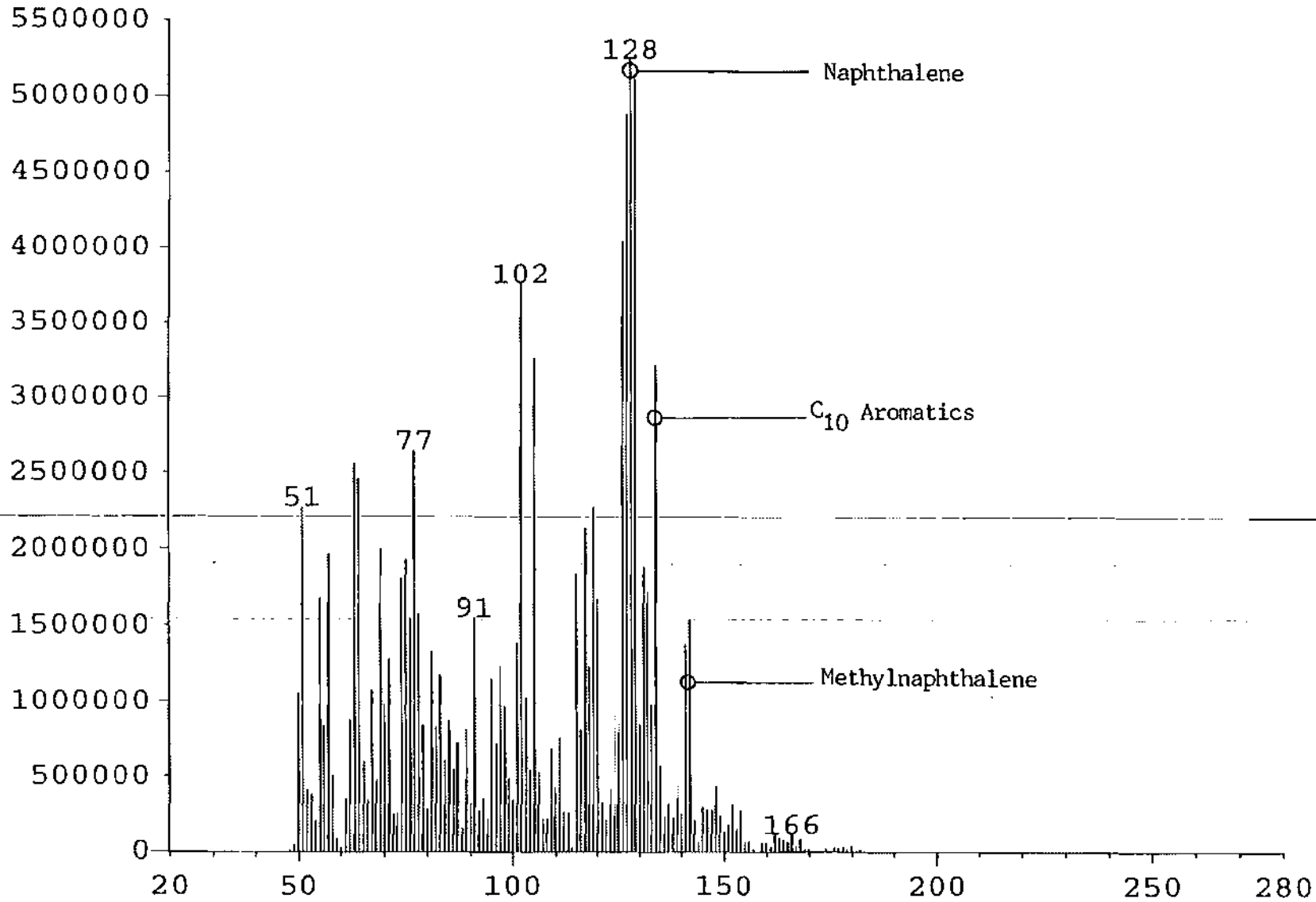

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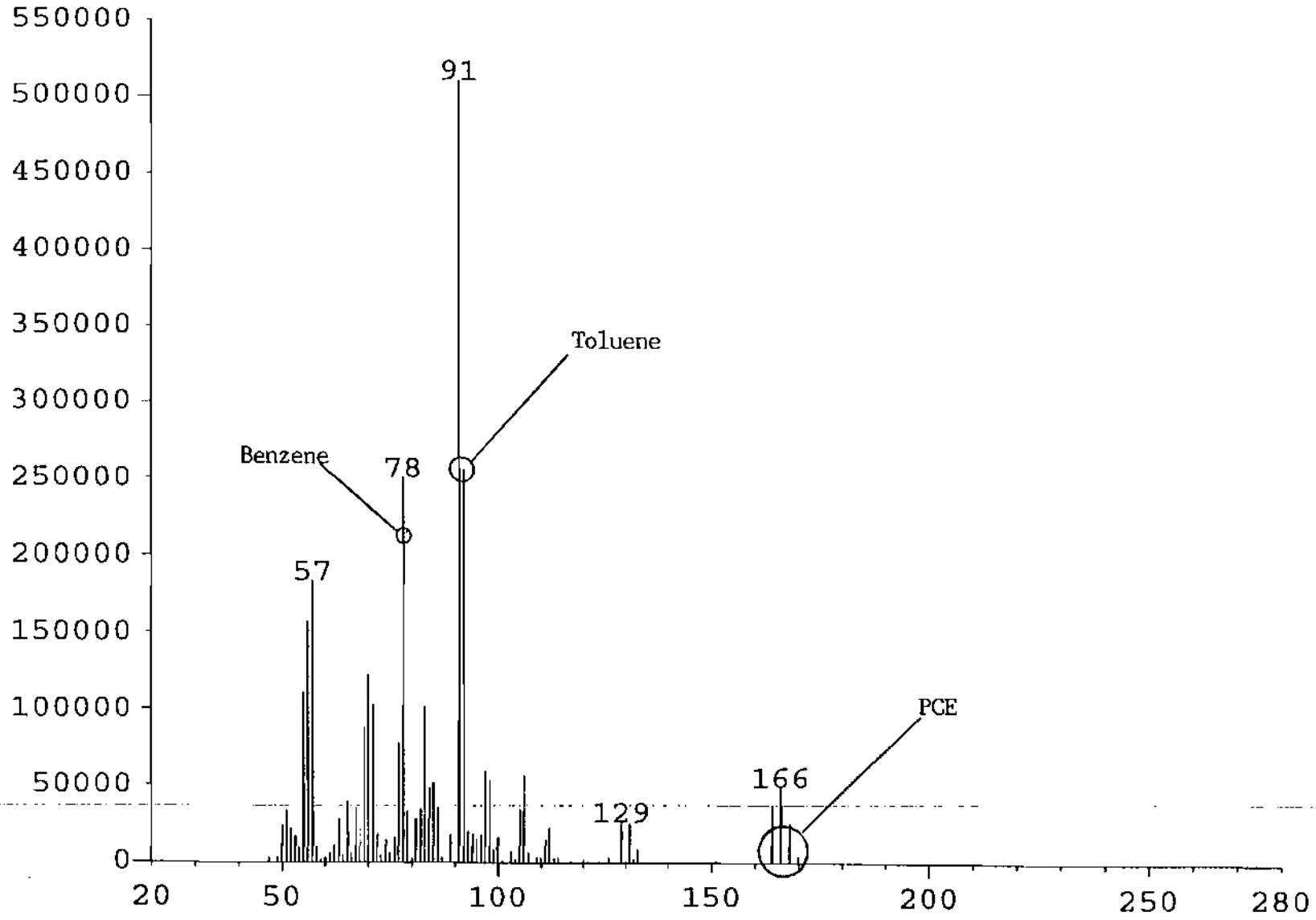

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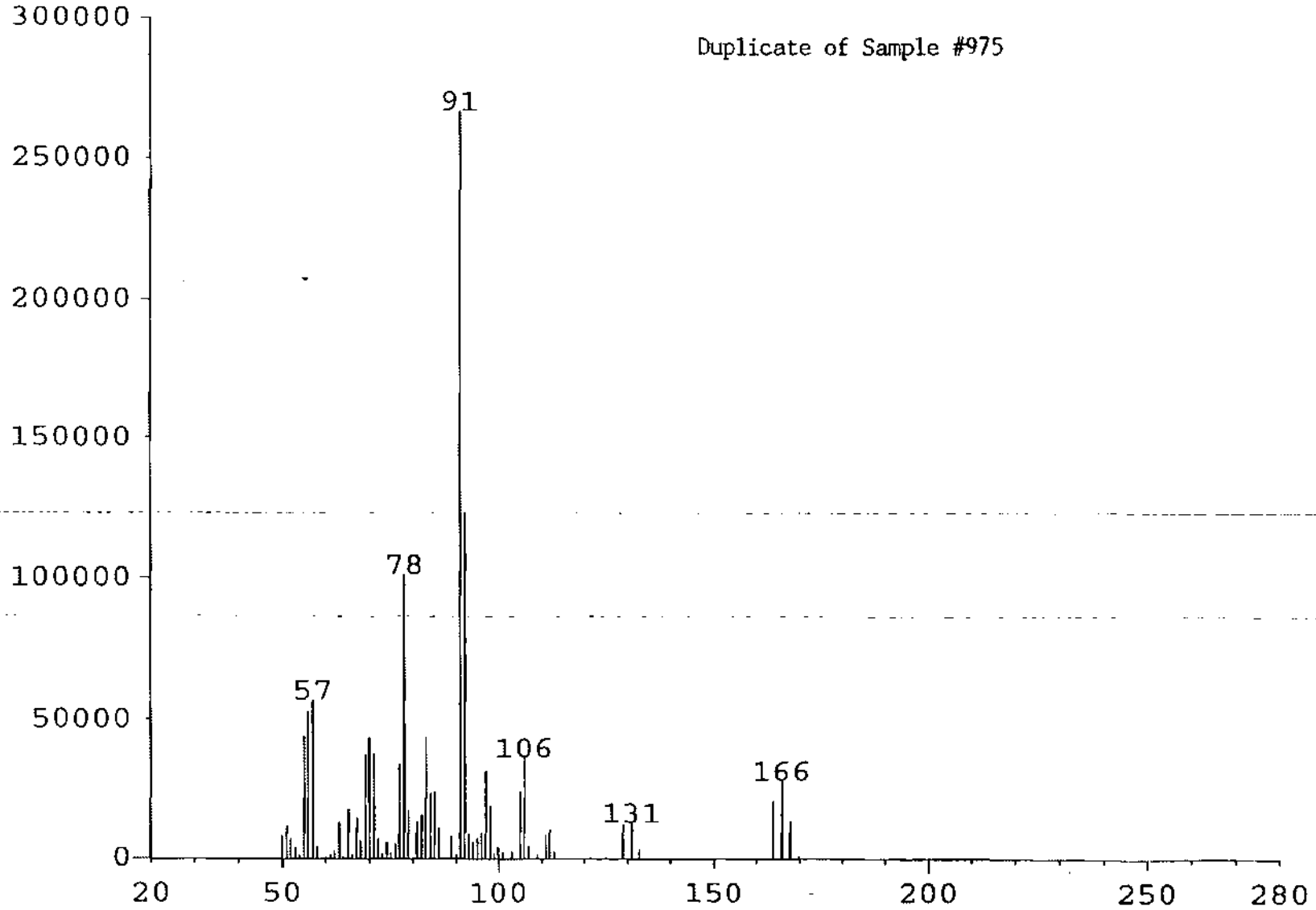

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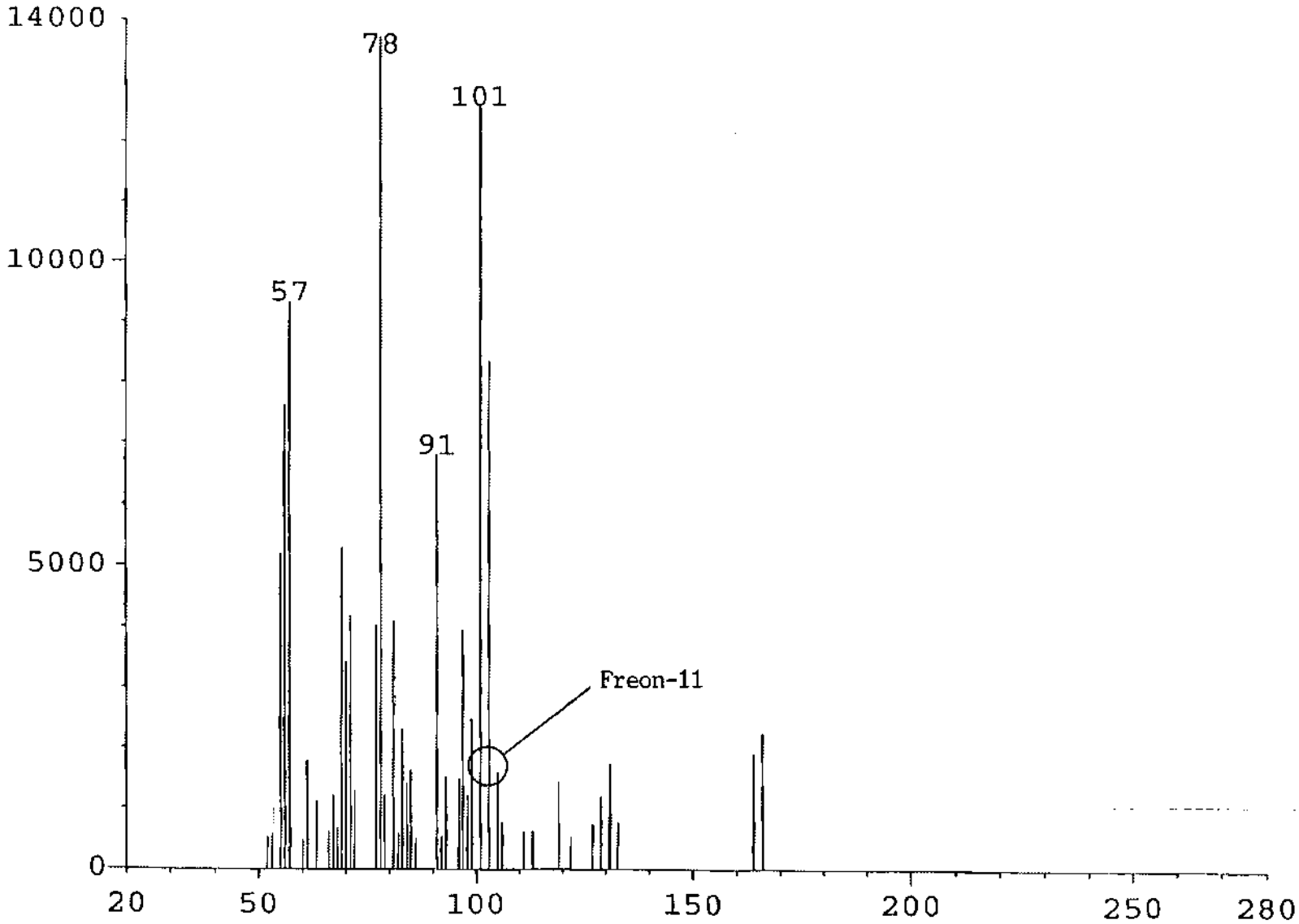

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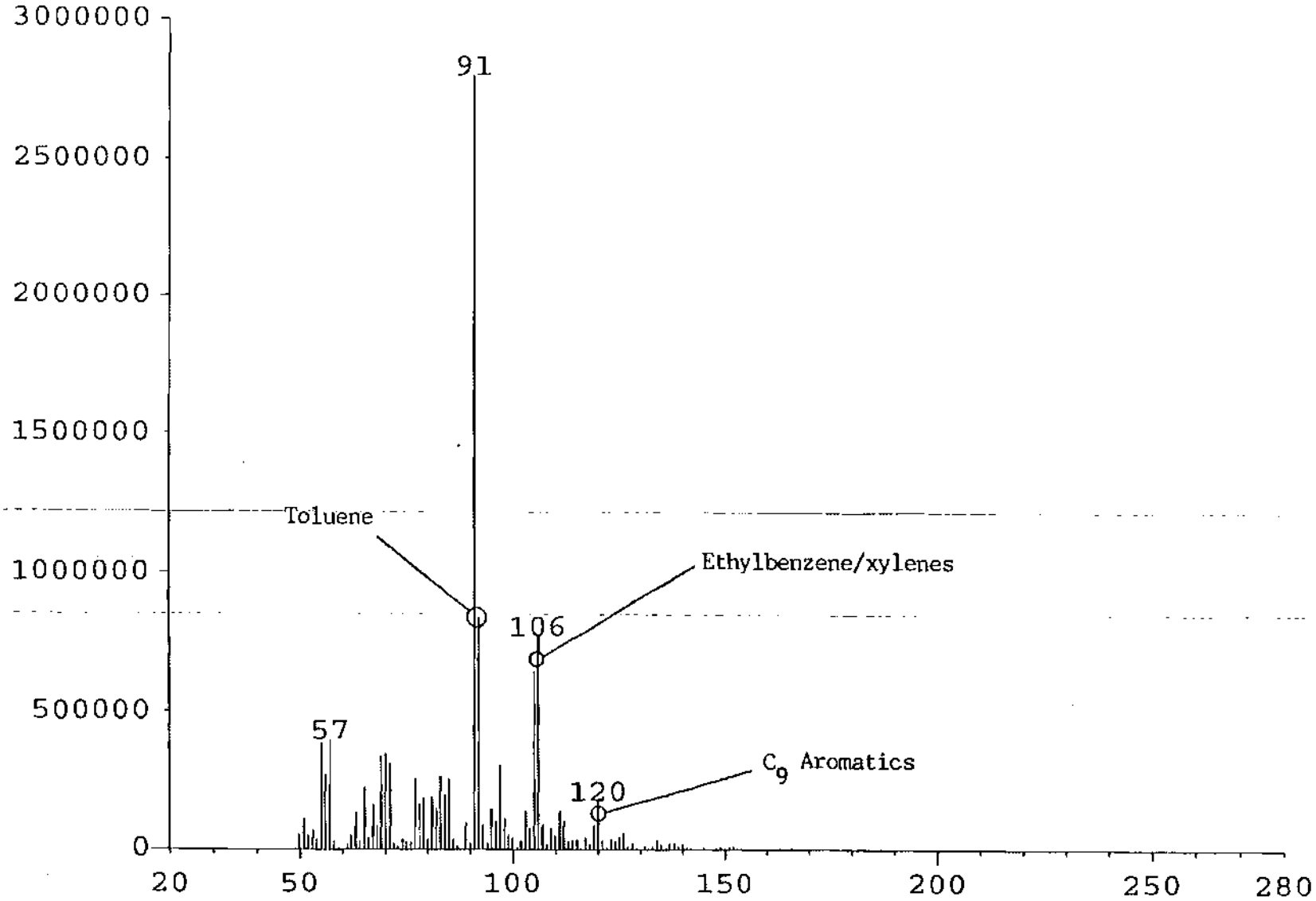

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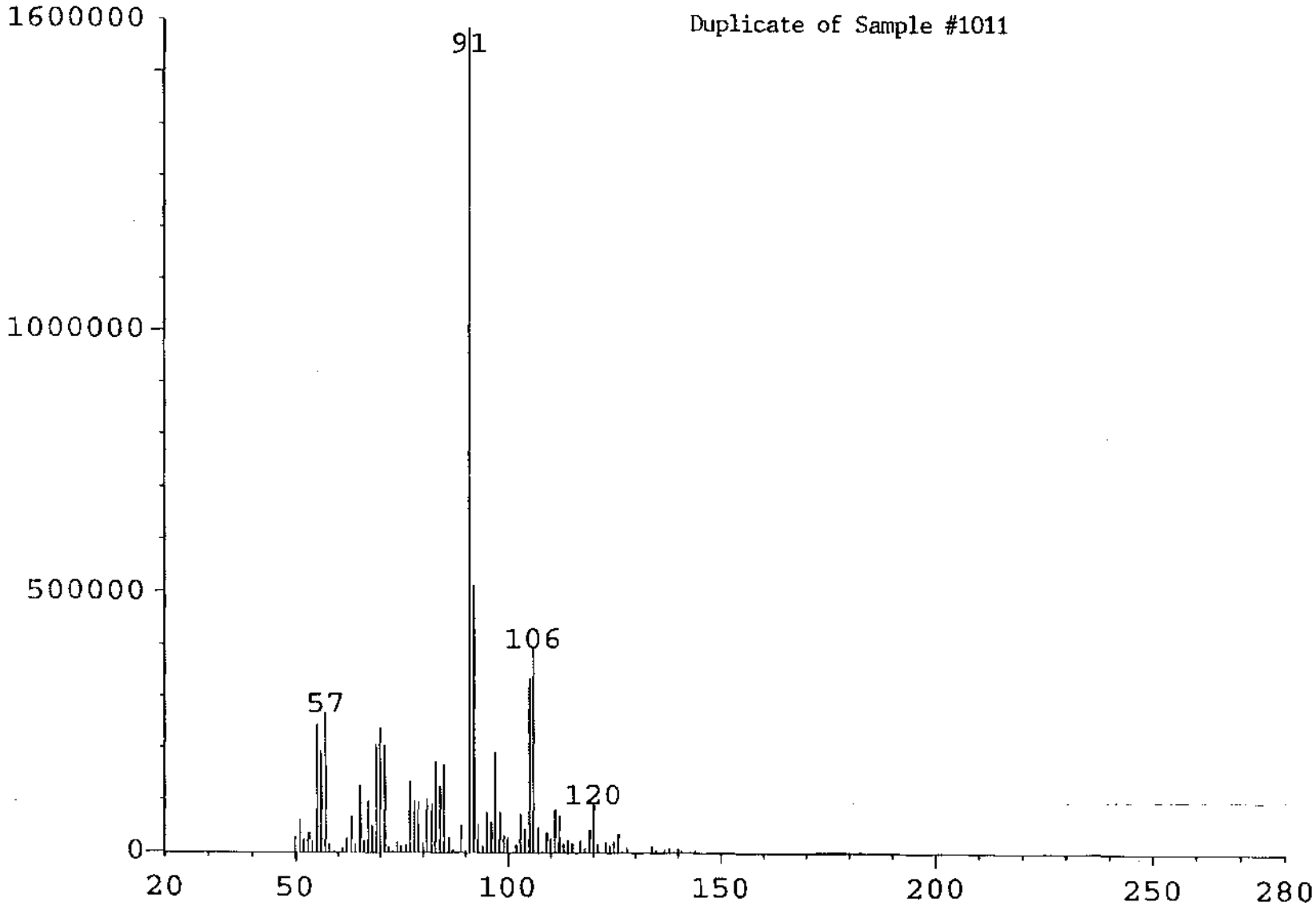
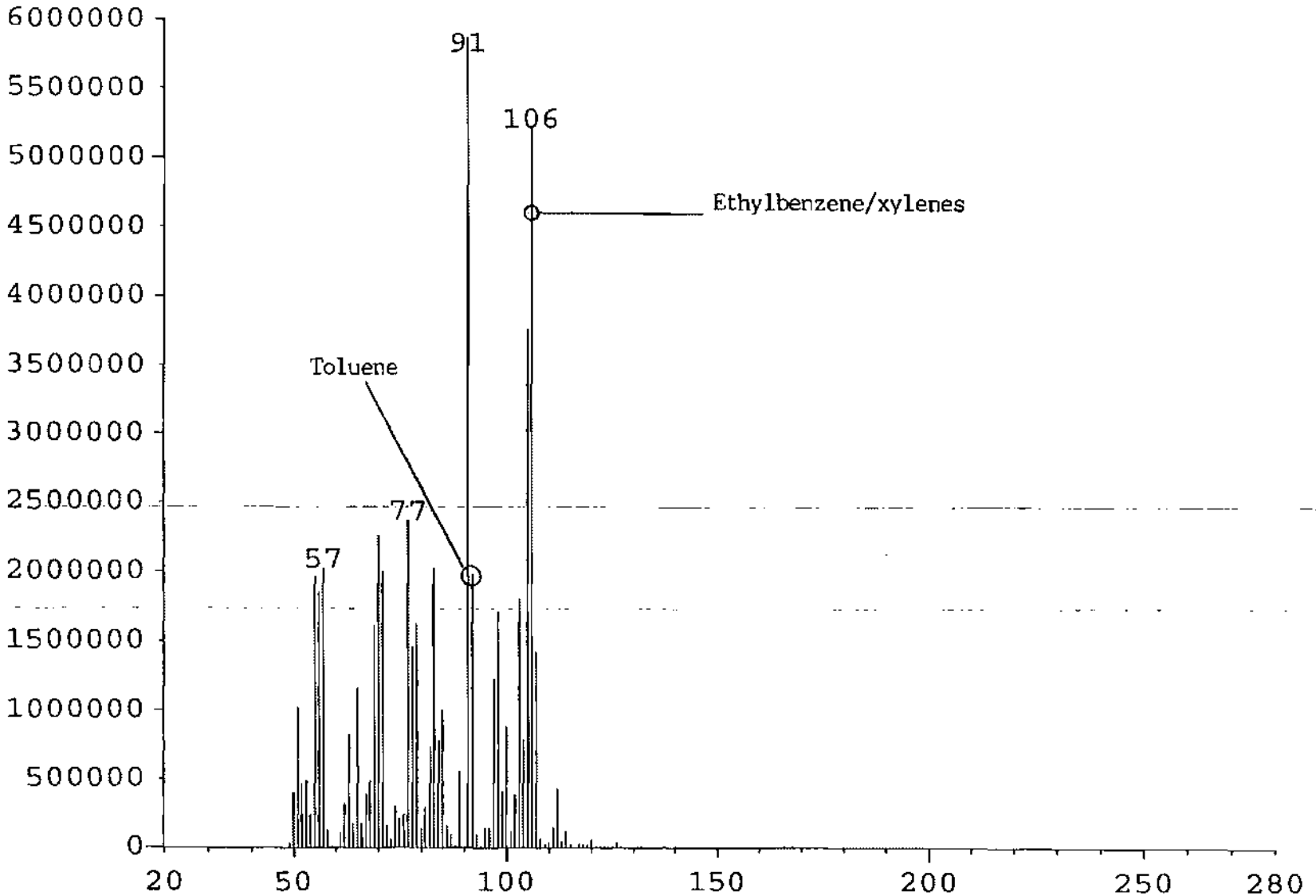


C:\DATA\2114-12\1025.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



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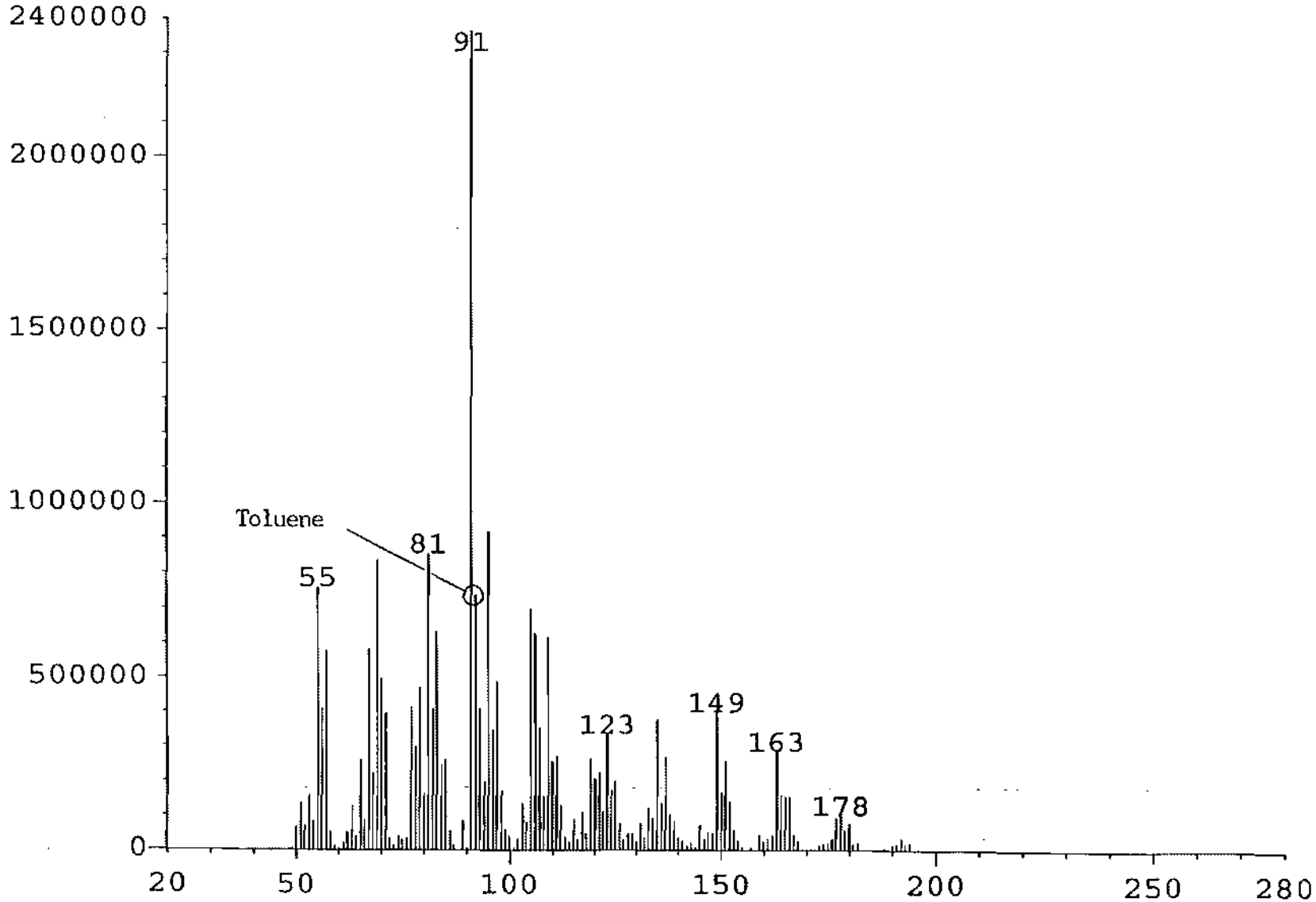

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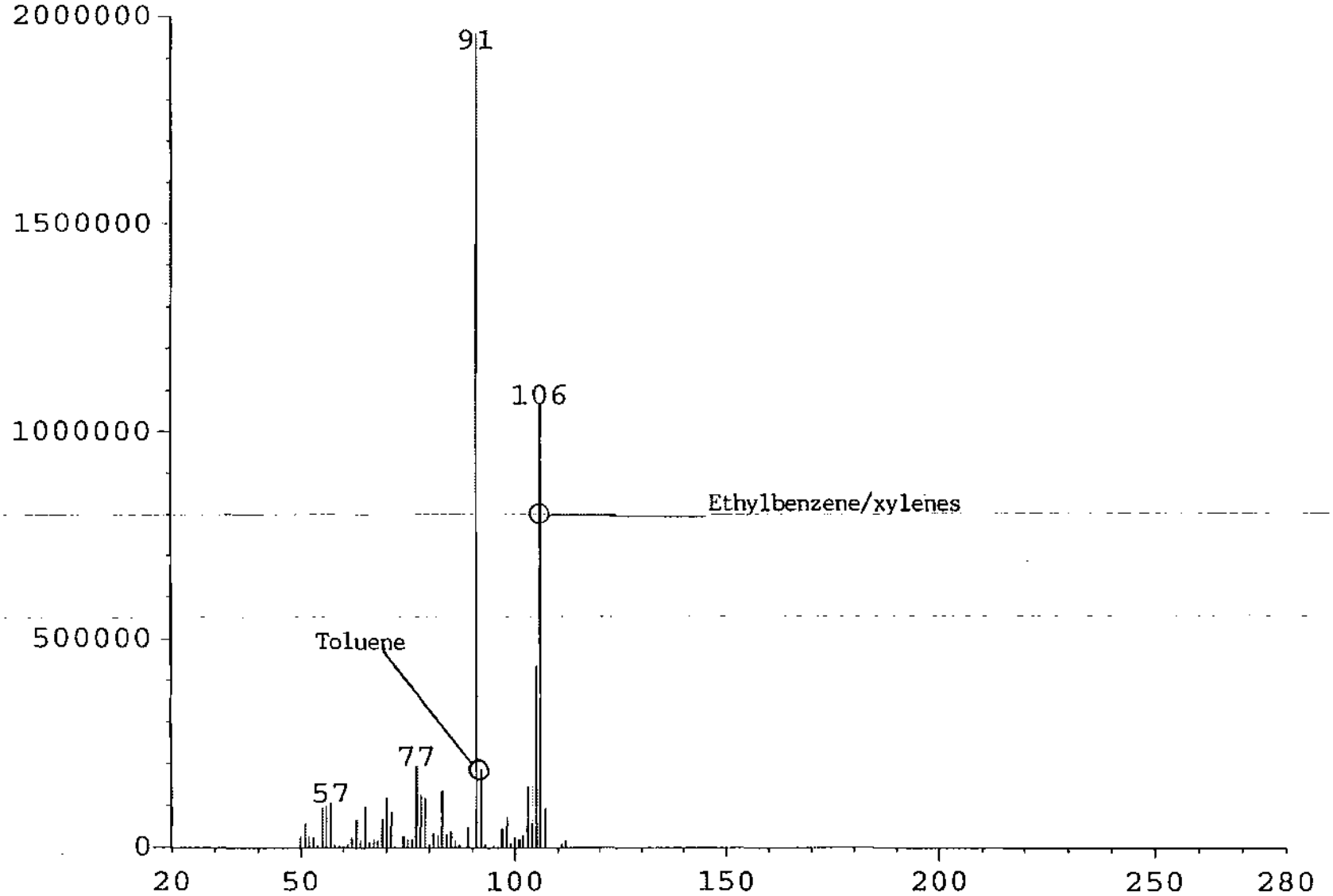
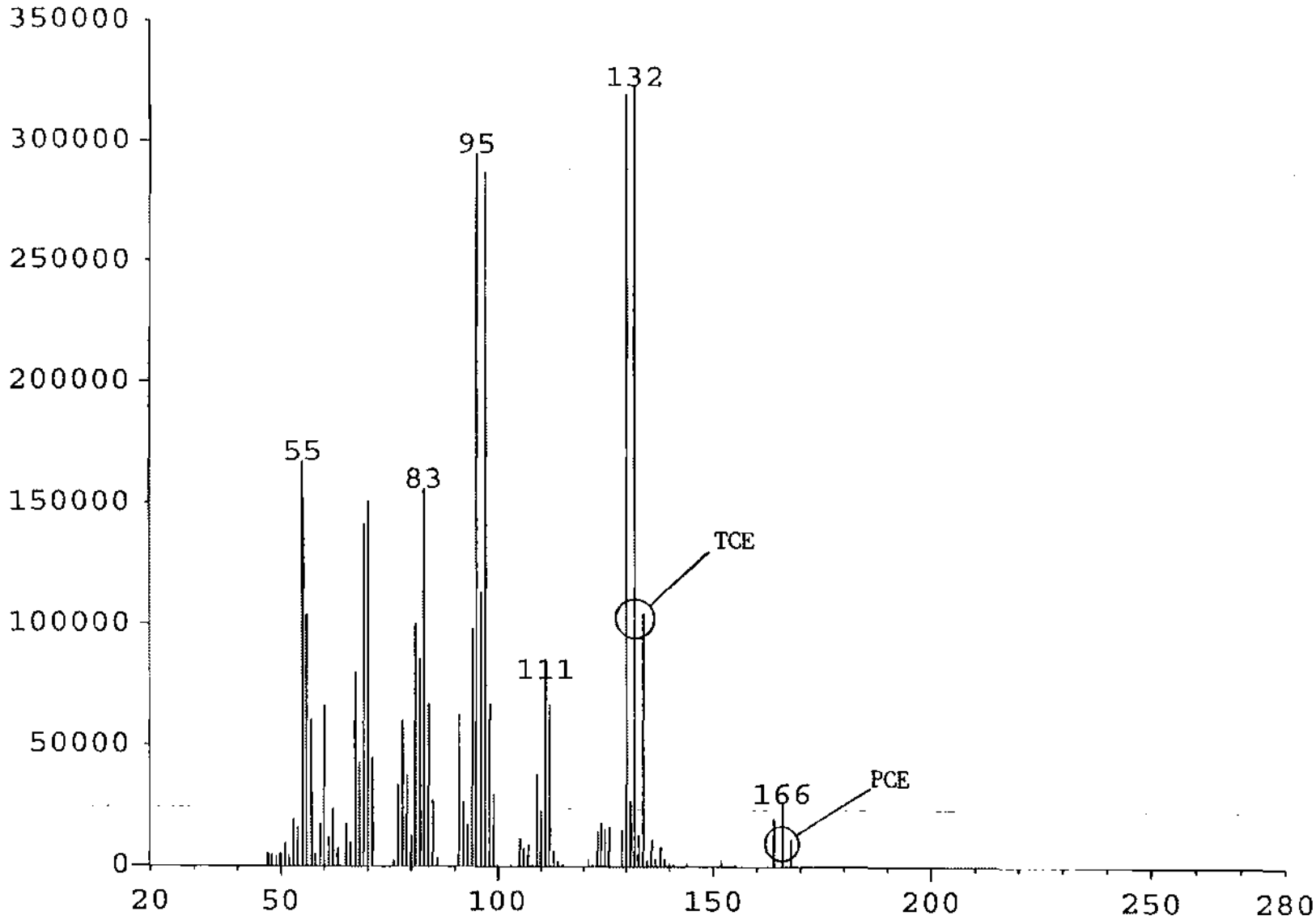
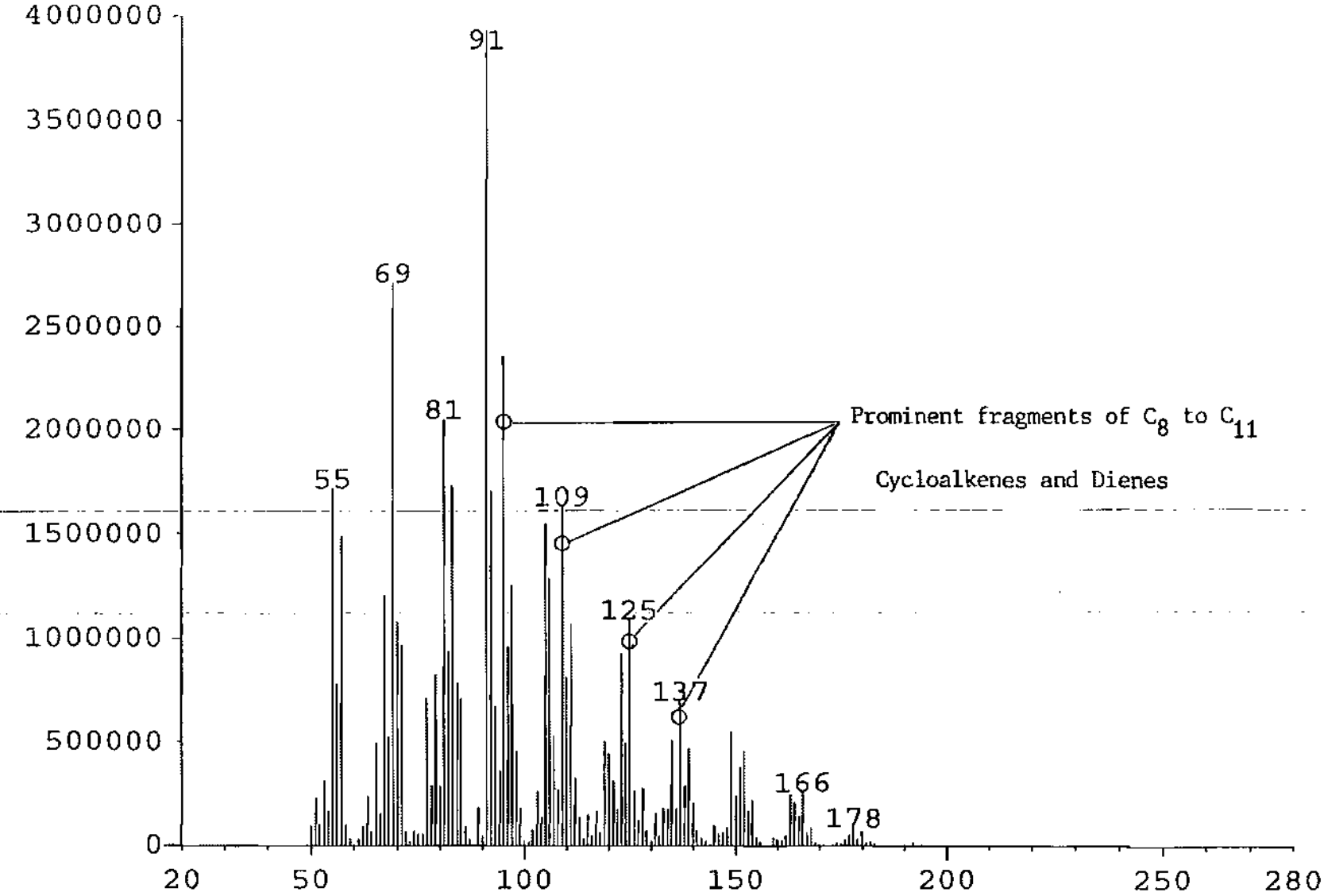


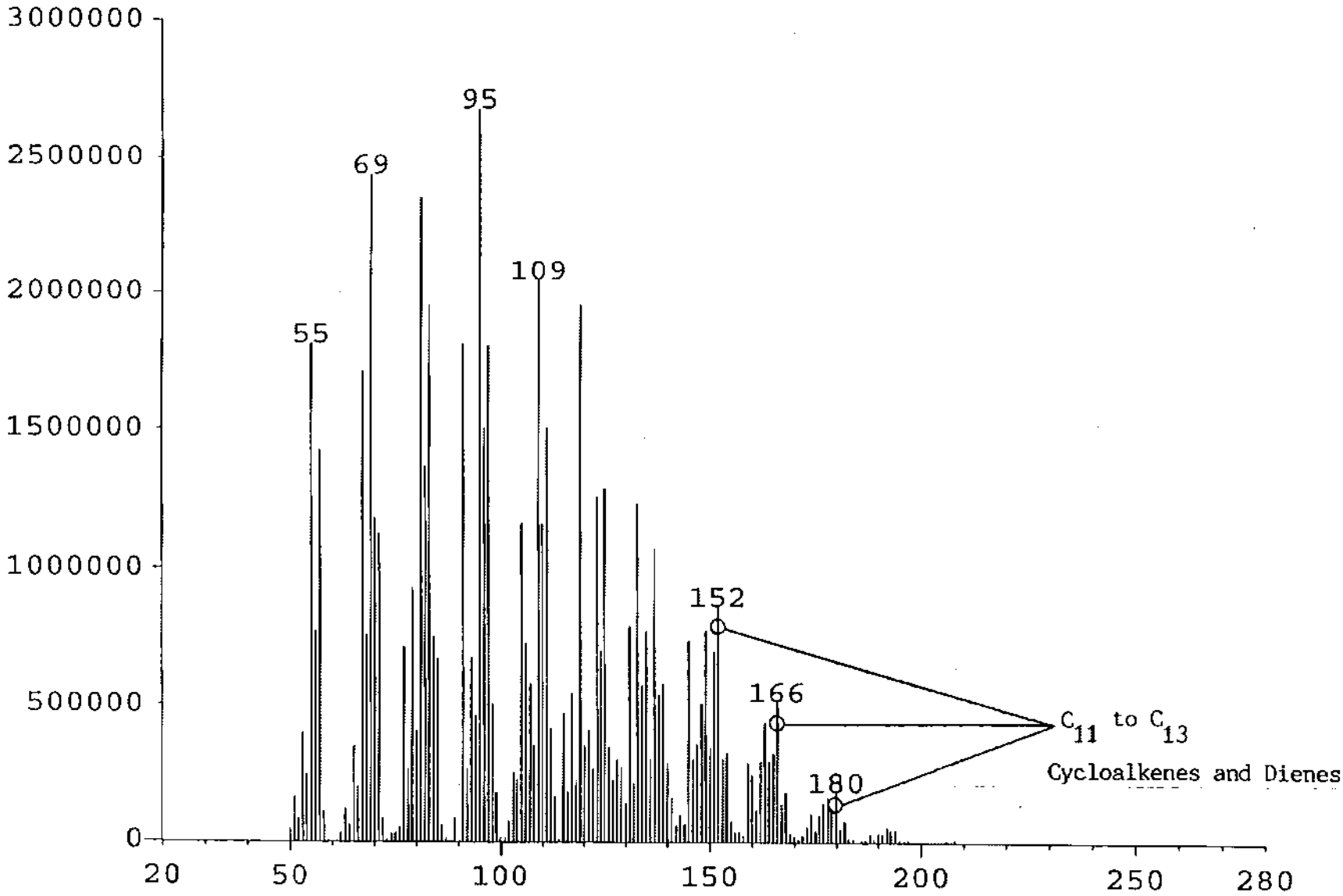
C:\DATA\2114-12\1069.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



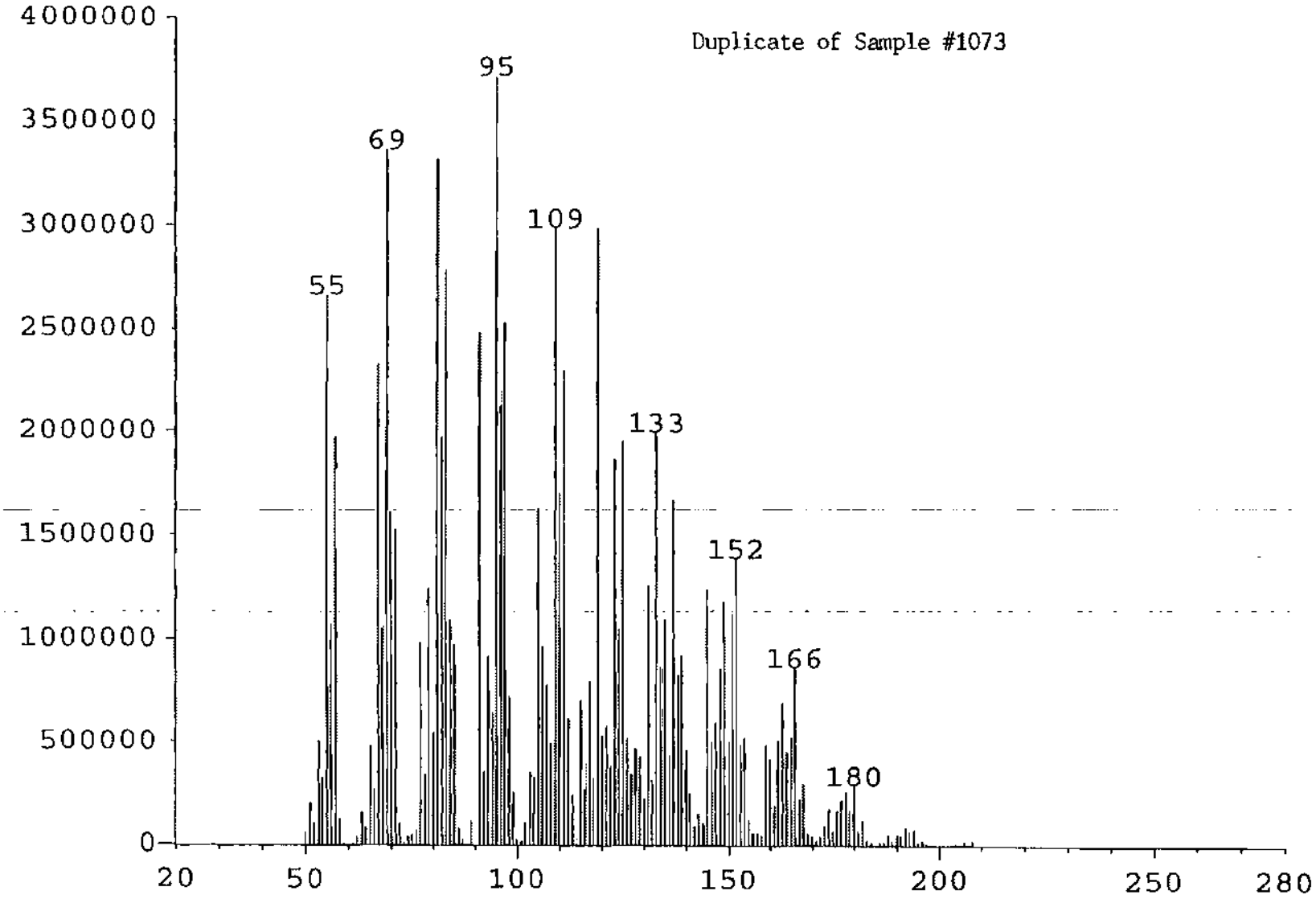
C:\DATA\2114-12\1071.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



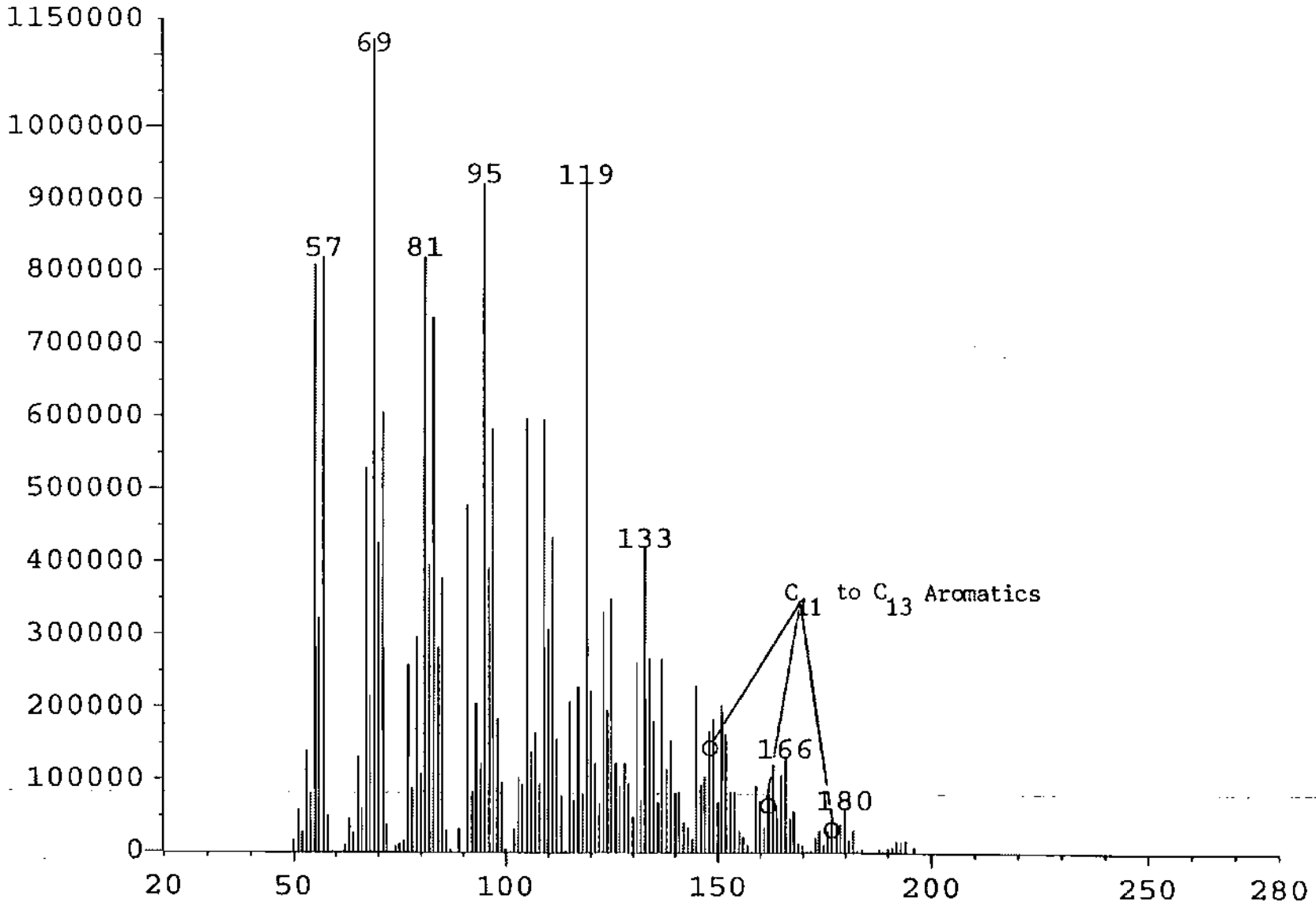
C:\DATA\2114-10\1073.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



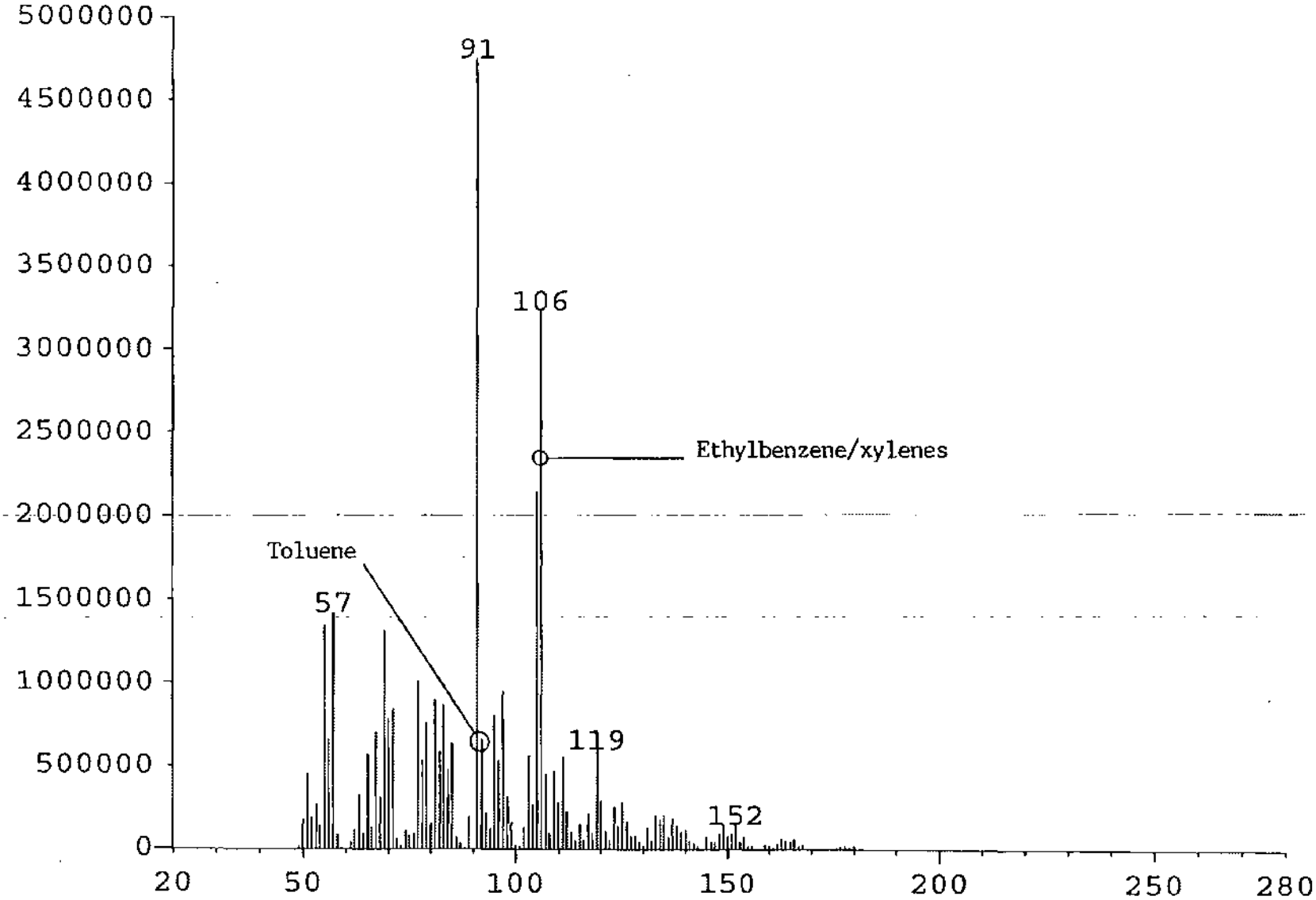
C:\DATA\2114-10\3073.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



C:\DATA\2114-10\1074.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



C:\DATA\2114-10\1075.TKF: Scan Avg 1-20 (0.01 - 0.14 min)



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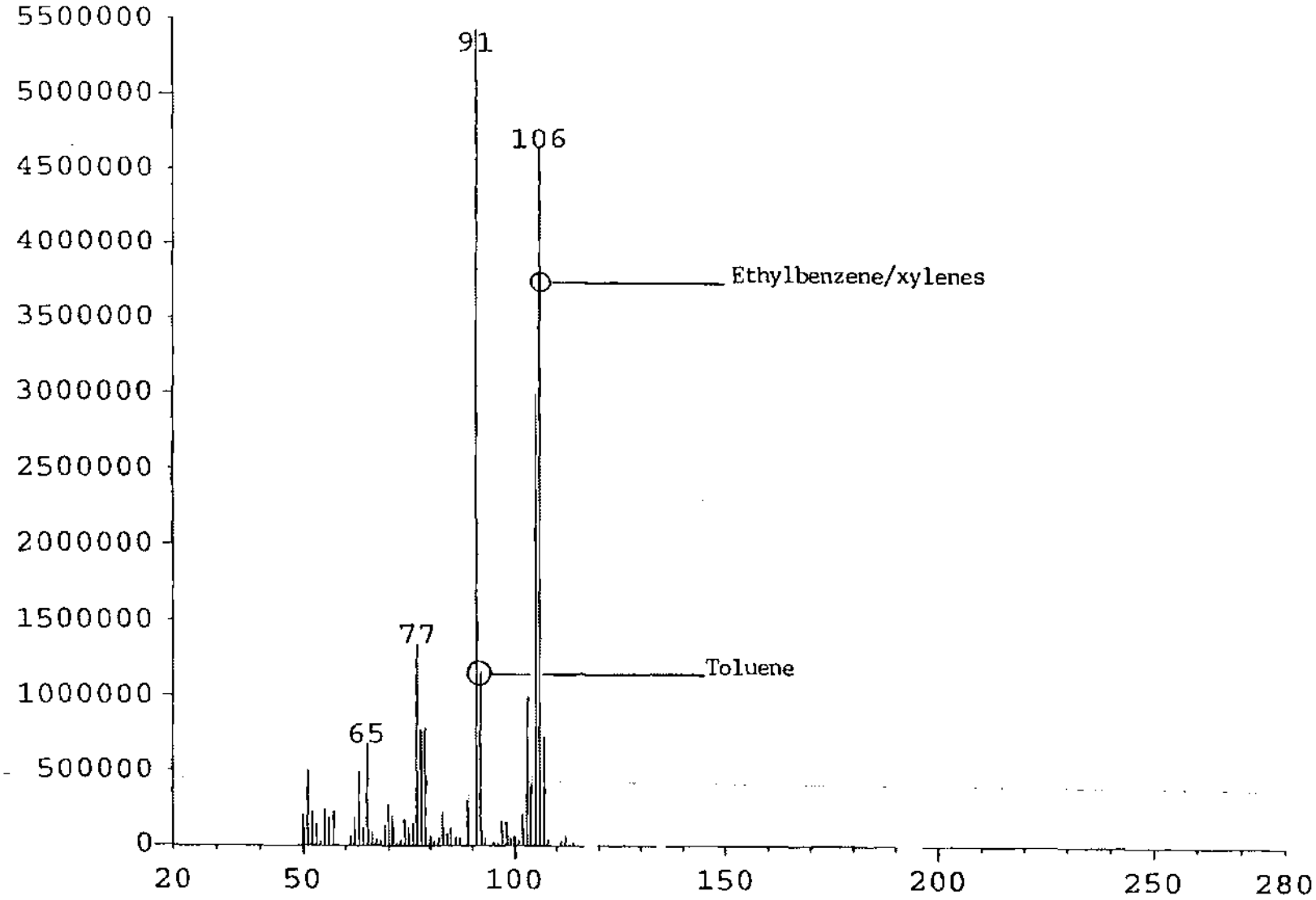


**TD-GC/MS Results**
**Non-Area of Concern / Operable Unit-5**
**DOE Mound Facility - Miamisburg, Ohio**

**SAMPLE #2114-8-770**

| Compound | Relative Response |
|---|---|
| 2-Methyl-1-propene | 220377 |
| 1,2-Butadiene | 15381 |
| Cis-1,2-dimethylcyclopropane | 33384 |
| 1,1-Dimethylcyclopropane | 21021 |
| 1-Ethyl-1-methylcyclopropane | 29645 |
| 2-Methyl-1-pentene | 40450 |
| Hexane | 59101 |
| 2,3-Dimethyl-1-butene | 11406 |
| 3-Methylcyclopentene | 21682 |
| 2,2,4,4-Tetramethylpentane | 1570068 |
| 3-Methylhexane | 147664 |
| Toluene | 2891631 |
| Tetrachloroethene | 39523 |
| Ethylcyclohexane | 80706 |
| Butylcyclooctane | 113750 |
| (1.α.,3.α.,5.α.)-1,3,5-Trimethylcyclohexane | 109025 |
| Ethylbenzene | 1158390 |
| 1,4-Dimethylbenzene | 1672622 |
| Trans-1-ethyl-4-methylcyclohexane | 106126 |
| (1-Methylethyl)benzene | 561686 |
| (3-Methylbutylidene)cyclopentane | 228637 |
| Cis-1,1,3,4-tetramethylcyclopentane | 852251 |
| 1-Ethyl-2-methylbenzene | 1390946 |
| 1,2,3-Trimethylbenzene | 2913615 |
| 4,5-Nonadiene | 10210020 |
| .delta.Fenchane | 3426171 |
| 1-Methyl-4-(1-methylethylidene)cyclohexane | 4465105 |
| Decahydro-1,6-dimethylnaphthalene | 8557516 |

**TD-GC/MS Results**
**Non-Area of Concern / Operable Unit-5**
**DOE Mound Facility - Miamisburg, Ohio**

**SAMPLE #2114-8-771**

| Compound | Relative Response |
|---|---|
| Benzene | 50967 |
| Toluene | 2042112 |
| Xylene | 460352 |
| Ethylbenzene | 729775 |
| 1,3-Dimethylbenzene | 2086927 |
| 1,2-Dimethylbenzene | 1103037 |
| Cis-1,1,3,4-Tetramethylcyclopentane | 147920 |
| 1,2,4-Trimethylbenzene | 547035 |
| 1,3,5-Trimethylbenzene | 360491 |

**SAMPLE #2114-8-772**

| Compound | Relative Response |
|---|---|
| Toluene | 812427 |
| Tetrachloroethene | 49269 |
| 1,1,3-Trimethylcyclohexane | 30417 |
| Ethylbenzene | 425147 |
| Xylene | 1597465 |
| 1,4-Dimethylbenzene | 795829 |
| (1-Methylethyl)benzene | 480361 |
| 1,2-Diethylcyclohexane | 410319 |
| 1-Ethyl-2-methylbenzene | 1187640 |
| 1,2,3-Trimethylbenzene | 1680688 |
| 1-Butyl-1-methyl-2-propylcyclopropane | 234627 |
| 1-Ethyl-2-methylbenzene | 1277294 |
| 1,2,4-Trimethylbenzene | 4212648 |
| 2-Propenylbenzene | 1828274 |
| Methyl(1-methylethyl)benzene | 18504192 |
| 1,2,4,5-Tetramethylbenzene | 8823824 |
| 2,3-Dihydro-1,3-dimethyl-1H-indene | 14028486 |
| 1-Methyl-3-(1-methylethyl)benzene | 9658224 |
| 1-Methylnaphthalene | 3559603 |
| Cis-1-ethyl-2-methylcyclohexane | 1961862 |
| 1,7-Dimethylnaphthalene | 304789 |
| 1,2-Dihydronaphthalene | 573074 |

**TD-GC/MS Results**
**Non-Area of Concern / Operable Unit-5**
**DOE Mound Facility - Miamisburg, Ohio**

**SAMPLE #2114-8-773**

| Compound | Relative Response |
|---|---|
| 2-Methyl-1-pentene | 60548 |
| 2,2-Dimethylhexane | 2029253 |
| Toluene | 1050010 |
| Octane | 77883 |
| Ethylbenzene | 364786 |
| 2,4-Dimethylheptane | 233647 |
| 1,4-Dimethylbenzene | 1146563 |
| Xylene | 741031 |
| (1-Methylethyl)benzene | 87794 |
| Propylbenzene | 162994 |
| 1-Ethyl-4-Methylbenzene | 259046 |
| 1-Ethyl-2-Methylbenzene | 259665 |
| 1,2,4-Trimethylbenzene | 671457 |
| (1-Methylethyl)benzene | 13404 |
| Trans-anti-1-methyldecahydronaphthalene | 122433 |
| Naphthalene | 87310 |

**TD-GC/MS Results**
**Non-Area of Concern / Operable Unit-5**
**DOE Mound Facility - Miamisburg, Ohio**

**SAMPLE #2114-8-777**

| Compound | Relative Response |
|---|---|
| 2-Methyl-1-pentene | 55079 |
| 1,1-Dimethylcyclopropane | 60024 |
| Benzene | 1024948 |
| Toluene | 815273 |
| Tetrachloroethene | 49590 |
| Ethylbenzene | 305577 |
| Nonane | 186207 |
| 1,4-Dimethylbenzene | 943492 |
| Cis-1-ethyl-2-Methylcyclohexane | 51969 |
| 7-Methyl-1,3,5-Cycloheptatriene | 554275 |
| (1-Methylethyl)benzene | 139868 |
| 1-.B.-Pinene* | 117871 |
| 1-Ethyl-2-Methylbenzene | 394978 |
| 1,2,4-Trimethylbenzene | 1234349 |
| 3,3,5-Trimethylheptane | 211578 |
| 1,2,3-Trimethylbenzene | 967131 |
| Decahydro-2-Methylnaphthalene | 9055218 |
| 2,6-Dimethylnonane | 6891502 |
| Naphthalene | 7103761 |
| 1-Methylnaphthalene | 2454619 |

**TD-GC/MS Results**
**Non-Area of Concern / Operable Unit-5**
**DOE Mound Facility - Miamisburg, Ohio**

**SAMPLE #2114-8-778**

| Compound | Relative Response |
|---|---|
| 2-Methyl-2-butene | 24780 |
| Cis-1,2-dimethylcyclopropane | 35205 |
| 1-Pentene | 22321 |
| 1,1-Dimethylcyclopropane | 17971 |
| 1-Hexene | 27731 |
| 2-Methyl-1-pentene | 42882 |
| 1-Methycyclopentene | 15445 |
| Benzene | 966636 |
| 1-Methylcyclohexene | 24082 |
| Toluene | 446299 |
| Tetrachloroethene | 35123 |
| 1,1,2-Trimethylcyclohexane | 19422 |
| Ethylbenzene | 343735 |
| Xylene | 1451038 |
| 1,4-Dimethylbenzene | 776056 |
| 3-Ethyl-2-methylheptane | 351314 |
| (1-Methylethyl)benzene | 75635 |
| Diethylcyclohexane | 95373 |
| 1-Ethyl-2-methylbenzene | 1759885 |
| 1,2,4-Trimethylbenzene | 883602 |
| 1,2,3-Trimethylbenzene | 1834389 |
| 1-Ethyl-2,3-dimethylbenzene | 1410361 |
| Undecane | 5661469 |

**TD-GC/MS Results**
**Non-Area of Concern / Operable Unit-5**
**DOE Mound Facility - Miamisburg, Ohio**

**SAMPLE #2114-11-923**

| Compound | Relative Response |
|---|---|
| Hexane | 27388 |
| 2,2-Dimethylhexane | 2022953 |
| 3-Ethyl-2-Pentene | 167680 |
| (E)-2-Heptene | 251602 |
| (E)-3-Heptene | 227418 |
| 3-Methylheptane | 132214 |
| Toluene | 3391251 |
| 2,4-Dimethylheptane | 379807 |
| 2,3,5-Trimethylhexane | 642834 |
| 3,5-Dimethylheptane | 593577 |
| (1-Methylpropyl)cyclooctane | 2322468 |
| Butylcyclooctane | 1600963 |
| (1.α.,2.β.3.α.)1,2,3-Trimethylcyclohexane | 1175182 |
| Ethylbenzene | 740920 |

**SAMPLE #2114-11-925**

| Compound | Relative Response |
|---|---|
| Methylcyclopropane | 194799 |
| (Z)-2-Butene | 16575 |
| 2-Methyl-1-Propene | 27664 |
| 1,1-Dimethylcyclopropane | 47933 |
| Trans-1,2-Dimethylcyclopropane | 28261 |
| Cis-1,2-Dimethylcyclopropane | 31953 |
| 1-Hexene | 11762 |
| Hexane | 18004 |
| Benzene | 464011 |
| Tetrachloroethene | 29803 |
| Trans-1,1,3,4-Tetramethylcyclopentane | 45338 |
| Ethylbenzene | 202985 |
| 1,2-Dimethylbenzene | 579710 |
| Styrene | 3219168 |
| 3-Ethyl-2-Methylheptane | 767505 |
| 1,2,3-Trimethylbenzene | 3703971 |
| Cis-Syn-2-Methyl-Decahydronaphthalene | 5564597 |
| 7-Pentyl-Bicyclo[4.1.0]Heptane | 9114218 |

**TD-GC/MS Results**
**Non-Area of Concern / Operable Unit-5**
**DOE Mound Facility - Miamisburg, Ohio**

**SAMPLE #2114-11-946**

| Compound | Relative Response |
|---|---|
| Benzene | 290953 |
| Toluene | 343776 |
| 3-Methylheptane | 19661 |
| Ethylbenzene | 171512 |
| 1,3-Dimethylbenzene | 869347 |
| 1,4-Dimethylbenzene | 603050 |
| (1-Methylethyl)Benzene | 28813 |
| 1-Ethyl-2-Methylbenzene | 609756 |
| 1,3,5-Trimethylbenzene | 625376 |
| 2,6-Dimethylnonane | 488337 |
| 1,2,4-Trimethylbenzene | 1932160 |
| 1,2,3-Trimethylbenzene | 3318707 |
| 5,6-Dimethyldecane | 4569908 |
| 1-Methyl-4-(1-Methylethyl)Benzene | 6111076 |
| 8-(1-Methylethylidene)Bicyclo[5.1.0]Octane | 10101530 |
| 2,7-Dimethyl-3,6-Dimethylene-1,7-Octadiene | 938482 |

**SAMPLE #2114-11-953**

| Compound | Relative Response |
|---|---|
| Methylcyclopropane | 104156 |
| (Z)-2-Butene | 16694 |
| 2-Methyl-1-Propene | 21361 |
| Cis-1,2-Dimethylcyclopropane | 26153 |
| 1,1-Dimethylcyclopropane | 49410 |
| 2-Methyl-2-Butene | 37977 |
| Hexane | 101220 |
| 2,3-Dimethyl-1-Butene | 12562 |
| (E)-3-Methyl-1,3-Pentadiene | 25870 |
| Benzene | 1389337 |
| Heptane | 101791 |
| Toluene | 3046238 |
| Tetrachloroethene | 46709 |
| 2,3,4-Trimethylhexane | 87057 |
| 1-Ethyl-2,3-Dimethylcyclohexane | 66581 |
| Ethylbenzene | 814810 |
| 1,3-Dimethylbenzene | 1537181 |

**TD-GC/MS Results**
**Non-Area of Concern / Operable Unit-5**
**DOE Mound Facility - Miamisburg, Ohio**

**SAMPLE #2114-11-953**

| Compound | Relative Response |
|---|---|
| 1-Ethyl-1-Methylcyclohexane | 92914 |
| Xylene | 868886 |
| 3-Methylnonane | 121530 |
| (1-Methylethyl)cyclohexane | 54113 |
| 3-Ethyl-2-Methylheptane | 331795 |
| (1-Methylethyl)benzene | 137659 |
| Propylbenzene | 240760 |
| 1-Ethyl-2-Methylbenzene | 492485 |
| 1,2,4-Trimethylbenzene | 1795892 |
| 2-Ethyl-1,4-Dimethylbenzene | 1486733 |
| Trans-anti-1-Methyl-Decahydronaphthalene | 5170410 |

**SAMPLE #2114-10-974**

| Compound | Relative Response |
|---|---|
| 2-Methyl-1-propene | 128294 |
| Cis-1,2,-dimethylcyclopropane | 32727 |
| 1,1-Dimethylcyclopropane | 86725 |
| (Z)-2-Pentene | 49364 |
| Pentene | 38569 |
| 2-Methyl-1,3-butadiene | 65569 |
| 1-Pentene | 26515 |
| Cyclopentene | 23987 |
| 2,3-Dimethyl-1-butene | 41191 |
| 3-Methylenepentane | 136794 |
| Hexane | 14349 |
| 5-Methyl-1,3-cyclopentadiene | 165783 |
| Benzene | 34913 |
| Toluene | 513715 |
| Tetrachloroethene | 33861 |
| 1,1,3-Trimethylcyclohexane | 214234 |
| 2,3,4-Trimethylhexane | 286249 |
| Xylene | 537021 |
| 1-Ethyl-2-Methylbenzene | 2161688 |
| 1,2,4-Trimethylbenzene | 7778276 |
| 3,3,5-Trimethylheptane | 3952458 |

**TD-GC/MS Results**
**Non-Area of Concern / Operable Unit-5**
**DOE Mound Facility - Miamisburg, Ohio**

**SAMPLE #2114-10-974**

| Compound | Relative Response |
|---|---|
| 1,2,3-Trimethylbenzene | 4115770 |
| 2-Propenylbenzene | 2003796 |
| 1-Ethyl-3-methylbenzene | 7874273 |
| Naphthalene | 9787332 |
| Benzo[b]thiophene | 5756090 |
| 1-Ethyl-3-(1-methylethyl)benzene | 728467 |
| 2-Methylnaphthalene | 10691882 |
| 1-Methylnaphthalene | 2925663 |
| 1,1'-Biphenyl | 5707810 |
| 1-Ethylnaphthalene | 111310 |
| 1,5-Dimethylnaphthalene | 1041221 |
| 1,8-Dimethylnaphthalene | 762605 |
| 1,3-Dimethylnaphthalene | 294127 |
| Acenaphthylene | 1149778 |
| 1,2-Dihydroacenaphthylene | 191449 |

**SAMPLE #2114-10-1072**

| Compound | Relative Response |
|---|---|
| 2,2-Dimethylhexane | 653169 |
| 3,3,4-Trimethyldecane | 27926 |
| 2-Methylheptane | 258151 |
| Cis-1,3-dimethylcyclohexane | 128698 |
| Toluene | 248058 |
| 1,2-Diethylcyclohexane | 312075 |
| 1,1,3-Trimethylcyclohexane | 302242 |
| 2,3,4-Trimethylhexane | 297866 |
| 3-Methyloctane | 225971 |
| Ethylbenzene | 2273994 |
| 1,4-Dimethylbenzene | 11838194 |
| 1,3-Dimethylbenzene | 11286036 |
| (1-Methylethyl)benzene | 553140 |
| 1-Ethyl-2-Methylbenzene | 714840 |
| 1,3,5-Trimethylbenzene | 497606 |
| 1,2,4-Trimethylbenzene | 772580 |
| 1-Ethenyl-3-methylbenzene | 898294 |

**TD-GC/MS Results**
**Non-Area of Concern / Operable Unit-5**
**DOE Mound Facility - Miamisburg, Ohio**

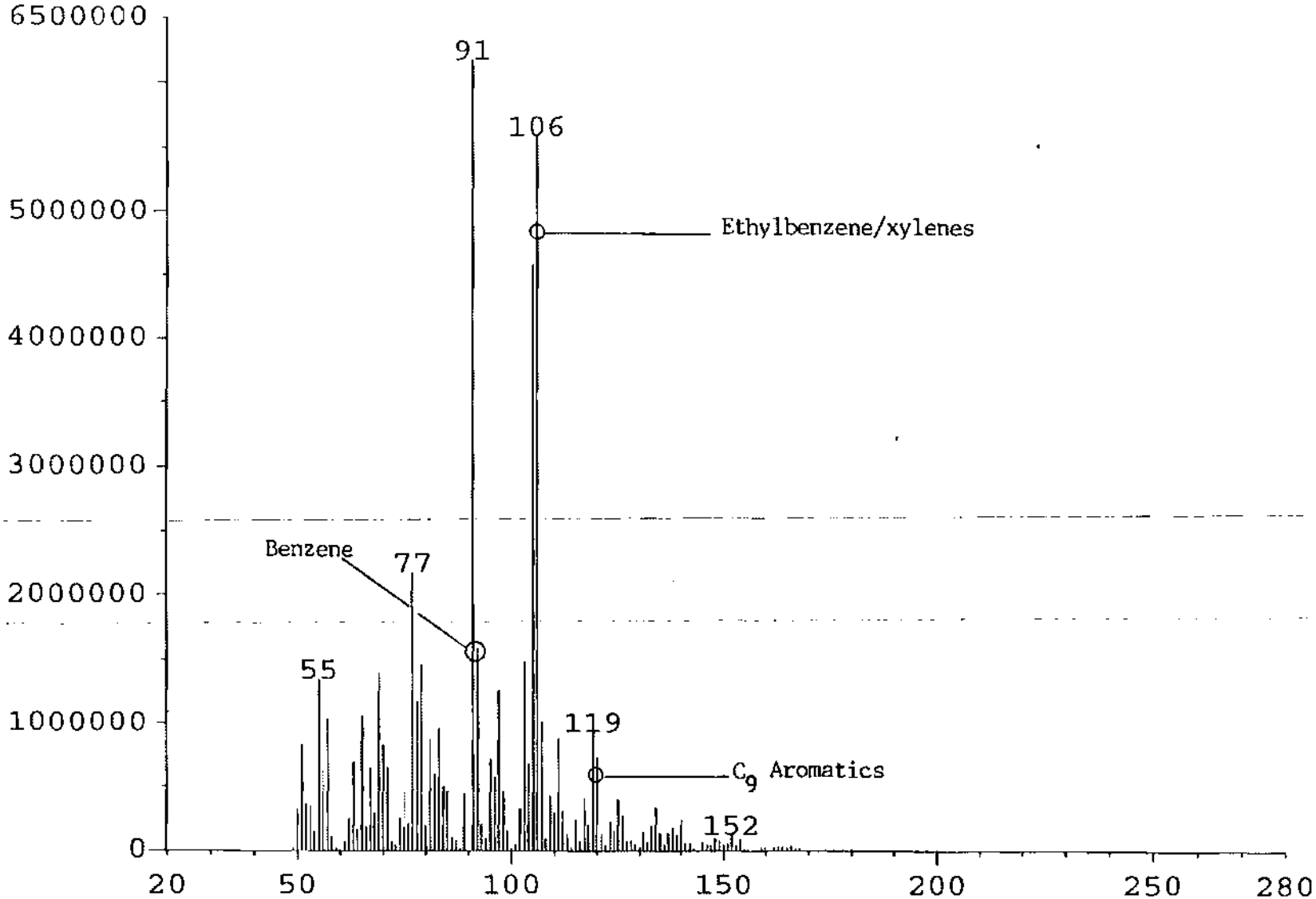
**SAMPLE #2114-10-1072**

| Compound | Relative Response |
|---|---|
| Octylcyclohexane | 313768 |
| 1,2,3-Trimethylbenzene | 183183 |
| 2,3-Dihydro-1H-indene | 201732 |
| 1,4-Diethylbenzene | 89678 |
| Naphthalene | 3079692 |
| Benzo[b]thiophene | 548687 |
| 1-Methylnaphthalene | 176179 |
| Styrene | 18236 |
| 1-Ethylidene-1H-indene | 133069 |

**SAMPLE #2114-10-1073**

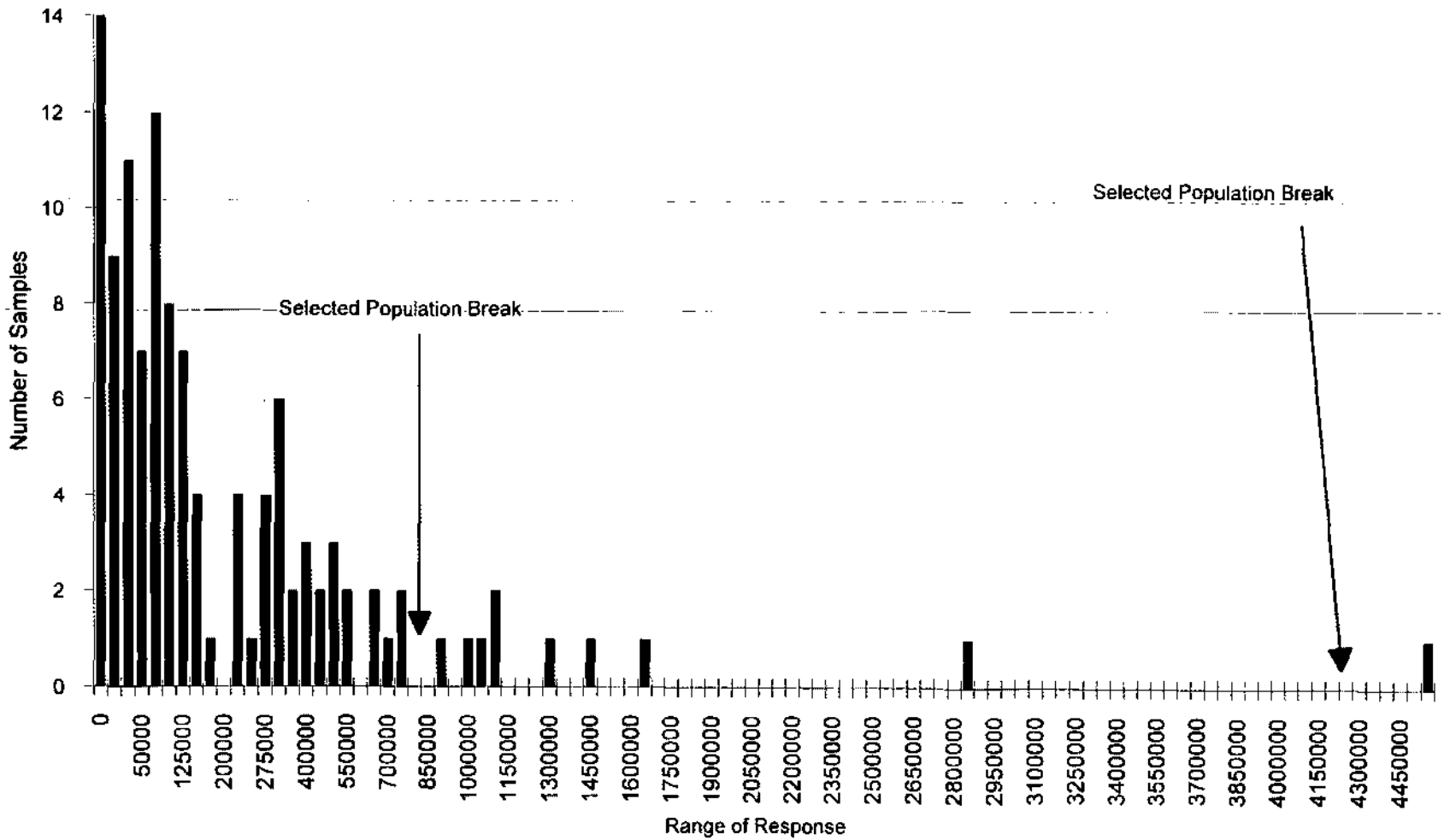
| Compound | Relative Response |
|---|---|
| Benzene | 637750 |
| Toluene | 422332 |
| 1,1,3-Trimethylcyclohexane | 72740 |
| (1-Methylpropyl)cyclooctane | 109967 |
| Ethylbenzene | 257618 |
| Xylene | 1526825 |
| 1,3-Dimethylbenzene | 2401655 |
| 3,6-Dimethyloctane | 255414 |
| Diethylcyclohexane | 227263 |
| 5-Undecene | 741584 |
| 1-Methylnaphthalene | 1869871 |
| 1,2-Dimethylnaphthalene | 152452 |

C:\DATA\2114-12\1085.TKF: Scan Avg 1-20 (0.01 - 0.14 min)

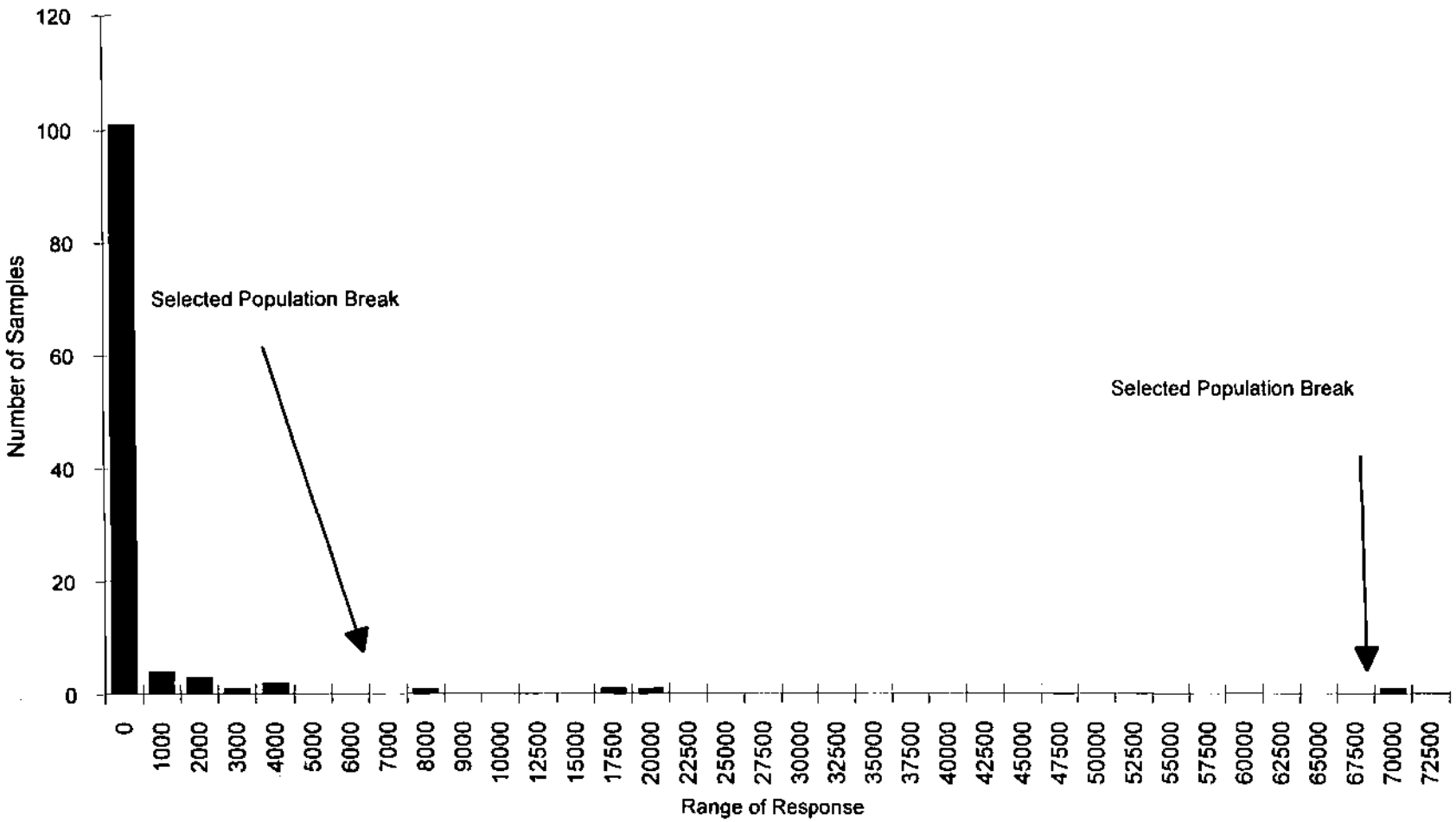


# APPENDIX D
# HISTOGRAMS OF DATA SETS

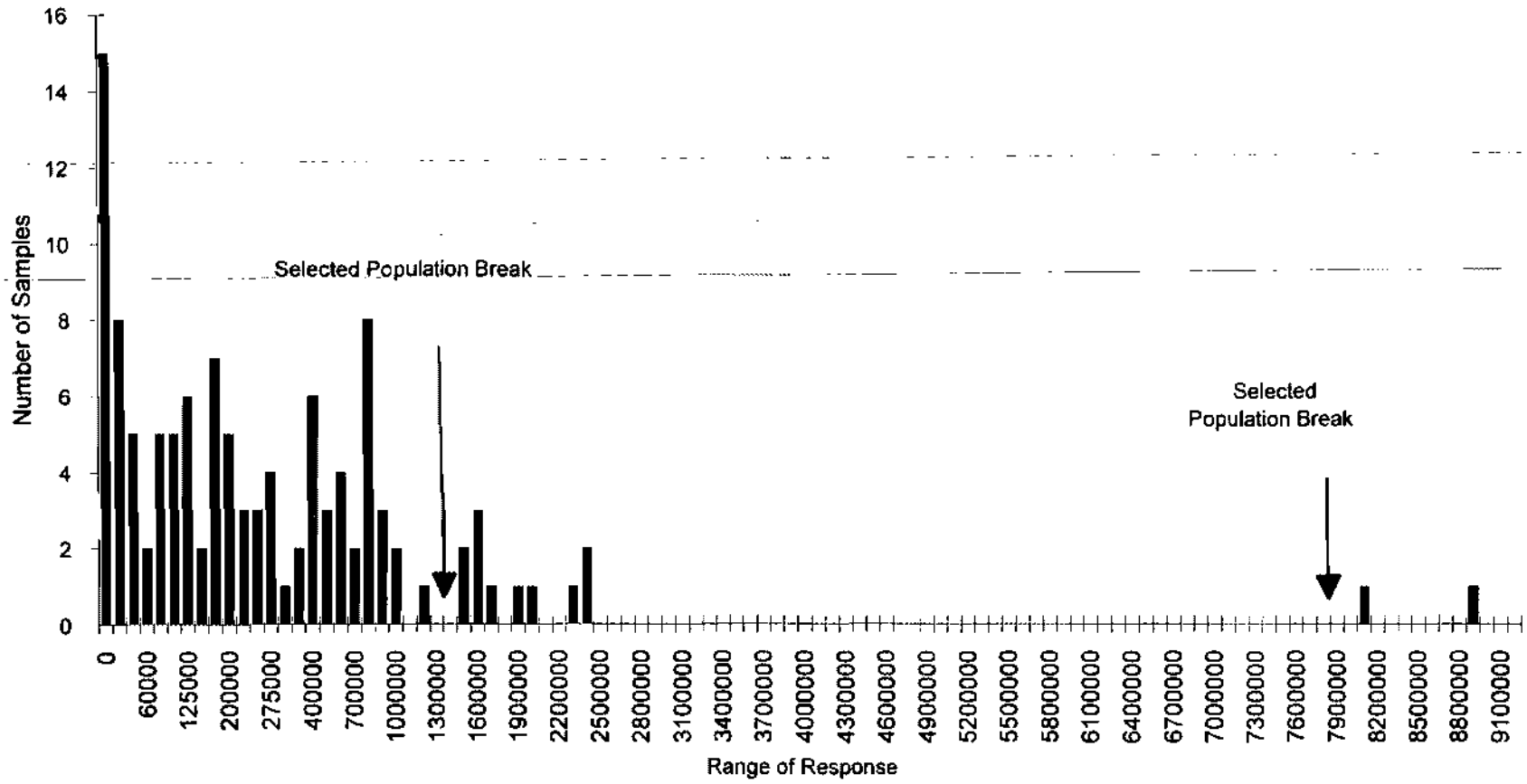
NonAOC-South: Histogram of Response to Total Aromatic Hydrocarbons



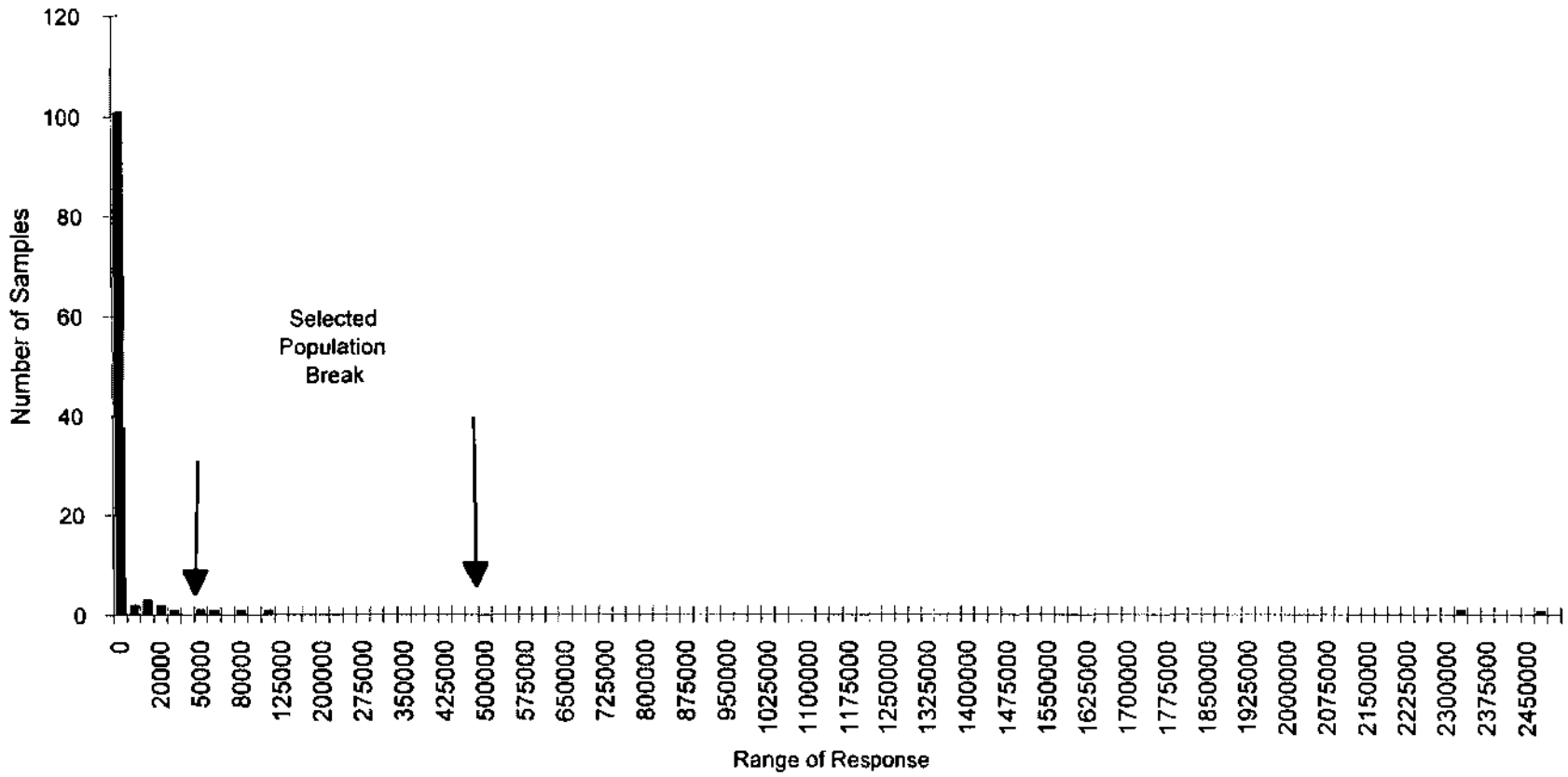
NonAOC-South: Histogram of Response to Total Semivolatile Hydrocarbons



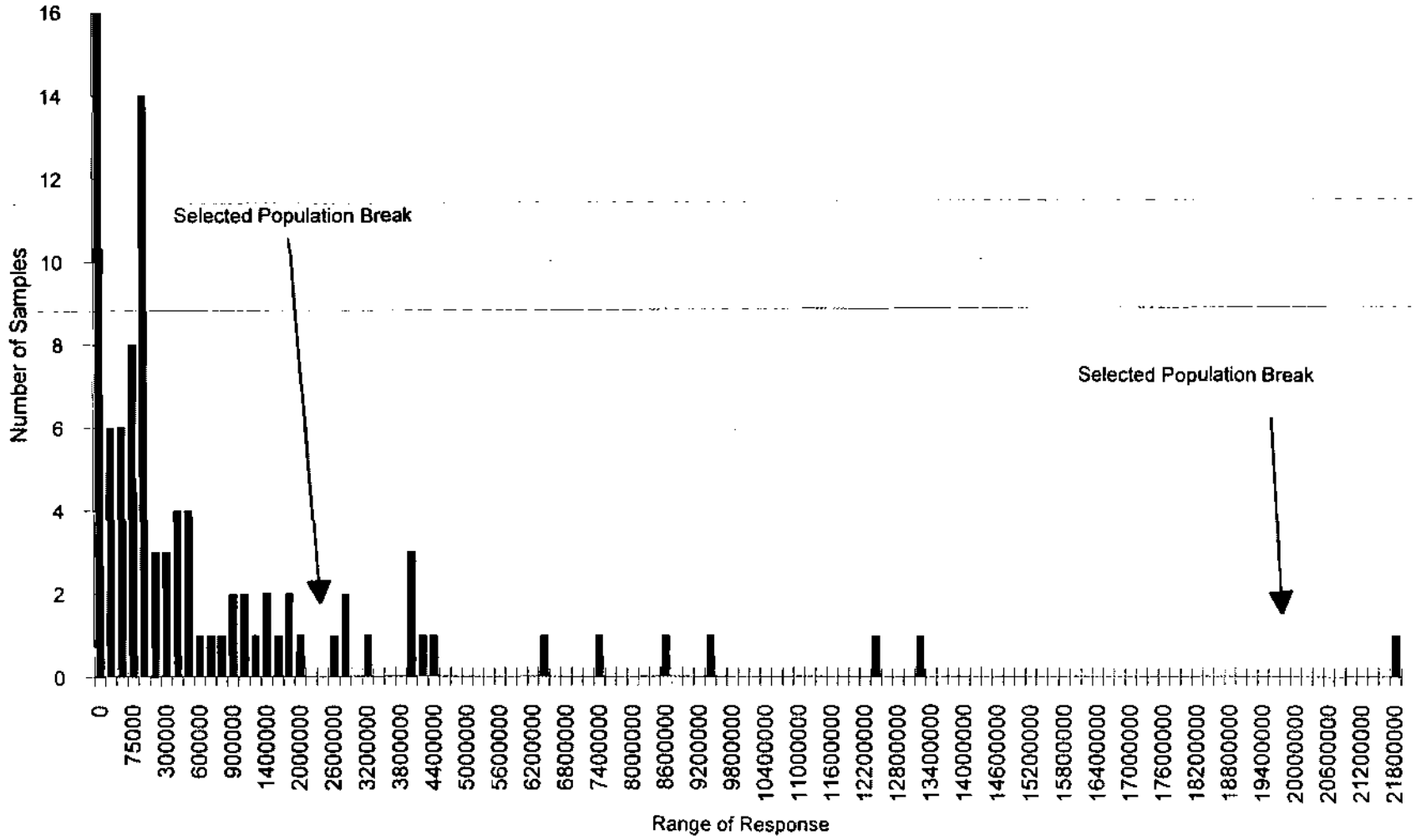
NonAOC-South: Histogram of Response to Total C5 to C11 Petroleum Hydrocarbons



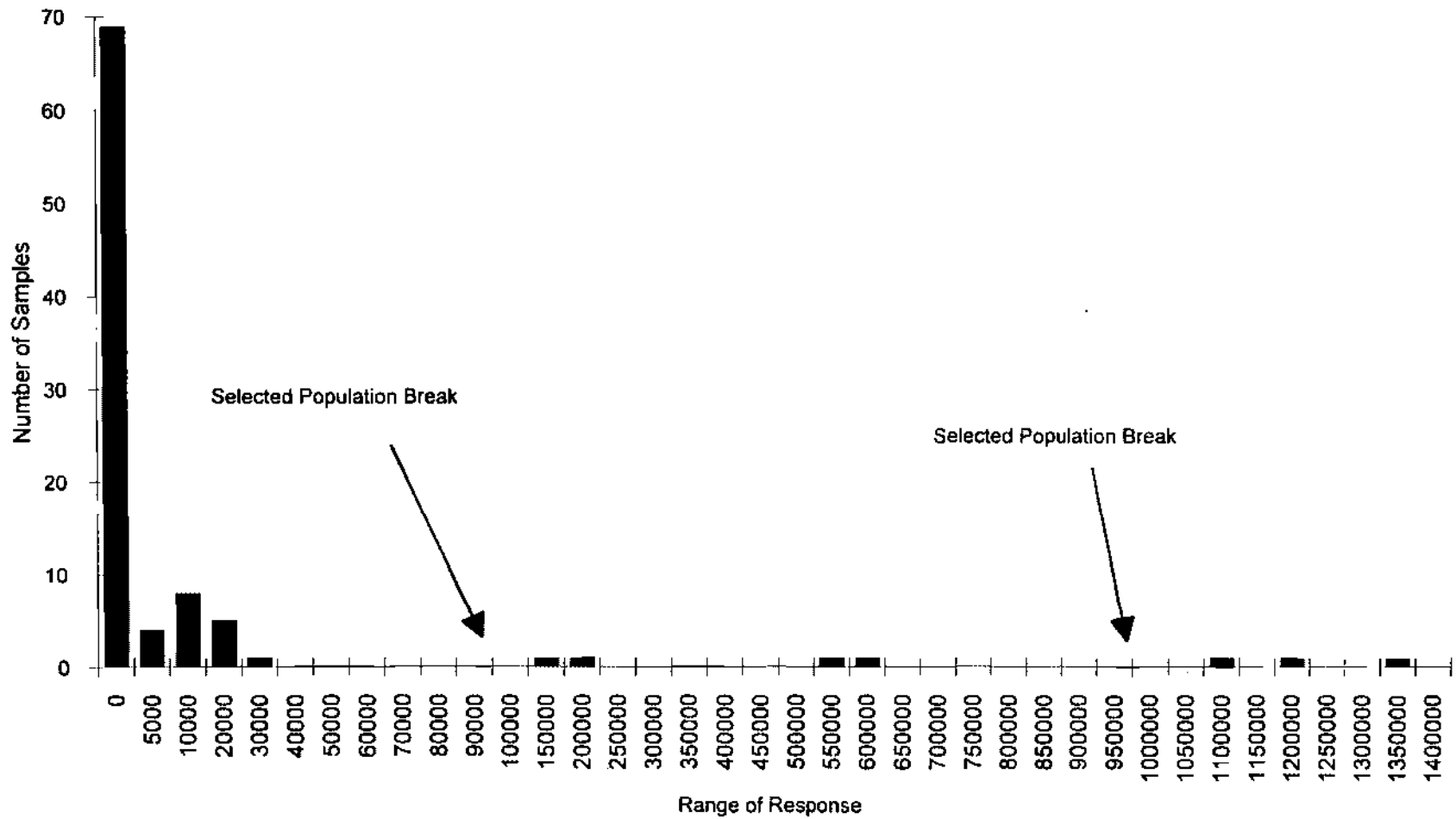
NonAOC-South: Histogram of Response to Total Halogenated Hydrocarbons



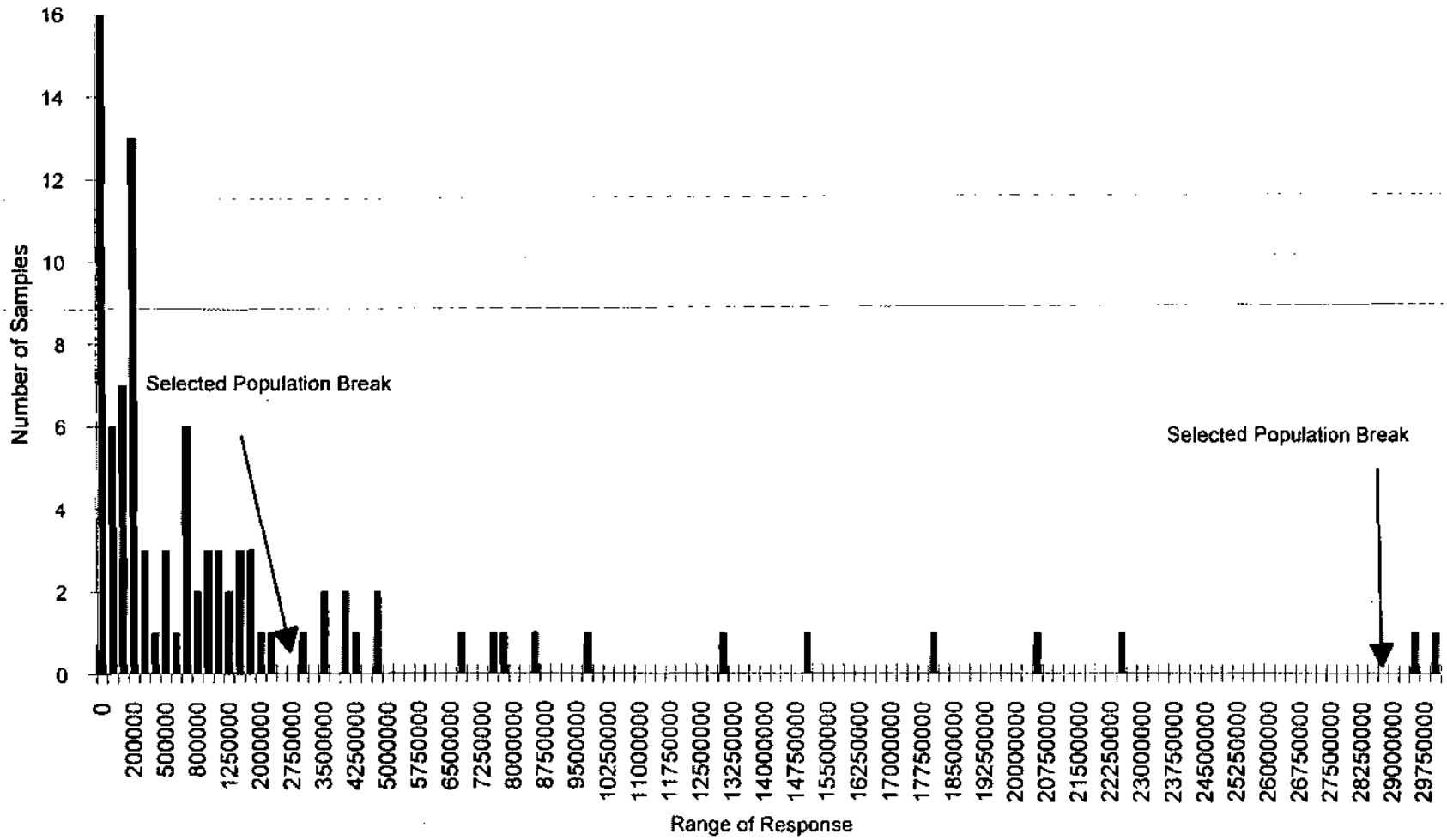
NonAOC-West: Histogram of Response to Total Aromatic Hydrocarbons



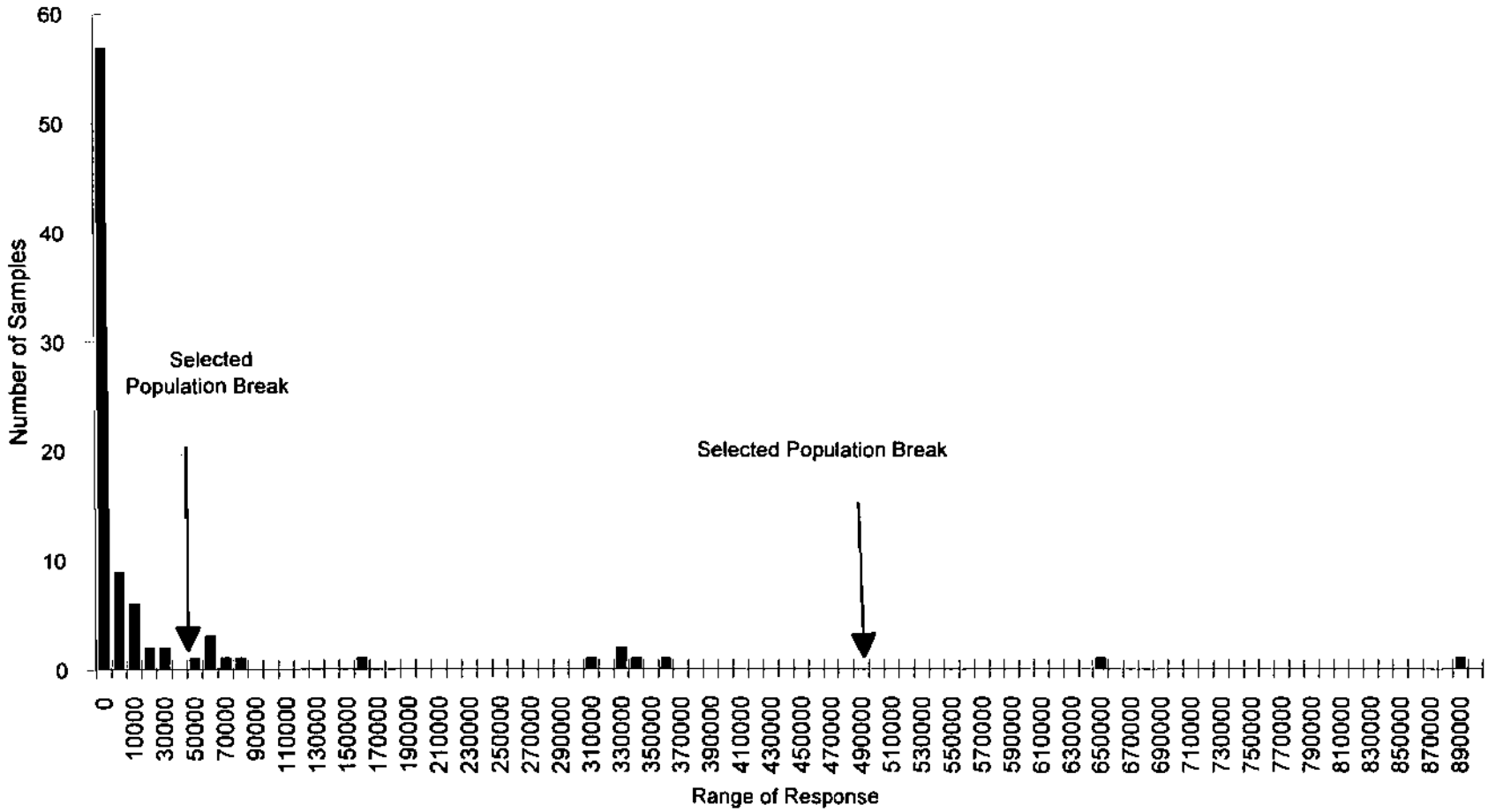
NonAOC-West: Histogram of Response to Total Semivolatile Hydrocarbons



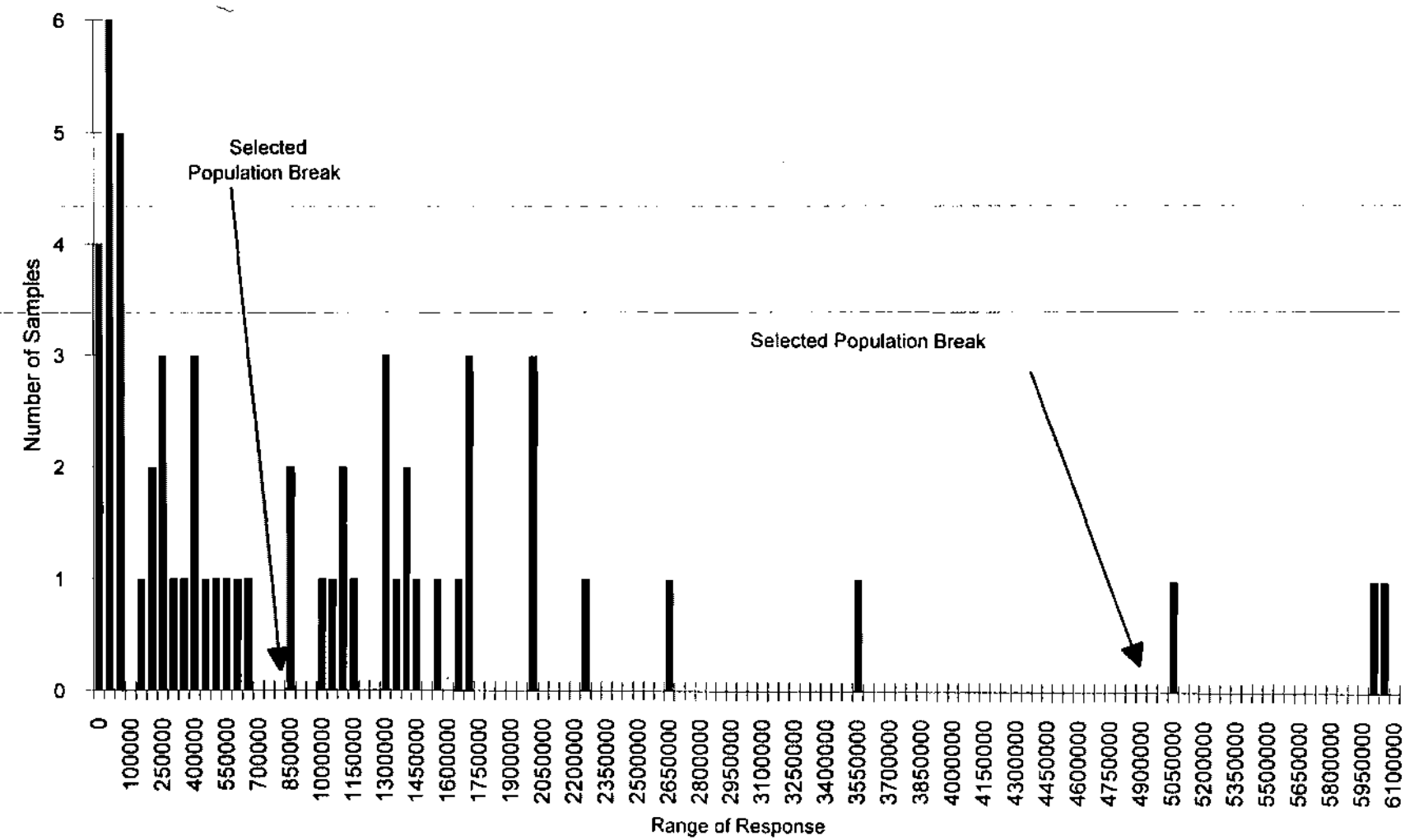
NonAOC-West: Histogram of Response to Total C5 to C11 Petroleum Hydrocarbons



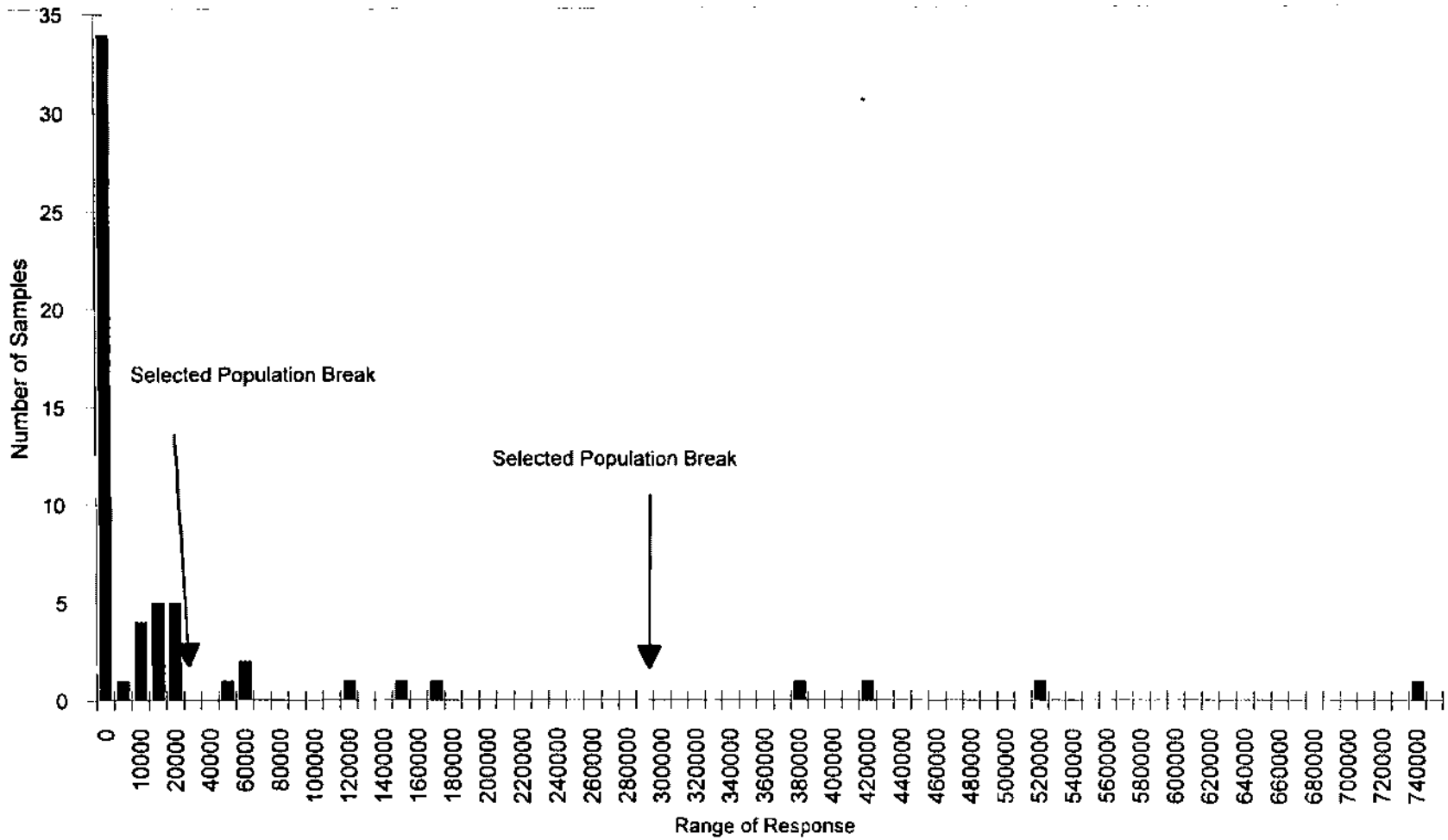
NonAOC-West: Histogram of Response to Total Halogenated Hydrocarbons



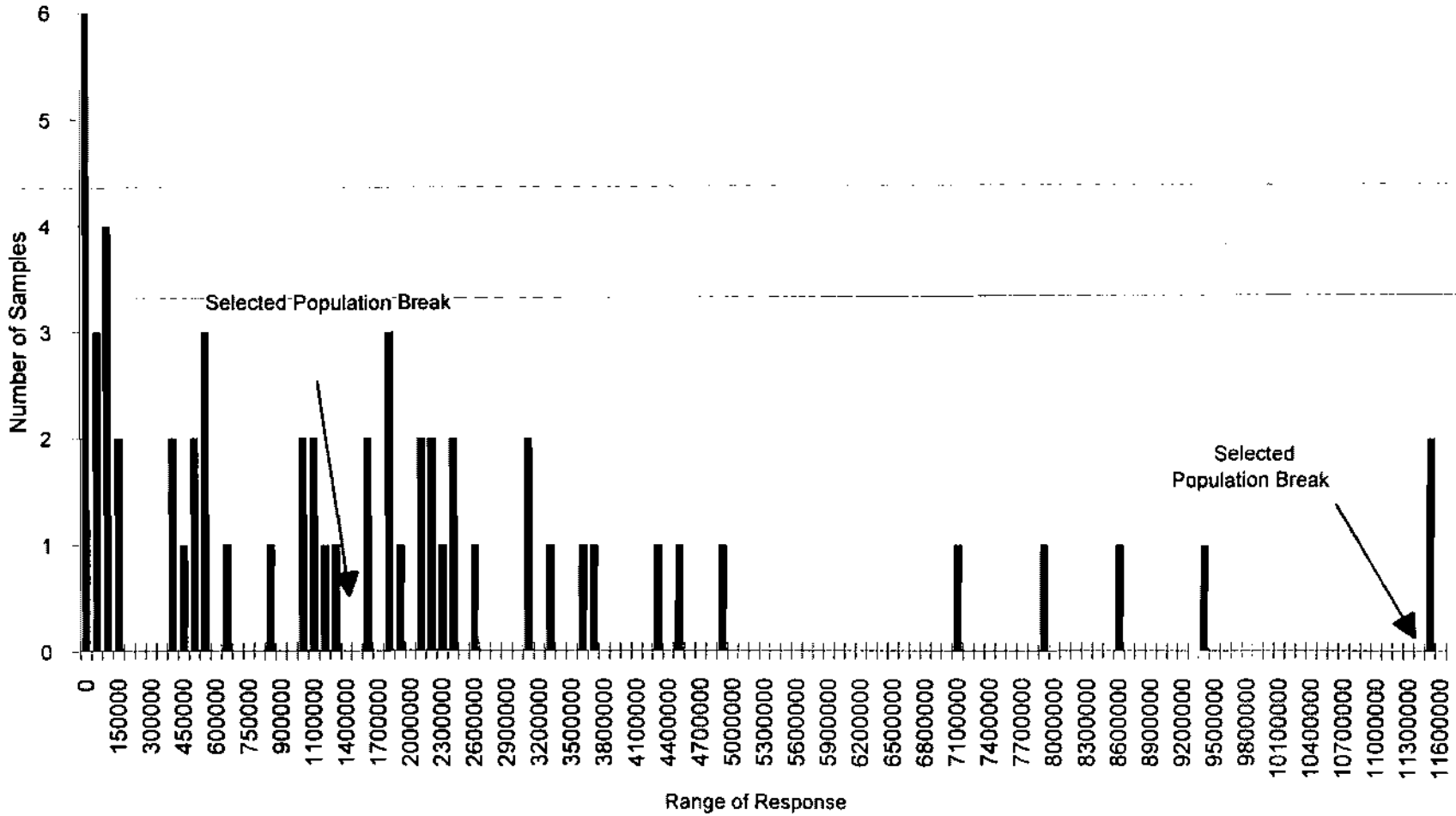
NonAOC-East: Histogram of Response to Total Aromatic Hydrocarbons



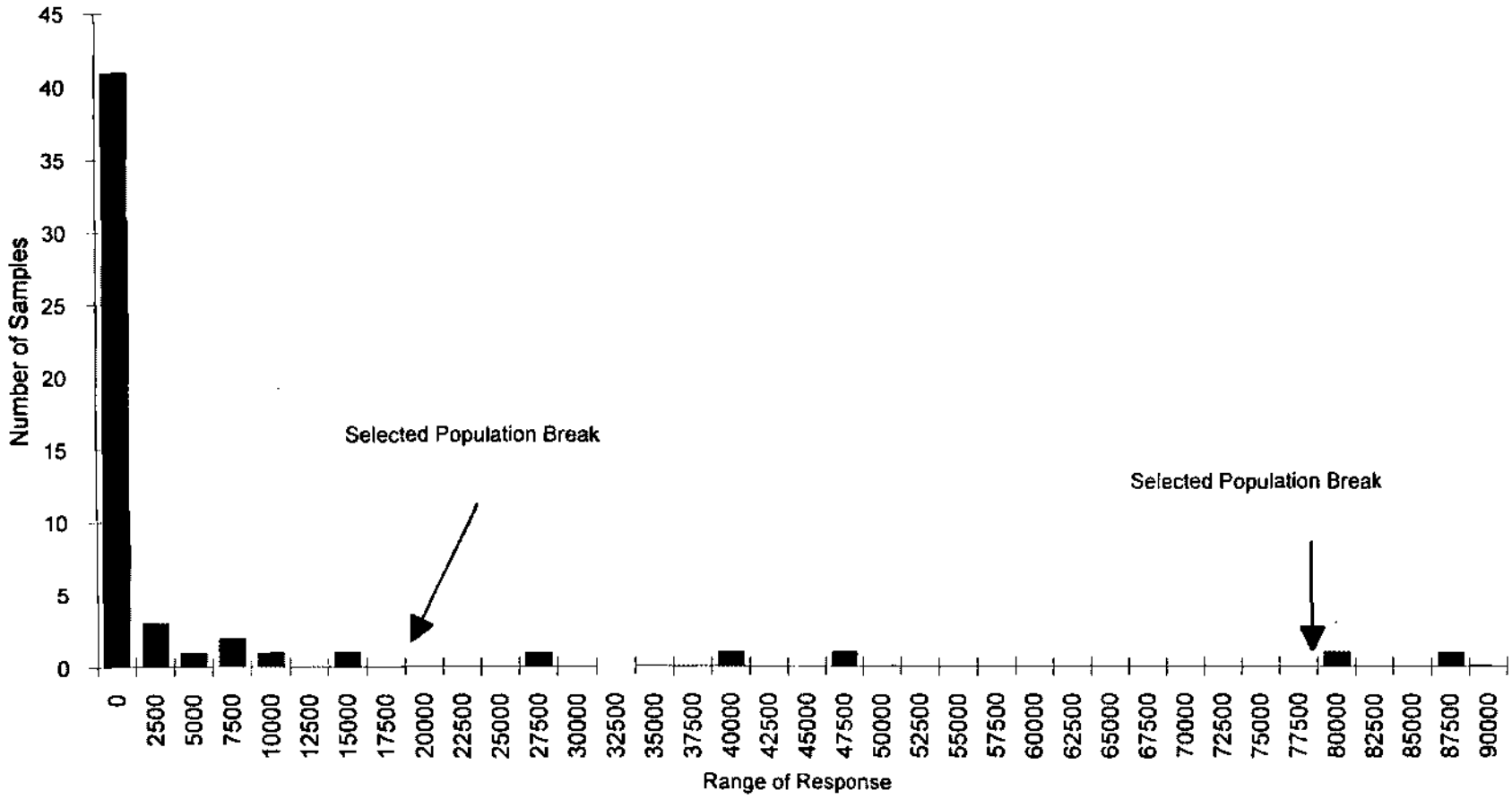
NonAOC-East: Histogram of Response to Total Semivolatile Hydrocarbons



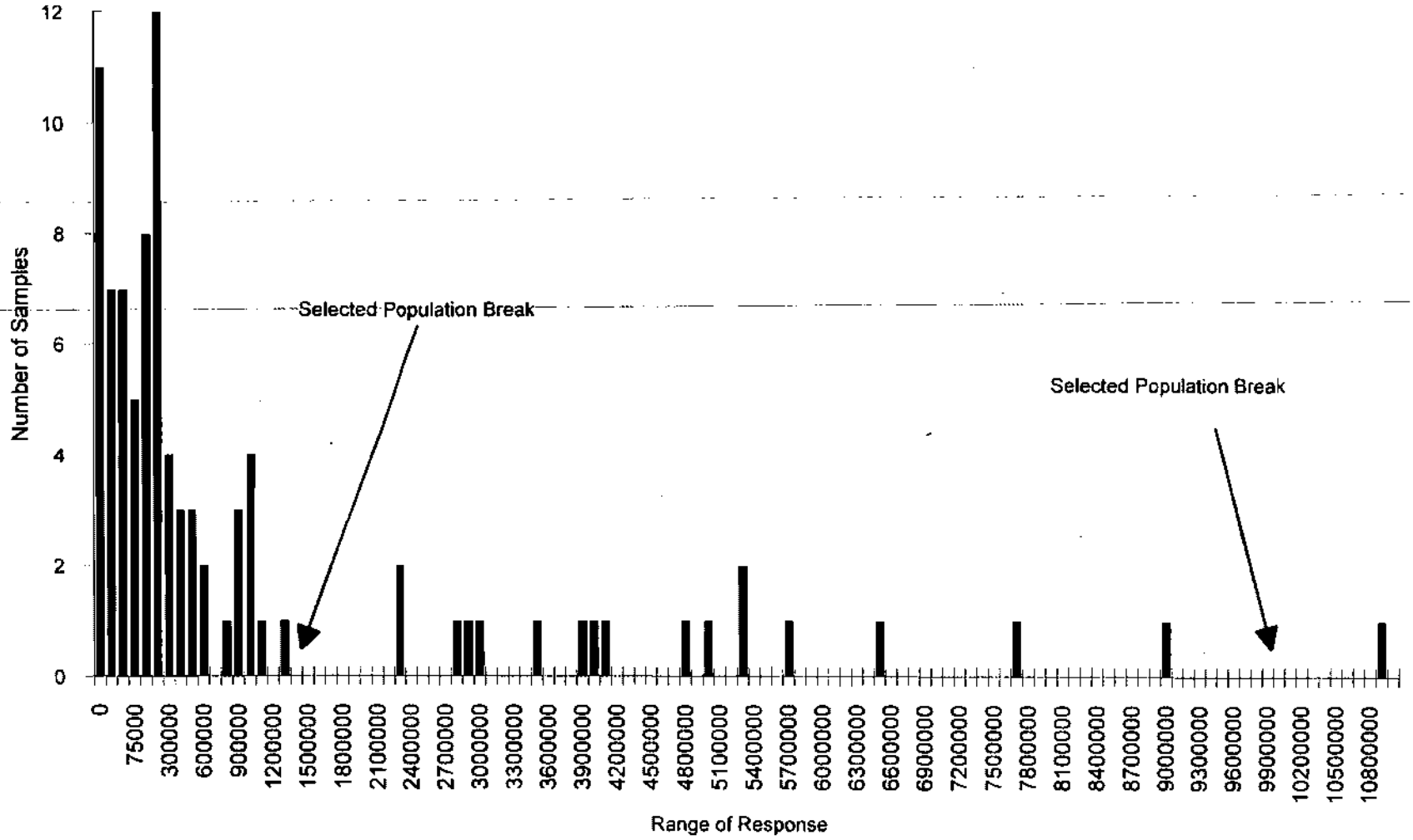
NonAOC-East: Histogram of Response to Total C5 to C11 Petroleum Hydrocarbons



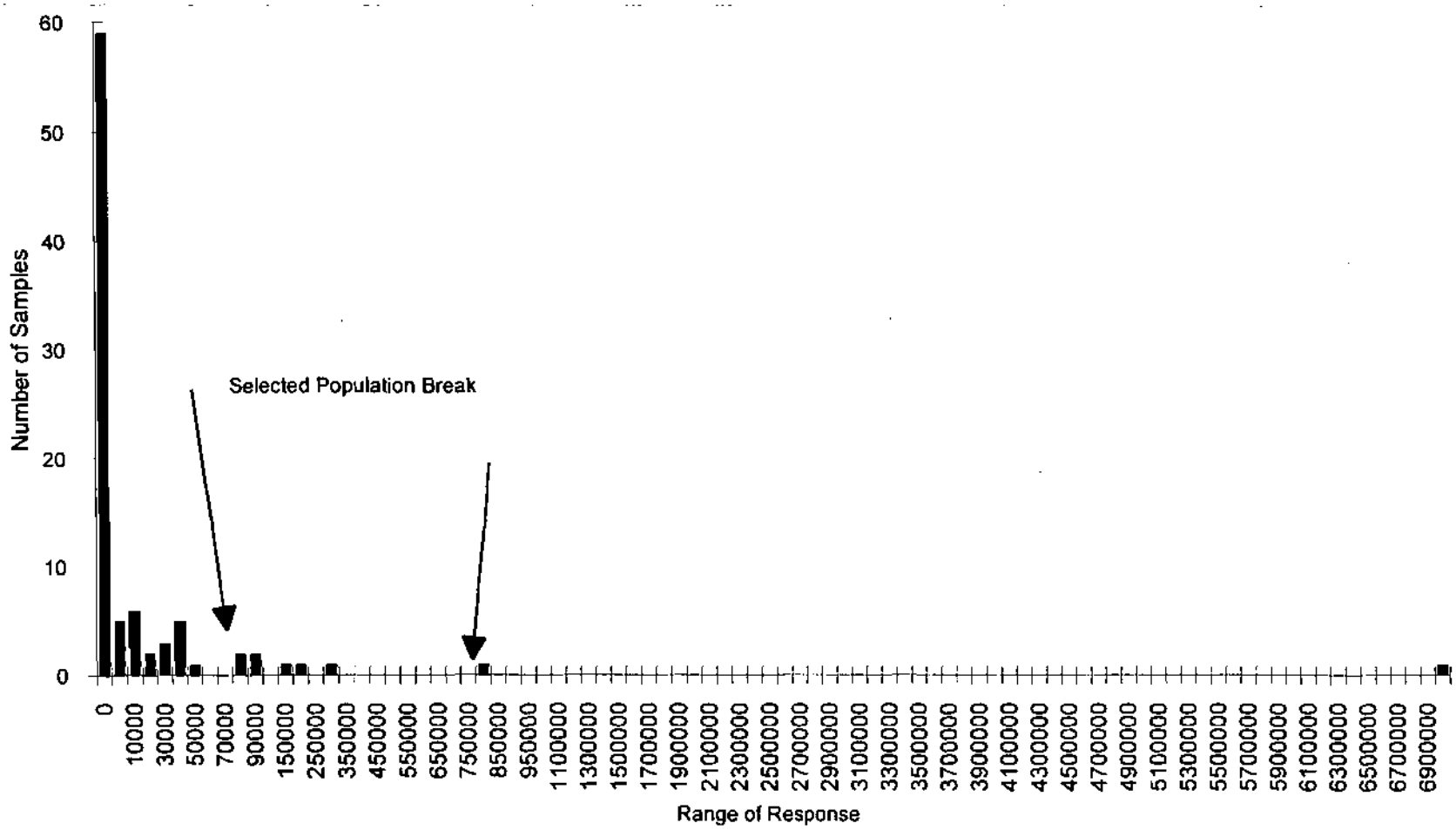
NonAOC-East: Histogram of Response to Total Halogenated Hydrocarbons



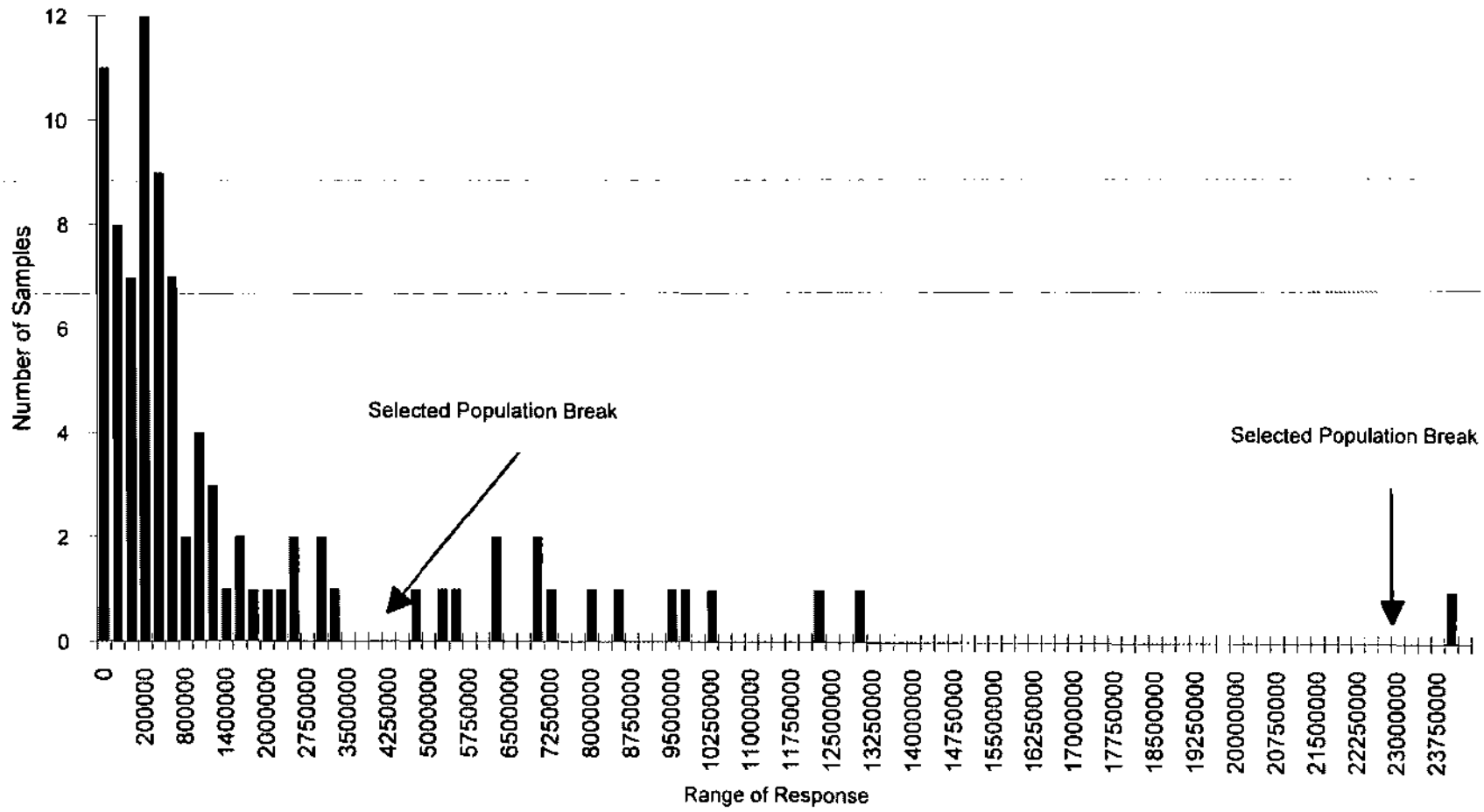
NonAOC-North: Histogram of Response to Total Aromatic Hydrocarbons



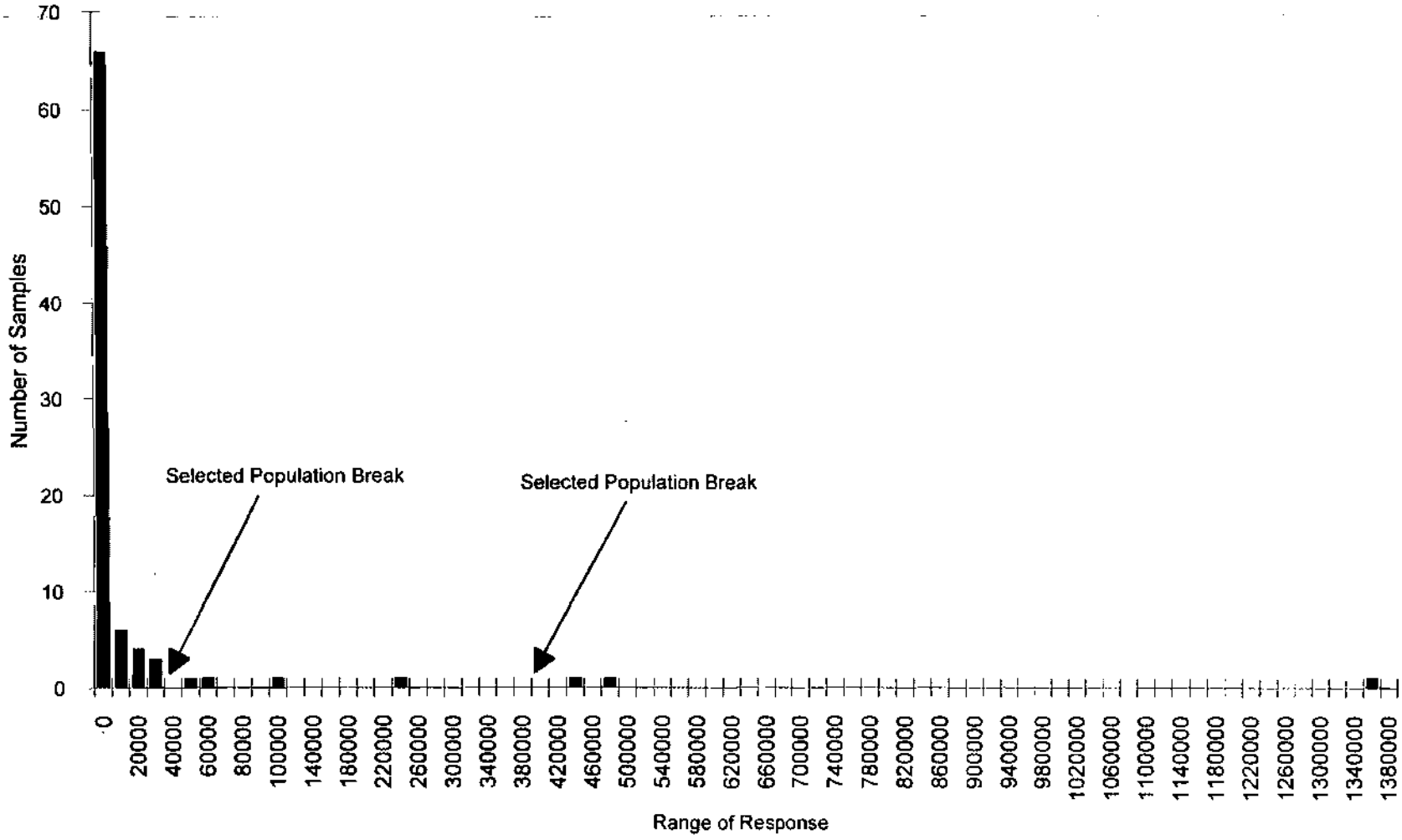
NonAOC-North: Histogram of Response to Total Semivolatile Hydrocarbons



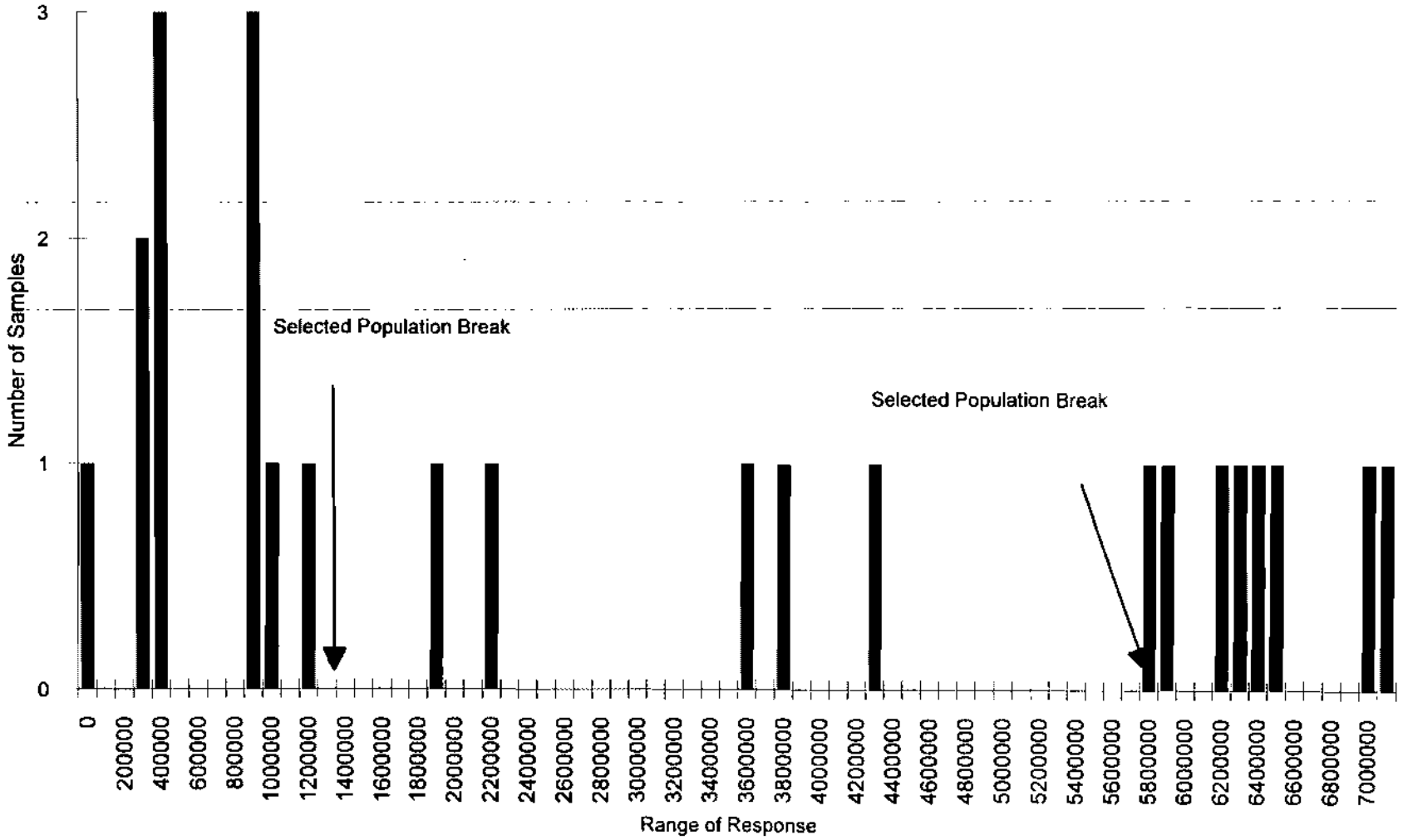
NonAOC-North: Histogram of Response to C5 to C11 Petroleum Hydrocarbons



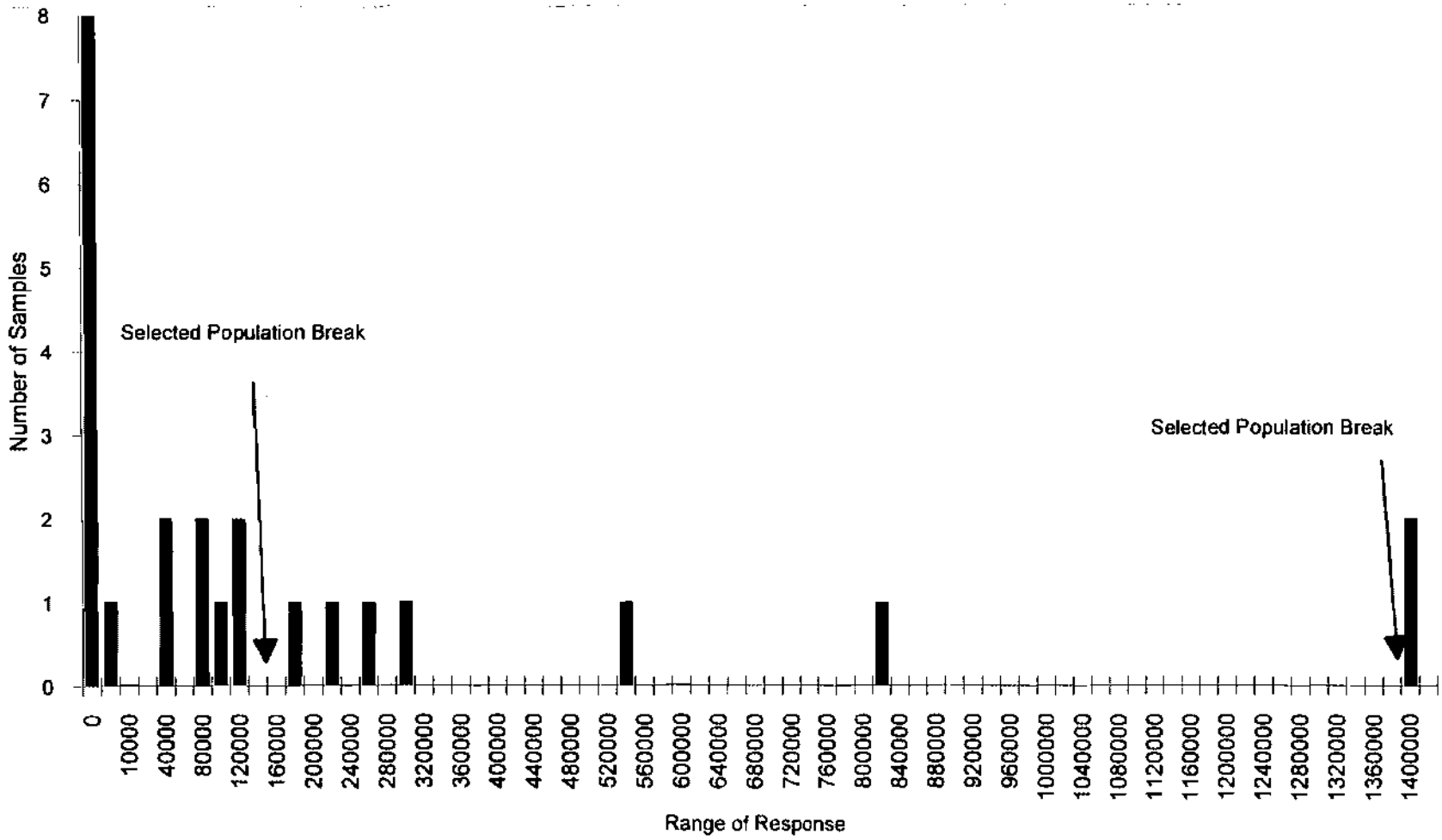
NonAOC-North: Histogram of Response to Total Halogenated Hydrocarbons



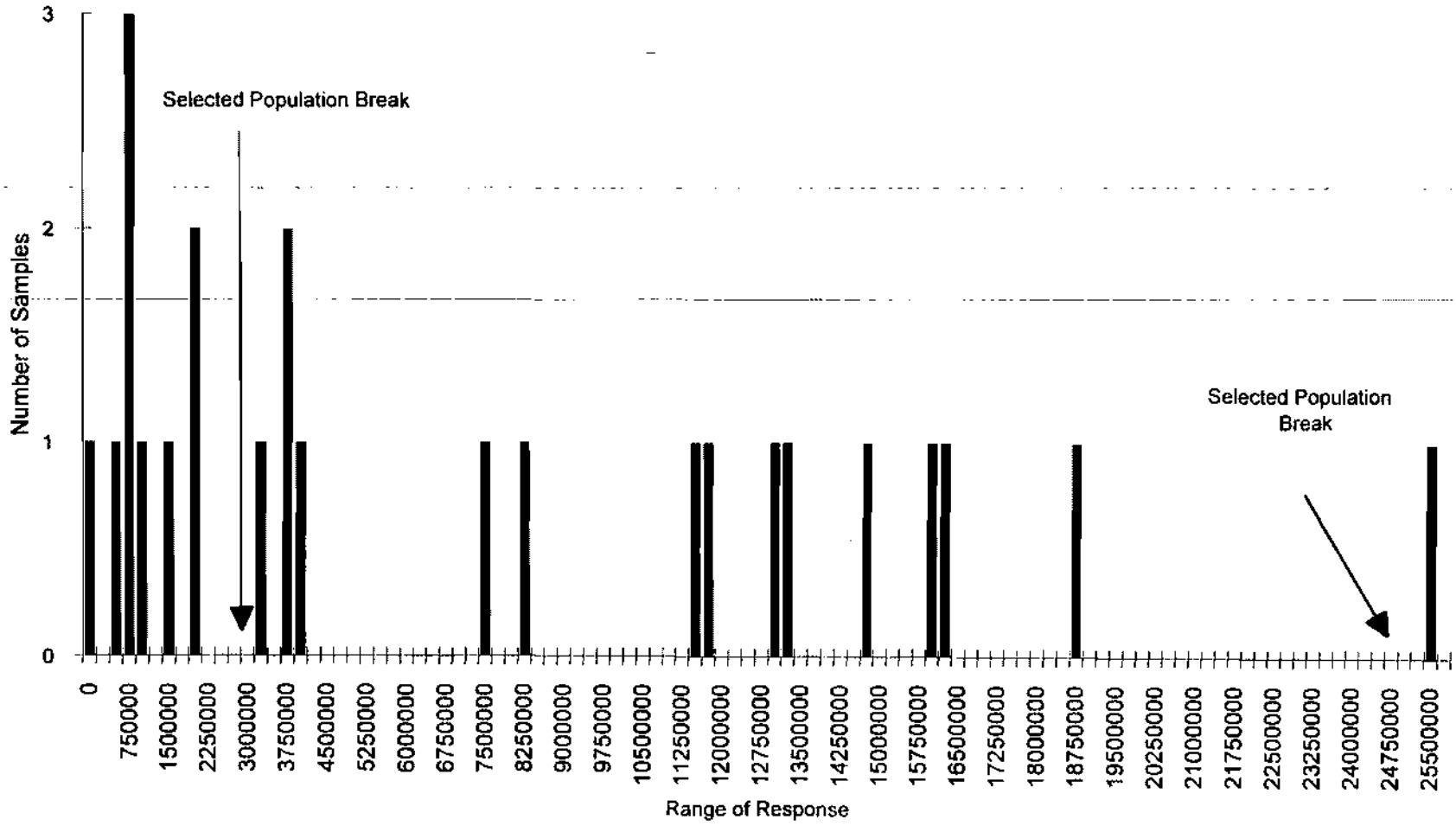
Area 61: Histogram of Response to Total Aromatic Hydrocarbons



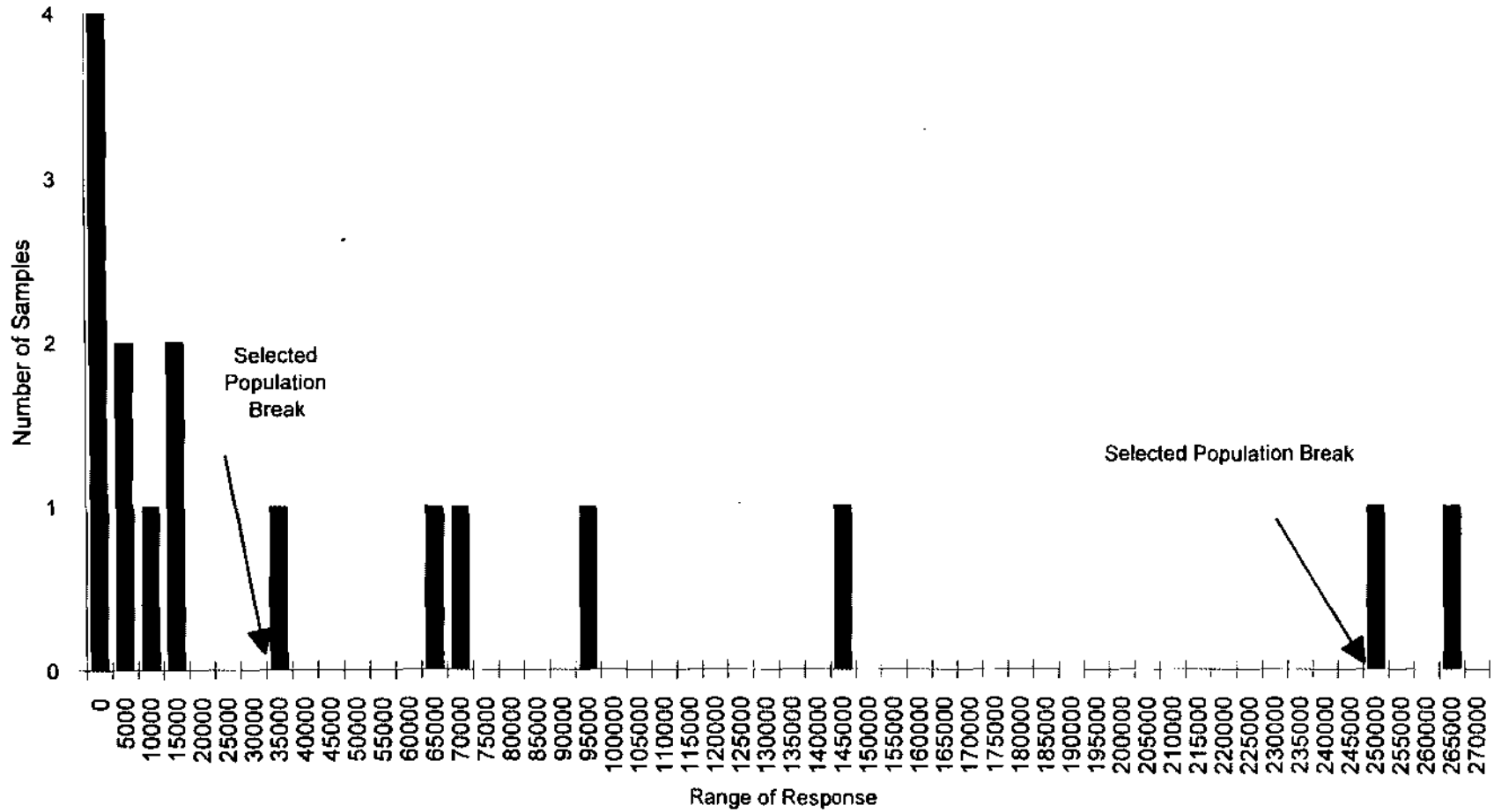
Area 61: Histogram of Response to Total Semivolatile Hydrocarbons



Area 61: Histogram of Response to Total C5 to C11 Petroleum Hydrocarbons



Area 61: Histogram of Response to Total Halogenated Hydrocarbons



# APPENDIX E
# SAMPLE SUBMITTAL & CHAIN OF CUSTODY FORMS

Non AOC-South

# NERI

## Sample Submittal Form

Project Number: 2114-2C

Project Manager: PGS

Date Samples Received : 7/27/94

Date(s) Samples Analyzed : 8/11/94

Number of Tubes Submitted: 120 + 5 T.S.

Number of Calibration Samples : 11 + 9

List: 1/1001, 18/1018, 25/1025 34/1034 47/1047 211/1211 216/1216 230/1230 234/1234 248/1248 253/1253

TRUE DUPS: 14/2014, 19/2019, 30/2030, 37/2037, 86/2086, 217/2217 242/2242, 252/2252, 256/2256.

Number of Travel Blanks : 5

List: #5001 + #5002 (BABS 1+2), #5003 (BABS 5+6), #5004 (BABS 9+10), #5005 (BABS 13.

Greatest Sample Number: 265

Total Number of Missing Samples: 145

List: #4 → #6, #54 → #85, #96 → #205

Number of Other Samples Analyzed : 14 QC's

Total Number of Samples Analyzed : 156

Information Received (Maps, Notes, Etc.) : COC + SS AND MAP TO JCS

Sample Preparation and Analysis : #215 AND #231 SHOW DAMAGE - DO NOT ANALYZE

#224 INSTALLED WITH LINER INPLACE - DO NOT ANALYZE

NERI, LLC.
605 Parfet St. Suite 100
Lakewood, CO. 80215
(303) 238-0090

SAM_SUBM.XLS

NonAOC - WEST

# NERI

## Sample Submittal Form

Project Number: 2114-12E

Project Manager: PGB

Date Samples Received : 10/13/94

Date(s) Samples Analyzed : 11/9/94

Number of Tubes Submitted: 94 + 3 T.B.

Number of Calibration Samples : 9 std + 8 true dups

List: 960/2960, 979/2979, 1008/2009, 1013/2013, 1030/2030, 1043/2043, 1055/2055, 1070/2070, 1082/2082. true dups: 965/3965, 1003/3003, 1011/3011, 1029/3029, 1039/3039, 1051/3051, 1056/3056, 1087/3087.

Number of Travel Blanks : 3

List: #6001 (BAB #39+40), #6002 (BAB #41+42), #6003 (BAB #41+42)

Greatest Sample Number: 1096

Total Number of Missing Samples: 53

List: missing from sequence only, #971-#984, #991-#994, #1014, #1019, #1020, #1031, #1032, #1036-#1038, #1042, #1067, #1068, #1072-#1083, #1084, #1095

Number of Other Samples Analyzed : 15 y's

Total Number of Samples Analyzed : 129

Information Received (Maps, Notes, Etc.) : S.S.

Sample Preparation and Analysis : CAPS OF #963 AND #964 NOT TIGHT.

NERI, LLC.
605 Parfet St. Suite 100
Lakewood, CO. 80215
(303) 238-0090

NON ABC - EAST (REUSE AMA)

# NERI

## Sample Submittal Form

Project Number: 2114-11

Project Manager: PCS

Date Samples Received : 10/13/94

Date(s) Samples Analyzed : 11/7/94

Number of Tubes Submitted: 60 + 3 T.B.

Number of Calibration Samples : 6 + 5 TRUE DUPS

List: 905/2905 924/2924 940/2940 948/2948 959/2959 1042/2042. TRUE DUPS: 920/3920, 933/3933, 945/3945, 954/3954, 1019/3019.

Number of Travel Blanks : 3

List: #7001, #7002, + #7003 FROM BABS #37+38, #35+36, #39+40.

Greatest Sample Number: #1097

Total Number of Missing Samples: 133

List: #910, #921 #930, #934, #960 → #991, #995 → #1018, #1021 → #1041, #1043 → #1066, #1069 → #1086.

Number of Other Samples Analyzed : 13-15

Total Number of Samples Analyzed : 86

Information Received (Maps, Notes, Etc.) : COC TO PCS

Sample Preparation and Analysis : #942 STARTED W/O WATER - DO NOT ANALYZE

NERI, LLC.
605 Parfet St. Suite 100
Lakewood, CO. 80215
(303) 238-0090

NON/AOC-NORTH

# NERI

## Sample Submittal Form

Project Number: 2114-10E

Project Manager: PCS

Date Samples Received : 9/28/94

Date(s) Samples Analyzed : 11/8/94

Number of Tubes Submitted: 91 + 3 T.B.

Number of Calibration Samples : 7 + 9 TRUE DUPS

List: CAL: 836/2836, 847/2847, 867/2867, 877/2877, 898/2898
876/2876, 1076/2076 TRUE-DUPS: 846/3846, 862/3862, 866/3866
871/3871, 890/3890, 897/3897, 875/3875, 1073/3073, 1083/3083

Number of Travel Blanks : 3

List: #8001, #8002, AND #8003 (FROM SAMS #33, #34 AND #44)

Greatest Sample Number: #1095

Total Number of Missing Samples: 169

List: #878, #880→#885, #903 #905→#971 #985→#990,
#992→#1013, #1015→#1071, #1084→#1093,

Number of Other Samples Analyzed : 12 y's

Total Number of Samples Analyzed : 122

Information Received (Maps, Notes, Etc.) : COC NO PCS

Sample Preparation and Analysis : #903 NOT SUBMITTED DUE TO COOLER IN FIELD
UNUSED TIME TESTS SUBMITTED - DO NOT ANALYZE

NERI, LLC.
605 Parfet St. Suite 100
Lakewood, CO. 80215
(303) 238-0090

SAM_SUBM.XLS

AFA-61

# NERI

## Sample Submittal Form

Project Number: 2114-8

Project Manager: PGB

Date Samples Received : 9/8/94

Date(s) Samples Analyzed : 11/3/94

Number of Tubes Submitted: 25 + 1 T.B.

Number of Calibration Samples : 2 + 1 DUP.

List: 774 / 1774

DUPS: 779 / 2779

Number of Travel Blanks : 1

List: # 8001 FROM BAR # 31 + 32

Greatest Sample Number: # 787

Total Number of Missing Samples: Ø

List: N/A

Number of Other Samples Analyzed : 25 ½

Total Number of Samples Analyzed : 52

Information Received (Maps, Notes, Etc.) : MAP, COC NO PCB

Sample Preparation and Analysis : SAMPLE # 765 WAS SHIPPED W/O COVER. DO NOT ANALYZE.

NERI, LLC.
605 Parfet St. Suite 100
Lakewood, CO. 80215
(303) 238-0090

SAM_SUBM.XLS

PETREX ENVIRONMENTAL SURVEY
Chain of Custody Document

Job Number E2114 (Please refer to this job number with all correspondence and shipments)

FIELD DATA:
Facility SAIC

Location 4031 Colonel Glenn Hwy Ste 300
Beavercreek Ohio 45431-1600

Field Manager Tom TANK Phone 513-429-2699

PYMS LAB DATA:

Instrument

Operator

Phone

Sample Nos.

GC/MS LAB DATA:

SAMPLE DATA:

Number of Samples ~~212~~ 120 + 3 timers (non-AOC Area - 7N Block)
Date Shipped to Field 6-14-94
Date Received in Field 6-15-94
Condition as Recd. in Field Good
Received By J. Humpert
Date Shipped from Field 7/26/94
Date Received from Field
Conditions as Recd. in Lab

Number Received
Received By REL

SAMPLE TRANSFER DATA:

| Relinquished By: | Relinquished To: | Date: | Time: | Reason: |
|---|---|---|---|---|
| 1. JRD | J. Humpert | 6/15/94 | 1400 | Sample Installation |
| 2. J Humpert | | 7/26/94 | 1600 | Sample Analysis |
| 3. REL | | 7/28/94 | | Lab |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |

NonAOC West

PETREX ENVIRONMENTAL SURVEY
Chain of Custody Document

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

FIELD DATA:
- Facility Mound Plant
- Location Miamisburg, OH

- Field Manager John Davis / Juletta Humpert Phone 513-429-2699

PYMS LAB DATA:

Instrument

Operator

Phone

Sample Nos.

GC/MS LAB DATA:

SAMPLE DATA:
- Number of Samples 94
- Date Shipped to Field Sept. 94
- Date Received in Field Sept. 94
- Condition as Recd. in Field Good
- Received By J. Humpert
- Date Shipped from Field 10/12/94

Date Received from Field 10/13/94
Conditions as Recd. in Lab Good

Number Received 97
Received By RSL

SAMPLE TRANSFER DATA:

| | Relinquished By: | Relinquished To: | Date: | Time: | Reason: |
|---|---|---|---|---|---|
| 1. | J. Humpert | NERI | 10/12/94 | 1200 | analysis |
| 2. | RSL | Lab | 10-13-94 | | analysis |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |

* includes travel blanks #40, #41, and #43
* 14N25W/#1092, 9N15/#1059 - broke tube on retrieval; wires retrieved

2114-11 Non AOC Secure

PETREX ENVIRONMENTAL SURVEY
Chain of Custody Document

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

FIELD DATA:
• Facility Mound Plant
• Location Miamisburg, OH

• Field Manager John Davis / Juletta Humpert • Phone 513-429-2699

PYMS LAB DATA: GC/MS LAB DATA:

Instrument

Operator

Phone

Sample Nos.

SAMPLE DATA:

• Number of Samples 60 tubes
• Date Shipped to Field Sept 94
Date Received in Field Sept 94
Condition as Recd. in Field Good
• Received By J. Humpert
• Date Shipped from Field 10/12/94
Date Received from Field 10-13-94
Conditions as Recd. in Lab good

Number Received 63
Received By LAP

SAMPLE TRANSFER DATA:

| Relinquished By: | Relinquished To: | Date: | Time: | Reason: |
|---|---|---|---|---|
| 1. J. Humpert | NERI | 10/12/94 | 1200 | Analysis |
| 2. [illegible] | CAS | 10/13/94 | | Analysis |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |

* 7N4/#1019 – broke tube on retrieval, wires retrieved
* 11N5/#971 – unable to retrieve
* Travel blanks # 35, 38, and 39 included.

Non HOC North

PETREX ENVIRONMENTAL SURVEY
Chain of Custody Document

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

FIELD DATA:
Facility SIAC

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

Field Manager Joletta Humpert / FCB Phone 513-429-2699

PYMS LAB DATA:

Instrument

Operator

Phone

Sample Nos.

GC/MS LAB DATA:

SAMPLE DATA:

Number of Samples ~~20 Empty Tubes, 10 Capillaries~~ 9/27/94 QPH 91 tubes and 2 timers (not needed)
Date Shipped to Field 9-2-94
Date Received in Field Sept 94
Condition as Recd. in Field Good
Received By J. Humpert
Date Shipped from Field 9/27/94
Date Received from Field
Conditions as Recd. in Lab

Number Received
Received By

SAMPLE TRANSFER DATA:

| | Relinquished By: | Relinquished To: | Date: | Time: | Reason: |
|---|---|---|---|---|---|
| 1. | J Humpert | NERI | 9/27/94 | 1600 | analysis |
| 2. | [illegible] | CAS | 9/28/94 | | analysis |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |

Includes travel blanks # 33, 34, and 44.

15N9/#903 - lost in clay - unable to retrieve

#1072-1083 must be analyzed for fuels (i.e., gasoline, oil, diesel)

Will forward drawing on 9/28/94

PETREX ENVIRONMENTAL SURVEY
Chain of Custody Document

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

FIELD DATA:
• Facility Mound Plant - Area 61
• Location Miamisburg, Ohio

• Field Manager John Davis + Joletta Humpert • Phone 513-429-2699

PYMS LAB DATA:

Instrument

Operator

Phone

Sample Nos.

GC/MS LAB DATA:

SAMPLE DATA:

• Number of Samples 25
• Date Shipped to Field Aug 1994
• Date Received in Field Aug 1994
• Condition as Recd. in Field Good
• Received By J. Humpert
• Date Shipped from Field 9/7/94
Date Received from Field
Conditions as Recd. in Lab

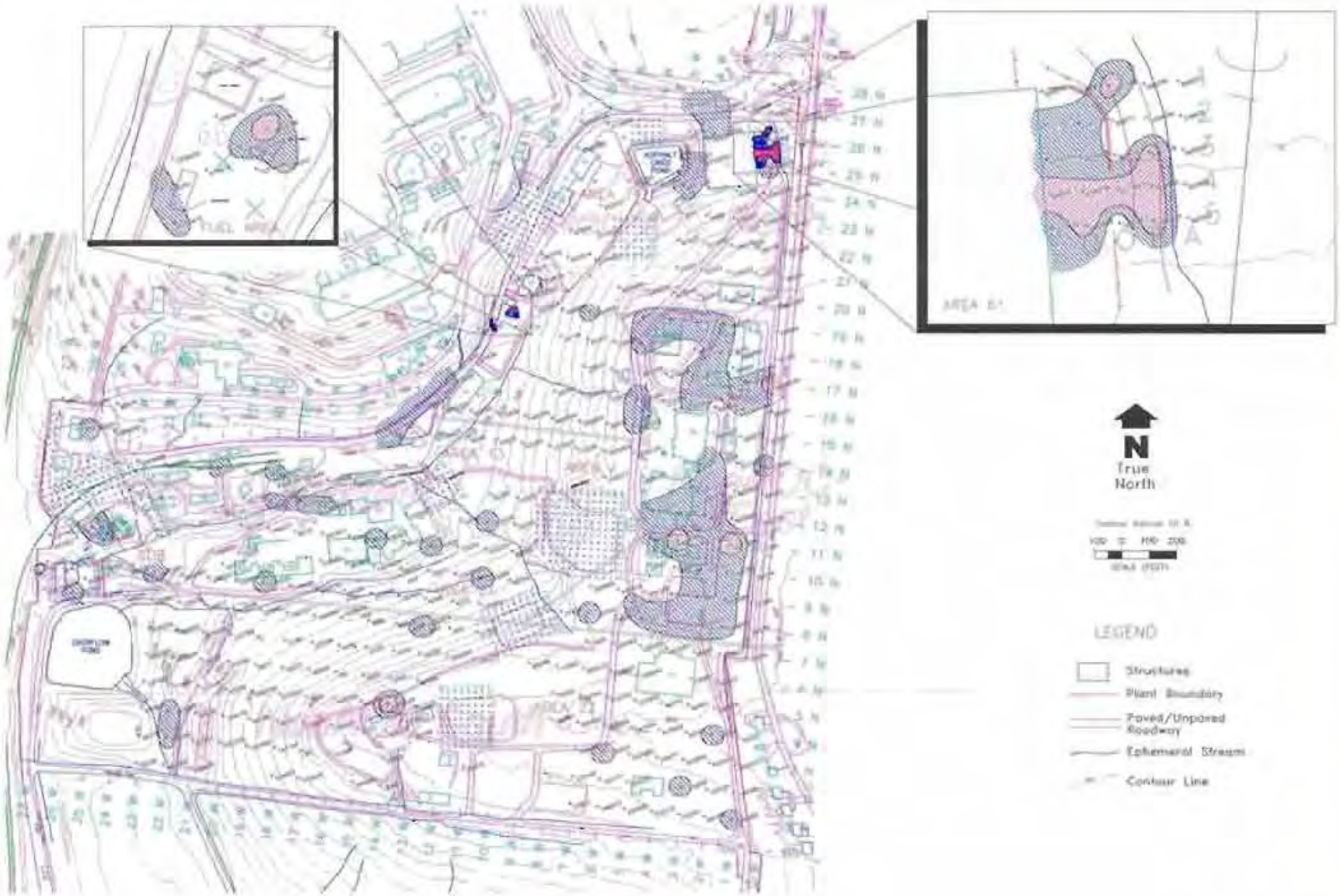
Number Received
Received By

SAMPLE TRANSFER DATA:

| | Relinquished By: | Relinquished To: | Date: | Time: | Reason: |
|---|---|---|---|---|---|
| • 1. | J. Humpert | NERI | 9/7/94 | 1300 | Analysis |
| 2. | [illegible] | CAS | 9/8/94 | | Analysis |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |

#763-787 Included in Area 61

| | | | | |
|---|---|---|---|---|
| Northwest Research Institute LLC | 43 | 1114 | NonAOC/Operable Unit-3 | Sample Locations |
| | | November 2, 1994 | USDOE Mound Facility Miamisburg, Ohio | Plate 1 |
| | | | | |




| | | | |
|---|---|---|---|
| Prepared for: Ferrofluids Research Institute LLC | JCS | 5114F | NuMUDC/Operable Unit-5 |
| | | November 2, 1994 | USDOE Mound Facility Miamisburg, Ohio |
| | PCB | 5114-2.dwg | |

LEGEND

Relative Response Levels (in ppm Lowest)

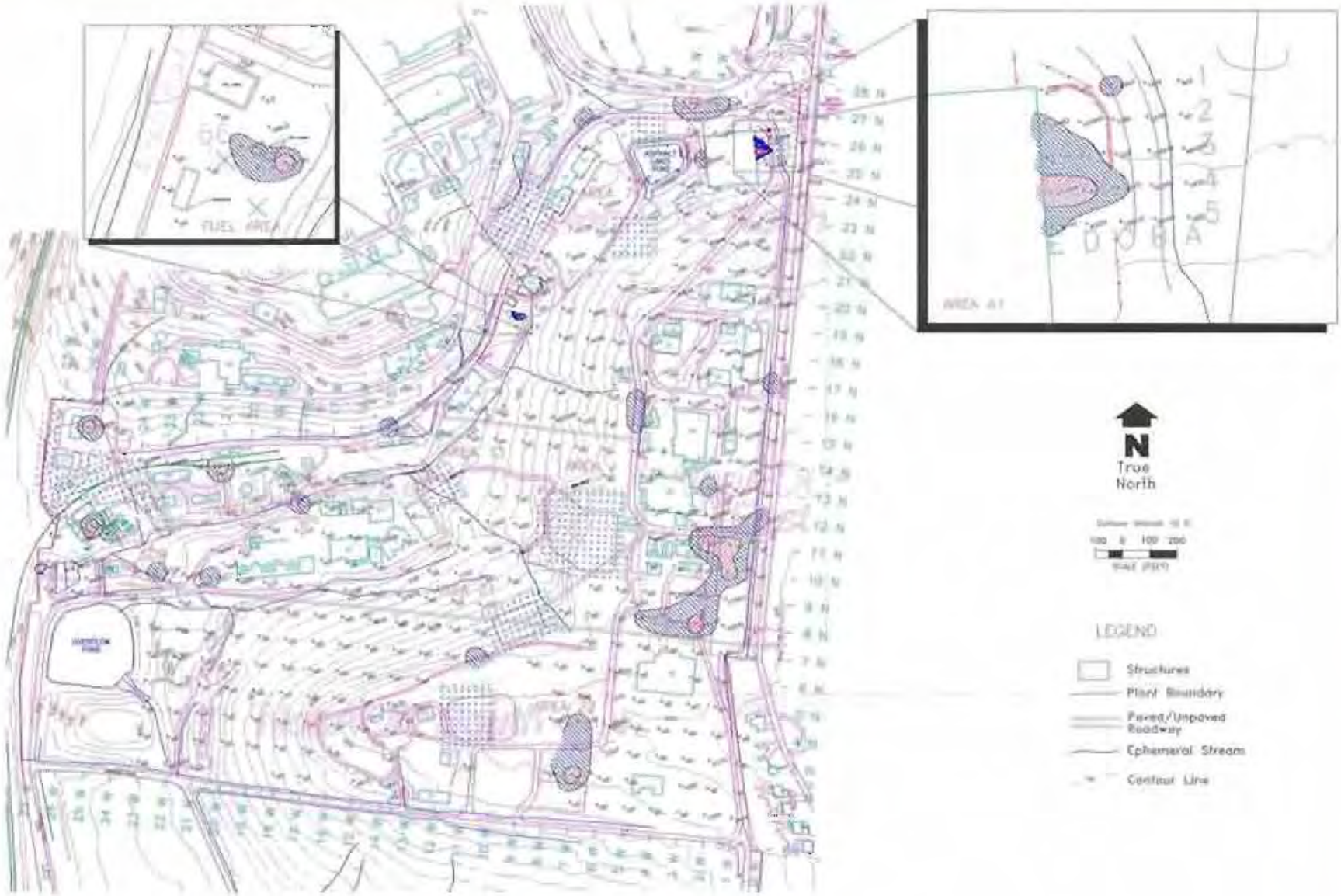
| Naphthalene | Alkyl Benzenes | Alkyl Naphthalenes | Alkyl Phenols | Total BTX |
|---|---|---|---|---|
| 1 - 5,000 | 1 - 5,000 | 1 - 5,000 | 1 - 5,000 | 1 - 5,000 |
| Without Naphthalene | 5,000 - 5,000 | Without Naphthalene | Without Naphthalene | 5,000 - 5,000 |

Notes:
1. PETRA Sample Location
NO Site Reference
2. Sampling Interference by Equipment
Not Sampled

Relative Response

Total Aromatic Hydrocarbons

Plate 2

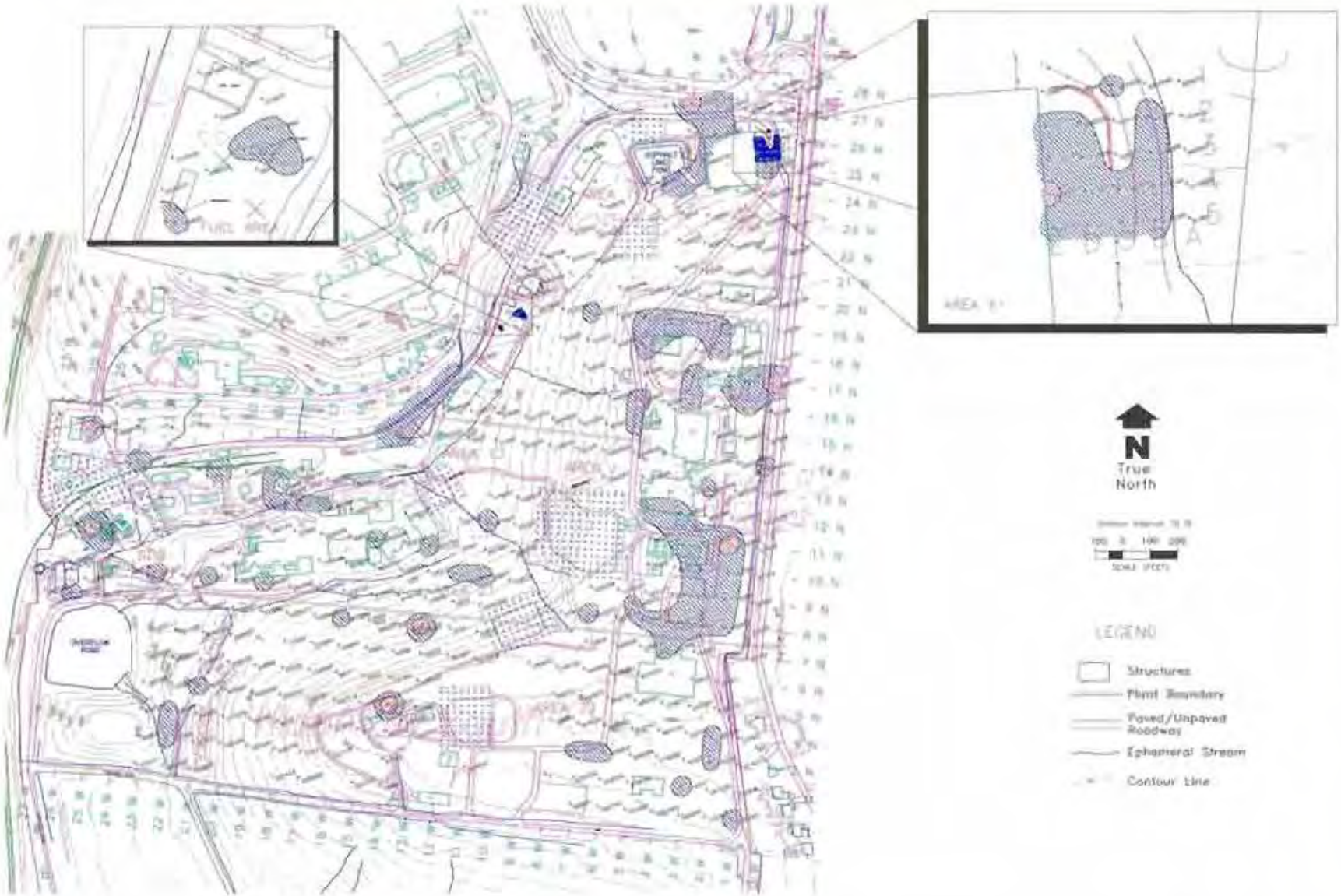



| | | | |
|---|---|---|---|
| Prepared by: FirstEnvironmental Research Institute LLC | Project # 2114C | NiosADC/Operable Unit-5 | LEGEND |
| | Date: November 3, 1994 | USDOE Mound Facility Miamisburg, Ohio | |
| | File Name: 2114-2.dwg | | |

Relative Response

Total Semivolatile Hydrocarbons

Plate 3




NonNOC/Operable Unit-5

USDOE Mound Facility
Miamisburg, Ohio

Relative Response
Total C5-C11
Petroleum Hydrocarbons

Plate 4

| | | | |
|---|---|---|---|
| Prepared by Northwest Research Institute LLC | AS | 2114K | NonAOC/Operable Unit-5 |
| | | November 2, 1994 | USDOE Mound Facility Miamisburg, Ohio |
| | PCB | 2114-5.dwg | |

LEGEND

Relative Response (Scale 50 per month)

| Reactor Tank | Reactor Head | Reactor Cover | Reactor Drain | Area 51 |
|---|---|---|---|---|
| 1 Month | 1 Month | 1 Month | 1 Month | 1 Month |
| Month Average | Month Average | Month Average | Month Average | Month Average |

Footnotes:
1. EPTDS Sample Location
(#) Not Detected
* Laboratory interference by petroleum hydrocarbons, see MDL

Relative Response

Total Halogenated Hydrocarbons

Plate 5

# APPENDIX F
# RADIOLOGICAL AND CHEMICAL ANALYTICAL DATA


F.1 SEEP RADIOLOGICAL AND CHEMICAL DATA
F.2 SURFACE SOIL CHEMICAL DATA
F.3 BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
F.4 MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA

## DATA QUALIFIERS

The primary data qualifiers to be applied, as described in the CLP Functional Guidelines and in Section 4.0 and 5.0 of Appendix H, of the QAPjP (DOE 1993a).

| | | |
|---|---|---|
| U | - | The material was analyzed, but was not detected. The associated numerical value is the sample quantitation limit. |
| J | - | The associated numerical value is an estimated quantity. |
| R | - | The data are unusable (compound may or may not be present). Resampling and reanalysis is necessary for verification. |
| N | - | Presumptive evidence of presence of material. |
| NJ | - | Presumptive evidence of the presence of the material at an estimated quantity. |
| UJ | - | The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity. |

Subqualifiers are used to assist in data assessment by indicating the source of the primary qualifier. These subqualifiers are attached to the primary qualifier, separated by a hyphen. The following is a list of allowable subqualifiers.

SUBQUALIFIERS - ORGANICS

| | | |
|---|---|---|
| B | - | Qualified due to method blank or a field blank |
| C | - | Qualified due to calibration |
| H | - | Holding time exceeded |
| K | - | Qualified due to surrogate recovery |
| S | - | Qualified due to matrix spike recovery |
| I | - | Qualified due to internal recovery |
| P | - | Pesticide/PCB results have >25% difference on two different columns |
| (+) | - | Potential positive bias (added after subqualifier with a parentheses) |
| (-) | - | Potential negative bias (added after subqualifier with a parentheses) |

SUBQUALIFIERS - INORGANICS

| | | |
|---|---|---|
| B | - | Qualified due to method blank of field blank |
| C | - | Qualified due to calibration |
| H | - | Holding time exceeded |
| S | - | Qualified due to matrix spike recovery |
| I | - | Interference (ICP serial dilution, ICS, or GFAA spike recovery) |
| D | - | Duplicate (replicate limits exceeded) |

| | | |
|---|---|---|
| L | - | Qualified due to LCS |
| (+) | - | Potential positive bias (added after subqualifier with a parentheses) |
| (-) | - | Potential negative bias (added after subqualifier with a parentheses) |

Examples of final qualification might be J-C, UJ-S(+), UJ-BC(-), etc.

## F.1 SEEP RADIOLOGICAL AND CHEMICAL DATA

# APPENDIX F.1. SEEP RADIOLOGICAL AND CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | S01001 | | | S01101 | | | S02001 | | |
| | | 623844 REG | | | 623852 REG | | | 624946 REG | | |
| | | / / | | | / / DUPE | | | / / | | |
| | | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| **Gamma Scan** | **Units** | | | | | | | | | |
| Ac-227 | PCI/L | 38.55+/- | NA | U | 36.95+/- | NA | U | 37.48+/- | NA | U |
| Am-241 | PCI/L | 0.14+/- | 0.31 | UJ | 0.57+/- | 0.22 | J | 0.18+/- | 0.25 | UJ |
| Bi-207 | PCI/L | 6.44+/- | NA | U | 6.78+/- | NA | U | 6.44+/- | NA | U |
| Bi-210m | PCI/L | 10.11+/- | NA | U | 10.31+/- | NA | U | 10.37+/- | NA | U |
| Co-60 | PCI/L | 6.31+/- | NA | U | 6.48+/- | NA | U | 6.76+/- | NA | U |
| Cs-137 | PCI/L | 7.13+/- | NA | U | 7.6+/- | NA | U | 7.12+/- | NA | U |
| K-40 | PCI/L | 173.5+/- | NA | U | 352.2+/- | 127.9 | | 216.1+/- | 127.7 | |
| **RADIUM-226** | | | | | | | | | | |
| Ra-226 | PCI/L | 0.36+/- | 0.15 | UJ | 0.31+/- | 0.15 | UJ | 0.2+/- | 0.16 | UJ |
| **Isotopic Plutonium** | | | | | | | | | | |
| Pu-238 | PIC/G | 7.91+/- | 0.75 | J | 6.54+/- | 0.74 | J | 0.05+/- | 0.05 | UJ |
| Pu-239/40 | PIC/G | 0.24+/- | 0.11 | J | -0.05+/- | 0.12 | UJ | -0.01+/- | 0.05 | UJ |
| **Isotopic Thorium** | | | | | | | | | | |
| Th-228 | PIC/G | 1.45+/- | 0.24 | J | 1.06+/- | 0.21 | J | 1.38+/- | 0.26 | J |
| Th-230 | PIC/G | 0.45+/- | 0.13 | J | 0.09+/- | 0.06 | J | -0.02+/- | 0.05 | U |
| Th-232 | PIC/G | 0.34+/- | 0.11 | J | 0.00+/- | 0.05 | U | 0.01+/- | 0.05 | U |
| **Isotopic Uranium** | | | | | | | | | | |
| U-234 | PCI/L | 0.77+/- | 0.21 | J | 0.95+/- | 0.22 | | 0.32+/- | 0.13 | J |
| U-235 | PCI/L | -0.02+/- | 0.07 | UJ | 0.01+/- | 0.06 | U | 0.02+/- | 0.06 | UJ |
| U-238 | PCI/L | 1.22+/- | 0.27 | J | 1.34+/- | 0.27 | | 0.27+/- | 0.12 | J |
| **Strontium 90** | | | | | | | | | | |
| Sr-90 | PCI/L | 1.88+/- | 1.78 | U | 0.89+/- | 1.73 | U | 0.66+/- | 1.75 | U |
| **Tritium 3** | | | | | | | | | | |
| Tritium | PCI/L | 1,294.6+/- | 392.9 | | 1,274.9+/- | 391.2 | | 1,239.9+/- | 456.8 | |

# APPENDIX F.1. SEEP RADIOLOGICAL AND CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | S01001 | | S01101 | | S02001 | |
| | | 623756 REG | | 623794 REG | | 624580 REG | |
| | | / / | | / / DUPE | | / / | |
| | | Result | Val | Result | Val | Result | Val |
| **Volatile Organics** | **Units** | | | | | | |
| Acetone | UG/L | 10 | U | 10 | U | 10 | U |
| Acetonitrile | UG/L | 100 | U | 100 | U | 100 | U |
| Acrylonitrile | UG/L | 100 | U | 100 | U | 100 | U |
| Benzene | UG/L | 5 | U | 5 | U | 5 | U |
| Bromodichloromethane | UG/L | 5 | U | 5 | U | 5 | U |
| Bromoform | UG/L | 5 | U | 5 | U | 5 | U |
| Bromomethane | UG/L | 10 | U | 10 | U | 10 | U |
| 2-Butanone | UG/L | 10 | U | 10 | U | 10 | U |
| Carbon Disulfide | UG/L | 5 | U | 5 | U | 5 | U |
| Carbon Tetrachloride | UG/L | 5 | U | 5 | U | 5 | U |
| Chlorobenzene | UG/L | 5 | U | 5 | U | 5 | U |
| Chlorodibromomethane | UG/L | 5 | U | 5 | U | 5 | U |
| Chloroethane | UG/L | 10 | U | 10 | U | 10 | U |
| Chloroform | UG/L | 150 | | 150 | | 5 | U |
| Chloromethane | UG/L | 10 | U | 10 | U | 10 | U |
| 1,1-Dichloroethane | UG/L | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloroethane | UG/L | 5 | U | 5 | U | 5 | U |
| 1,1-Dichloroethene | UG/L | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloroethene | UG/L | 5 | U | 5 | U | 10 | U |
| 1,2-Dichloropropane | UG/L | 5 | U | 5 | U | 5 | U |
| cis-1,3-Dichloropropene | UG/L | 5 | U | 5 | U | 5 | U |
| trans-1,3-Dichloropropene | UG/L | 5 | U | 5 | U | 5 | U |
| 1,2-Diethylbenzene | UG/L | 5 | U | 5 | U | 5 | U |
| Ethylbenzene | UG/L | 5 | U | 5 | U | 5 | U |
| Hexane | UG/L | 10 | U | 10 | U | 10 | U |
| 2-Hexanone | UG/L | 10 | U | 10 | U | 10 | U |
| Iodomethane | UG/L | 5 | U | 5 | U | 5 | U |
| 4-Methyl-2-pentanone | UG/L | 10 | U | 10 | U | 10 | U |
| Methylene Chloride | UG/L | 27 | U | 16 | U | 28 | U |
| Styrene | UG/L | 5 | U | 5 | U | 5 | U |
| 1,1,2,2-Tetrachloroethane | UG/L | 5 | U | 5 | U | 5 | U |
| Tetrachloroethene | UG/L | 5 | | 5 | | 5 | U |
| Toluene | UG/L | 5 | U | 5 | U | 5 | U |
| 1,1,1-Trichloroethane | UG/L | 5 | U | 5 | U | 5 | U |

## APPENDIX F.1 ...EP RADIOLOGICAL AND CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | S01001 | | S01101 | | S02001 | |
| | | 623756 REG | | 623794 REG | | 624580 REG | |
| | | / / | | / / DUPE | | / / | |
| | | Result | Val | Result | Val | Result | Val |
| **Volatile Organics** | **Units** | | | | | | |
| 1,1,2-Trichloroethane | UG/L | 5 | U | 5 | U | 5 | U |
| Trichloroethene | UG/L | 7 | | 7 | | 5 | U |
| Trichlorotrifluoroethane | UG/L | 5 | U | 5 | U | 5 | U |
| Vinyl Acetate | UG/L | 10 | U | 10 | U | 10 | U |
| Vinyl Chloride | UG/L | 10 | U | 10 | U | 10 | U |
| Xylene, Total | UG/L | 10 | U | 10 | U | 10 | U |

# APPENDIX F.1. SLEP RADIOLOGICAL AND CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | S01001 | | S01101 | | S02001 | |
| | | REG | | REG | | REG | |
| | | / / | | / / DUPE | | / / | |
| | | Result | Val | Result | Val | Result | Val |
| **Volatile Organics - Method 8010** | **Units** | | | | | | |
| c-1,2-Dichloroethene | UG/L | 0.18 | U | 0.17 | J | 0.054 | J |
| trans-1,2-Dichloroethene | UG/L | 0.3 | U | 0.3 | U | 0.3 | U |
| Trichlorofluoromethane | UG/L | 0.4 | J | 0.4 | U | 0.4 | U |
| Trichlorotrifluoroethane | UG/L | 1.5 | | 1.4 | | 0.3 | U |

# APPENDIX F.1. SEEP RADIOLOGICAL AND CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | S01001 | | | S01101 | | | S02001 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 623756 REG | | | 623794 REG | | | 624580 REG | | |
| | | / / | | | / / DUPE | | | / / | | |
| | | Result | Lab | Val | Result | Lab | Val | Result | Lab | Val |
| **Semi-volatile Organics** | **Units** | | | | | | | | | |
| Acenaphthene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Acenaphthylene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Anthracene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Benzo(a)anthracene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Benzo(a)pyrene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Benzo(b)fluoranthene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Benzo(g,h,i)perylene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Benzo(k)fluoranthene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Benzoic Acid | UG/L | 3 | J | J | 2 | J | J | 50 | U | U |
| Benzyl Alcohol | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 2-Benzyl-4-Chlorophenol | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| bis(2-Chloroethoxy)methane | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| bis(2-Chloroethyl)ether | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| bis(2-Ethylhexyl)phthalate | UG/L | 10 | JB | U | 10 | JB | U | 10 | U | U |
| 4-Bromophenyl-phenylether | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Butylbenzylphthalate | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Carbazole | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 4-Chloro-3-methylphenol | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 4-Chloroaniline | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 2-Chloronaphthalene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 2-Chlorophenol | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 4-Chlorophenyl-phenylether | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Chrysene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Di-n-butylphthalate | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Di-n-octylphthalate | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Dibenzo(a,h)anthracene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Dibenzofuran | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 1,2-Dichlorobenzene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 1,3-Dichlorobenzene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 1,4-Dichlorobenzene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 3,3'-Dichlorobenzidine | UG/L | 20 | U | U | 20 | U | U | 20 | U | U |
| 2,4-Dichlorophenol | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Diethylphthalate | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 2,4-Dimethylphenol | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |

# APPENDIX F.1. SEEP RADIOLOGICAL AND CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | S01001 | | | S01101 | | | S02001 | | |
| | | 623756 REG | | | 623794 REG | | | 624580 REG | | |
| | | / / | | | / / DUPE | | | / / | | |
| | | Result | Lab | Val | Result | Lab | Val | Result | Lab | Val |
| **Semi-volatile Organics** | **Units** | | | | | | | | | |
| Dimethylphthalate | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 4,6-Dinitro-2-methylphenol | UG/L | 50 | U | U | 50 | U | U | 50 | U | U |
| 2,4-Dinitrophenol | UG/L | 50 | U | U | 50 | U | U | 50 | U | U |
| 2,4-Dinitrotoluene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 2,6-Dinitrotoluene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Fluoranthene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Fluorene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Hexachlorobenzene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Hexachlorobutadiene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Hexachlorocyclopentadiene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Hexachloroethane | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Indeno(1,2,3-c,d)pyrene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Isophorone | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 2-Methylnaphthalene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 2-Methylphenol | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 4-Methylphenol | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| N-Nitroso-di-n-propylamine | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| N-Nitrosodiphenylamine | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Naphthalene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 2-Nitroaniline | UG/L | 50 | U | U | 50 | U | U | 50 | U | U |
| 3-Nitroaniline | UG/L | 50 | U | U | 50 | U | U | 50 | U | U |
| 4-Nitroaniline | UG/L | 50 | U | U | 50 | U | U | 50 | U | U |
| Nitrobenzene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 2-Nitrophenol | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 4-Nitrophenol | UG/L | 50 | U | U | 50 | U | U | 50 | U | U |
| 2,2'-oxybis(1-Chloropropane) | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Pentachlorophenol | UG/L | 50 | U | U | 50 | U | U | 50 | U | U |
| Phenanthrene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Phenol | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| Pyrene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 1,2,4-Trichlorobenzene | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |
| 2,4,5-Trichlorophenol | UG/L | 50 | U | U | 50 | U | U | 50 | U | U |
| 2,4,6-Trichlorophenol | UG/L | 10 | U | U | 10 | U | U | 10 | U | U |

# APPENDIX F.1. SEEP RADIOLOGICAL AND CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | S01001 | | | S01101 | | | S02001 | | |
| | | 623756 REG | | | 623794 REG | | | 624580 REG | | |
| | | / / | | | / / DUPE | | | / / | | |
| | | Result | Lab | Val | Result | Lab | Val | Result | Lab | Val |
| Semi-volatile Organics | Units | | | | | | | | | |
| Tentatively Identified Compounds | | 7 | | | 8 | | | 5 | | |

# APPENDIX F.1. SEEP RADIOLOGICAL AND CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | S01001 | | S01101 | | S02001 | |
| | | 623756 REG | | 623794 REG | | 624580 REG | |
| | | / / | | / / DUPE | | / / | |
| | | Result | Val | Result | Val | Result | Val |
| **Pesticides and PCBs** | **Units** | | | | | | |
| Aldrin | UG/L | 0.05 | U | 0.05 | U | 0.05 | U |
| alpha-BHC | UG/L | 0.05 | U | 0.05 | U | 0.05 | U |
| alpha-Chlordane | UG/L | 0.05 | U | 0.05 | U | 0.05 | U |
| Aroclor-1016 | UG/L | 0.5 | U | 0.5 | U | 0.5 | U |
| Aroclor-1221 | UG/L | 0.5 | U | 0.5 | U | 0.5 | U |
| Aroclor-1232 | UG/L | 0.5 | U | 0.5 | U | 0.5 | U |
| Aroclor-1242 | UG/L | 0.5 | U | 0.5 | U | 0.5 | U |
| Aroclor-1248 | UG/L | 0.5 | U | 0.5 | U | 0.5 | U |
| Aroclor-1254 | UG/L | 0.5 | U | 0.5 | U | 0.5 | U |
| Aroclor-1260 | UG/L | 0.5 | U | 0.5 | U | 0.5 | U |
| beta-BHC | UG/L | 0.05 | U | 0.05 | U | 0.05 | U |
| 4,4'-DDD | UG/L | 0.1 | U | 0.1 | U | 0.1 | U |
| 4,4'-DDE | UG/L | 0.1 | U | 0.1 | U | 0.1 | U |
| 4,4'-DDT | UG/L | 0.1 | U | 0.1 | U | 0.1 | U |
| delta-BHC | UG/L | 0.05 | U | 0.05 | U | 0.05 | U |
| Dieldrin | UG/L | 0.1 | U | 0.1 | U | 0.1 | U |
| Endosulfan I | UG/L | 0.05 | U | 0.05 | U | 0.05 | U |
| Endosulfan II | UG/L | 0.1 | U | 0.1 | U | 0.1 | U |
| Endosulfan Sulfate | UG/L | 0.1 | U | 0.1 | U | 0.1 | U |
| Endrin | UG/L | 0.1 | U | 0.1 | U | 0.1 | U |
| Endrin Aldehyde | UG/L | 0.1 | U | 0.1 | U | 0.1 | U |
| Endrin Ketone | UG/L | 0.1 | U | 0.1 | U | 0.1 | U |
| gamma-BHC (Lindane) | UG/L | 0.05 | U | 0.05 | U | 0.05 | U |
| gamma-Chlordane | UG/L | 0.05 | U | 0.05 | U | 0.05 | U |
| Heptachlor | UG/L | 0.05 | U | 0.05 | U | 0.05 | U |
| Heptachlor Epoxide | UG/L | 0.05 | U | 0.05 | U | 0.05 | U |
| p,p'-Methoxychlor | UG/L | 0.5 | U | 0.5 | U | 0.5 | U |
| Toxaphene | UG/L | 5 | U | 5 | U | 5 | U |

# APPENDIX F.1. SEEP RADIOLOGICAL AND CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | S01001 | | S01101 | | S02001 | |
| | | WATER62375 REG | | WATER62379 REG | | WATER62458 REG | |
| | | / / | | / / DUPE | | / / | |
| | | Result | Val | Result | Val | Result | Val |
| Inorganics | Units | | | | | | |
| Aluminum | UG/L | 6820 | J | 3100 | J | 3170 | J |
| Antimony | UG/L | 1.9 | | 1 | U | 1 | U |
| Arsenic | UG/L | 2 | U | 2 | U | 2 | U |
| Barium | UG/L | 107 | | 86.3 | | 80.8 | |
| Beryllium | UG/L | 0.1 | U | 0.1 | U | 0.1 | U |
| Bismuth | UG/L | 120 | | 107 | | 95.8 | |
| Cadmium | UG/L | 0.3 | U | 0.3 | U | 0.3 | U |
| Calcium | UG/L | 157000 | | 153000 | | 183000 | |
| Chromium | UG/L | 7.8 | U | 5 | U | 3.8 | U |
| Cobalt | UG/L | 4.2 | | 1 | | 1.3 | |
| Copper | UG/L | 6.4 | | 3.7 | | 3 | |
| Cyanide | UG/L | 20 | U | 20 | U | 20 | U |
| Iron | UG/L | 7170 | J | 3270 | J | 3560 | J |
| Lead | UG/L | 4 | | 1.4 | | 2.8 | |
| Magnesium | UG/L | 46300 | | 45700 | | 39800 | |
| Manganese | UG/L | 162 | | 63.4 | | 644 | |
| Mercury | UG/L | 0.2 | U | 0.2 | U | 0.2 | U |
| Nickel | UG/L | 9.7 | U | 5.2 | U | 4.7 | U |
| Potassium | UG/L | 7790 | J | 6160 | J | 5790 | J |
| Selenium | UG/L | 3 | U | 3 | U | 3 | U |
| Silver | UG/L | 0.4 | U | 0.4 | U | 0.4 | U |
| Sodium | UG/L | 233000 | | 241000 | | 209000 | |
| Thallium | UG/L | 3 | U | 3 | U | 3 | U |
| Thulium | UG/L | 10 | U | 10 | U | 10 | U |
| Tin | 0 | 47 | UJ | 47 | UJ | 47 | UJ |
| Zinc | UG/L | 39 | | 16.4 | | 22.8 | |

# APPENDIX F.1. SEEP RADIOLOGICAL AND CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | S01001 | | S01101 | | S02001 | |
|---|---|---|---|---|---|---|---|
| | | WATER62375 REG | | WATER62379 REG | | WATER62458 REG | |
| | | / / | | / / DUPE | | / / | |
| | | Result | Val | Result | Val | Result | Val |
| **Inorganics** | **Units** | | | | | | |
| **Inorganic Lanthanides** | **Units** | | | | | | |
| Cerium | UG/L | 52 | U | 52 | U | 52 | U |
| Dypsprosi | UG/L | 11 | U | 11 | U | 11 | U |
| Erbium | UG/L | 30 | U | 30 | U | 30 | U |
| Europium | UG/L | 4 | U | 4 | U | 4 | U |
| Gadolinio | UG/L | 99 | I | 31 | UJ | 31 | UJ |
| Holmium | UG/L | 10 | U | 10 | U | 10 | U |
| Lanthanum | UG/L | 17 | U | 17 | U | 17 | U |
| Lutetium | UG/L | 2 | U | 2 | U | 2 | U |
| Neodymium | UG/L | 58 | U | 58 | U | 58 | U |
| Praseodym | UG/L | 50 | U | 50 | U | 50 | U |
| Samarium | UG/L | 82 | U | 82 | U | 82 | U |
| Terbium | UG/L | 60 | U | 60 | U | 60 | U |
| Vanadium | UG/L | 11.3 | | 4.6 | | 5.4 | |
| Ytterbium | UG/L | 2 | U | 2 | U | 2 | U |

# APPENDIX F.1. SEEP RADIOLOGICAL AND CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | S01001 | | S01101 | | S02001 | |
| | | 623764 REG | | 623802 REG | | 624583 REG | |
| | | / / | | / / DUPE | | / / | |
| | | Result | Val | Result | Val | Result | Val |
| EXPLOSIVES | Units | | | | | | |
| 2-Amino-4,6-dinitrotoluene | UG/L | 3 | U | 3 | U | 3 | U |
| 1,3-Dinitrobenzene | UG/L | 15 | U | 15 | U | 0.19 | J |
| 2,4-Dinitrotoluene | UG/L | 0.5 | U | 0.5 | U | 0.5 | U |
| 2,6-Dinitrotoluene | UG/L | 0.5 | U | 0.5 | U | 0.5 | U |
| HMX | UG/L | 20 | U | 20 | U | 20 | U |
| Nitrobenzene | UG/L | 15 | U | 15 | U | 15 | U |
| PETN | UG/L | 1 | R | 1 | R | 1 | R |
| RDX | UG/L | 6 | U | 6 | U | 6 | U |
| Tetryl | UG/L | 3 | U | 3 | U | 3 | U |
| 1,3,5-Trinitrobenzene | UG/L | 0.53 | J | 15 | UJ | 15 | U |
| 2,4,6-Trinitrotoluene | UG/L | 3 | U | 3 | U | 3 | U |

# APPENDIX F.1. SEEP RADIOLOGICAL AND CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | S01001 | | S01101 | | S02001 | |
| | | 623771 REG / / | | 623810 REG / / DUPE | | 624586 REG / / | |
| | | Result | Val | Result | Val | Result | Val |
| **Anions - Chloride** | **Units** | | | | | | |
| Chloride | MG/L | 572 | | 572 | | 530 | |
| Fluoride | MG/L | 0.214 | | 0.19 | | 0.196 | |
| Nitrate-Nitrite-N | MG/L | 7.6 | | 7.54 | | 0.87 | |
| Sulfate | MG/L | 79.5 | J | 64.5 | J | 97.5 | J |
| **Total Organic Carbon** | **Units** | | | | | | |
| Organic Carbon | MG/L | 4.32 | | 2.28 | | 2.44 | |
| **Total Dissolved Solids** | **Units** | | | | | | |
| Dissolved Solids | MG/L | 1590 | | 1650 | | 1520 | |
| **Total Suspended Solids** | **Units** | | | | | | |
| Suspended Solids | MG/L | 8 | | 12 | | 25 | |
| **Ammonia** | **Units** | | | | | | |
| Ammonia | MG/L | 0.1 | U | 0.1 | U | 0.1 | U |
| **Alkalinity** | **Units** | | | | | | |
| Alkalinity as Calcium Carbonate | MG/L | 322 | | 323 | | 378 | |
| **TOTAL NITROGEN** | **Units** | | | | | | |
| Kjeldahl Nitrogen | MG/L | 0.1 | U | 0.17 | | 0.203 | J |
| **TOTAL PHOSPORUS** | **Units** | | | | | | |
| Total Phosphorus | MG/L | 0.258 | | 0.108 | | 0.107 | |

## F.2 SURFACE SOIL CHEMICAL DATA

# APPENDIX F.2. SURFACE SOIL CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | |
|---|---|---|---|
| | | BB1001 | |
| | | 639001 REG | |
| | | / / | |
| | | Result | Val |
| Inorganics | Units | | |
| Aluminum | MG/KG | 6240 | |
| Antimony | MG/KG | 0.25 | UJ |
| Arsenic | MG/KG | 5.1 | |
| Barium | MG/KG | 49.5 | |
| Beryllium | MG/KG | 0.31 | |
| Bismuth | MG/KG | 0.45 | U |
| Cadmium | MG/KG | 1.3 | |
| Calcium | MG/KG | 79800 | J |
| Chromium | MG/KG | 14.6 | J |
| Cobalt | MG/KG | 4.9 | |
| Copper | MG/KG | 20.6 | J |
| Iron | MG/KG | 14700 | |
| Lead | MG/KG | 23.1 | |
| Lithium | MG/KG | 8.7 | |
| Magnesium | MG/KG | 34600 | |
| Manganese | MG/KG | 370 | |
| Mercury | MG/KG | 0.11 | U |
| Molybdenum | MG/KG | 1.9 | |
| Nickel | MG/KG | 12.8 | J |
| Potassium | MG/KG | 1930 | |
| Selenium | MG/KG | 0.59 | U |
| Silver | MG/KG | 0.11 | |
| Sodium | MG/KG | 3260 | |
| Thallium | MG/KG | 0.63 | U |
| Tin | MG/KG | 2.6 | U |
| Vanadium | MG/KG | 15.7 | |
| Zinc | MG/KG | 96 | |

# APPENDIX F.2. SURFACE SOIL CHEMICAL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | BB2001 | | BB2101 | | BB3001 | | BB4001 | | BB5001 | | BB6001 | | BB7001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 639009 REG | | 639009 REG | | 639016 REG | | 639018 REG | | 639019 REG | | 639022 REG | | 639023 REG | |
| | | / / | | / / | | / / | | / / | | / / | | / / | | / / | |
| | | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val |
| EXPLOSIVES | Units | | | | | | | | | | | | | | |
| 2-Amino-4,6-dinitrotoluene | MG/KG | 2 | U | 2 | U | 2 | U | 2 | U | 2 | U | 2 | U | 2 | U |
| 1,3-Dinitrobenzene | MG/KG | 2 | U | 2 | U | 2 | U | 2 | U | 2 | U | 2 | U | 2 | U |
| 2,4-Dinitrotoluene | MG/KG | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U | 1 | U |
| 2,6-Dinitrotoluene | MG/KG | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U |
| HMX | MG/KG | 3 | U | 3 | U | 3 | U | 3 | U | 3 | U | 3 | U | 3 | U |
| Nitrobenzene | MG/KG | 2 | U | 2 | U | 2 | U | 2 | U | 2 | U | 0.38 | J | 2 | U |
| PETN | MG/KG | 1 | R | 1 | R | 1 | R | 1 | R | 1 | R | 1 | R | 1 | R |
| RDX | MG/KG | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U |
| Tetryl | MG/KG | 7.5 | U | 7.5 | U | 7.5 | U | 7.5 | U | 7.5 | U | 7.5 | U | 7.5 | U |
| 1,3,5-Trinitrobenzene | MG/KG | 3 | U | 3 | U | 3 | U | 3 | U | 3 | U | 3 | U | 3 | U |
| 2,4,6-Trinitrotoluene | MG/KG | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U |

## F.3 BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B17001 | | | B17002 | | | B18001 | | | B18002 | | | B18102 | | |
| | | 632393 REG | | | 632401 REG | | | 632405 REG | | | 632409 REG | | | 632413 REG | | |
| | | 8/8/94 | | | 8/8/94 | | | 8/8/94 | | | 8/8/94 | | | 08/08/94DUPE | | |
| | | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| Gamma Scan | Units | | | | | | | | | | | | | | | |
| Ac-227 | PCI/G | 0.31+/- | NA | U | 0.44+/- | NA | U | 0.68+/- | NA | U | 0.38+/- | NA | U | 0.43+/- | NA | U |
| Am-241 | PCI/G | 0.32+/- | NA | U | 0.54+/- | NA | U | 0.82+/- | NA | U | 0.50+/- | NA | U | 0.57+/- | NA | U |
| Bi-207 | PCI/G | 0.04+/- | NA | U | 0.06+/- | NA | U | 0.08+/- | NA | U | 0.06+/- | NA | U | 0.07+/- | NA | U |
| Bi-210m | PCI/G | 0.07+/- | NA | U | 0.10+/- | NA | U | 0.12+/- | NA | U | 0.09+/- | NA | U | 0.10+/- | NA | U |
| Co-60 | PCI/G | 0.04+/- | NA | U | 0.07+/- | NA | U | 0.08+/- | NA | U | 0.07+/- | NA | U | 0.08+/- | NA | U |
| Cs-137 | PCI/G | 0.16+/- | 0.06 | U | 0.08+/- | NA | U | 0.41+/- | 0.1 | U | 0.06+/- | NA | U | 0.07+/- | NA | U |
| K-40 | PCI/G | 6.61+/- | 0.83 | U | 19.20+/- | 1.61 | | 7.53+/- | 1.09 | U | 25.62+/- | 1.73 | | 25.02+/- | 1.79 | |
| Ra-226 | PCI/G | 0.65+/- | 0.11 | J | 0.75+/- | 0.14 | J | 0.65+/- | 0.18 | J | 0.25+/- | NA | UJ | 0.84+/- | 0.16 | J |
| | | B17001 | | | B17002 | | | B18001 | | | B18002 | | | B18102 | | |
| | | 632390 REG | | | 632400 REG | | | 632404 REG | | | 632408 REG | | | 632412 REG | | |
| | | 8/8/94 | | | 8/8/94 | | | 8/8/94 | | | 8/8/94 | | | 08/08/94DUPE | | |
| | | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| Isotopic Plutonium | Units | | | | | | | | | | | | | | | |
| Pu-238 | PIC/G | 0.25+/- | 0.23 | J | 0.67+/- | 0.13 | J | 0.31+/- | 0.11 | J | -0.03+/- | 0.14 | UJ | 0.01+/- | 0.09 | UJ |
| Pu-239/40 | PIC/G | 0.08+/- | 0.13 | UJ | 0.00+/- | 0.03 | UJ | 0.03+/- | 0.04 | UJ | 0.02+/- | 0.04 | UJ | 0.01+/- | 0.03 | UJ |
| | | B17001 | | | B17002 | | | B18001 | | | B18002 | | | B18102 | | |
| | | 632390 REG | | | 632400 REG | | | 632404 REG | | | 632408 REG | | | 632412 REG | | |
| | | 8/8/94 | | | 8/8/94 | | | 8/8/94 | | | 8/8/94 | | | 08/08/94DUPE | | |
| | | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| Isotopic Thorium | Units | | | | | | | | | | | | | | | |
| Th-228 | PIC/G | 0.62+/- | 0.12 | UJ | 1.34+/- | 0.3 | UJ | 1.04+/- | 0.2 | UJ | 1.41+/- | 0.23 | J | 1.18+/- | 0.17 | UJ |
| Th-230 | PIC/G | 0.19+/- | 0.06 | UJ | 1.75+/- | 0.35 | J | 0.60+/- | 0.15 | UJ | 1.36+/- | 0.23 | J | 1.11+/- | 0.17 | J |
| Th-232 | PIC/G | 0.08+/- | 0.04 | J | 0.64+/- | 0.2 | J | 0.34+/- | 0.11 | J | 0.80+/- | 0.17 | J | 0.59+/- | 0.12 | J |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B17001 | | | B17002 | | | B18001 | | | B18002 | | | B18102 | | |
| | | 632390 REG | | | 632400 REG | | | 632404 REG | | | 632408 REG | | | 632412 REG | | |
| | | 8/8/94 | | | 8/8/94 | | | 8/8/94 | | | 8/8/94 | | | 08/08/94DUPE | | |
| | | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| Isotopic Uranium | Units | | | | | | | | | | | | | | | |
| U-234 | PCI/G | 0.51+/- | 0.13 | J | 0.84+/- | 0.18 | J | 1.64+/- | 0.33 | J | 0.74+/- | 0.16 | J | 0.90+/- | 0.15 | |
| U-235 | PCI/G | 0.00+/- | 0.04 | UJ | 0.08+/- | 0.05 | J | 0.10+/- | 0.07 | J | 0.01+/- | 0.04 | UJ | -0.01+/- | 0.03 | U |
| U-238 | PCI/G | 0.46+/- | 0.12 | J | 0.69+/- | 0.16 | J | 1.31+/- | 0.29 | J | 0.80+/- | 0.16 | J | 0.90+/- | 0.15 | |
| | | B17001 | | | B17002 | | | B18001 | | | B18002 | | | B18102 | | |
| | | 632387 REG | | | 632399 REG | | | 632403 REG | | | 632407 REG | | | 632411 REG | | |
| | | 8/8/94 | | | 8/8/94 | | | 8/8/94 | | | 8/8/94 | | | 08/08/94DUPE | | |
| | | Result | NC | Val | Result | NC | Val | Result | NC | Val | Result | NC | Val | Result | NC | Val |
| Strontium 90 | Units | | | | | | | | | | | | | | | |
| Sr-90 | PCI/G | -0.86+/- | 0.89 | U | 0.41+/- | 0.8 | U | -2.09+/- | 1 | U | 0.43+/- | 0.55 | U | -0.26+/- | 0.68 | U |
| | | B17001 | | | B17002 | | | B18001 | | | B18002 | | | B18102 | | |
| | | 632396 REG | | | 632402 REG | | | 632406 REG | | | 632410 REG | | | 632414 REG | | |
| | | 8/8/94 | | | 8/8/94 | | | 8/8/94 | | | 8/8/94 | | | 08/08/94DUPE | | |
| | | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| Tritium 3 | Units | | | | | | | | | | | | | | | |
| Tritium | PCI/G | 0.9+/- | 1.6 | U | 0.9+/- | 1.6 | U | -0.6+/- | 1.5 | U | -1.6+/- | 1.9 | U | 0.4+/- | 1.6 | U |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | B19001 | | | B19002 | | | B20001 | | | B20002 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 632826 REG | | | 632855 REG | | | 632867 REG | | | 632877 REG | | |
| | 8/9/94 | | | 8/9/94 | | | 8/9/94 | | | 8/9/94 | | |
| | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| **Gamma Scan** | | | | | | | | | | | | |
| Ac-227 | 0.19+/- | NA | U | 0.31+/- | NA | U | 0.25+/- | NA | U | 0.24+/- | NA | U |
| Am-241 | 0.25+/- | NA | U | 0.31+/- | NA | U | 0.25+/- | NA | U | 0.35+/- | NA | U |
| Bi-207 | 0.03+/- | NA | U | 0.04+/- | NA | U | 0.04+/- | NA | U | 0.04+/- | NA | U |
| Bi-210m | 0.05+/- | NA | U | 0.07+/- | NA | U | 0.06+/- | NA | U | 0.06+/- | NA | U |
| Co-60 | 0.03+/- | NA | U | 0.04+/- | NA | U | 0.03+/- | NA | U | 0.04+/- | NA | U |
| Cs-137 | 0.03+/- | NA | U | 0.05+/- | NA | U | 0.04+/- | NA | U | 0.05+/- | NA | U |
| K-40 | 3.40+/- | 0.57 | U | 5.41+/- | 0.83 | U | 3.85+/- | 0.72 | U | 5.74+/- | 0.82 | U |
| Ra-226 | 0.36+/- | 0.07 | | 0.53+/- | 0.1 | | 0.41+/- | 0.73 | | 0.52+/- | 0.08 | |
| | B19001 | | | B19002 | | | B20001 | | | B20002 | | |
| | 632824 REG | | | 632843 REG | | | 632866 REG | | | 632873 REG | | |
| | 8/9/94 | | | 8/9/94 | | | 8/9/94 | | | 8/9/94 | | |
| | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| **Isotopic Plutonium** | | | | | | | | | | | | |
| Pu-238 | 0.01+/- | 0.03 | UJ | 0.02+/- | 0.11 | UJ | 0.05+/- | 0.14 | UJ | -0.03+/- | 0.11 | UJ |
| Pu-239/40 | 0.00+/- | 0.03 | UJ | 0.03+/- | 0.04 | UJ | 0.02+/- | 0.06 | UJ | 0.01+/- | 0.04 | UJ |
| | B19001 | | | B19002 | | | B20001 | | | B20002 | | |
| | 632824 REG | | | 632843 REG | | | 632866 REG | | | 632873 REG | | |
| | 8/9/94 | | | 8/9/94 | | | 8/9/94 | | | 8/9/94 | | |
| | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| **Isotopic Thorium** | | | | | | | | | | | | |
| Th-228 | 0.60+/- | 0.18 | UJ | 0.47+/- | 0.13 | UJ | 0.46+/- | 0.14 | UJ | 0.51+/- | 0.14 | UJ |
| Th-230 | 0.45+/- | 0.16 | UJ | 0.42+/- | 0.12 | UJ | 0.64+/- | 0.16 | J | 0.44+/- | 0.13 | UJ |
| Th-232 | 0.11+/- | 0.08 | J | 0.01+/- | 0.04 | UJ | 0.24+/- | 0.1 | J | 0.02+/- | 0.04 | UJ |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | B19001 | | | B19002 | | | B20001 | | | B20002 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 632824 REG | | | 632843 REG | | | 632866 REG | | | 632873 REG | | |
| | 8/9/94 | | | 8/9/94 | | | 8/9/94 | | | 8/9/94 | | |
| | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| **Isotopic Uranium** | | | | | | | | | | | | |
| U-234 | 0.62+/- | 0.19 | J | 0.50+/- | 0.13 | J | 0.31+/- | 0.09 | J | 0.36+/- | 0.09 | J |
| U-235 | 0.05+/- | 0.06 | UJ | 0.06+/- | 0.04 | J | 0.00+/- | 0.03 | UJ | 0.01+/- | 0.02 | UJ |
| U-238 | 0.41+/- | 0.15 | J | 0.50+/- | 0.13 | J | 0.43+/- | 0.1 | J | 0.55+/- | 0.11 | J |
| | B19001 | | | B19002 | | | B20001 | | | B20002 | | |
| | 632822 REG | | | 632834 REG | | | 632863 REG | | | 632869 REG | | |
| | 8/9/94 | | | 8/9/94 | | | 8/9/94 | | | 8/9/94 | | |
| | Result | NC | Val | Result | NC | Val | Result | NC | Val | Result | NC | Val |
| **Strontium 90** | | | | | | | | | | | | |
| Sr-90 | -0.02+/- | 0.96 | U | -1.80+/- | 1.11 | U | -0.63+/- | 1.01 | U | -0.16+/- | 0.94 | U |
| | B19001 | | | B19002 | | | B20001 | | | B20002 | | |
| | 632829 REG | | | 632860 REG | | | 632868 REG | | | 632878 REG | | |
| | 8/9/94 | | | 8/9/94 | | | 8/9/94 | | | 8/9/94 | | |
| | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| **Tritium 3** | | | | | | | | | | | | |
| Tritium | 0.6+/- | 1.4 | U | -0.9+/- | 1.6 | U | -1.4+/- | 1.6 | U | -1.8+/- | 1.8 | U |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B17001 | | B17002 | | B18001 | | B18002 | | B19001 | | B19001 | | B19002 | |
| | | 632297 REG | | 632330 REG | | 632338 REG | | 632346 REG | | 632744 REA | | 632744 REG | | 632745 REG | |
| | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/9/94 | | 8/9/94 | | 8/9/94 | |
| | | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val |
| Semi-volatile Organics | Units | | | | | | | | | | | | | | |
| Acenaphthene | UG/KG | 340 | J | 380 | U | 5500 | | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Acenaphthylene | UG/KG | 62 | J | 62 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Anthracene | UG/KG | 370 | | 380 | U | 5600 | | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Benzo(a)anthracene | UG/KG | 1400 | | 330 | J | 10000 | | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Benzo(a)pyrene | UG/KG | 1200 | | 260 | J | 9100 | | 400 | U | 68 | J | 55 | J | 1900 | U |
| Benzo(b)fluoranthene | UG/KG | 2600 | | 560 | | 16000 | | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Benzo(g,h,i)perylene | UG/KG | 200 | | 210 | J | 5800 | | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Benzo(k)fluoranthene | UG/KG | 3900 | | 860 | | 27000 | | 400 | U | 340 | UJ | 340 | UJ | 240 | J |
| Benzoic Acid | UG/KG | 1700 | U | 1900 | U | 17000 | U | 2000 | U | 1600 | UJ | 1600 | UJ | 9100 | U |
| Benzyl Alcohol | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 2-Benzyl-4-Chlorophenol | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| bis(2-Chloroethoxy)methane | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| bis(2-Chloroethyl)ether | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| bis(2-Ethylhexyl)phthalate | UG/KG | 480 | | 170 | J | 530 | J | 400 | U | 39 | J | 340 | UJ | 1900 | U |
| 4-Bromophenyl-phenylether | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Butylbenzylphthalate | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | U | 340 | U | 1900 | U |
| Carbazole | UG/KG | 300 | J | 380 | U | 4000 | | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 4-Chloro-3-methylphenol | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 4-Chloroaniline | UG/KG | 350 | U | 380 | U | 3500 | UJ | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 2-Chloronaphthalene | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 2-Chlorophenol | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 4-Chlorophenyl-phenylether | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Chrysene | UG/KG | 1600 | | 310 | J | 11000 | | 400 | U | 48 | J | 340 | UJ | 1900 | U |
| Di-n-butylphthalate | UG/KG | 58 | J | 67 | J | 480 | J | 98 | J | 340 | U | 340 | U | 1900 | U |
| Di-n-octylphthalate | UG/KG | 350 | U | 350 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Dibenzo(a,h)anthracene | UG/KG | 260 | | 380 | U | 930 | J | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Dibenzofuran | UG/KG | 160 | J | 160 | U | 2600 | J | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 1,2-Dichlorobenzene | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 1,3-Dichlorobenzene | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 1,4-Dichlorobenzene | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 3,3'-Dichlorobenzidine | UG/KG | 690 | U | 770 | U | 7000 | U | 800 | U | 670 | UJ | 670 | UJ | 3800 | U |
| 2,4-Dichlorophenol | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Diethylphthalate | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 2,4-Dimethylphenol | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B17001 | | B17002 | | B18001 | | B18002 | | B19001 | | B19001 | | B19002 | |
| | | 632297 REG | | 632330 REG | | 632338 REG | | 632346 REG | | 632744 REA | | 632744 REG | | 632745 REG | |
| | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/9/94 | | 8/9/94 | | 8/9/94 | |
| | | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val |
| Dimethylphthalate | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 4,6-Dinitro-2-methylphenol | UG/KG | 1700 | U | 1900 | U | 17000 | U | 2000 | U | 1600 | UJ | 1600 | UJ | 9100 | U |
| 2,4-Dinitrophenol | UG/KG | 1700 | U | 1900 | U | 17000 | U | 2000 | U | 1600 | UJ | 1600 | UJ | 9100 | U |
| 2,4-Dinitrotoluene | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 2,6-Dinitrotoluene | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Fluoranthene | UG/KG | 3200 | | 510 | | 23000 | | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Fluorene | UG/KG | 250 | J | 380 | U | 4000 | | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Hexachlorobenzene | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Hexachlorobutadiene | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Hexachlorocyclopentadiene | UG/KG | 350 | U | 380 | U | 3500 | UJ | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Hexachloroethane | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Indeno(1,2,3-c,d)pyrene | UG/KG | 1000 | | 140 | J | 5400 | | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Isophorone | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 2-Methylnaphthalene | UG/KG | 110 | J | 86 | J | 970 | J | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 2-Methylphenol | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 4-Methylphenol | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| N-Nitroso-di-n-propylamine | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| N-Nitrosodiphenylamine | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Naphthalene | UG/KG | 190 | J | 65 | J | 2200 | J | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 2-Nitroaniline | UG/KG | 1700 | U | 1900 | U | 17000 | U | 2000 | U | 1600 | UJ | 1600 | UJ | 9100 | U |
| 3-Nitroaniline | UG/KG | 1700 | U | 1900 | U | 17000 | U | 2000 | U | 1600 | UJ | 1600 | UJ | 9100 | U |
| 4-Nitroaniline | UG/KG | 1700 | U | 1900 | U | 17000 | U | 2000 | U | 1600 | UJ | 1600 | UJ | 9100 | U |
| Nitrobenzene | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 2-Nitrophenol | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 4-Nitrophenol | UG/KG | 1700 | U | 1900 | U | 17000 | U | 2000 | U | 1600 | UJ | 1600 | UJ | 9100 | U |
| 2,2'-oxybis(1-Chloropropane) | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Pentachlorophenol | UG/KG | 840 | U | 930 | U | 8500 | U | 980 | U | 1600 | UJ | 1600 | UJ | 4500 | U |
| Phenanthrene | UG/KG | 2800 | | 290 | J | 22000 | | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Phenol | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Pyrene | UG/KG | 3000 | | 580 | | 25000 | | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 1,2,4-Trichlorobenzene | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| 2,4,5-Trichlorophenol | UG/KG | 1700 | U | 1900 | U | 17000 | U | 2000 | U | 1600 | UJ | 1600 | UJ | 9100 | U |
| 2,4,6-Trichlorophenol | UG/KG | 350 | U | 380 | U | 3500 | U | 400 | U | 340 | UJ | 340 | UJ | 1900 | U |
| Tentatively Identified Compounds | | 22 | | 23 | | 21 | | 13 | | 22 | | 22 | | 21 | |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | |
|---|---|---|---|---|
| | B20001 | | B20002 | |
| | 632755 REG | | 632756 REG | |
| | 8/9/94 | | 8/9/94 | |
| | Result | Val | Result | Val |
| **Semi-volatile Organics** | | | | |
| Acenaphthene | 670 | U | 370 | U |
| Acenaphthylene | 670 | U | 370 | U |
| Anthracene | 670 | U | 370 | U |
| Benzo(a)anthracene | 670 | U | 370 | U |
| Benzo(a)pyrene | 72 | J | 370 | U |
| Benzo(b)fluoranthene | 130 | J | 52 | J |
| Benzo(g,h,i)perylene | 670 | U | 370 | U |
| Benzo(k)fluoranthene | 210 | J | 85 | J |
| Benzoic Acid | 3200 | U | 39 | J |
| Benzyl Alcohol | 670 | U | 370 | UJ |
| 2-Benzyl-4-Chlorophenol | 670 | U | 370 | UJ |
| bis(2-Chloroethoxy)methane | 670 | U | 370 | U |
| bis(2-Chloroethyl)ether | 670 | U | 370 | U |
| bis(2-Ethylhexyl)phthalate | 82 | J | 370 | U |
| 4-Bromophenyl-phenylether | 670 | U | 370 | U |
| Butylbenzylphthalate | 670 | JB | 370 | U |
| Carbazole | 670 | U | 370 | U |
| 4-Chloro-3-methylphenol | 670 | U | 370 | UJ |
| 4-Chloroaniline | 670 | UJ | 370 | UJ |
| 2-Chloronaphthalene | 670 | U | 370 | U |
| 2-Chlorophenol | 670 | U | 370 | UJ |
| 4-Chlorophenyl-phenylether | 670 | U | 370 | U |
| Chrysene | 180 | J | 42 | J |
| Di-n-butylphthalate | 670 | JB | 370 | U |
| Di-n-octylphthalate | 670 | U | 370 | U |
| Dibenzo(a,h)anthracene | 670 | U | 370 | U |
| Dibenzofuran | 670 | U | 370 | U |
| 1,2-Dichlorobenzene | 670 | U | 370 | U |
| 1,3-Dichlorobenzene | 670 | U | 370 | U |
| 1,4-Dichlorobenzene | 670 | U | 370 | U |
| 3,3'-Dichlorobenzidine | 1300 | U | 740 | U |
| 2,4-Dichlorophenol | 670 | U | 370 | UJ |
| Diethylphthalate | 670 | U | 370 | U |
| 2,4-Dimethylphenol | 670 | U | 370 | UJ |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | |
|---|---|---|---|---|
| | B20001 | | B20002 | |
| | 632755 REG | | 632756 REG | |
| | 8/9/94 | | 8/9/94 | |
| | Result | Val | Result | Val |
| Dimethylphthalate | 670 | U | 370 | U |
| 4,6-Dinitro-2-methylphenol | 3200 | U | 1800 | UJ |
| 2,4-Dinitrophenol | 3200 | U | 1800 | UJ |
| 2,4-Dinitrotoluene | 670 | U | 370 | U |
| 2,6-Dinitrotoluene | 670 | U | 370 | U |
| Fluoranthene | 670 | U | 58 | J |
| Fluorene | 670 | U | 370 | U |
| Hexachlorobenzene | 670 | U | 370 | U |
| Hexachlorobutadiene | 670 | U | 370 | U |
| Hexachlorocyclopentadiene | 670 | UJ | 370 | UJ |
| Hexachloroethane | 670 | U | 370 | U |
| Indeno(1,2,3-c,d)pyrene | 670 | U | 370 | U |
| Isophorone | 670 | U | 370 | U |
| 2-Methylnaphthalene | 190 | J | 370 | U |
| 2-Methylphenol | 670 | U | 370 | UJ |
| 4-Methylphenol | 670 | U | 370 | UJ |
| N-Nitroso-di-n-propylamine | 670 | U | 370 | U |
| N-Nitrosodiphenylamine | 670 | U | 370 | U |
| Naphthalene | 670 | U | 39 | J |
| 2-Nitroaniline | 3200 | U | 1800 | U |
| 3-Nitroaniline | 3200 | U | 1800 | U |
| 4-Nitroaniline | 3200 | U | 1800 | U |
| Nitrobenzene | 670 | U | 370 | U |
| 2-Nitrophenol | 670 | U | 370 | UJ |
| 4-Nitrophenol | 3200 | U | 1800 | UJ |
| 2,2'-oxybis(1-Chloropropane) | 670 | U | 370 | U |
| Pentachlorophenol | 1600 | U | 900 | UJ |
| Phenanthrene | 150 | J | 43 | J |
| Phenol | 670 | U | 370 | UJ |
| Pyrene | 190 | J | 55 | J |
| 1,2,4-Trichlorobenzene | 670 | U | 370 | U |
| 2,4,5-Trichlorophenol | 3200 | U | 1800 | UJ |
| 2,4,6-Trichlorophenol | 670 | U | 370 | UJ |
| Tentatively Identified Compounds | 21 | | 21 | |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | B17001 | | B17002 | | B18001 | | B18002 | | B19001 | | B19002 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 632297 REG | | 632330 REG | | 632338 REG | | 632346 R1 REG | | 632744 REG | | 632745 REG | |
| | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/9/94 | | 8/9/94 | |
| | | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val |
| **Pesticides and PCBs** | **Units** | | | | | | | | | | | | |
| Aldrin | UG/KG | 1.8 | U | 2 | U | 1.8 | U | 2.1 | UJ | 1.7 | UJ | 0.8 | J |
| alpha-BHC | UG/KG | 1.8 | U | 2 | U | 1.8 | U | 2.1 | UJ | 1.7 | UJ | 1.9 | UJ |
| alpha-Chlordane | UG/KG | 1.8 | U | 2 | U | 1.8 | U | 2.1 | UJ | 0.11 | U | 0.67 | R |
| Aroclor-1016 | UG/KG | 35 | U | 39 | U | 35 | U | 40 | UJ | 34 | UJ | 38 | UJ |
| Aroclor-1221 | UG/KG | 70 | U | 79 | U | 71 | U | 81 | UJ | 68 | UJ | 76 | UJ |
| Aroclor-1232 | UG/KG | 35 | U | 39 | U | 35 | U | 40 | UJ | 34 | UJ | 38 | UJ |
| Aroclor-1242 | UG/KG | 35 | U | 39 | U | 35 | U | 40 | UJ | 34 | UJ | 38 | UJ |
| Aroclor-1248 | UG/KG | 720 | J | 220 | | 35 | U | 40 | UJ | 34 | UJ | 38 | UJ |
| Aroclor-1254 | UG/KG | 830 | J | 200 | | 35 | U | 40 | UJ | 34 | UJ | 38 | UJ |
| Aroclor-1260 | UG/KG | 35 | U | 39 | U | 35 | U | 40 | UJ | 34 | UJ | 38 | UJ |
| beta-BHC | UG/KG | 1.8 | U | 2 | U | 1.8 | U | 2.1 | UJ | 1.7 | UJ | 1.9 | UJ |
| 4,4'-DDD | UG/KG | 3.5 | U | 3.9 | U | 3.5 | U | 4 | UJ | 3.4 | UJ | 3.8 | UJ |
| 4,4'-DDE | UG/KG | 3.5 | U | 3.9 | U | 3.5 | U | 4 | UJ | 3.4 | UJ | 0.55 | J |
| 4,4'-DDT | UG/KG | 3.5 | U | 0.22 | U | 3.5 | U | 4 | UJ | 3.4 | UJ | 3.8 | UJ |
| delta-BHC | UG/KG | 1.8 | U | 2 | U | 1.8 | U | 2.1 | UJ | 1.7 | UJ | 1.9 | UJ |
| Dieldrin | UG/KG | 3.5 | U | 3.9 | U | 3.5 | U | 4 | UJ | 3.4 | UJ | 3.8 | UJ |
| Endosulfan I | UG/KG | 1.8 | U | 2 | U | 1.8 | U | 2.1 | UJ | 1.7 | UJ | 1.9 | UJ |
| Endosulfan II | UG/KG | 3.5 | U | 3.9 | U | 3.5 | U | 4 | UJ | 0.37 | U | 3.8 | UJ |
| Endosulfan Sulfate | UG/KG | 3.5 | U | 3.9 | U | 3.5 | U | 4 | UJ | 0.39 | J | 3.8 | UJ |
| Endrin | UG/KG | 3.5 | U | 3.9 | U | 3.5 | U | 0.7 | J | 3.4 | UJ | 3.8 | UJ |
| Endrin Aldehyde | UG/KG | 9 | R | 1.9 | R | 3.5 | U | 4 | UJ | 3.4 | UJ | 3.8 | UJ |
| Endrin Ketone | UG/KG | 3.5 | U | 0.33 | U | 3.5 | U | 4 | UJ | 3.4 | UJ | 3.8 | UJ |
| gamma-BHC (Lindane) | UG/KG | 1.8 | U | 2 | U | 1.8 | U | 2.1 | UJ | 1.7 | UJ | 1.9 | UJ |
| gamma-Chlordane | UG/KG | 1.8 | U | 2 | U | 1.8 | U | 2.1 | UJ | 1.7 | UJ | 1.9 | UJ |
| Heptachlor | UG/KG | 1.8 | U | 2 | U | 1.8 | U | 2.1 | UJ | 1.7 | UJ | 1.9 | UJ |
| Heptachlor Epoxide | UG/KG | 1.8 | U | 2 | U | 1.8 | U | 2.1 | UJ | 1.7 | UJ | 1.9 | UJ |
| p,p'-Methoxychlor | UG/KG | 18 | U | 0.87 | U | 18 | U | 21 | UJ | 17 | UJ | 19 | UJ |
| Toxaphene | UG/KG | 180 | U | 200 | U | 180 | U | 210 | UJ | 170 | UJ | 190 | UJ |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | B20001 | | B20002 | |
|---|---|---|---|---|
| | 632755 REG | | 632756 REG | |
| | 8/9/94 | | 8/9/94 | |
| | Result | Val | Result | Val |
| **Pesticides and PCBs** | | | | |
| Aldrin | 1.2 | J | 1.4 | J |
| alpha-BHC | 1.7 | UJ | 1.9 | UJ |
| alpha-Chlordane | 1.7 | UJ | 0.25 | U |
| Aroclor-1016 | 33 | UJ | 37 | UJ |
| Aroclor-1221 | 68 | UJ | 75 | UJ |
| Aroclor-1232 | 33 | UJ | 37 | UJ |
| Aroclor-1242 | 33 | UJ | 37 | UJ |
| Aroclor-1248 | 33 | UJ | 37 | UJ |
| Aroclor-1254 | 33 | UJ | 37 | UJ |
| Aroclor-1260 | 33 | UJ | 37 | UJ |
| beta-BHC | 1.7 | UJ | 1.9 | UJ |
| 4,4'-DDD | 3.3 | UJ | 3.7 | UJ |
| 4,4'-DDE | 3.3 | UJ | 3.7 | UJ |
| 4,4'-DDT | 3.3 | UJ | 3.7 | UJ |
| delta-BHC | 1.7 | UJ | 1.9 | UJ |
| Dieldrin | 0.57 | U | 0.52 | J |
| Endosulfan I | 1.7 | UJ | 1.9 | UJ |
| Endosulfan II | 3.3 | UJ | 3.7 | UJ |
| Endosulfan Sulfate | 0.54 | U | 0.7 | J |
| Endrin | 0.45 | U | 3.7 | UJ |
| Endrin Aldehyde | 3.3 | UJ | 3.7 | UJ |
| Endrin Ketone | 0.32 | U | 3.7 | UJ |
| gamma-BHC (Lindane) | 1.7 | UJ | 1.9 | UJ |
| gamma-Chlordane | 0.24 | U | 0.087 | U |
| Heptachlor | 1.7 | UJ | 1.9 | UJ |
| Heptachlor Epoxide | 1.7 | UJ | 1.9 | UJ |
| p,p'-Methoxychlor | 17 | U | 19 | UJ |
| Toxaphene | 170 | UJ | 190 | UJ |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | B17001 | | B17002 | | B18001 | | B18002 | | B19001 | | B19002 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 632304 REG | | 632331 REG | | 632339 REG | | 632347 REG | | 632760 REG | | 632761 REG | |
| | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/9/94 | | 8/9/94 | |
| | | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val |
| **Inorganics** | **Units** | | | | | | | | | | | | |
| Aluminum | MG/KG | 3700 | | 9050 | | 3760 | | 12700 | | 2950 | | 4970 | |
| Antimony | MG/KG | 0.21 | UJ | 0.23 | UJ | 0.57 | U | 0.24 | UJ | 2 | UJ | 0.23 | UJ |
| Arsenic | MG/KG | 3.8 | | 5 | | 6.5 | | 4.3 | | 4.1 | U | 2.6 | |
| Barium | MG/KG | 29 | | 36.4 | | 52.3 | | 36.9 | | 34 | | 37.6 | |
| Beryllium | MG/KG | 0.21 | U | 0.45 | | 0.25 | | 0.63 | | 2 | U | 0.23 | U |
| Bismuth | MG/KG | 65.2 | | 56.8 | | 63.8 | | 38.7 | | 62 | | 66.4 | |
| Cadmium | MG/KG | 0.46 | | 0.25 | | 0.63 | | 0.24 | U | 2 | U | 0.23 | U |
| Calcium | MG/KG | 89600 | J | 91200 | J | 95500 | J | 75000 | J | 345000 | J | 105000 | J |
| Chromium | MG/KG | 12.8 | | 13 | | 9.5 | | 16.8 | | 9.1 | | 6.6 | |
| Cobalt | MG/KG | 4.2 | | 8.4 | | 4.3 | | 11.8 | | 5.4 | | 2.9 | |
| Copper | MG/KG | 26.5 | | 22.4 | | 33.9 | | 19.7 | | 11.6 | | 6.9 | |
| Cyanide | MG/KG | 0.52 | U | 0.58 | U | 0.54 | U | 0.61 | U | 0.51 | U | 0.57 | U |
| Iron | MG/KG | 10300 | | 18800 | | 11000 | | 27200 | | 10100 | | 6870 | |
| Lead | MG/KG | 20 | | 11.3 | | 53.7 | | 11.4 | | 8 | | 7.2 | |
| Lithium | MG/KG | 3.8 | J | 16.6 | J | 5.1 | J | 26.2 | J | 1.8 | J | 4.7 | J |
| Magnesium | MG/KG | 40300 | | 25400 | | 36000 | | 13800 | | 73600 | | 40600 | |
| Manganese | MG/KG | 249 | J | 512 | J | 300 | J | 549 | J | 615 | J | 238 | J |
| Mercury | MG/KG | 0.1 | U | 0.12 | U | 0.5 | | 0.12 | U | 0.1 | U | 0.11 | U |
| Molybdenum | MG/KG | 4.4 | U | 4.8 | U | 4.5 | U | 5.1 | U | 42.8 | U | 4.8 | U |
| Nickel | MG/KG | 15.1 | | 17.7 | | 10.1 | | 24.4 | | 12.4 | | 7.1 | |
| Potassium | MG/KG | 1130 | | 2980 | | 1130 | | 3620 | | 1210 | | 1220 | |
| Selenium | MG/KG | 0.63 | U | 0.69 | U | 0.64 | U | 0.73 | U | 6.1 | U | 0.68 | U |
| Silver | MG/KG | 0.21 | U | 0.23 | U | 0.74 | | 0.24 | U | 2 | U | 0.23 | U |
| Sodium | MG/KG | 272 | U | 394 | | 329 | U | 544 | | 980 | | 1020 | |
| Thallium | MG/KG | 0.63 | U | 0.69 | U | 0.64 | U | 0.73 | U | 6.1 | U | 0.68 | U |
| Tin | MG/KG | 9.8 | U | 10.9 | U | 10.1 | U | 11.4 | U | 9.6 | U | 10.6 | U |
| Vanadium | MG/KG | 10.1 | | 16.6 | | 9.8 | | 20.1 | | 13.4 | | 9.7 | |
| Zinc | MG/KG | 51.7 | | 45.3 | | 95.3 | | 52.5 | | 27.2 | | 20.8 | |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | B20001 | | B20002 | |
|---|---|---|---|---|
| | 632762 REG | | 632763 REG | |
| | 8/9/94 | | 8/9/94 | |
| | Result | Val | Result | Val |
| **Inorganics** | | | | |
| Aluminum | 1100 | | 5160 | |
| Antimony | 0.2 | UJ | 0.23 | UJ |
| Arsenic | 1.9 | | 2.9 | |
| Barium | 10.2 | | 59.8 | |
| Beryllium | 0.2 | U | 0.23 | U |
| Bismuth | 69.1 | | 73.6 | |
| Cadmium | 0.2 | U | 0.23 | U |
| Calcium | 107000 | J | 116000 | J |
| Chromium | 2.7 | | 7.5 | |
| Cobalt | 1 | | 3.2 | |
| Copper | 3.9 | | 7.7 | |
| Cyanide | 0.5 | U | 0.56 | U |
| Iron | 3310 | | 7930 | |
| Lead | 2.9 | | 6.9 | |
| Lithium | 1.7 | J | 7.1 | J |
| Magnesium | 56900 | | 43500 | |
| Manganese | 134 | J | 277 | J |
| Mercury | 0.1 | U | 0.11 | U |
| Molybdenum | 4.2 | U | 4.7 | U |
| Nickel | 4.1 | | 7.7 | |
| Potassium | 641 | | 1480 | |
| Selenium | 0.6 | U | 0.68 | U |
| Silver | 0.2 | U | 0.23 | U |
| Sodium | 405 | | 933 | |
| Thallium | 0.6 | U | 0.68 | U |
| Tin | 9.5 | U | 10.6 | U |
| Vanadium | 9.7 | | 10.4 | |
| Zinc | 9.4 | | 19.2 | |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | B17001 | | B17002 | | B18001 | | B18002 | | B19001 | | B19002 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 632304 REG | | 632331 REG | | 632339 REG | | 632347 REG | | 632760 REG | | 632761 REG | |
| | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/9/94 | | 8/9/94 | |
| | | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val |
| **Inorganic Lanthanides** | **Units** | | | | | | | | | | | | |
| Cerium | MG/KG | 16 | | 15.9 | | 17.4 | | 30.4 | | 10.6 | U | 11.8 | U |
| Dypsprosium | MG/KG | 2.3 | U | 2.5 | U | 2.4 | U | 4.6 | | 2.2 | U | 2.5 | U |
| Erbium | MG/KG | 6.3 | U | 6.9 | U | 6.4 | U | 7.3 | U | 6.1 | U | 6.8 | U |
| Europium | MG/KG | 0.84 | U | 0.92 | U | 0.86 | U | 0.97 | U | 0.81 | U | 0.9 | U |
| Gadolinium | MG/KG | 64.1 | J | 7.2 | R | 11.2 | J | 55.5 | J | 6.3 | R | 7 | R |
| Holmium | MG/KG | 1.9 | U | 2.1 | U | 1.9 | U | 2.2 | U | 1.8 | U | 2 | U |
| Lanthanum | MG/KG | 5.2 | | 9.1 | | 9.8 | | 10.4 | | 4.6 | | 6.3 | |
| Lutetium | MG/KG | 0.42 | U | 0.46 | U | 0.43 | U | 0.9 | | 0.41 | U | 0.45 | U |
| Neodymium | MG/KG | 11.9 | U | 13.4 | U | 15.7 | U | 22.6 | U | 15.9 | U | 14.8 | U |
| Praseodymium | MG/KG | 35.4 | | 7.4 | U | 36.1 | | 7.7 | U | 6.5 | U | 7.2 | U |
| Samarium | MG/KG | 17.2 | U | 18.9 | U | 17.6 | U | 19.9 | U | 16.7 | U | 18.6 | U |
| Terbium | MG/KG | 12.6 | U | 13.9 | U | 12.9 | U | 14.5 | U | 12.2 | U | 13.6 | U |
| Thulium | MG/KG | 2.1 | U | 2.3 | U | 2.1 | U | 2.4 | U | 2 | U | 2.3 | U |
| Ytterbium | MG/KG | 3.1 | U | 3.5 | U | 3.2 | U | 3.6 | U | 3.1 | U | 3.4 | U |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | B20001 | | B20002 | |
|---|---|---|---|---|
| | 632762 REG | | 632763 REG | |
| | 8/9/94 | | 8/9/94 | |
| | Result | Val | Result | Val |
| **Inorganic Lanthanides** | | | | |
| Cerium | 10.5 | U | 11.7 | U |
| Dypsprosium | 2.2 | U | 2.5 | U |
| Erbium | 6 | U | 6.8 | U |
| Europium | 0.8 | U | 0.9 | U |
| Gadolinium | 6.2 | R | 90 | J |
| Holmium | 1.8 | U | 2 | U |
| Lanthanum | 3.4 | U | 4.9 | |
| Lutetium | 0.4 | U | 0.45 | U |
| Neodymium | 10.1 | U | 13.3 | U |
| Prasodymium | 6.4 | U | 10.7 | |
| Samarium | 16.5 | U | 53.1 | |
| Terbium | 12.1 | U | 13.5 | U |
| Thulium | 2 | U | 2.3 | U |
| Ytterbium | 3 | U | 3.4 | U |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | B17001 | | B17002 | | B18001 | | B18002 | | B19001 | | B19002 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 632323 REG | | 632336 REG | | 632344 REG | | 632352 REG | | 632768 REG | | 632774 REG | |
| | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/9/94 | | 8/9/94 | |
| | | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val |
| **EXPLOSIVES** | **Units** | | | | | | | | | | | | |
| 2-Amino-4,6-dinitrotoluene | MG/KG | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U |
| 1,3-Dinitrobenzene | MG/KG | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U |
| 2,4-Dinitrotoluene | MG/KG | 0.5 | U | 0.5 | U | 0.5 | U | 0.5 | U | 0.5 | U | 0.5 | U |
| 2,6-Dinitrotoluene | MG/KG | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U |
| HMX | MG/KG | 3 | U | 3 | U | 3 | U | 3 | U | 3 | U | 3 | U |
| Nitrobenzene | MG/KG | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U |
| PETN | MG/KG | 1 | R | 1 | R | 1 | R | 1 | R | 1 | R | 1 | R |
| RDX | MG/KG | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U |
| Tetryl | MG/KG | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U | 2.5 | U |
| 1,3,5-Trinitrobenzene | MG/KG | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U |
| 2,4,6-Trinitrotoluene | MG/KG | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U | 1.5 | U |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | |
|---|---|---|---|---|
| | B20001 | | B20002 | |
| | 632781 REG | | 632787 REG | |
| | 8/9/94 | | 8/9/94 | |
| | Result | Val | Result | Val |
| **EXPLOSIVES** | | | | |
| 2-Amino-4,6-dinitrotoluene | 1.5 | U | 1.5 | U |
| 1,3-Dinitrobenzene | 1.5 | U | 1.5 | U |
| 2,4-Dinitrotoluene | 0.5 | U | 0.5 | U |
| 2,6-Dinitrotoluene | 1.5 | U | 1.5 | U |
| HMX | 3 | U | 3 | U |
| Nitrobenzene | 1.5 | U | 1.5 | U |
| PETN | 1 | R | 1 | R |
| RDX | 2.5 | U | 2.5 | U |
| Tetryl | 2.5 | U | 2.5 | U |
| 1,3,5-Trinitrobenzene | 1.5 | U | 1.5 | U |
| 2,4,6-Trinitrotoluene | 1.5 | U | 1.5 | U |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B17001 | | B17002 | | B18001 | | B18002 | | B19001 | | B19002 | |
| | | REG | | REG | | REG | | REG | | REG | | REG | |
| | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/9/94 | | 8/9/94 | |
| | | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val |
| **Anions** | **Units** | | | | | | | | | | | | |
| Chloride | MG/KG | 61.8 | J | 3 | UJ | 105 | J | 100 | J | 44.6 | J | 345 | J |
| Fluoride | MG/KG | 2.83 | J | 1.96 | J | 6.16 | J | 3.37 | J | 0.1 | UJ | 0.1 | UJ |
| Nitrate-Nitrite-N | MG/KG | 4.22 | | 1.91 | | 5.79 | | 1.05 | | 1.76 | | 6.95 | |
| Sulfate | MG/KG | 178 | J | 492 | J | 303 | J | 427 | J | 108 | J | 53.3 | J |
| | | B17001 | | B17002 | | B18001 | | B18002 | | B19001 | | B19002 | |
| | | 632326 REG | | 632337 REG | | 632345 REG | | 632353 REG | | 632769 REG | | 632775 REG | |
| | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/8/94 | | 8/9/94 | | 8/9/94 | |
| | | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val | Result | Val |
| **Total Organic Carbon** | **Units** | | | | | | | | | | | | |
| Organic Carbon | MG/KG | 6520 | J | 14500 | J | 10500 | J | 4800 | J | 17600 | J | 7020 | J |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | |
|---|---|---|---|---|
| | B20001 | | B20002 | |
| | REG | | REG | |
| | 8/9/94 | | 8/9/94 | |
| | Result | Val | Result | Val |
| **Anions** | | | | |
| Chloride | 56.7 | J | 124 | J |
| Fluoride | 0.1 | UJ | 0.1 | UJ |
| Nitrate-Nitrite-N | 2.66 | | 7.62 | |
| Sulfate | 24.7 | J | 148 | J |
| | B20001 | | B20002 | |
| | 632782 REG | | 632788 REG | |
| | 8/9/94 | | 8/9/94 | |
| | Result | Val | Result | Val |
| **Total Organic Carbon** | | | | |
| Organic Carbon | 51300 | J | 9650 | J |

# F.4 MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA

## APPENDIX F.4. MONITORING WELL RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | B41001 | | | B41002 | | | B41012 | | |
| | | 624994 REG 7/12/94 | | | 624671 REG 7/11/94 | | | 624688 REG 07/11/94D UPE | | |
| | | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| Gamma Scan | Units | | | | | | | | | |
| Ac-227 | PCI/G | 0.25+/- | NA | U | 0.18+/- | NA | U | 0.52+/- | NA | U |
| Am-241 | PCI/G | 0.34+/- | NA | U | 0.25+/- | NA | U | 0.27+/- | NA | U |
| Bi-207 | PCI/G | 0.04+/- | NA | U | 0.03+/- | NA | U | 0.04+/- | NA | U |
| Bi-210m | PCI/G | 0.06+/- | NA | U | 0.05+/- | NA | U | 0.07+/- | NA | U |
| Co-60 | PCI/G | 0.04+/- | NA | U | 0.03+/- | NA | U | 0.04+/- | NA | U |
| Cs-137 | PCI/G | 0.05+/- | NA | U | 0.03+/- | NA | UJ | 0.05+/- | NA | UJ |
| K-40 | PCI/G | 6.27+/- | 0.82 | U | 4.39+/- | 0.63 | U | 5.43+/- | 0.84 | U |
| Ra-226 | PCI/G | 0.43+/- | 0.1 | | 0.39+/- | 0.07 | | 0.52+/- | 0.09 | |
| | | B41001 | | | B41002 | | | B41012 | | |
| | | 624993 REG 7/12/94 | | | 624670 REG 7/11/94 | | | 624687 REG 07/11/94D -UPE | | |
| | | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| Isotopic Plutonium | Units | | | | | | | | | |
| Pu-238 | PCI/G | -0.01+/- | 0.12 | U | 0.02+/- | 0.07 | U | -0.02+/- | 0.08 | U |
| Pu-239/40 | PCI/G | 0.00+/- | 0.04 | U | 0.01+/- | 0.02 | U | 0.01+/- | 0.03 | U |
| | | B41001 | | | B41002 | | | B41012 | | |
| | | 624993 REG 7/12/94 | | | 624670 REG 7/11/94 | | | 624687 REG 07/11/94D UPE | | |
| | | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| Isotopic Thorium | Units | | | | | | | | | |
| Th-228 | PCI/G | 0.44+/- | 0.09 | UJ | 0.53+/- | 0.12 | J | 0.37+/- | 0.16 | J |
| Th-230 | PCI/G | 0.33+/- | 0.08 | J | 0.49+/- | 0.11 | J | 0.64+/- | 0.19 | J |
| Th-232 | PCI/G | -0.02+/- | 0.02 | U | 0.02+/- | 0.03 | UJ | 0.11+/- | 0.11 | UJ |

## APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | B41001 | | | B41002 | | | B41012 | | |
| | | 624993 REG 7/12/94 | | | 624670 REG 7/11/94 | | | 624687 REG 07/11/94D UPE | | |
| | | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| **Isotopic Uranium** | **Units** | | | | | | | | | |
| U-234 | PCI/G | 0.30+/- | 0.08 | J | 0.40+/- | 0.11 | | 0.64+/- | 0.16 | |
| U-235 | PCI/G | -0.02+/- | 0.02 | U | 0.03+/- | 0.05 | U | 0.18+/- | 0.08 | |
| U-238 | PCI/G | 0.38+/- | 0.09 | | 0.45+/- | 0.12 | | 0.73+/- | 0.17 | |
| | | B41001 | | | B41002 | | | B41012 | | |
| | | 624992 REG 7/12/94 | | | 624669 REG 7/11/94 | | | 624685 REG 07/11/94D UPE | | |
| | | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| **Strontium 90** | **Units** | | | | | | | | | |
| Sr-90 | PCI/G | 0.38+/- | 1.15 | UJ | -0.88+/- | 0.81 | UJ | -0.41+/- | 0.79 | UJ |
| | | B41001 | | | B41002 | | | B41012 | | |
| | | 624995 REG 7/12/94 | | | 624672 REG 7/11/94 | | | 624690 REG 07/11/94D UPE | | |
| | | Result | UNC | Val | Result | UNC | Val | Result | UNC | Val |
| **Tritium 3** | **Units** | | | | | | | | | |
| Tritium | PCI/G | 1.3+/- | 1.5 | U | 3.0+/- | 1.8 | U | 2.7+/- | 1.8 | U |

# APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | B41001 | | B41002 | | B41012 | |
|---|---|---|---|---|---|---|---|
| | | 624949 REG | | 624673 REG | | 624717 REG | |
| | | 7/12/94 | | 7/11/94 | | 07/11/94DUPE | |
| | | Result | Val | Result | Val | Result | Val |
| **Volatile Organics** | **Units** | | | | | | |
| Acetone | UG/KG | 11 | UJ | 12 | UJ | 12 | UJ |
| Acetonitrile | UG/KG | 110 | U | 120 | U | 120 | U |
| Acrylonitrile | UG/KG | 110 | U | 120 | U | 120 | U |
| Benzene | UG/KG | 6 | U | 6 | U | 6 | U |
| Bromodichloromethane | UG/KG | 6 | U | 6 | U | 6 | U |
| Bromoform | UG/KG | 6 | U | 6 | U | 6 | U |
| Bromomethane | UG/KG | 11 | U | 12 | U | 12 | U |
| 2-Butanone | UG/KG | 11 | U | 12 | U | 12 | U |
| Carbon Disulfide | UG/KG | 6 | U | 6 | U | 6 | U |
| Carbon Tetrachloride | UG/KG | 6 | U | 6 | U | 6 | U |
| Chlorobenzene | UG/KG | 6 | U | 6 | U | 6 | U |
| Chlorodibromomethane | UG/KG | 6 | U | 6 | U | 6 | U |
| Chloroethane | UG/KG | 11 | U | 12 | U | 12 | U |
| Chloroform | UG/KG | 6 | U | 6 | U | 6 | U |
| Chloromethane | UG/KG | 11 | U | 12 | U | 12 | U |
| 1,1-Dichloroethane | UG/KG | 6 | U | 6 | U | 6 | U |
| 1,2-Dichloroethane | UG/KG | 6 | U | 6 | U | 6 | U |
| 1,1-Dichloroethene | UG/KG | 6 | U | 6 | U | 6 | U |
| 1,2-Dichloroethene | UG/KG | 6 | U | 10 | | 15 | |
| 1,2-Dichloropropane | UG/KG | 6 | U | 6 | U | 6 | U |
| cis-1,3-Dichloropropene | UG/KG | 6 | U | 6 | U | 6 | U |
| trans-1,3-Dichloropropene | UG/KG | 6 | U | 6 | U | 6 | U |
| 1,2-Diethylbenzene | UG/KG | 23 | U | 24 | U | 24 | U |
| Ethylbenzene | UG/KG | 6 | U | 6 | U | 6 | U |
| Hexane | UG/KG | 11 | U | 12 | U | 12 | U |
| 2-Hexanone | UG/KG | 11 | U | 12 | U | 12 | U |
| Iodomethane | UG/KG | 11 | U | 12 | U | 12 | U |
| 4-Methyl-2-pentanone | UG/KG | 11 | U | 12 | U | 12 | U |
| Methylene Chloride | UG/KG | 12 | U | 9 | U | 11 | U |
| Styrene | UG/KG | 6 | U | 6 | U | 6 | U |
| 1,1,2,2-Tetrachloroethane | UG/KG | 6 | U | 6 | U | 6 | U |
| Tetrachloroethene | UG/KG | 6 | U | 10 | | 11 | |
| Toluene | UG/KG | 6 | U | 6 | U | 6 | U |
| 1,1,1-Trichloroethane | UG/KG | 6 | U | 6 | U | 6 | U |

# APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | B41001 | | B41002 | | B41012 | |
|---|---|---|---|---|---|---|---|
| | | 624949 REG | | 624673 REG | | 624717 REG | |
| | | 7/12/94 | | 7/11/94 | | 07/11/94DUPE | |
| | | Result | Val | Result | Val | Result | Val |
| **Volatile Organics** | **Units** | | | | | | |
| 1,1,2-Trichloroethane | UG/KG | 6 | U | 6 | U | 6 | U |
| Trichloroethene | UG/KG | 6 | U | 5 | J | 6 | |
| Trichlorotrifluoroethane | UG/KG | 11 | U | 12 | U | 12 | U |
| Vinyl Acetate | UG/KG | 11 | U | 12 | U | 12 | U |
| Vinyl Chloride | UG/KG | 11 | U | 12 | U | 12 | U |
| Xylene, Total | UG/KG | 6 | U | 6 | U | 6 | U |
| Tentatively Identified Compounds | | 1 | | 1 | | 1 | |

# APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | B41001 | | B41002 | | B41012 | |
| | | 624949 REG | | 624673 REG | | 624717 REG | |
| | | 7/12/94 | | 7/11/94 | | 07/11/94DUPE | |
| | | Result | Val | Result | Val | Result | Val |
| Semi-volatile Organics | Units | | | | | | |
| Acenaphthene | UG/KG | 370 | U | 400 | U | 390 | U |
| Acenaphthylene | UG/KG | 370 | U | 400 | U | 390 | U |
| Anthracene | UG/KG | 65 | J | 400 | U | 390 | U |
| Benzo(a)anthracene | UG/KG | 170 | J | 400 | U | 390 | U |
| Benzo(a)pyrene | UG/KG | 200 | J | 400 | U | 390 | U |
| Benzo(b)fluoranthene | UG/KG | 290 | J | 400 | U | 390 | U |
| Benzo(g,h,i)perylene | UG/KG | 370 | U | 400 | U | 390 | U |
| Benzo(k)fluoranthene | UG/KG | 550 | | 400 | U | 390 | U |
| Benzoic Acid | UG/KG | 1800 | U | 1900 | U | 1900 | U |
| Benzyl Alcohol | UG/KG | 370 | U | 400 | U | 390 | U |
| 2-Benzyl-4-Chlorophenol | UG/KG | 370 | U | 400 | U | 390 | U |
| bis(2-Chloroethoxy)methane | UG/KG | 370 | U | 400 | U | 390 | U |
| bis(2-Chloroethyl)ether | UG/KG | 370 | U | 400 | U | 390 | U |
| bis(2-Ethylhexyl)phthalate | UG/KG | 370 | U | 48 | J | 390 | U |
| 4-Bromophenyl-phenylether | UG/KG | 370 | U | 400 | U | 390 | U |
| Butylbenzylphthalate | UG/KG | 370 | U | 400 | U | 390 | U |
| Carbazole | UG/KG | 370 | U | 400 | U | 390 | U |
| 4-Chloro-3-methylphenol | UG/KG | 370 | U | 400 | U | 390 | U |
| 4-Chloroaniline | UG/KG | 370 | UJ | 400 | UJ | 390 | UJ |
| 2-Chloronaphthalene | UG/KG | 370 | U | 400 | U | 390 | U |
| 2-Chlorophenol | UG/KG | 370 | U | 400 | U | 390 | U |
| 4-Chlorophenyl-phenylether | UG/KG | 370 | U | 400 | U | 390 | U |
| Chrysene | UG/KG | 140 | J | 400 | U | 390 | U |
| Di-n-butylphthalate | UG/KG | 370 | U | 400 | U | 390 | U |
| Di-n-octylphthalate | UG/KG | 370 | U | 400 | U | 390 | U |
| Dibenzo(a,h)anthracene | UG/KG | 370 | U | 400 | U | 390 | U |
| Dibenzofuran | UG/KG | 370 | U | 400 | U | 390 | U |
| 1,2-Dichlorobenzene | UG/KG | 370 | U | 400 | U | 390 | U |
| 1,3-Dichlorobenzene | UG/KG | 370 | U | 400 | U | 390 | U |
| 1,4-Dichlorobenzene | UG/KG | 370 | U | 400 | U | 390 | U |
| 3,3'-Dichlorobenzidine | UG/KG | 750 | U | 790 | U | 780 | U |
| 2,4-Dichlorophenol | UG/KG | 370 | U | 400 | U | 390 | U |
| Diethylphthalate | UG/KG | 370 | U | 400 | U | 390 | U |
| 2,4-Dimethylphenol | UG/KG | 370 | U | 400 | U | 390 | U |

# APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | B41001 | | B41002 | | B41012 | |
|---|---|---|---|---|---|---|---|
| | | 624949 REG | | 624673 REG | | 624717 REG | |
| | | 7/12/94 | | 7/11/94 | | 07/11/94DUPE | |
| | | Result | Val | Result | Val | Result | Val |
| Semi-volatile Organics | Units | | | | | | |
| Dimethylphthalate | UG/KG | 370 | U | 400 | U | 390 | U |
| 4,6-Dinitro-2-methylphenol | UG/KG | 1800 | U | 1900 | U | 1900 | U |
| 2,4-Dinitrophenol | UG/KG | 1800 | U | 1900 | U | 1900 | U |
| 2,4-Dinitrotoluene | UG/KG | 370 | U | 400 | U | 390 | U |
| 2,6-Dinitrotoluene | UG/KG | 370 | U | 400 | U | 390 | U |
| Fluoranthene | UG/KG | 340 | J | 400 | U | 390 | U |
| Fluorene | UG/KG | 370 | U | 400 | U | 390 | U |
| Hexachlorobenzene | UG/KG | 370 | U | 400 | U | 390 | U |
| Hexachlorobutadiene | UG/KG | 370 | U | 400 | U | 390 | U |
| Hexachlorocyclopentadiene | UG/KG | 370 | U | 400 | U | 390 | U |
| Hexachloroethane | UG/KG | 370 | U | 400 | U | 390 | U |
| Indeno(1,2,3-c,d)pyrene | UG/KG | 73 | J | 400 | U | 390 | U |
| Isophorone | UG/KG | 370 | U | 400 | U | 390 | U |
| 2-Methylnaphthalene | UG/KG | 370 | U | 400 | U | 390 | U |
| 2-Methylphenol | UG/KG | 370 | U | 400 | U | 390 | U |
| 4-Methylphenol | UG/KG | 370 | U | 400 | U | 390 | U |
| N-Nitroso-di-n-propylamine | UG/KG | 370 | U | 400 | U | 390 | U |
| N-Nitrosodiphenylamine | UG/KG | 370 | U | 400 | U | 390 | U |
| Naphthalene | UG/KG | 370 | U | 400 | U | 390 | U |
| 2-Nitroaniline | UG/KG | 1800 | U | 1900 | U | 1900 | U |
| 3-Nitroaniline | UG/KG | 1800 | U | 1900 | U | 1900 | U |
| 4-Nitroaniline | UG/KG | 1800 | U | 1900 | U | 1900 | U |
| Nitrobenzene | UG/KG | 370 | U | 400 | U | 390 | U |
| 2-Nitrophenol | UG/KG | 370 | U | 400 | U | 390 | U |
| 4-Nitrophenol | UG/KG | 1800 | U | 1900 | U | 1900 | U |
| 2,2'-oxybis(1-Chloropropane) | UG/KG | 370 | U | 400 | U | 390 | U |
| Pentachlorophenol | UG/KG | 1800 | U | 1900 | U | 1900 | U |
| Phenanthrene | UG/KG | 260 | J | 400 | U | 390 | U |
| Phenol | UG/KG | 370 | U | 400 | U | 390 | U |
| Pyrene | UG/KG | 270 | J | 400 | U | 390 | U |
| 1,2,4-Trichlorobenzene | UG/KG | 370 | U | 400 | U | 390 | U |
| 2,4,5-Trichlorophenol | UG/KG | 1800 | U | 1900 | U | 1900 | U |
| 2,4,6-Trichlorophenol | UG/KG | 370 | U | 400 | U | 390 | U |

## APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | B41001 | | B41002 | | B41012 | |
| | | 624949 REG | | 624673 REG | | 624717 REG | |
| | | 7/12/94 | | 7/11/94 | | 07/11/94DUPE | |
| | | Result | Val | Result | Val | Result | Val |
| Semi-volatile Organics | Units | | | | | | |
| Tentatively Identified Compounds | | 21 | | 25 | | 23 | |

# APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | B41001 | | B41002 | | B41012 | |
| | | 624949 REG | | 624673 REG | | 624717 REG | |
| | | 7/12/94 | | 7/11/94 | | 07/11/94DUPE | |
| | | Result | Val | Result | Val | Result | Val |
| Pesticides and PCBs | Units | | | | | | |
| Aldrin | UG/KG | 1.9 | UJ | 2.1 | U | 2 | UJ |
| alpha-BHC | UG/KG | 1.9 | UJ | 2.1 | U | 2 | UJ |
| alpha-Chlordane | UG/KG | 1.9 | UJ | 2.1 | U | 2 | UJ |
| Aroclor-1016 | UG/KG | 37 | UJ | 40 | U | 40 | UJ |
| Aroclor-1221 | UG/KG | 75 | UJ | 81 | U | 81 | UJ |
| Aroclor-1232 | UG/KG | 37 | UJ | 40 | U | 40 | UJ |
| Aroclor-1242 | UG/KG | 37 | UJ | 40 | U | 40 | UJ |
| Aroclor-1248 | UG/KG | 37 | UJ | 40 | U | 40 | UJ |
| Aroclor-1254 | UG/KG | 37 | UJ | 40 | U | 40 | UJ |
| Aroclor-1260 | UG/KG | 37 | UJ | 40 | U | 40 | UJ |
| beta-BHC | UG/KG | 1.9 | UJ | 2.1 | U | 2 | UJ |
| 4,4'-DDD | UG/KG | 3.7 | UJ | 4 | U | 4 | UJ |
| 4,4'-DDE | UG/KG | 3.7 | UJ | 4 | U | 4 | UJ |
| 4,4'-DDT | UG/KG | 3.7 | UJ | 4 | U | 4 | UJ |
| delta-BHC | UG/KG | 1.9 | UJ | 2.1 | U | 2 | UJ |
| Dieldrin | UG/KG | 0.53 | J | 4 | U | 4 | UJ |
| Endosulfan I | UG/KG | 1.9 | UJ | 2.1 | U | 2 | UJ |
| Endosulfan II | UG/KG | 3.7 | UJ | 4 | U | 4 | UJ |
| Endosulfan Sulfate | UG/KG | 3.7 | UJ | 4 | U | 4 | UJ |
| Endrin | UG/KG | 3.7 | UJ | 4 | U | 4 | UJ |
| Endrin Aldehyde | UG/KG | 3.7 | UJ | 4 | U | 4 | UJ |
| Endrin Ketone | UG/KG | 3.7 | UJ | 4 | U | 4 | UJ |
| gamma-BHC (Lindane) | UG/KG | 1.9 | UJ | 2.1 | U | 2 | UJ |
| gamma-Chlordane | UG/KG | 1.9 | UJ | 2.1 | U | 2 | UJ |
| Heptachlor | UG/KG | 1.9 | UJ | 2.1 | U | 2 | UJ |
| Heptachlor Epoxide | UG/KG | 1.9 | UJ | 2.1 | U | 2 | UJ |
| p,p'-Methoxychlor | UG/KG | 19 | UJ | 21 | U | 20 | UJ |
| Toxaphene | UG/KG | 190 | UJ | 210 | U | 200 | UJ |

# APPENDIX F.3. BUILDING 24 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | B41001 | | B41002 | | B41012 | |
| | | 624950 REG | | 624677 REG | | 624718 REG | |
| | | 7/12/94 | | 7/11/94 | | 07/11/94DUPE | |
| | | Result | Val | Result | Val | Result | Val |
| **Inorganics** | **Units** | | | | | | |
| Aluminum | MG/KG | 4960 | J | 2310 | J | 2120 | J |
| Antimony | MG/KG | 0.23 | U | 0.24 | R | 0.24 | U |
| Arsenic | MG/KG | 4.5 | | 5 | J | 8.1 | |
| Barium | MG/KG | 36.2 | | 12 | | 10.7 | |
| Beryllium | MG/KG | 0.023 | U | 0.24 | U | 0.024 | U |
| Bismuth | MG/KG | 63.6 | | 77 | | 65.2 | |
| Cadmium | MG/KG | 0.068 | U | 0.24 | UJ | 0.073 | U |
| Calcium | MG/KG | 152000 | | 121000 | | 131000 | |
| Chromium | MG/KG | 7.6 | J | 4.7 | | 5.4 | J |
| Cobalt | MG/KG | 3.3 | | 2.7 | | 2.4 | |
| Copper | MG/KG | 6.5 | J | 8.3 | J | 7.5 | J |
| Cyanide | MG/KG | 0.57 | U | 0.61 | U | 0.61 | U |
| Iron | MG/KG | 8450 | | 7080 | | 8470 | |
| Lead | MG/KG | 8.4 | | 5.8 | J | 5.6 | |
| Lithium | MG/KG | 7 | | 4.6 | | 4.5 | |
| Magnesium | MG/KG | 48700 | | 55000 | | 53000 | |
| Manganese | MG/KG | 280 | J | 284 | J | 236 | J |
| Mercury | MG/KG | 0.11 | U | 0.12 | U | 0.12 | U |
| Molybdenum | MG/KG | 18.8 | | 22.8 | | 21.5 | |
| Nickel | MG/KG | 8 | | 8.1 | | 6.9 | |
| Potassium | MG/KG | 1670 | J | 735 | J | 630 | J |
| Selenium | MG/KG | 0.68 | U | 0.73 | U | 0.73 | U |
| Silver | MG/KG | 0.091 | U | 0.24 | U | 0.097 | U |
| Sodium | MG/KG | 1160 | | 520 | | 591 | |
| Thallium | MG/KG | 0.68 | R | 0.73 | R | 0.73 | R |
| Tin | UG/KG | | | 11.4 | U | | |
| Vanadium | MG/KG | 11.1 | | 7.4 | | 6.9 | |
| Zinc | MG/KG | 26.1 | | 22.6 | J | 23.4 | |

## APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | B41001 | | B41002 | | B41012 | |
| | | 624955 REG | | REG | | REG | |
| | | 7/12/94 | | 7/11/94 | | 07/11/94DUPE | |
| | | Result | Val | Result | Val | Result | Val |
| EXPLOSIVES | Units | | | | | | |
| 2-Amino-4,6-dinitrotoluene | MG/KG | 1.5 | U | 1.5 | UJ | 1.5 | UJ |
| 1,3-Dinitrobenzene | MG/KG | 1.5 | U | 1.5 | UJ | 1.5 | UJ |
| 2,4-Dinitrotoluene | MG/KG | 0.5 | U | 0.5 | UJ | 0.5 | UJ |
| 2,6-Dinitrotoluene | MG/KG | 1.5 | U | 1.5 | UJ | 1.5 | UJ |
| HMX | MG/KG | 3 | U | 3 | UJ | 3 | UJ |
| Nitrobenzene | MG/KG | 1.5 | U | 1.5 | UJ | 1.5 | UJ |
| PETN | MG/KG | 1 | R | 1 | R | 1 | R |
| RDX | MG/KG | 2.5 | U | 2.5 | UJ | 2.5 | UJ |
| Tetryl | MG/KG | 2.5 | U | 2.5 | UJ | 2.5 | UJ |
| 1,3,5-Trinitrobenzene | MG/KG | 1.5 | U | 1.5 | UJ | 1.5 | UJ |
| 2,4,6-Trinitrotoluene | MG/KG | 1.5 | U | 1.5 | UJ | 1.5 | UJ |

# APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | B41001 | | B41002 | | B41012 | |
| | | 624951 REG | | 624681 REG | | 624721 REG | |
| | | 7/12/94 | | 7/11/94 | | 07/11/94DUPE | |
| | | Result | Val | Result | Val | Result | Val |
| Anions | Units | | | | | | |
| Chloride | MG/KG | 302 | J | 59.5 | J | 72.4 | J |
| Fluoride | MG/KG | 6.66 | J | 4.45 | J | 1.33 | J |
| Nitrate-Nitrite-N | MG/KG | 2.45 | J | 2470 | J | 3.79 | J |
| Sulfate | MG/KG | 605 | J | 2 | U | 50.3 | J |
| | | B41001 | | B41002 | | B41012 | |
| | | 624956 REG | | REG | | REG | |
| | | 7/12/94 | | 7/11/94 | | 07/11/94DUPE | |
| | | Result | Val | Result | Val | Result | Val |
| Total Organic Carbon | Units | | | | | | |
| Organic Carbon | MG/KG | 16720 | J | 8940 | J | 11200 | J |

# APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | | |
|---|---|---|---|---|
| | | W41001 | | |
| | | 628134 REG | | |
| | | / / | | |
| | | Result | UNC | Val |
| **Gamma Scan** | **Units** | | | |
| Ac-227 | PCI/L | 38.86 | NA | U |
| Am-241 | PCI/L | 0.47+/- | 0.29 | J |
| Bi-207 | PCI/L | 6.24 | NA | U |
| Bi-210m | PCI/L | 10.71 | NA | U |
| Co-60 | PCI/L | 7.13 | NA | U |
| Cs-137 | PCI/L | 7.82 | NA | U |
| K-40 | PCI/L | 109+/- | 124.7 | U |
| **RADIUM-226** | | | | |
| Ra-226 | PCI/L | 0.89+/- | 0.16 | J |
| **Isotopic Plutonium** | | | | |
| Pu-238 | PCI/L | 0.00+/- | 0.17 | UJ |
| Pu-239/40 | PCI/L | 0.07+/- | 0.17 | UJ |
| **Isotopic Thorium** | | | | |
| Th-228 | PCI/L | 1.50+/- | 0.32 | U |
| Th-230 | PCI/L | 0.59+/- | 0.2 | J |
| Th-232 | PCI/L | 0.02+/- | 0.07 | UJ |
| **Isotopic Uranium** | | | | |
| U-234 | PCI/L | 0.65+/- | 0.23 | J |
| U-235 | PCI/L | 0.17+/- | 0.11 | |
| U-238 | PCI/L | 0.65+/- | 0.22 | |
| **Strontium 90** | | | | |
| Sr-90 | PCI/L | -2.38+/- | 2.68 | UJ |
| **Tritium 3** | | | | |
| Tritium | PCI/L | 4223.3+/- | 489.3 | |

## APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | |
|---|---|---|---|
| | | W41001 | |
| | | 628119 REG | |
| | | / / | |
| | | Result | Val |
| Volatile Organics | Units | | |
| Acetone | UG/L | 17 | U |
| Acetonitrile | UG/L | 170 | U |
| Acrylonitrile | UG/L | 170 | U |
| Benzene | UG/L | 8 | U |
| Bromodichloromethane | UG/L | 8 | U |
| Bromoform | UG/L | 8 | U |
| Bromomethane | UG/L | 17 | U |
| 2-Butanone | UG/L | 17 | U |
| Carbon Disulfide | UG/L | 8 | U |
| Carbon Tetrachloride | UG/L | 8 | U |
| Chlorobenzene | UG/L | 8 | U |
| Chlorodibromomethane | UG/L | 8 | U |
| Chloroethane | UG/L | 17 | U |
| Chloroform | UG/L | 5 | J |
| Chloromethane | UG/L | 17 | U |
| 1,1-Dichloroethane | UG/L | 8 | U |
| 1,2-Dichloroethane | UG/L | 8 | U |
| 1,1-Dichloroethene | UG/L | 8 | U |
| 1,2-Dichloroethene | UG/L | 220 | |
| 1,2-Dichloropropane | UG/L | 8 | U |
| cis-1,3-Dichloropropene | UG/L | 8 | U |
| trans-1,3-Dichloropropene | UG/L | 8 | U |
| 1,2-Diethylbenzene | UG/L | 8 | U |
| Ethylbenzene | UG/L | 8 | U |
| Hexane | UG/L | 17 | U |
| 2-Hexanone | UG/L | 17 | U |
| Iodomethane | UG/L | 8 | U |
| 4-Methyl-2-pentanone | UG/L | 17 | U |
| Methylene Chloride | UG/L | 8 | U |
| Styrene | UG/L | 8 | U |
| 1,1,2,2-Tetrachloroethane | UG/L | 8 | U |
| Tetrachloroethene | UG/L | 21 | |
| Toluene | UG/L | 8 | U |
| 1,1,1-Trichloroethane | UG/L | 8 | U |

## APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | |
|---|---|---|---|
| | | W41001 | |
| | | | |
| | | 628119 REG | |
| | | / / | |
| | | Result | Val |
| | | | |
| 1,1,2-Trichloroethane | UG/L | 8 | U |
| Trichloroethene | UG/L | 34 | |
| Trichlorotrifluoroethane | UG/L | 7 | J |
| Vinyl Acetate | UG/L | 17 | U |
| Vinyl Chloride | UG/L | 15 | J |
| Xylene, Total | UG/L | 17 | U |
| Tentatively Identified Compounds | | 1 | |

# APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | |
|---|---|---|---|
| | | W41001 | |
| | | 628119 REG | |
| | | / / | |
| | | Result | Val |
| Semi-volatile Organics | Units | | |
| Acenaphthene | UG/L | 10 | U |
| Acenaphthylene | UG/L | 10 | U |
| Anthracene | UG/L | 10 | U |
| Benzo(a)anthracene | UG/L | 10 | U |
| Benzo(a)pyrene | UG/L | 10 | U |
| Benzo(b)fluoranthene | UG/L | 10 | U |
| Benzo(g,h,i)perylene | UG/L | 10 | U |
| Benzo(k)fluoranthene | UG/L | 10 | U |
| Benzoic Acid | UG/L | 50 | U |
| Benzyl Alcohol | UG/L | 10 | U |
| 2-Benzyl-4-Chlorophenol | UG/L | 10 | U |
| bis(2-Chloroethoxy)methane | UG/L | 10 | U |
| bis(2-Chloroethyl)ether | UG/L | 10 | U |
| bis(2-Ethylhexyl)phthalate | UG/L | 10 | U |
| 4-Bromophenyl-phenylether | UG/L | 10 | U |
| Butylbenzylphthalate | UG/L | 10 | U |
| Carbazole | UG/L | 10 | U |
| 4-Chloro-3-methylphenol | UG/L | 10 | U |
| 4-Chloroaniline | UG/L | 10 | UJ |
| 2-Chloronaphthalene | UG/L | 10 | U |
| 2-Chlorophenol | UG/L | 10 | U |
| 4-Chlorophenyl-phenylether | UG/L | 10 | U |
| Chrysene | UG/L | 10 | U |
| Di-n-butylphthalate | UG/L | 10 | U |
| Di-n-octylphthalate | UG/L | 10 | U |
| Dibenzo(a,h)anthracene | UG/L | 10 | U |
| Dibenzofuran | UG/L | 10 | U |
| 1,2-Dichlorobenzene | UG/L | 10 | U |
| 1,3-Dichlorobenzene | UG/L | 10 | U |
| 1,4-Dichlorobenzene | UG/L | 10 | U |
| 3,3'-Dichlorobenzidine | UG/L | 20 | U |
| 2,4-Dichlorophenol | UG/L | 10 | U |
| Diethylphthalate | UG/L | 10 | U |
| 2,4-Dimethylphenol | UG/L | 10 | U |

# APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | |
|---|---|---|---|
| | | W41001 | |
| | | 628119 REG | |
| | | / / | |
| | | Result | Val |
| **Semi-volatile Organics** | **Units** | | |
| Dimethylphthalate | UG/L | 10 | U |
| 4,6-Dinitro-2-methylphenol | UG/L | 50 | U |
| 2,4-Dinitrophenol | UG/L | 50 | U |
| 2,4-Dinitrotoluene | UG/L | 10 | U |
| 2,6-Dinitrotoluene | UG/L | 10 | U |
| Fluoranthene | UG/L | 10 | U |
| Fluorene | UG/L | 10 | U |
| Hexachlorobenzene | UG/L | 10 | U |
| Hexachlorobutadiene | UG/L | 10 | U |
| Hexachlorocyclopentadiene | UG/L | 10 | U |
| Hexachloroethane | UG/L | 10 | U |
| Indeno(1,2,3-c,d)pyrene | UG/L | 10 | U |
| Isophorone | UG/L | 10 | U |
| 2-Methylnaphthalene | UG/L | 10 | U |
| 2-Methylphenol | UG/L | 10 | U |
| 4-Methylphenol | UG/L | 10 | U |
| N-Nitroso-di-n-propylamine | UG/L | 10 | U |
| N-Nitrosodiphenylamine | UG/L | 10 | UJ |
| Naphthalene | UG/L | 10 | U |
| 2-Nitroaniline | UG/L | 50 | U |
| 3-Nitroaniline | UG/L | 50 | U |
| 4-Nitroaniline | UG/L | 50 | U |
| Nitrobenzene | UG/L | 10 | U |
| 2-Nitrophenol | UG/L | 10 | U |
| 4-Nitrophenol | UG/L | 50 | U |
| 2,2'-oxybis(1-Chloropropane) | UG/L | 10 | U |
| Pentachlorophenol | UG/L | 50 | U |
| Phenanthrene | UG/L | 10 | U |
| Phenol | UG/L | 10 | U |
| Pyrene | UG/L | 10 | U |
| 1,2,4-Trichlorobenzene | UG/L | 10 | U |
| 2,4,5-Trichlorophenol | UG/L | 50 | U |
| 2,4,6-Trichlorophenol | UG/L | 10 | U |

## APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | |
|---|---|---|---|
| | | W41001 | |
| | | | |
| | | 628119 REG | |
| | | / / | |
| | | Result | Val |
| | | | |
| Semi-volatile Organics | Units | | |
| Tentatively Identified Compounds | | 5 | |

# APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | |
|---|---|---|---|
| | | W41001 | |
| | | 628119 REG | |
| | | / / | |
| | | Result | Val |
| **Pesticides and PCBs** | **Units** | | |
| Aldrin | UG/L | 0.05 | UJ |
| alpha-BHC | UG/L | 0.05 | UJ |
| alpha-Chlordane | UG/L | 0.05 | UJ |
| Aroclor-1016 | UG/L | 0.5 | UJ |
| Aroclor-1221 | UG/L | 0.5 | UJ |
| Aroclor-1232 | UG/L | 0.5 | UJ |
| Aroclor-1242 | UG/L | 0.5 | UJ |
| Aroclor-1248 | UG/L | 0.5 | UJ |
| Aroclor-1254 | UG/L | 0.5 | UJ |
| Aroclor-1260 | UG/L | 0.5 | UJ |
| beta-BHC | UG/L | 0.05 | UJ |
| 4,4'-DDD | UG/L | 0.1 | UJ |
| 4,4'-DDE | UG/L | 0.1 | UJ |
| 4,4'-DDT | UG/L | 0.1 | UJ |
| delta-BHC | UG/L | 0.05 | UJ |
| Dieldrin | UG/L | 0.1 | UJ |
| Endosulfan I | UG/L | 0.05 | UJ |
| Endosulfan II | UG/L | 0.1 | UJ |
| Endosulfan Sulfate | UG/L | 0.1 | UJ |
| Endrin | UG/L | 0.1 | UJ |
| Endrin Aldehyde | UG/L | 0.1 | UJ |
| Endrin Ketone | UG/L | 0.1 | UJ |
| gamma-BHC (Lindane) | UG/L | 0.05 | UJ |
| gamma-Chlordane | UG/L | 0.05 | UJ |
| Heptachlor | UG/L | 0.05 | UJ |
| Heptachlor Epoxide | UG/L | 0.05 | UJ |
| p,p'-Methoxychlor | UG/L | 0.5 | UJ |
| Toxaphene | UG/L | 5 | UJ |

## APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | |
|---|---|---|---|
| | | W41001 | |
| | | 628120 REG | |
| | | / / | |
| | | Result | Val |
| Inorganics | Units | | |
| Aluminum | UG/L | 1590 | |
| Antimony | UG/L | 1.2 | U |
| Arsenic | UG/L | 4.8 | U |
| Barium | UG/L | 158 | J |
| Beryllium | UG/L | 0.37 | U |
| Bismuth | UG/L | 161 | |
| Cadmium | UG/L | 0.56 | U |
| Calcium | UG/L | 166000 | |
| Chromium | UG/L | 9.2 | U |
| Cobalt | UG/L | 1.8 | U |
| Copper | UG/L | 0.3 | R |
| Cyanide | UG/L | 10 | U |
| Iron | UG/L | 2350 | |
| Lead | UG/L | 1.1 | R |
| Lithium | UG/L | 22.5 | |
| Magnesium | UG/L | 64500 | J |
| Manganese | UG/L | 1270 | J |
| Mercury | UG/L | 0.2 | U |
| Molybdenum | UG/L | 2.7 | U |
| Nickel | UG/L | 2.3 | J |
| Potassium | UG/L | 6840 | J |
| Selenium | UG/L | 2.9 | U |
| Silver | UG/L | 0.5 | U |
| Sodium | UG/L | 121000 | |
| Thallium | UG/L | 9.6 | U |
| Vanadium | UG/L | 3.1 | |
| Zinc | UG/L | 16.3 | |

## APPENDIX F.4. MONITORING WELL W410 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | |
|---|---|---|---|
| | | W41001 | |
| | | | |
| | | 628129 REG | |
| | | / / | |
| | | Result | Val |
| | | | |
| EXPLOSIVES | Units | | |
| 2-Amino-4,6-dinitrotoluene | UG/L | 3 | UJ |
| 1,3-Dinitrobenzene | UG/L | 15 | UJ |
| 2,4-Dinitrotoluene | UG/L | 0.5 | UJ |
| 2,6-Dinitrotoluene | UG/L | 0.5 | UJ |
| HMX | UG/L | 20 | UJ |
| Nitrobenzene | UG/L | 15 | UJ |
| PETN | UG/L | 1 | R |
| RDX | UG/L | 6 | UJ |
| Tetryl | UG/L | 3 | UJ |
| 1,3,5-Trinitrobenzene | UG/L | 15 | UJ |
| 2,4,6-Trinitrotoluene | UG/L | 3 | UJ |

## APPENDIX F.4. MONITORING WELL W41001 RADIOLOGICAL AND CHEMICAL SOIL AND GROUNDWATER DATA
## OPERABLE UNIT 5 NON-AOC

| MOUND OPERATIONAL AREA | | | |
|---|---|---|---|
| | | W41001 | |
| | | REG | |
| | | / / | |
| | | Result | Val |
| Anions | Units | | |
| Chloride | MG/L | 307 | |
| Fluoride | MG/L | 0.27 | |
| Nitrate-Nitrite-N | MG/L | 0.05 | U |
| Sulfate | MG/L | 122 | |
| Total Organic Carbon | | | |
| Organic Carbon | MG/L | 1.93 | |
| Total Dissolved Solids | | | |
| Dissolved Solids | MG/L | 1340 | |
| Total Suspended Solids | | | |
| Suspended Solids | MG/L | 136 | |
| Alkalinity | | | |
| Alkalinity | MG/L | 379 | |
| TOTAL NITROGEN | | | |
| Kjeldahl Nitrogen | MG/L | 0.1 | UJ |
| TOTAL PHOSPORUS | | | |
| Total Phosphorus | MG/L | 0.1 | U |

# APPENDIX G
# DATA QUALITY ASSESSMENT REPORT

## APPENDIX G

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## ACRONYMS

| | |
|---|---|
| ASTM | American Society for Testing and Materials |
| CLP | Contract Laboratory Program |
| CLP SOW | Contract Laboratory Program Statement of Work |
| CRDL | Contract Required Detection Limit |
| CRQL | Contract Required Quantitation Limit |
| CC | cross check |
| DER | Duplicate Error Ratio |
| DOE | Department of Energy |
| DQA | Data Quality Assessment |
| DQO | Data Quality Objective |
| EPA | U.S. Environmental Protection Agency |
| GC/MS | Gas Chromatography/Mass Spectrometry |
| GFPC | Gas Flow Proportional Counting |
| GFAA | Graphite Furnace Atomic Absorption |
| HPLC | High Performance Liquid Chromatography |
| ICAP | Inductively Coupled Argon Plasma |
| ICS | interference check sample |
| IS | internal standard |
| MS | matrix spike |
| MSD | matrix spike duplicate |
| OEPA | Ohio Environmental Protection Agency |
| OU5 | Operable Unit 5 |
| OU9 | Operable Unit 9 |
| PE | performance evaluation |
| PCB | polychlorinated biphenyl |
| QAPjP | Quality Assurance Project Plan |
| QC | quality control |
| RPD | relative percent difference |
| RSI | Regional Soils Investigations |
| SVOC | semivolatile organic compound |
| VOC | volatile organic compound |

## G.1.0. INTRODUCTION

Chemical data are fundamental to an environmental investigation. Inherent in the chemical data are uncertainties arising from the natural variability in the environment and measurement error. Data quality objectives (DQOs) are statements specifying the analytical and statistical goals of a study. DQOs assessed in this appendix were developed during project planning and are presented in the OU5 Quality Assurance Project Plan (QAPjP).

This data quality assessment (DQA) evaluates the validity and performance of the data collection program by determining if the data are sufficient, adequate, and usable for supporting project decisions. Specifically, this DQA assess the organic, inorganic, and radiological data produced from the analysis of environmental samples collected during the Non-Area of Concern (AOC), Area 7, and the New Property investigations. This DQA also evaluates the impact of all quality control (QC) measures on the overall data quality and removes all unusable values from the investigation data set.

All sampling and analysis was conducted using the QC requirements and quality assurance (QA) objectives outlined in the OU5 and OU9 QAPjPs. A summary of the environmental and field QC samples collected and analyzed during the OU5 investigations are presented in Table G.1-1 on page G-14.

**Note: Due to the large amount of tabulated data in this appendix, all tables are located in numerical order beginning on page G-14.**

### G.1.1. ENVIRONMENTAL ANALYTICAL LABORATORIES

CompuChem Environmental Corporation, Research Triangle Park, North Carolina, performed all chemical and radiological analyses. All environmental samples (i.e., soil, groundwater, and seep water) and field QC samples (i.e., trip blanks, ambient blanks, and equipment rinsates) were analyzed using U.S. Environmental Protection Agency (EPA) and Mound OU5 QAPjP methods from the following references:

- *Contract Laboratory Program Statement of Work Modifications, OU9 Site-Wide QAPjP, Appendix B*, Revision 3, June 1993;

- *Statement of Work for Organic Analysis, Multi-Media, Multi-Concentration*, EPA Contract Laboratory Program, March 1990 and revisions;

- *Statement of Work for Inorganic Analysis, Multi-Media, Multi-Concentration*, EPA Contract Laboratory Program, March 1990 and revisions;

- *Superfund Analytical Methods for Low Concentration Water for Organics Analysis*, EPA, June 1991;

- *Superfund Analytical Methods for Low Concentration Water for Inorganics Analysis*, EPA, June 1991;

- *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW-846, Third Edition, September 1986, with 1989 revisions; and

- *Methods for Chemical Analysis of Water and Wastes*, EPA-600/4-79, March 1983.

### G.1.2. ANALYTICAL DATA VALIDATION

All analytical data were validated as described in Section G.3.0 using the guidelines and specifications described in the following documents:

- *Laboratory Data Validation Functional Guidelines for Evaluating Organic Analyses*, EPA Contract Laboratory Program, February 1988;

- *National Functional Guidelines for Organic Data Review, Multi-Media, Multi-Concentration (OLM01.0) and Low Concentration Water (OLC01.0)*, EPA Contract Laboratory Program, Draft, December 1990, Revised June 1991;

- *Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses*, EPA Contract Laboratory Program, February 1988, Revised January 1993; and

- *Data Validation Guidelines for Non-Contract Laboratory Program (CLP) Analyses, OU9 Site-Wide QAPjP, Appendix H,* Revision 3, June 1993.

The validated results, including qualifiers, were incorporated into the OU5 database and used to evaluate data quality. The data quality summary, rejected data summary, accuracy and precision summary, and completeness calculations were prepared using 100 percent of all concentration records in the OU5 database. Bias and uncertainty were determined using 100 percent of the usable (i.e., unqualified results and estimated data points only) concentration values in the database. Table G.1-2 summarizes all qualified data points, as well as the associated potential bias and uncertainty.

### G.1.3. QUALITY DATA MANAGEMENT

The OU5 database was populated with analytical results collected during the sampling required in the Mound OU5 investigations. All duplicate, QC blanks, and dilution results were resolved and the most appropriate data points were selected. The selection processes used are described below:

- All detected compounds in the trip blanks were evaluated and the reportable data points were adjusted using the following procedures: (1) All environmental samples were linked with the associated trip blanks, based on the applicable chain-of-custody form. (2) All potential contaminants detected in the associated trip blanks were evaluated. These blank concentrations were raised by a factor of 10 (for common laboratory contaminants) or 5 (for all other contaminants) based on the compound detected and applicable validation procedures. These adjusted values became the minimum concentration that would be considered representative in a given environmental sample. (3) All concentration values in the associated environmental samples were compared with the adjusted trip blank results. If the concentration did not exceed the minimum representative concentration (found in the trip blank), then the value was considered not detected at the concentration reported and was qualified as undetected.

- All detected compounds and elements in the equipment rinsate blanks were evaluated and the reportable data points were adjusted using the following procedures: (1) All environmental samples were linked with the associated equipment rinsate blanks, based on the applicable chain-of-custody form. (2) All potential contaminants detected in the

associated rinsate blanks were evaluated. These concentrations were raised by a factor of 10 (for common laboratory contaminants), 5 (for all other contaminants), or 3 (for radiochemical contaminants) based on the compound detected and appropriate validation procedures. These values became the minimum concentration that would be considered representative in a given environmental sample. (3) All concentration values in the associated environmental samples were compared with the adjusted equipment rinsate blank results. If the concentration did not exceed the minimum representative concentration (found in the equipment rinsate), the value was considered not detected at the concentration reported and was qualified as undetected.

- All data points qualified with "R" were marked to prevent incorporation into the usable data population.

- All laboratory duplicate values for sample identification and analytical method, and all values meeting the duplicate value criteria were evaluated using the following procedure (standard logic): (1) The higher concentration value was selected. (2) The detected value was selected. (3) The most sensitive contract-required quantitation or detection limit (CRQL or CRDL, respectively) was selected for duplicate nondetected values.

- All dilution results were evaluated for best value and CRQL/CRDL using the following procedure: (1) The diluted sample results were selected for all compounds, with the exception of volatile organic compounds (VOC) methylene chloride, acetone, 2-butanone, and toluene, and semi-volatile organic compounds (SVOC) phthalate esters. The concentration value reported in the nondiluted sample was selected for those compounds only. (2) The nondiluted value was selected to prevent potential false positive value incorporation into the usable data population for duplicate nondetected and detected values. (3) The most sensitive CRQL or CRDL was selected for duplicate nondetected values.

- All reanalyses results were evaluated for best value, based on QC results, and CRQL/CRDL using the standard logic procedure.

- All field duplicate/replicate analyses results were evaluated for best value and CRQL/CRDL using the following procedure: (1) Duplicate detected values were averaged if the calculated relative percent difference (RPD) was less than 20 (water) or 35 (soil) percent. The higher concentration value was selected if the reference RPD value was exceeded. (2) The detected value was selected where the duplicate value was not detected. (3) The most sensitive CRQL/CRDL was selected where both values were not detected.

## G.2.0. DATA QUALITY OBJECTIVES

As defined in the QAPjP, the following specific data quality objectives (DQOs) for accuracy, precision, completeness, representativeness and comparability were used to assess the overall quality of the analytical data collected from OU5.

The DQOs for analyses conducted during the investigations are listed in Tables G.2-1 and G.2-2.

### G.2.1. ACCURACY

Accuracy is defined as the degree of difference between measured or calculated values and the true value. Accuracy was determined in the OU5 data set using matrix spike/matrix spike duplicates (MS/MSD) for organics and MS samples for inorganics and radiochemical analyses. Data were qualified on the basis of percent recoveries (%R) of these spikes in conjunction with other validation criteria. All DQOs for accuracy were met for the EG&G Mound OU5 project. Laboratory accuracy and precision performance summary tables for each analysis are presented in Section G.4.2.

### G.2.2. PRECISION

Precision is defined as the reproducibility, or degree of agreement between replicate measurements of the same compound or element. No data were rejected due to unacceptable RPD results; therefore, the precision DQOs for the OU5 projects were met. Laboratory accuracy and precision performance summary tables for each analysis are presented in Section G.4.2.

### G.2.3. COMPLETENESS

Completeness is a measure of the amount of valid data obtained from a measurement system that achieves the project goals, compared to the amount expected under normal conditions. For data to be considered valid, they must have met all acceptance criteria, including accuracy and precision, as well as any other criteria specified by the analytical methods used. Samples to be collected for OU5 were predefined by depth intervals at each borehole. The initial planned number of samples was an estimation based upon the expected depth of each borehole. When the estimated number of samples were not obtained from a borehole due to bedrock, those samples planned at a greater depth, but not taken, are not considered to adversely affect the completeness of the data set. The project completeness goal per the OU5 QAPjP was 90%. Completeness is calculated by dividing the number of samples not taken (15) by the total number of samples planned (163) and multiplying by 100. Then, subtract this value (9.2) from 100 to get completeness, which is 91%. Neither total samples planned nor samples not taken, includes samples planned from locations which are on or below bedrock.

### G.2.4. REPRESENTATIVENESS

Representativeness is defined as the degree to which the data accurately and precisely represent a characteristic of a population, parameter variations at a sampling location, a process condition, or an environmental condition. Sample representativeness was ensured during OU5 investigation by collecting sufficient samples of a population medium, properly distributed with respect to location and time. Representativeness was assessed by reviewing the drilling techniques, sample collection methods, equipment, and sample containers used. Representativeness was also assessed by evaluating the RPD values calculated from the field duplicate samples, the duplicate concentration values reported from redundant analyses, and the concentrations of contaminants detected in the field and laboratory QC blanks. The reproducibility of a representative set of samples reflects the degree of heterogeneity of the sampled medium.

### G.2.5. COMPARABILITY

Comparability is defined as the confidence with which one data set can be compared to another. To achieve data comparability, the data set used for OU5 was generated by employing standardized analytical methods and standardized data validation procedures where available (i.e., CLP Methods and Functional

Guidelines). Where general guidance was unavailable, Mound specific methods and data validation procedures common to all Mound remedial investigations were used.

Additionally, CompuChem participated in the analysis of Performance Evaluation (PE) samples for organics and inorganics and Cross Check (CC) samples for radionuclides. The results of the samples are listed in Tables G.2-3 and G.2-4. The laboratory's performance over the period presented indicates their ability to generate accurate results over time. Based on the overall quality of the PE and CC sample results, and the stringent QC requirements set by the standardized methods, the data generated is considered comparable to other data generated through similar processes.

## G.3.0. DATA VALIDATION AND ASSESSMENT

The OU5 data were validated as described in the following subsections. Data quality was assessed and the usable data population was then determined using the preparation and selection process described in Section G.1.3.

### G.3.1. DATA VALIDATION PROCESS

All data received from the laboratories were subjected to an initial review to ensure that all elements of the required deliverable were submitted. All analytical data were validated according to the guidelines and procedures described in the documents listed in Section G.1.2.1. Ten percent of the data received full validation including recalculation of selected data. The remaining 90% went through a verification process that reviewed QC information and other enclosed forms. Validators were responsible for (1) reviewing the laboratory data (i.e., ensuring that the required information was complete), (2) comparing the laboratory QC results with the required control limits (using professional judgment where specific limits were not specified), (3) verify that selected results were correctly calculated, (4) qualifying affected data points, and (5) preparing a technical justification for the validation actions taken.

Wet chemistry methods (i.e. chloride, pH, sulfate, etc.) were validated to equivalent levels as the balance of organic, inorganic, and radiochemical data. Wet chemistry methods have fewer laboratory QA requirements and provide more general information than do CLP and CLP-type analyses. The results of wet chemistry analyses were therefore incorporated into the overall assessment of DQOs, but individual QA and method specific results are not presented in this appendix.

### G.3.2. DATA VALIDATION REVIEW PROCESS

All analytical data received from the validators were reviewed for completeness and consistency before the validation qualifiers were incorporated into the OU5 database. Approximately 10% of all data validation reports received a secondary review to ensure conformity in validation procedures among validators. Any qualifiers inconsistently or inappropriately applied were revised, as necessary. All changes were documented.

### G.3.3. DATA QUALITY ASSESSMENT

The DQA was conducted using the validated results. The complete OU5 usable data set contained 25,836 concentration records. Bias and uncertainty were evaluated for all estimated (i.e., "J or UJ") data points based on 100 percent of the total estimated (i.e., those data points [records] that were qualified as "J or UJ") dataset. Of these data, 35% (3,178 concentration values) are considered to have been reported at an artificially lower concentration (i.e., potentially biased low). Approximately 9% (856 concentration values) of the OU5 dataset are considered to have been reported at a maximum value (i.e., potentially biased high). The direction of bias could not be determined for 35% (3,204 records) of the OU5 dataset with the information provided. Uncertainty was evaluated as the potential for false negative or false positive values. Based on the data evaluated, 37% (3,371 concentration values) of the estimated values reported are considered potential false negatives and approximately 9% (439 values) are considered potential false positives.

## G.4.0. LABORATORY QUALITY CONTROL SUMMARY

### G.4.1. HOLDING TIMES

Holding times are defined as the maximum amount of time allowed to elapse between the time of sample collection and the time of sample analysis. Analysis of samples that have exceeded the method-recommended holding times may result in the following: (1) concentrations of compounds that ordinarily would have been detected are undetected due to chemical transformation, compound volatilization, or biodegradation; (2) reported concentrations lower than those originally present, due to the factors previously stated; or (3) reported concentrations greater than those originally present in the sample, due to external contamination of water samples or changes in soil moisture content. No data was rejected due

to holding time violations. Approximately 4% (1,079 records) of the usable data population were estimated due to holding time violations.

## G.4.2. ACCURACY AND PRECISION

Laboratory accuracy and precision assessment and matrix effect sample evaluation was conducted using MS/MSD (for organic compounds) and spike and duplicate (for inorganic compounds and radiochemical) analyses. Accuracy and precision were expressed as the percent recovery of the spike compounds, elements or isotopes and the relative percent difference of the concentrations of the spike compounds, respectively. For samples collected and analyzed for trace metals and other inorganic chemicals, precision was expressed as the percent difference of the concentration of elements detected in the sample and associated analytical duplicate. A MS/MSD or a spike and analytical duplicate analysis was required for every 20 samples of a similar matrix.

### G.4.2.1. Volatile Organic Compound Analyses

Eighteen soil samples and eight water samples were analyzed as MS/MSDs using CLP methods. These samples were spiked with the following compounds: acrylonitrile, acetonitrile, 1,1-dichloroethene, trichloroethene, benzene, toluene, and chlorobenzene. The analytical accuracy and precision results are summarized in Tables G.4-1 through G.4-4.

### G.4.2.2. Semivolatile Organic Compound Analyses

Sixteen soil and four water samples were analyzed as MS/MSDs using the CLP SOW. These samples were spiked with the following compounds: phenol, 2-chlorophenol, 1,4-dichlorobenzene, n-nitroso-di-n-propylamine, 1,2,4-trichlorobenzene, 4-chloro-3-methlyphenol, acenaphthene, 4-nitrophenol, 2,4-dinitrotoluene, pentachlorphenol, and pyrene. The analytical accuracy and precision results are summarized in Tables G.4-5 through G.4-8.

### G.4.2.3. Pesticides/PCB Analyses

Sixteen soil and two water samples were analyzed as MS/MSDs using the CLP SOW. These samples were spiked with the following compounds: gamma-BHC (lindane), heptachlor, aldrin, dieldrin, endrin,

and 4,4'-DDT. A summary of the recovery and difference results is presented in Tables G.4-9 through G.4-12.

### G.4.2.4. Purgeable Hydrocarbons Analyses

Four water samples were analyzed as MS/MSDs using the CLP SOW. These samples were spike with the following compounds: trans-1,2-Dichloroethene, cis-1,2-Dichloroethene, trichlorofluoromethane (Freon-11), and Freon-113. A summary of the recovery and difference results is presented in Tables G.4-13 through G.4-14.

### G.4.2.5 Explosives Analyses

Twenty soil and four water samples were analyzed as MS/MSDs using the CLP SOW. These samples were spiked with the following compounds: RDX, 1,3,5-trinitrobenzene, 2,4,6-trinitrotoluene, 2,6-dinitrotoluene, and 2,4-dinitrotoluene. A summary of the recovery and difference results is presented in Table G.4-15 through G.4-18.

### G.4.2.6. Inorganic Chemical Analyses

Ten soil and five water samples were analyzed as spike and duplicates using EPA CLP, solid waste, or other regional methods. A summary of the recovery and difference results is presented in Tables G.4-19 through G.4-22.

### G.4.2.7. Lanthanide Analyses

Several soil and water samples were analyzed as spike and duplicates using EPA CLP, solid waste, or other regional methods. A summary of the recovery and difference results is presented in Tables G.4-23 through G.4-26.

### G.4.2.8. Radionuclide Analyses

Several soil and water samples were analyzed as spike and duplicates using the referenced methods for radiochemical analyses. A summary of the recovery and difference results is presented in Tables G.4-27 through G.4-30.

### G.4.3. COMPLETENESS

The analytical completeness goal was 95% as required by the OU5 QAPjP. Analytical completeness was calculated by determining the percentage of sample analyses that were not rejected for each method. No sample analyses were rejected, therefore the analytical completeness was 100% for all methods. Table G.4-31 presents analytical completeness on an analyses level, however these results do not impact the quality or completeness of the entire data set.

### G.4.4. REPRESENTATIVENESS

Representativeness is ensured by conducting all field measurements, sample collection procedures, and laboratory analyses according to the guidelines and specifications described in the OU5 Work Plan, OU5 FSP, and OU5 QAPjP. Laboratory procedures initially were evaluated in the data validation process. All field procedures and any deviations are discussed in Section 2 of the report. The field duplicate values and QC blank results were processed using the procedures described in Section G.1.3. As a result, the dataset was considered representative for the purpose of the project.

Rejected values were not included in the usable data population due to the increased potential of using false positive or excluding false negative compounds or elements. As a result, 17 VOC, 45 SVOC, 39 Pesticide/PCB, 183 explosive, 304 inorganic, and 4 radiochemical data points were not included in the usable data population. Based on the evaluation of the field and laboratory QC results, 98 percent of the total environmental sample data points collected during OU5 were considered representative (i.e., 596 data points were removed from 26,432 total data points) and used as the basis for all recommendations presented in this report. Rejected data points are presented in Table G.4-32.

## G.5.0. FIELD QUALITY CONTROL SUMMARIES

Forty-three trip blanks, 11 ambient blanks, 11 sample bank blanks, 18 equipment rinsate blanks, and 20 field duplicates were collected during this investigation. Trip ambient, and sample bank blanks were analyzed for VOCs only. Equipment rinsate blanks and field duplicates were analyzed for the same target compounds or elements and using the same laboratory techniques as those used for the environmental

samples. The analytical results obtained from the field QC blanks were used to assess the efficiency and effectiveness of the sample collection, handling, and equipment decontamination procedures used in the field.

### G.5.1. TRIP BLANKS

Trip blanks monitor for VOC contamination during sample transport and storage. Trip blanks were prepared by the laboratory with American Society for Testing and Materials (ASTM) Type II water, stored with the unused sample bottles, and returned to the laboratory with each cooler containing VOC samples. The samples were analyzed for VOCs using the CLP SOW. Table G.5-1 summarizes the concentrations (i.e., greater than the applicable CRQL) of the detected VOCs in the trip blank samples collected during OU5 sampling. If the concentrations of the compounds detected in the environmental samples did not exceed 10 times (for methylene chloride, acetone, 2-butanone, and toluene) or 5 times (for all other compounds) that detected in the trip blank, the compound was considered not detected in the environmental sample (i.e., U) at the concentrations reported.

### G.5.2. AMBIENT AND SAMPLE BANK BLANKS

Ambient blanks and sample bank blanks were collected to monitor for VOCs potentially present in the surrounding environment during sample collection and packaging respectively. Ambient blanks were collected by filling two 40-ml VOA containers with the ASTM Type II water at the site during the collection of the environmental samples. All ambient blanks were analyzed for CLP VOCs. Table G.5-2 summarizes the concentrations of the compounds detected in the ambient blanks.

Sample bank blanks were prepared by filling two 40-ml VOA containers with ASTM type II water at the location where the samples were packaged for shipment. The VOA vials were left uncapped during packaging. After the last environmental sample for a particular shipment had been prepared and placed in the shipping cooler, the vials were sealed and placed into the sample cooler. Sample bank blanks were tested for CLP VOCs.

### G.5.3. EQUIPMENT RINSATE BLANKS

Equipment rinsate blanks were collected to evaluate the decontamination technique used for manual sampling equipment. Equipment rinsate blanks were collected by pouring ASTM Type II reagent water through a decontaminated piece of equipment into a prepared sample container appropriate for the required analysis. Equipment rinsate blanks were shipped to the laboratory, and analyzed for the same analytes as the environmental samples which the equipment was used to collect. All detected compounds and elements in the equipment rinsate blanks were evaluated and the reportable data points were adjusted using the procedure described for trip blanks. Table G.5-3 summarizes the concentrations of the compounds and elements detected in the equipment rinsate blanks collected during the OU5 projects.

### G.5.4. FIELD REPLICATES

Replicate environmental samples were collected at selected locations to evaluate the precision of the sampling technique. The RPD value of each detected compound or element was reviewed to assess the sample collection reproducibility and matrix variability. Table G.5-4 summarizes the calculated RPD values (i.e. less than 20 percent [water samples] and less than 35 percent [soil samples]) for samples collected and analyzed for trace metals and organic compounds.

All field duplicate analyses results were evaluated for best value and CRQL/CRDL to be used in the OU5 data sets using the following procedure: (1) Duplicate detected values were averaged if the calculated RPD was less than or equal to 20 (water) or 35 (soil) percent. The higher concentration value was selected if the reference RPD value was exceeded. (2) The detected value was selected where the duplicate value was not detected. (3) The most sensitive CRQL/CRDL was selected where both values were not detected.

Table G.1-1. Samples Collected and Analyzed During the OU5 Field Investigation

| Analysis | Soils | | Water | | |
|---|---|---|---|---|---|
| | Number of Environmental Samples | Number of Field Duplicate Samples | Number of Environmental Samples | Number of Field Duplicate Samples | Nymber of Field QC Samples |
| Volatile Organics | 123 | 15 | 19 | 5 | 84 |
| Semi-Volatile Organics | 115 | 14 | 14 | 3 | 16 |
| Pesticide/PCBs | 115 | 14 | 13 | 3 | 16 |
| Explosives | 121 | 15 | 13 | 3 | 17 |
| Inorganics | 116 | 14 | 14 | 3 | 16 |
| Gamma Spectroscopy | 121 | 15 | 14 | 3 | 17 |
| Alpha Spectroscopy | 103 | 14 | 12 | 3 | 14 |
| Liquid Scintillation | 121 | 15 | 14 | 3 | 17 |
| Alpha Scintillation | 0 | 0 | 14 | 3 | 17 |
| Conventional Analysis | 115 | 14 | 14 | 3 | 16 |

PCB polychlorinated biphenyls
QC quality control

**Table G.1-2. Validated Data Summary**
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| Validation Code | Validation Parameter | Reason | Bias | Uncertainty | Number of records |
|---|---|---|---|---|---|
| A01 | Holding Times | Extraction Holding Times Were Exceeded. | PBL | PFN | 117 |
| A03 | Holding Times | Analysis Holding Times were exceeded. | PBL | PFN | 962 |
| C01 | Initial/Continuing Calibration - Organics | Initial Calibration RRF was <0.05. | PBL | PFN | 26 |
| C02 | Initial/Continuing Calibration - Organics | Initial Calibration RSD was >30%. | PBU | NA | 95 |
| C05 | Initial/Continuing Calibration - Organics | Continuing Calibration %D was >25%. | PBU | NA | 242 |
| C08 | Initial/Continuing Calibration - Organics | RPD criteria were not met. | PBU | NA | 53 |
| C09 | Initial/Continuing Calibration - Organics | RSD criteria were not met. | PBU | NA | 23 |
| C14 | Initial/Continuing Calibration - Organics | Professional Judgement was used to qualify the data. | PBU | NA | 13 |
| D04 | Initial/Continuing Calibration - Inorganic | CCV Recovery was above the upper control limit. | PBH | NA | 2 |
| D08 | Initial/Continuing Calibration - Inorganic | Correlation coefficient as <0.995. | PBU | NA | 16 |
| E01 | ICP/Furnace requirements | Interference check sample recovery was outside the control limit. | PBH | PFP | 1 |
| E03 | ICP/Furnace requirements | Post digestion spike recovery was outside the control limit. | PBU | NA | 88 |
| E05 | ICP/Furnace requirements | Correlation coefficient was <0.995. | PBL | NA | 1 |

**Table G.1-2. Validated Data Summary**
**Page 2 of 4**

| Validation Code | Validation Parameter | Reason | Bias | Uncertainty | Number of records |
|---|---|---|---|---|---|
| E07 | ICP/Furnace requirements | Serial dilution criteria were not met. | PBU | NA | 400 |
| E08 | ICP/Furnace requirements | Professional judgement was used to quality the data. | PBU | NA | 22 |
| F01 | Blands | Sample data were qualified as a result of the method blank. | PBH | PFP | 188 |
| F02 | Blanks | Sample data were qualified as a result of the field blank. | PBH | PFP | 4 |
| F03 | Blanks | Sample data were qualified as a result of the equipment rinsate. | PBH | PFP | 4 |
| F06 | Blanks | Concentration of the contaminant was detected at a level below the CRQL. | PBH | PFP | 238 |
| F07 | Blanks | Concentration of the contaminant was detected at a level less than the action limit, but greater than the CRQL. | NA | NA | 372 |
| F08 | Blanks | Concentration of the contaminant was detected at a level that exceeds the action level. | NA | NA | 7 |
| F10 | Blanks | Blank had a negative value >5 X'S the IDL. | PBU | NA | 351 |
| G01 | Surrogate/Radiological chemical recovery | Surrogate/Radiological chemical recovery was above the upper control limit. | PBH | NA | 269 |
| G02 | Surrogate/Radiological chemical recovery | Surrogate/Radiological chemical recovery was below the lower control limit. | PBL | PFN | 1368 |
| G03 | Surrogate/Radiological chemical recovery | Surrogate recovery was <10%. | PBL | PFN | 32 |
| G05 | Surrogate/Radiological chemical recovery | Surrogate/Radiological chemical recovery data was not present. | PBU | NA | 130 |

**Table G.1-2. Validated Data Summary**
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| Validation Code | Validation Parameter | Reason | Bias | Uncertainty | Number of records |
|---|---|---|---|---|---|
| G06 | Surrogate/Radiological chemical recovery | Professional Judgement was used to qualify the data. | PBU | NA | 139 |
| G07 | Surrogate/Radiological chemical recovery | Radiological chemcial recovery was <20%. | PBL | PFN | 3 |
| H02 | MS/MSD | MS/MSD recovery was below the lower control limit. | PBL | PFN | 2 |
| H04 | MS/MSD | MS/MSD pairs exceed the RPD limit. | PBU | NA | 16 |
| I01 | Matrix Spike | MS recovery was above the upper control limit. | PBH | NA | 67 |
| I02 | Matrix Spike | MS recovery was below the lower control limit. | PBL | PFN | 455 |
| I03 | Matrix Spike | MS Recovery was <30%. | PBL | PFN | 118 |
| J01 | Laboratory Duplicate | Duplicate RPD/Radiological duplicate error ratio (DER) was outside the control limit. | PBU | NA | 199 |
| J02 | Laboratory Duplicate | Duplicate sample results were >5 X the CRDL. | PBU | NA | 60 |
| J03 | Laboratory Duplicate | Duplicate sample results were <5 X the CRDL. | PBU | NA | 1 |
| J04 | Laboratory Duplicate | Professional judgement was used to qualify the data. | PBU | NA | 19 |
| K01 | Internal area summary | Area counts were outside the control limits. | PBL | PFN | 89 |
| M07 | Target compound ID | Professional judgement was used to qualify the data. | PBU | NA | 24 |
| M08 | Target compound ID | The %D between the two pesticide/PCB column checks was >25%. | PBU | NA | 146 |
| N02 | Comp. Quant/RPT'd CRQL | MDL'S reported by the laboratory exceeded corresponding CRQL'S. | NA | PFN | 194 |

**Table G.1-2. Validated Data Summary**
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| Validation Code | Validation Parameter | Reason | Bias | Uncertainty | Number of records |
|---|---|---|---|---|---|
| N03 | Comp. Quant/RPT'd CRQL | Professional judgement used to qualify the data. | PBU | NA | 51 |
| O01 | Tentatively identified compounds | Compound was suspected laboratory contaminant and was not detected in the blank. | NA | PFP | 4 |
| P01 | LCS | LCS recovery was above upper control limit. | PBH | NA | 83 |
| P02 | LCS | LCS recovery was below lower control limit. | PBL | PFN | 5 |
| P05 | LCS | LCS was not analyzed at required frequency | PBU | NA | 4 |
| P08 | LCS | Professional judgement was used to qualify the data. | PBU | NA | 2 |
| Q01 | Field Duplicates | Field duplicate RPD's were >30% for waters and/or >50% for soils. | PBU | NA | 650 |
| R02 | RAD Calibration | Energy calibration criteria were not met. | PBU | NA | 93 |
| R08 | RAD Calibration | Professional judgement was used to qualify the data. | PBU | NA | 88 |
| S02 | RAD Calibration verification | Energy verification criteria were not met. | PBU | NA | 62 |
| T04 | RAD Quantitiation | Professional judgement was used to qualify the data. | PBU | NA | 41 |
| U03 | Tagret RAD (GAMMA) | Professional judgement was used to qualify the data. | PBU | NA | 33 |

CRQL Contract required detection level
IDL Instrument detection level
LCS Laboratory control sample
MSD Matrix spike duplicate
MS matrix spike
NA Not applicable
PBH Potentially biased high
PBL Potentially biased low
PBU Potential bias unknown
PFN Potential false negative
PFP Potential false postive
RPD Relative percent difference
RRF relative response factor
RSD Relative standard deviation

**Table G.2-1. OU5 Data Quality Objectives for Water Samples**

| Analysis | Method | Accuracy* (% R) | Precision (RPD) | Completeness (%) |
|---|---|---|---|---|
| Volatile Organic Compounds | CLP SOW | 61-145 | 14 | 95% |
| Semivolatile Organic Compounds | CLP SOW | 9-127 | 50 | 95% |
| Pesticides/PCBs | CLP SOW | 38-131 | 27 | 95% |
| Purgeable Hydrocarbons | SW846 8010 | | 15 | 95% |
| Inorganics | CLP SOW | 75-125 | 20 | 95% |
| Lanthanides | CLP SOW MOD C | 75-125 | 20 | 95% |
| Explosives | SW846 8330 | 62-102 | 45 | 95% |
| Radiological Data | Various | ± 3 x SD | + 4 x SD | 95% |

-- Actual limits not stated in the QAPjP
* Accuracy values presented in table represent a compulation of all acceptable recovery ranges of individual compounds (i.e., the maximum and minimum limit of any target list compound (TLC).
CLP SOW Contract laboratory program statment of work
MOD Modification
PCB Polychlorinated biphenyl
%R Percent recovery
RPD Relative percent difference

**Table G.2-2. OU5 Data Quality Objectives for Soil Samples**

| Analysis | Method | Accuracy (% R) | Precision (RPD) | Completeness (%) |
|---|---|---|---|---|
| Volatile Organic Compounds | CLP SOW | 59-172 | 24 | 95% |
| Semivolatile Organic Compounds | CLP SOW | 11-142 | 50 | 95% |
| Pesticides/PCBs | CLP SOW | 23-139 | 50 | 95% |
| Purgeable Hydrocarbons | SW846 8010 | 60-140 | 30 | 95% |
| Inorganics | CLP SOW | 75-125 | 35 | 95% |
| Lanthanides | CLP SOW MOD C | 75-125 | 20 | 95% |
| Explosives | SW8330 | -- | -- | 95% |
| Radiological Data | Various | ± 3 x SD | + 4 x SD | 95% |

-- Actual limits not stated in the QAPjP
SD Standard Deviation - number determined by laboratory
* Accuracy values presented in table represent a compulation of all acceptable recovery ranges of individual compounds (i.e., the maximum and minimum limit of any target list compound (TLC).
CLP SOW Contract laboratory program statment of work
MOD Modification
PCB Polychlorinated biphenyl
%R Percent recovery
RPD Relative percent difference

**Table G.2-3. Performance Evaluation Report for CompuChem**
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| Analyte | Test Date | | | | | |
|---|---|---|---|---|---|---|
| | Third Quarter 1994 | | | Fourth Quarter 1994 | | |
| | Sample 1 | Sample 2 | Sample 3 | Sample 1 | Sample 2 | Sample 3 |
| Aluminum | Satisfactory | Satisfactory | Satisfactory | Satisfactory | ---- | Satisfactory |
| Antimony | Unsatisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory |
| Arsenic | Satisfactory | Unsatisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory |
| Barium | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory | ---- |
| Beryllium | Satisfactory | Satisfactory | Satisfactory | Unsatisfactory | Satisfactory | ---- |
| Cadmium | Satisfactory | Satisfactory | Warning | Satisfactory | Satisfactory | Satisfactory |
| Calcium | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory | ---- |
| Chromium | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Unsatisfactory | Unsatisfactory |
| Cobalt | ---- | Satisfactory | Satisfactory | ---- | Unsatisfactory | Satisfactory |
| Copper | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory | ---- |
| Iron | Satisfactory | Satisfactory | Unsatisfactory | Satisfactory | Satisfactory | Satisfactory |
| Lead | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory |
| Magnesium | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory |
| Manganese | Satisfactory | Satisfactory | Satisfactory | Satisfactory | ---- | Satisfactory |
| Mercury | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Unsatisfactory | Satisfactory |
| Nickel | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory | ---- |
| Potassium | Satisfactory | Satisfactory | Satisfactory | Satisfactory | ---- | Satisfactory |

**Table G.2-3. Performance Evaluation Report for CompuChem**
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| Analyte | Test Date | | | | | |
|---|---|---|---|---|---|---|
| | Third Quarter 1994 | | | Fourth Quarter 1994 | | |
| | Sample 1 | Sample 2 | Sample 3 | Sample 1 | Sample 2 | Sample 3 |
| Selenium | Satisfactory | Satisfactory | Satisfactory | Satisfactory | ---- | Satisfactory |
| Silver | Satisfactory | ---- | Unsatisfactory | Satisfactory | Unsatisfactory | Satisfactory |
| Sodium | ---- | Satisfactory | Satisfactory | Unsatisfactory | Satisfactory | ---- |
| Thallium | ---- | Satisfactory | Satisfactory | Satisfactory | ---- | Satisfactory |
| Vanadium | Satisfactory | Satisfactory | Satisfactory | Satisfactory | ---- | Satisfactory |
| Zinc | Satisfactory | Satisfactory | Satisfactory | Satisfactory | ---- | Satisfactory |
| Bromomethane | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Bromodichloromethane | ---- | ---- | ---- | Unsatisfactory | ---- | ---- |
| Trichloroethene | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| trans-1,3-Dichloropropene | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| 2-pentanone,4-Methyl- | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| 2-Hexanone | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Tetrachloroethene | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| 1,1,2,2-Tetrachloroethane | ---- | ---- | ---- | Warning | ---- | ---- |
| Ethyl benzene | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Styrene | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Phenol | ---- | ---- | ---- | Satisfactory | ---- | ---- |

**Table G.2-3. Performance Evaluation Report for CompuChem**
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| Analyte | Test Date | | | | | |
|---|---|---|---|---|---|---|
| | Third Quarter 1994 | | | Fourth Quarter 1994 | | |
| | Sample 1 | Sample 2 | Sample 3 | Sample 1 | Sample 2 | Sample 3 |
| 2-Chlorophenol | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| 1,4-Dichlorobenzene | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| 2,2'-oxybis(1-Chloropropene) | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Naphthalene | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Acenaphthene | ---- | ---- | | Satisfactory | ---- | ---- |
| Dibenzofuran | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Diethylphthalate | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Fluorene | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Hexachlorobenzene | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Pentachlorophenol | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Fluoranthene | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Pyrene | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Dibenzo(a,h)anthracene | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| gamma-BHC | ---- | ---- | ---- | Warning | ---- | ---- |
| Aldrin | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Dieldrin | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| 4,4'-DDE | ---- | ---- | ---- | Satisfactory | ---- | ---- |

**Table G.2-3. Performance Evaluation Report for CompuChem**
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| Analyte | Test Date | | | | | |
|---|---|---|---|---|---|---|
| | Third Quarter 1994 | | | Fourth Quarter 1994 | | |
| | Sample 1 | Sample 2 | Sample 3 | Sample 1 | Sample 2 | Sample 3 |
| Endrin | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| 4,4'-DDD | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Methoxychlor | ---- | ---- | ---- | Satisfactory | ---- | ---- |
| Aroclor-1016 | ---- | ---- | ---- | ---- | ---- | ---- |

| | |
|---|---|
| --- | Not Provided |
| Acceptable | Result $\leq \pm 2$ Standard Deviations from Actual Concentrations |
| Warning | Result between 2 and 3 Standard Deviations from Actual Concentrations |
| Unaccpetable | Result $> \pm 3$ Standard Deviations from Actual Concentrations |

Table G.2-4. Cross Check Samples for CompuChem

| Analyte | Date of Study |
|---|---|
| | April-94 |
| Cesium-134 in Water | Satisfactory |
| Cesium-137 in Water | Satisfactory |
| Cobalt-60 in Water | Satisfactory |
| Gross Alpha in Water | Satisfactory |
| Gross Beta in Water | Satisfactory |
| Radium-226 in Water | Satisfactory |
| Radium-228 in Water | Satisfactory |
| Strontium-90 in Water | Satisfactory |
| Strontium-89 in Water | Satisfactory |
| Uranium (Natural) in Water | Satisfactory |

Satisfactory Results were within action limits.

**Table G.4-1. Volatiles Accuracy Summary - Soil Samples**

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimim Spike Recovery (%) | Maximum Spike Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 18 | 18 | 78 | 112 | 59-172 |
| Trichloroethene | 18 | 18 | 79 | 107 | 62-137 |
| Benzene | 18 | 18 | 80 | 104 | 66-142 |
| Toluene | 18 | 18 | 93 | 120 | 59-139 |
| Chlorobenzene | 18 | 18 | 85 | 105 | 60-133 |
| Acetonitrile | 18 | 16 | 31 | 124 | 60-140 |
| Acrylonitrile | 18 | 18 | 82 | 118 | 60-140 |

**Table G.4-2. Volatiles Accuracy Summary - Water Samples**

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spike Recovery (%) | Maximum Spike Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 8 | 8 | 86 | 103 | 61-145 |
| Trichloroethene | 8 | 8 | 90 | 113 | 71-120 |
| Benzene | 8 | 8 | 87 | 106 | 76-127 |
| Toluene | 8 | 8 | 87 | 98 | 76-125 |
| Chlorobenzene | 8 | 8 | 88 | 102 | 75-130 |
| Acetonitrile | 8 | 7 | 94 | 156 | 70-130 |
| Acrylonitrile | 8 | 8 | 80 | 116 | 70-130 |

**Table G.4-3. Volatiles Precision Summary - Soil Samples**

| Analyte | Number of Spike Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 9 | 9 | 0 | 13 | 22 |
| Trichloroethene | 9 | 9 | 0 | 20 | 24 |
| Benzene | 9 | 9 | 0 | 10 | 21 |
| Toluene | 9 | 9 | 0 | 16 | 21 |
| Chlorobenzene | 9 | 9 | 0 | 16 | 21 |
| Acetonitrile | 9 | 6 | 2 | 107 | 25 |
| Acrylonitrile | 9 | 9 | 1 | 15 | 25 |

RPD relative percent difference

**Table G.4-4. Volatiles Precision Summary - Water Samples**

| Analyte | Number of Spike Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 4 | 4 | 3 | 12 | 14 |
| Trichloroethene | 4 | 4 | 0 | 7 | 14 |
| Benzene | 4 | 4 | 0 | 5 | 11 |
| Toluene | 4 | 4 | 1 | 3 | 13 |
| Chlorobenzene | 4 | 4 | 1 | 4 | 13 |
| Acetonitrile | 4 | 3 | 1 | 49 | 15 |
| Acrylonitrile | 4 | 3 | 3 | 15 | 15 |

RPD relative percent difference

**Table G.4-5. Semivolatiles Accuracy Summary - Soil Samples**

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spike Recovery (%) | Maximum Spike Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Phenol | 16 | 14 | 62 | 102 | 26-90 |
| 2-Chlorophenol | 16 | 16 | 53 | 93 | 25-102 |
| 1,4-Dichlorobenzene | 16 | 16 | 69 | 94 | 28-104 |
| n-Nitroso-di-n-propylamine | 16 | 16 | 70 | 111 | 41-126 |
| 1,2,4-Trichlorobenzene | 16 | 12 | 79 | 122 | 38-107 |
| 4-Chloro-3-methylphenol | 16 | 10 | 89 | 125 | 26-103 |
| Acenaphthene | 16 | 16 | 68 | 102 | 31-137 |
| 4-Nitrophenol | 16 | 16 | 62 | 107 | 11-114 |
| 2,4-Dinitrotoluene | 16 | 7 | 75 | 102 | 28-89 |
| Pentachlorophenol | 16 | 14 | 51 | 119 | 17-109 |
| Pyrene | 16 | 14 | 12 | 127 | 35-142 |

**Table G.4-6. Semivolatiles Accuracy Summary - Water Samples**

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spike Recovery (%) | Maximum Spike Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Phenol | 4 | 4 | 68 | 75 | 12-110 |
| 2-Chlorophenol | 4 | 4 | 66 | 75 | 27-123 |
| 1,4-Dichlorobenzene | 4 | 4 | 59 | 75 | 36-97 |
| n-Nitroso-di-n-propylamine | 4 | 4 | 77 | 88 | 41-116 |
| 1,2,4-Trichlorobenzene | 4 | 4 | 64 | 98 | 39-98 |
| 4-Chloro-3-methylphenol | 4 | 3 | 80 | 104 | 23-97 |
| Acenaphthene | 4 | 4 | 70 | 85 | 46-118 |
| 4-Nitrophenol | 4 | 2 | 74 | 109 | 10-80 |
| 2,4-Dinitrotoluene | 4 | 4 | 64 | 72 | 24-96 |
| Pentachlorophenol | 4 | 3 | 86 | 107 | 9-103 |
| Pyrene | 4 | 4 | 64 | 76 | 26-127 |

Table G.4-7. Semivolatiles Precision Summary - Soil Samples

| Analyte | Number of Spike Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Phenol | 8 | 8 | 0 | 11 | 35 |
| 2-Chlorophenol | 8 | 8 | 1 | 11 | 50 |
| 1,4-Dichlorobenzene | 8 | 8 | 0 | 10 | 27 |
| n-Nitroso-di-n-propylamine | 8 | 8 | 1 | 26 | 38 |
| 1,2,4-Trichlorobenzene | 8 | 8 | 2 | 18 | 23 |
| 4-Chloro-3-methylphenol | 8 | 8 | 2 | 20 | 33 |
| Acenaphthene | 8 | 7 | 0 | 23 | 19 |
| 4-Nitrophenol | 8 | 8 | 0 | 25 | 50 |
| 2,4-Dinitrotoluene | 8 | 8 | 4 | 25 | 47 |
| Pentachlorophenol | 8 | 8 | 1 | 29 | 47 |
| Pyrene | 8 | 6 | 1 | 77 | 36 |

RPD relative percent difference

Table G.4-8. Semivolatiles Precision Summary - Water Samples

| Analyte | Number of Spike Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Phenol | 2 | 2 | 1 | 4 | 42 |
| 2-Chlorophenol | 2 | 2 | 0 | 4 | 40 |
| 1,4-Dichlorobenzene | 2 | 2 | 10 | 16 | 28 |
| n-Nitroso-di-n-propylamine | 2 | 2 | 5 | 9 | 38 |
| 1,2,4-Trichlorobenzene | 2 | 2 | 14 | 17 | 28 |
| 4-Chloro-3-methylphenol | 2 | 2 | 0 | 10 | 42 |
| Acenaphthene | 2 | 2 | 1 | 8 | 31 |
| 4-Nitrophenol | 2 | 2 | 3 | 9 | 50 |
| 2,4-Dinitrotoluene | 2 | 2 | 3 | 9 | 38 |
| Pentachlorophenol | 2 | 2 | 0 | 12 | 50 |
| Pyrene | 2 | 2 | 3 | 5 | 31 |

RPD relative percent difference

Table G.4-9. Pesticide/PCBs Accuracy Summary - Soil Samples

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spike Recovery (%) | Maximum Spike Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Lindane | 16 | 16 | 55 | 86 | 46-127 |
| Heptachlor | 16 | 16 | 61 | 91 | 35-130 |
| Aldrin | 16 | 16 | 49 | 91 | 34-132 |
| Dieldrin | 16 | 16 | 56 | 88 | 31-134 |
| Endrin | 16 | 16 | 67 | 93 | 42-139 |
| 4,4'-DDT | 16 | 16 | 61 | 87 | 23-134 |

Table G.4-10. Pesticide/PCBs Accuracy Summary - Water Samples

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spike Recovery (%) | Maximum Spike Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Lindane | 2 | 2 | 68 | 72 | 56-123 |
| Heptachlor | 2 | 2 | 70 | 72 | 40-131 |
| Aldrin | 2 | 2 | 58 | 60 | 40-120 |
| Dieldrin | 2 | 2 | 64 | 67 | 52-126 |
| Endrin | 2 | 2 | 68 | 71 | 56-121 |
| 4,4'-DDT | 2 | 2 | 71 | 71 | 38-127 |

Table G.4-11. Pesticide/PCBs Precision Summary - Soil Samples

| Analyte | Number of Spike Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Gamma | 8 | 8 | 0 | 14 | 50 |
| Heptachlor | 8 | 8 | 0 | 19 | 31 |
| Aldrin | 8 | 8 | 0 | 19 | 43 |
| Dieldrin | 8 | 8 | 1 | 20 | 38 |
| Endrin | 8 | 8 | 1 | 17 | 45 |
| 4,4'-DDT | 8 | 8 | 0 | 17 | 50 |

RPD relative percent difference

Table G.4-12. Pesticide/PCBs Precision Summary - Water Samples

| Analyte | Number of Spike Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Gamma | 1 | 1 | 6 | 6 | 15 |
| Heptachlor | 1 | 1 | 3 | 3 | 20 |
| Aldrin | 1 | 1 | 3 | 3 | 22 |
| Dieldrin | 1 | 1 | 5 | 5 | 18 |
| Endrin | 1 | 1 | 4 | 4 | 21 |
| 4,4'-DDT | 1 | 1 | 0 | 0 | 27 |

RPD relative percent difference

**Table G.4-13. Purgeable Hydrocarbons Accuracy Summary - Water Samples**

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spike Recovery (%) | Maximum Spike Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| trans-1,2-Dichloroethene | 4 | 4 | 117 | 130 | 38-155 |
| cis-1,2-Dichloroethene | 4 | 4 | 118 | 131 | 38-155 |
| trichlorofluoromethane | 4 | 4 | 116 | 136 | 21-156 |
| Freon-113 | 4 | 4 | 116 | 144 | 21-156 |

**Table G.4-14. Purgeable Hydrocarbons Precision Summary - Water Samples**

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spike Recovery (%) | Maximum Spike Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| trans-1,2-Dichloroethene | 2 | 2 | 2 | 2 | 20 |
| cis-1,2-Dichloroethene | 2 | 2 | 1 | 5 | 20 |
| trichlorofluoromethane | 2 | 2 | 5 | 6 | 20 |
| Freon-113 | 2 | 2 | 3 | 4 | 20 |

Table G.4-15. Explosives Accuracy Summary - Soil Samples

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spike Recovery (%) | Maximum Spike Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| RDX | 20 | 18 | 57 | 211 | 40-160 |
| 1,3,5-Trinitrobenzene | 20 | 18 | 57 | 212 | 40-160 |
| 2,4-Dinitrotoluene | 20 | 17 | 55 | 177 | 40-160 |
| 2,6-Dinitrotoluene | 20 | 18 | 49 | 171 | 40-160 |
| 2,4,6-Trinitrotoluene | 20 | 19 | 70 | 288 | 40-160 |

Table G.4-16. Explosives Accuracy Summary - Water Samples

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spike Recovery (%) | Maximum Spiked Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| RDX | 4 | 1 | 52 | 112 | 62-87 |
| 1,3,5-Trinitrobenzene | 4 | 3 | 59 | 99 | 85-100 |
| 2,4-Dinitrotoluene | 4 | 3 | 53 | 99 | 75-99 |
| 2,6-Dinitrotoluene | 4 | 2 | 58 | 109 | 66-102 |
| 2,4,6-Trinitrotoluene | 4 | 1 | 65 | 126 | 78-102 |

Table G.4-17. Explosives Precision Summary - Soil Samples

| Analyte | Number of Spike Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| RDX | 10 | 8 | 0 | 61 | 40 |
| 1,3,5-Trinitrobenzene | 10 | 8 | 2 | 51 | 30 |
| 2,4-Dinitrotoluene | 10 | 6 | 0 | 59 | 40 |
| 2,6-Dinitrotoluene | 10 | 10 | 1 | 57 | 60 |
| 2,4,6-Trinitrotoluene | 10 | 8 | 0 | 103 | 40 |

RPD relative percent difference

Table G.4-18. Explosives Precision Summary - Water Samples

| Analyte | Number of Spike Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| RDX | 2 | 1 | 1 | 42 | 32 |
| 1,3,5-Trinitrobenzene | 2 | 1 | 6 | 37 | 19 |
| 2,4-Dinitrotoluene | 2 | 1 | 0 | 34 | 31 |
| 2,6-Dinitrotoluene | 2 | 2 | 38 | 45 | 45 |
| 2,4,6-Trinitrotoluene | 2 | 1 | 40 | 10 | 29 |

RPD relative percent difference

Table G.4-19. Metals Accuracy Summary - Soil Samples

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spiked Recovery (%) | Maximum Spiked Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Aluminum | 0 | -- | -- | -- | -- |
| Antimony | 10 | 1 | 8 | 76 | 75-125 |
| Arsenic | 10 | 8 | 60 | 96 | 75-125 |
| Barium | 10 | 8 | 70 | 105 | 75-125 |
| Beryllium | 10 | 8 | 65 | 100 | 75-125 |
| Bismuth | 10 | 10 | 76 | 94 | 75-125 |
| Cadmium | 10 | 5 | 64 | 97 | 75-125 |
| Calcium | 0 | -- | -- | -- | -- |
| Chromium | 10 | 7 | 70 | 125 | 75-125 |
| Cobalt | 10 | 8 | 68 | 95 | 75-125 |
| Copper | 10 | 10 | 79 | 111 | 75-125 |
| Iron | 0 | -- | -- | -- | -- |
| Lead | 12 | 8 | 68 | 151 | 75-125 |
| Magnesium | 0 | -- | -- | -- | -- |
| Manganese | 10 | 3 | -106 | 419 | 75-125 |
| Mercury | 10 | 10 | 86 | 125 | 75-125 |
| Nickel | 10 | 8 | 74 | 96 | 75-125 |
| Potassium | 0 | -- | -- | -- | -- |
| Selenium | 10 | 9 | 68 | 107 | 75-125 |
| Silver | 10 | 10 | 78 | 98 | 75-125 |
| Sodium | 0 | -- | -- | -- | -- |
| Thallium | 10 | 5 | 46 | 96 | 75-125 |
| Tin | 10 | 10 | 81 | 105 | 75-125 |
| Vanadium | 10 | 6 | 62 | 106 | 75-125 |
| Zinc | 10 | 8 | 68 | 124 | 75-125 |
| Lithium | 9 | 9 | 88 | 101 | 75-125 |
| Molybdenum | 9 | 4 | 28 | 3624 | 75-125 |
| Cyanide | 10 | 10 | 86 | 100 | 75-125 |

-- Not Applicable

Table G.4-20. Metals Accuracy Summary - Water Samples

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spike Recovery (%) | Maximum Spike Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Aluminum | 5 | 2 | 7 | 235 | 75-125 |
| Antimony | 5 | 4 | 32 | 97 | 75-125 |
| Arsenic | 5 | 4 | 22 | 102 | 75-125 |
| Barium | 5 | 4 | 74 | 97 | 75-125 |
| Beryllium | 5 | 5 | 76 | 101 | 75-125 |
| Bismuth | 5 | 5 | 86 | 100 | 75-125 |
| Cadmium | 5 | 4 | 51 | 93 | 75-125 |
| Calcium | 0 | -- | -- | -- | -- |
| Chromium | 5 | 4 | 57 | 97 | 75-125 |
| Cobalt | 5 | 4 | 63 | 96 | 75-125 |
| Copper | 5 | 5 | 75 | 98 | 75-125 |
| Iron | 5 | 3 | 1 | 845 | 75-125 |
| Lead | 5 | 5 | 89 | 106 | 75-125 |
| Magnesium | 0 | -- | -- | -- | -- |
| Manganese | 5 | 4 | 47 | 104 | 75-125 |
| Mercury | 5 | 4 | 98 | 128 | 75-125 |
| Nickel | 5 | 4 | 58 | 112 | 75-125 |
| Potassium | 0 | -- | -- | -- | -- |
| Selenium | 5 | 4 | 0 | 111 | 75-125 |
| Silver | 5 | 4 | 65 | 96 | 75-125 |
| Sodium | 0 | -- | -- | -- | -- |
| Thallium | 5 | 4 | 42 | 98 | 75-125 |
| Tin | 5 | 2 | 50 | 98 | 75-125 |
| Vanadium | 5 | 4 | 65 | 96 | 75-125 |
| Zinc | 5 | 4 | 65 | 98 | 75-125 |
| Lithium | 2 | 2 | 98 | 105 | 75-125 |
| Molybdenum | 2 | 2 | 95 | 99 | 75-125 |
| Cyanide | 5 | 5 | 90 | 95 | 75-125 |

-- Not Applicable

Table G.4-21. Metals Precision Summary - Soil Samples

| Analyte | Number of Spike Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Aluminum | 10 | 8 | 1 | 43 | 35 |
| Antimony | 3 | 3 | 2 | 23 | 35 |
| Arsenic | 10 | 9 | 1 | 45 | 35 |
| Barium | 10 | 7 | 1 | 67 | 35 |
| Beryllium | 8 | 6 | 1 | 39 | 35 |
| Bismuth | 8 | 8 | 2 | 19 | 35 |
| Cadmium | 3 | 3 | 1 | 17 | 35 |
| Calcium | 10 | 8 | 1 | 49 | 35 |
| Chromium | 10 | 9 | 2 | 37 | 35 |
| Cobalt | 10 | 10 | 1 | 22 | 35 |
| Copper | 10 | 8 | 1 | 46 | 35 |
| Iron | 10 | 10 | 1 | 26 | 35 |
| Lead | 12 | 11 | 1 | 57 | 35 |
| Magnesium | 10 | 8 | 2 | 48 | 35 |
| Manganese | 10 | 9 | 1 | 42 | 35 |
| Mercury | 1 | 1 | 12 | 12 | 35 |
| Nickel | 10 | 9 | 1 | 51 | 35 |
| Potassium | 10 | 9 | 3 | 37 | 35 |
| Selenium | 0 | -- | -- | -- | -- |
| Silver | 1 | 0 | 69 | 69 | 35 |
| Sodium | 10 | 10 | 1 | 29 | 35 |
| Thallium | 1 | 1 | 12 | 12 | 35 |
| Tin | 2 | 1 | 1 | 37 | 35 |
| Vanadium | 10 | 9 | 2 | 38 | 35 |
| Zinc | 10 | 10 | 2 | 35 | 35 |
| Lithium | 9 | 9 | 1 | 28 | 35 |
| Molybdenum | 6 | 6 | 5 | 19 | 35 |
| Cyanide | 0 | -- | -- | -- | -- |

-- not applicable RPD relative percent difference

Table G.4-22. Metals Precision Summary - Water Samples

| Analyte | Number of Spike Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Aluminum | 4 | 3 | 5 | 101 | 20 |
| Antimony | 0 | -- | -- | -- | -- |
| Arsenic | 1 | 1 | 10 | 10 | 20 |
| Barium | 4 | 3 | 9 | 45 | 20 |
| Beryllium | 1 | 1 | 1 | 1 | 20 |
| Bismuth | 2 | 2 | 2 | 9 | 20 |
| Cadmium | 0 | -- | -- | -- | -- |
| Calcium | 5 | 5 | 1 | 16 | 20 |
| Chromium | 2 | 2 | 1 | 5 | 20 |
| Cobalt | 3 | 1 | 13 | 44 | 20 |
| Copper | 4 | 2 | 8 | 28 | 20 |
| Iron | 5 | 2 | 1 | 141 | 20 |
| Lead | 3 | 3 | 2 | 14 | 20 |
| Magnesium | 5 | 4 | 1 | 26 | 20 |
| Manganese | 3 | 3 | 1 | 5 | 20 |
| Mercury | 0 | -- | -- | -- | -- |
| Nickel | 3 | 2 | 3 | 171 | 20 |
| Potassium | 4 | 4 | 2 | 15 | 20 |
| Selenium | 0 | -- | -- | -- | -- |
| Silver | 0 | -- | -- | -- | -- |
| Sodium | 5 | 5 | 1 | 13 | 20 |
| Thallium | 0 | -- | -- | -- | -- |
| Tin | 0 | -- | -- | -- | -- |
| Vanadium | 3 | 2 | 4 | 95 | 20 |
| Zinc | 5 | 3 | 1 | 65 | 20 |
| Lithium | 1 | 1 | 2 | 2 | 20 |
| Molybdenum | 1 | 1 | 1 | 1 | 20 |
| Cyanide | 0 | -- | -- | -- | -- |

-- not applicable RPD relative percent difference

Table G.4-23. Lanthanides Accuracy Summary - Soil Samples

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spiked Recovery (%) | Maximum Spiked Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Cerium | 4 | 4 | 93 | 101 | 75-125 |
| Dypsprosium | 4 | 4 | 89 | 95 | 75-125 |
| Erbium | 4 | 0 | 126 | 138 | 75-125 |
| Europium | 4 | 4 | 91 | 98 | 75-125 |
| Gadolinium | 4 | 2 | 33 | 96 | 75-125 |
| Holmium | 4 | 4 | 91 | 100 | 75-125 |
| Lanthanum | 4 | 4 | 93 | 98 | 75-125 |
| Lutetium | 4 | 4 | 95 | 100 | 75-125 |
| Neodymium | 4 | 4 | 92 | 98 | 75-125 |
| Praseodym | 4 | 4 | 79 | 93 | 75-125 |
| Samarium | 4 | 4 | 98 | 101 | 75-125 |
| Terbium | 4 | 4 | 88 | 96 | 75-125 |
| Thulium | 4 | 4 | 86 | 89 | 75-125 |
| Ytterbium | 4 | 4 | 94 | 95 | 75-125 |

Table G.4-24. Lanthanides Accuracy Summary - Water Samples

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spiked Recovery (%) | Maximum Spiked Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Cerium | 2 | 2 | 99 | 104 | 075-125 |
| Dypsprosium | 2 | 2 | 93 | 94 | 75-125 |
| Erbium | 2 | 0 | 140 | 146 | 75-125 |
| Europium | 2 | 2 | 97 | 102 | 75-125 |
| Gadolinium | 2 | 1 | 73 | 103 | 75-125 |
| Holmium | 2 | 2 | 103 | 105 | 75-125 |
| Lanthanum | 2 | 2 | 98 | 103 | 75-125 |
| Lutetium | 2 | 2 | 103 | 105 | 75-125 |
| Neodymium | 2 | 2 | 96 | 97 | 75-125 |
| Praseodym | 2 | 2 | 96 | 97 | 75-125 |
| Samarium | 2 | 2 | 100 | 100 | 75-125 |
| Terbium | 2 | 2 | 96 | 102 | 75-125 |
| Thulium | 2 | 2 | 94 | 101 | 75-125 |
| Ytterbium | 2 | 2 | 98 | 102 | 75-125 |

Table G.4-25. Lanthanides Precision Summary - Soil Samples

| Analyte | Number of Spike Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Cerium | 4 | 3 | 7 | 43 | 35 |
| Dypsprosium | 2 | 2 | 11 | 15 | 35 |
| Erbium | 1 | 1 | 25 | 25 | 35 |
| Europium | 1 | 1 | 35 | 35 | 35 |
| Gadolinium | 1 | 1 | 1 | 1 | 35 |
| Holmium | 0 | -- | -- | -- | -- |
| Lanthanum | 4 | 3 | 6 | 54 | 35 |
| Lutetium | 0 | -- | -- | -- | -- |
| Neodymium | 3 | 2 | 11 | 78 | 35 |
| Praseodymium | 1 | 1 | 20 | 20 | 35 |
| Samarium | 0 | -- | -- | -- | -- |
| Terbium | 0 | -- | -- | -- | -- |
| Thulium | 0 | -- | -- | -- | -- |
| Ytterbium | 2 | 2 | 2 | 14 | 35 |

-- not applicable
RPD relative percent difference

Table G.4-26. Lanthanides Precision Summary - Water Samples

| Analyte | Number of Spike Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Cerium | 0 | -- | -- | -- | -- |
| Dypsprosium | 0 | -- | -- | -- | -- |
| Erbium | 0 | -- | -- | -- | -- |
| Europium | 0 | -- | -- | -- | -- |
| Gadolinium | 1 | 1 | 6 | 6 | 20 |
| Holmium | 0 | -- | -- | -- | -- |
| Lanthanum | 0 | -- | -- | -- | -- |
| Lutetium | 0 | -- | -- | -- | -- |
| Neodymium | 0 | -- | -- | -- | -- |
| Praseodymium | 0 | -- | -- | -- | -- |
| Samarium | 0 | -- | -- | -- | -- |
| Terbium | 0 | -- | -- | -- | -- |
| Thulium | 0 | -- | -- | -- | -- |
| Ytterbium | 0 | -- | -- | -- | -- |

-- not applicable
RPD relative percent difference

Table G.4-27. Radionuclides Accuracy Summary - Soil Samples

| Analyte | Number of Spiked Samples | Spiked Recoveries Within Limits | Minimum Spiked Recovery (%) | Maximum Spiked Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Uranium-238 | 9 | 9 | 85 | 103 | 75-125 |
| Thorium-230 | 9 | 9 | 95 | 119 | 75-125 |
| Plutonium-238 | 9 | 9 | 95 | 110 | 75-125 |
| Tritium | 9 | 9 | 87 | 109 | 75-125 |
| Strontium-90 | 9 | 9 | 92 | 123 | 75-125 |

Table G.4-28. Radionuclides Accuracy Summary - Water Samples

| Analyte | Number of Spiked Samples | Spiked Recoveries Wtihin Limits | Minimum Spiked Recovery (%) | Maximum Spiked Recovery (%) | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Uranium-238 | 6 | 6 | 96 | 105 | 75-125 |
| Thorium-230 | 6 | 6 | 93 | 113 | 75-125 |
| Plutonium-238 | 6 | 6 | 96 | 103 | 75-125 |
| Tritium | 6 | 6 | 94 | 99 | 75-125 |
| Strontium-90 | 6 | 6 | 90 | 114 | 75-125 |
| Radium-226 | 6 | 6 | 98 | 104 | 75-125 |
| Americium-241 | 6 | 6 | 88 | 97 | 75-125 |

Table G.4-29. Radionuclides Precision Summary - Soil Samples

| Analyte | Number of Spiked Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Uranium-238 | 9 | 8 | 2 | 54 | 50 |
| Uranium-235 | 2 | 1 | 40 | 123 | 50 |
| Uranium-234 | 8 | 8 | 0 | 34 | 50 |
| Plutonium-239/240 | 0 | -- | -- | -- | -- |
| Plutonium-238 | 3 | 2 | 13 | 105 | 50 |
| Thorium-232 | 8 | 5 | 2 | 82 | 50 |
| Thorium-230 | 9 | 5 | 1 | 113 | 50 |
| Thorium-228 | 9 | 9 | 3 | 35 | 50 |
| Actinium-227 | 0 | -- | -- | -- | -- |
| Americium-241 | 0 | -- | -- | -- | -- |
| Cobalt-60 | 0 | -- | -- | -- | -- |
| Cesium-137 | 4 | 3 | 3 | 57 | 50 |
| Bismuth-210 | 0 | -- | -- | -- | -- |
| Bismuth-207 | 0 | -- | -- | -- | -- |
| Potassium-40 | 9 | 9 | 2 | 40 | 50 |
| Radium-226 | 7 | 6 | 6 | 57 | 50 |
| Tritium | 2 | 2 | 7 | 23 | 50 |
| Strontium-90 | 0 | -- | -- | -- | -- |

-- not applicable
RPD relative percent difference

Table G.4-30. Radionuclides Precision Summary - Water Samples

| Analyte | Number of Spiked Duplicate Pairs | Number of Calculated RPDs Within Limits | Minimum RPD | Maximum RPD | Lab Acceptance Limits |
|---|---|---|---|---|---|
| Uranium-238 | 0 | -- | -- | -- | -- |
| Uranium-235 | 0 | -- | -- | -- | -- |
| Uranium-234 | 3 | 1 | 27 | 159 | 50 |
| Plutonium-239/240 | 2 | 1 | 22 | 118 | 50 |
| Plutonium-238 | 0 | -- | -- | -- | -- |
| Thorium-232 | 1 | 1 | 36 | 36 | 50 |
| Thorium-230 | 3 | 0 | 60 | 89 | 50 |
| Thorium-228 | 6 | 6 | 9 | 28 | 50 |
| Actinium-227 | 0 | -- | -- | -- | -- |
| Americium-241 | 4 | 2 | 11 | 132 | 50 |
| Cobalt-60 | 0 | -- | -- | -- | -- |
| Cesium-137 | 0 | -- | -- | -- | -- |
| Bismuth-210 | 0 | -- | -- | -- | -- |
| Bismuth-207 | 0 | -- | -- | -- | -- |
| Potassium-40 | 0 | -- | -- | -- | -- |
| Radium-226 | 2 | 2 | 4 | 30 | 50 |
| Tritium | 1 | 1 | 11 | 11 | 50 |
| Strontium-90 | 0 | -- | -- | -- | -- |

-- not applicable
RPD relative percent difference

**Table G.4-31. Summary of Analytical Completeness**

| Analysis | Number of Samples Collected and Analyzed | Number of Concentration Values from Samples | Number of Concentration Values Rejected | Completeness (%) | Reason for Rejected Concentration Values |
|---|---|---|---|---|---|
| VOC | 142 | 5460 | 17 | 100 | Unacceptable QC results |
| SVOC | 129 | 8303 | 45 | 99 | Unacceptable QC results |
| Pesticides/PCBs | 128 | 3593 | 39 | 99 | Not Applicable |
| Explosives | 134 | 1496 | 183 | 88 | Not Applicable |
| Inorganics (trace metals and cyanide) | 130 | 4622 | 304 | 93 | Unacceptable QC results |
| Alpha Spectrometry[a] | 115 | 943 | 3 | 99 | Unacceptable QC results |
| Liquid Scintillation | 135 | 263 | 1 | 99 | Unacceptable QC results |
| Gamma Spectrometry[b] | 125 | 1052 | 0 | 100 | Not Applicable |
| Alpha Scintilliation | 14 | 14 | 0 | 10 | Not Applicable |

[a] Alpha spectrometry included the analysis of plutonium, uranium, thorium, and americium-241 (in water samples only).
[b] Gamma spectrometry included the analysis of potassium-40, cesium-137, cobalt-60, bismuth-207, bismuth-210, radium-226, and americium-241 (in soils only).
NA Not applicable
PCB polychlorinated biphenyls
QC quality control
SVOC semivolatile organic compound
VOC volatile organic compound

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B01001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B01001 | Pesticide/PCBs | gamma-BHC (Lindane) | 0.19 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B01002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B01002 | Pesticide/PCBs | alpha-Chlordane | 0.098 | UG/KG | The %D between the two pesticide/PCB column checks was >25%.; Surrogate/radiological chemical recovery was above the upper control limit. |
| B01003 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B01004 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B01005 | Inorganics | Molybdenum | 1.2 | MG/KG | MS recovery was <30%. |
| B01005 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B01006 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B01007 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B02001 | Inorganics | Molybdenum | 1.2 | MG/KG | MS recovery was <30%. |
| B02001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B02001 | Pesticide/PCBs | alpha-Chlordane | 0.13 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B02002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B03001 | Inorganics | Molybdenum | 1.2 | MG/KG | MS recovery was <30%. |
| B03001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B03001 | Pesticide/PCBs | Dieldrin | 0.63 | UG/KG | The %D between the two pesticide/PCB column checks was >25%.; Surrogate/radiological chemical recovery was below the lower control limit. |
| B03001 | Pesticide/PCBs | Endosulfan Sulfate | 0.90 | UG/KG | The %D between the two pesticide/PCB column checks was >25%.; Surrogate/radiological chemical recovery was below the lower control limit. |
| B03001 | Pesticide/PCBs | alpha-Chlordane | 0.58 | UG/KG | The %D between the two pesticide/PCB column checks was >25%.; Surrogate/radiological chemical recovery was below the lower control limit. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B03002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B03002 | Pesticide/PCBs | 4,4'-DDD | 0.60 | UG/KG | The %D between the two pesticide/PCB column checks was >25%.; Surrogate/radiological chemical recovery was below the lower control limit. |
| B03003 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B03004 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B03005 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B03007 | Volatile Organics | Acetonitrile | 110 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B04001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B04001 | Pesticide/PCBs | Dieldrin | 2.9 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B04002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B04102 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B05001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B05002 | Inorganics | Antimony | 1.70 | MG/KG | MS recovery was <30%. |
| B05002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B06001 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B06001 | Inorganics | Cadmium | 0.77 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B06001 | Inorganics | Chromium | 10.50 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B06001 | Inorganics | Cobalt | 7.50 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B06001 | Inorganics | Copper | 13.60 | MG/KG | Professional judgment was used to qualify the data. |
| B06001 | Inorganics | Nickel | 14.90 | MG/KG | CCV recovery was above the upper control limit.; MS recovery was below the lower control limit. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B06001 | Inorganics | Thallium | 0.17 | MG/KG | Blank had a negative value >5X's the IDL.; MS recovery was below the lower control limit. |
| B06001 | Inorganics | Vanadium | 13.30 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B06001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B06001 | Semi-volatile Organics | 2,4,5-Trichlorophenol | 1800 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | 2,4,6-Trichlorophenol | 380 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | 2,4-Dichlorophenol | 380 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | 2,4-Dimethylphenol | 380 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | 2,4-Dinitrophenol | 1800 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | 2-Chlorophenol | 380 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | 2-Methylphenol | 380 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | 2-Nitrophenol | 380 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | 4,6-Dinitro-2-methylphenol | 1800 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | 4-Chloro-3-methylphenol | 380 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | 4-Methylphenol | 380 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | 4-Nitrophenol | 1800 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | Benzoic Acid | 1800 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | Benzyl Alcohol | 380 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | Pentachlorophenol | 1800 | UG/KG | Surrogate recovery was <10%. |
| B06001 | Semi-volatile Organics | Phenol | 380 | UG/KG | Surrogate recovery was <10%. |
| B06002 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B06002 | Inorganics | Cadmium | 0.72 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B06002 | Inorganics | Chromium | 12.70 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B06002 | Inorganics | Cobalt | 7.60 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B06002 | Inorganics | Copper | 13.00 | MG/KG | Professional judgment was used to qualify the data. |
| B06002 | Inorganics | Nickel | 18.20 | MG/KG | CCV recovery was above the upper control limit.; MS recovery was below the lower control limit. |
| B06002 | Inorganics | Thallium | 0.17 | MG/KG | Blank had a negative value >5X's the IDL.; MS recovery was below the lower control limit. |
| B06002 | Inorganics | Vanadium | 11.60 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B06002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B06003 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B06003 | Inorganics | Cadmium | 0.95 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B06003 | Inorganics | Chromium | 11.80 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B06003 | Inorganics | Cobalt | 9.10 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B06003 | Inorganics | Copper | 19.40 | MG/KG | Professional judgment was used to qualify the data. |
| B06003 | Inorganics | Nickel | 18.80 | MG/KG | CCV recovery was above the upper control limit.; MS recovery was below the lower control limit. |
| B06003 | Inorganics | Thallium | 0.17 | MG/KG | Blank had a negative value >5X's the IDL.; MS recovery was below the lower control limit. |
| B06003 | Inorganics | Vanadium | 11.10 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B06003 | Explosives | 1,3,5-Trinitrobenzene | 0.0100 | MG/KG | Analysis holding times were exceeded.; LCS recovery was above the upper control limit. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B06003 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B06003 | Explosives | RDX | 0.036 | MG/KG | Analysis holding times were exceeded.; LCS recovery was above the upper control limit. |
| B07001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B07001 | Semi-volatile Organics | 4-Chloroaniline | 380 | UG/KG | Initial calibration RRF was <0.05. |
| B07001 | Volatile Organics | Acetonitrile | 110 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B07002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B07002 | Semi-volatile Organics | 4-Chloroaniline | 400 | UG/KG | Initial calibration RRF was <0.05. |
| B07002 | Volatile Organics | Acetonitrile | 120 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B07003 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B07003 | Semi-volatile Organics | 4-Chloroaniline | 390 | UG/KG | Initial calibration RRF was <0.05. |
| B07003 | Volatile Organics | Acetonitrile | 120 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B07004 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B07101 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B07101 | Semi-volatile Organics | 4-Chloroaniline | 380 | UG/KG | Initial calibration RRF was <0.05. |
| B07101 | Volatile Organics | Acetonitrile | 110 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B08001 | Inorganics | Dypsprosi | 2.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08001 | Inorganics | Europium | 0.90 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08001 | Inorganics | Lutetium | 0.45 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08001 | Inorganics | Thulium | 2.30 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B08001 | Pesticide/PCBs | Heptachlor | 0.33 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B08002 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B08002 | Inorganics | Dypsprosi | 2.70 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08002 | Inorganics | Europium | 0.97 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08002 | Inorganics | Lutetium | 0.48 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08002 | Inorganics | Thulium | 2.40 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08002 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B08003 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B08003 | Inorganics | Dypsprosi | 2.70 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08003 | Inorganics | Europium | 0.97 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08003 | Inorganics | Lutetium | 0.48 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08003 | Inorganics | Thulium | 2.40 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08003 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B08003 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B09001 | Inorganics | Dypsprosi | 2.40 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09001 | Inorganics | Europium | 0.89 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09001 | Inorganics | Lutetium | 0.44 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09001 | Inorganics | Thulium | 2.20 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B09001 | Pesticide/PCBs | Endrin Aldehyde | 1.7 | UG/KG | The %D between the two pesticide/PCB column checks was >25%.; Surrogate/radiological chemical recovery was below the lower control limit. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B09001 | Pesticide/PCBs | p,p'-Methoxychlor | 1.5 | UG/KG | The %D between the two pesticide/PCB column checks was >25%.; Surrogate/radiological chemical recovery was below the lower control limit. |
| B09002 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B09002 | Inorganics | Dypsprosi | 2.60 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09002 | Inorganics | Europium | 0.95 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09002 | Inorganics | Lutetium | 0.47 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09002 | Inorganics | Thulium | 2.40 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09002 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B09002 | Pesticide/PCBs | alpha-Chlordane | 0.56 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B09003 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B09003 | Inorganics | Dypsprosi | 2.80 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09003 | Inorganics | Europium | 1.00 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09003 | Inorganics | Lutetium | 0.51 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09003 | Inorganics | Thulium | 2.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09003 | Inorganics | Bismuth | 0.13 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09003 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B09004 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B09004 | Inorganics | Dypsprosi | 2.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09004 | Inorganics | Europium | 0.92 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09004 | Inorganics | Lutetium | 0.46 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09004 | Inorganics | Thulium | 2.30 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09004 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |

Table G.4-32. Rejected Data Summary


| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B09004 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B09005 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B09005 | Inorganics | Dypsprosi | 2.60 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09005 | Inorganics | Europium | 0.93 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09005 | Inorganics | Lutetium | 0.47 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09005 | Inorganics | Thulium | 2.30 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09005 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09005 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B09102 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B09102 | Inorganics | Dypsprosi | 2.60 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09102 | Inorganics | Europium | 0.94 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09102 | Inorganics | Lutetium | 0.47 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09102 | Inorganics | Thulium | 2.30 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09102 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B09102 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B10001 | Inorganics | Dypsprosi | 2.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10001 | Inorganics | Europium | 0.92 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10001 | Inorganics | Lutetium | 0.46 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10001 | Inorganics | Thulium | 2.30 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10001 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B10002 | Inorganics | Antimony | 0.05 | MG/KG | MS recovery was <30%. |
| B10002 | Inorganics | Dypsprosi | 2.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10002 | Inorganics | Europium | 0.91 | MG/KG | Blank had a negative value >5X's the IDL. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B10002 | Inorganics | Lutetium | 0.46 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10002 | Inorganics | Thulium | 2.30 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10002 | Inorganics | Bismuth | 0.10 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B10003 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B10003 | Inorganics | Europium | 0.92 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10003 | Inorganics | Lutetium | 0.46 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10003 | Inorganics | Thulium | 2.30 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10003 | Inorganics | Bismuth | 0.11 | MG/KG | Blank had a negative value >5X's the IDL. |
| B10003 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B11001 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B11001 | Inorganics | Dypsprosi | 2.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11001 | Inorganics | Europium | 0.93 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11001 | Inorganics | Lutetium | 0.46 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11001 | Inorganics | Thulium | 2.30 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11001 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B11001 | Pesticide/PCBs | Endrin Aldehyde | 0.47 | UG/KG | The %D between the two pesticide/PCB column checks was >25%.; Surrogate/radiological chemical recovery was below the lower control limit. |
| B11001 | Pesticide/PCBs | alpha-Chlordane | 1.6 | UG/KG | The %D between the two pesticide/PCB column checks was >25%.; Surrogate/radiological chemical recovery was below the lower control limit. |
| B11002 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B11002 | Inorganics | Dypsprosi | 2.60 | MG/KG | Blank had a negative value >5X's the IDL. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B11002 | Inorganics | Europium | 0.94 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11002 | Inorganics | Lutetium | 0.47 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11002 | Inorganics | Thulium | 2.40 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11002 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B11003 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B11003 | Inorganics | Dypsprosi | 2.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11003 | Inorganics | Europium | 0.93 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11003 | Inorganics | Lutetium | 0.46 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11003 | Inorganics | Thulium | 2.30 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11003 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11003 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B11004 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B11004 | Inorganics | Dypsprosi | 2.70 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11004 | Inorganics | Europium | 0.98 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11004 | Inorganics | Lutetium | 0.49 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11004 | Inorganics | Thulium | 2.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11004 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11004 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B11102 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B11102 | Inorganics | Dypsprosi | 2.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11102 | Inorganics | Europium | 0.92 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11102 | Inorganics | Lutetium | 0.46 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11102 | Inorganics | Thulium | 2.30 | MG/KG | Blank had a negative value >5X's the IDL. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B11102 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B11102 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B11102 | Pesticide/PCBs | Endrin Aldehyde | 0.41 | UG/KG | The %D between the two pesticide/PCB column checks was >25%.; Surrogate/radiological chemical recovery was below the lower control limit. |
| B12001 | Inorganics | Europium | 0.84 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12001 | Inorganics | Lutetium | 0.42 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12001 | Inorganics | Thulium | 2.10 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B12002 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B12002 | Inorganics | Dypsprosi | 2.70 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12002 | Inorganics | Europium | 0.97 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12002 | Inorganics | Lutetium | 0.48 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12002 | Inorganics | Thulium | 2.40 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12002 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B12003 | Inorganics | Antimony | 0.06 | MG/KG | MS recovery was <30%. |
| B12003 | Inorganics | Dypsprosi | 2.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12003 | Inorganics | Europium | 0.93 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12003 | Inorganics | Lutetium | 0.46 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12003 | Inorganics | Thulium | 2.30 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12003 | Inorganics | Bismuth | 0.12 | MG/KG | Blank had a negative value >5X's the IDL. |
| B12003 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B13001 | Explosives | 1,3,5-Trinitrobenzene | 1.5 | MG/KG | Initial calibration RSD was >30%. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B13001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B13001 | Semi-volatile Organics | 4-Chloroaniline | 360 | UG/KG | Initial calibration RRF was <0.05. |
| B13001 | Volatile Organics | Acetonitrile | 110 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B13002 | Explosives | 1,3,5-Trinitrobenzene | 1.5 | MG/KG | Initial calibration RSD was >30%. |
| B13002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B13002 | Semi-volatile Organics | 4-Chloroaniline | 390 | UG/KG | Initial calibration RRF was <0.05. |
| B13002 | Volatile Organics | Acetonitrile | 120 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B13003 | Explosives | 1,3,5-Trinitrobenzene | 1.5 | MG/KG | Initial calibration RSD was >30%. |
| B13003 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B13003 | Semi-volatile Organics | 4-Chloroaniline | 390 | UG/KG | Initial calibration RRF was <0.05. |
| B13003 | Volatile Organics | Acetonitrile | 120 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B13004 | Inorganics | Antimony | 1.90 | MG/KG | MS recovery was <30%. |
| B13004 | Explosives | 1,3,5-Trinitrobenzene | 1.5 | MG/KG | Initial calibration RSD was >30%. |
| B13004 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B13004 | Semi-volatile Organics | 4-Chloroaniline | 410 | UG/KG | Initial calibration RRF was <0.05. |
| B13004 | Volatile Organics | Acetonitrile | 120 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B13005 | Explosives | 1,3,5-Trinitrobenzene | 1.5 | MG/KG | Initial calibration RSD was >30%. |
| B13005 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B13005 | Semi-volatile Organics | 4-Chloroaniline | 380 | UG/KG | Initial calibration RRF was <0.05. |
| B13005 | Volatile Organics | Acetonitrile | 110 | UG/KG | Initial calibration RRF was <0.05.; Continuing calibration %d was >25%. |
| B13006 | Volatile Organics | Acetonitrile | 110 | UG/KG | Initial calibration RRF was <0.05.; Continuing calibration %d was >25%. |
| B14001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B14001 | Semi-volatile Organics | 4-Chloroaniline | 370 | UG/KG | Initial calibration RRF was <0.05. |
| B14001 | Volatile Organics | Acetonitrile | 110 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B14002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B14002 | Semi-volatile Organics | 4-Chloroaniline | 360 | UG/KG | Initial calibration RRF was <0.05. |
| B14002 | Volatile Organics | Acetonitrile | 110 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B14003 | Volatile Organics | Acetonitrile | 120 | UG/KG | Initial calibration RRF was <0.05.; Continuing calibration %d was >25%. |
| B14004 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B14004 | Semi-volatile Organics | 4-Chloroaniline | 430 | UG/KG | Initial calibration RRF was <0.05. |
| B14004 | Volatile Organics | Acetonitrile | 130 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B14104 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B14104 | Semi-volatile Organics | 4-Chloroaniline | 390 | UG/KG | Initial calibration RRF was <0.05. |
| B14104 | Volatile Organics | Acetonitrile | 120 | UG/KG | Continuing calibration %d was >25%.; Initial calibration RRF was <0.05. |
| B15001 | Inorganics | Antimony | 0.15 | MG/KG | MS recovery was <30%.; Concentration of the contaminant was detected at a level below the CRQL. |
| B15001 | Inorganics | Cadmium | 1.10 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B15001 | Inorganics | Chromium | 11.80 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15001 | Inorganics | Cobalt | 7.00 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15001 | Inorganics | Copper | 18.80 | MG/KG | Professional judgment was used to qualify the data. |
| B15001 | Inorganics | Nickel | 14.60 | MG/KG | CCV recovery was above the upper control limit.; MS recovery was below the lower control limit. |
| B15001 | Inorganics | Thallium | 0.23 | MG/KG | Blank had a negative value >5X's the IDL.; MS recovery was below the lower control limit. |
| B15001 | Inorganics | Vanadium | 15.40 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B15001 | Pesticide/PCBs | Endosulfan Sulfate | 0.36 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B15001 | Pesticide/PCBs | alpha-Chlordane | 1.4 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B15001 | Pesticide/PCBs | delta-BHC | 0.24 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B15002 | Inorganics | Antimony | 0.14 | MG/KG | MS recovery was <30%.; Concentration of the contaminant was detected at a level below the CRQL. |
| B15002 | Inorganics | Cadmium | 1.40 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15002 | Inorganics | Chromium | 19.70 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15002 | Inorganics | Cobalt | 11.90 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15002 | Inorganics | Nickel | 25.90 | MG/KG | CCV recovery was above the upper control limit.; MS recovery was below the lower control limit. |
| B15002 | Inorganics | Thallium | 0.35 | MG/KG | Blank had a negative value >5X's the IDL.; MS recovery was below the lower control limit. |

Table G.4-32. Rejected Data Summary


| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B15002 | Inorganics | Vanadium | 26.20 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B15002 | Pesticide/PCBs | alpha-Chlordane | 1.2 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B15003 | Inorganics | Antimony | 0.41 | MG/KG | MS recovery was <30%. |
| B15003 | Inorganics | Cadmium | 0.45 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15003 | Inorganics | Chromium | 21.10 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15003 | Inorganics | Cobalt | 15.40 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15003 | Inorganics | Copper | 29.40 | MG/KG | Professional judgment was used to qualify the data. |
| B15003 | Inorganics | Thallium | 1.20 | MG/KG | Blank had a negative value >5X's the IDL.; MS recovery was below the lower control limit. |
| B15003 | Inorganics | Vanadium | 29.10 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15003 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B15004 | Inorganics | Antimony | 0.30 | MG/KG | Concentration of the contaminant was detected at a level below the CRQL.; MS recovery was <30%. |
| B15004 | Inorganics | Cadmium | 1.70 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15004 | Inorganics | Chromium | 29.30 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15004 | Inorganics | Cobalt | 18.50 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15004 | Inorganics | Copper | 39.10 | MG/KG | Professional judgment was used to qualify the data. |
| B15004 | Inorganics | Nickel | 43.50 | MG/KG | CCV recovery was above the upper control limit. |

Table G.4-32. Rejected Data Summary


| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B15004 | Inorganics | Thallium | 0.37 | MG/KG | Blank had a negative value >5X's the IDL.; MS recovery was below the lower control limit. |
| B15004 | Inorganics | Vanadium | 36.40 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15004 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B15101 | Inorganics | Antimony | 0.13 | MG/KG | MS recovery was <30%.; Concentration of the contaminant was detected at a level below the CRQL. |
| B15101 | Inorganics | Cadmium | 0.87 | MG/KG | Professional judgment was used to qualify the data. |
| B15101 | Inorganics | Chromium | 9.40 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15101 | Inorganics | Cobalt | 6.60 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15101 | Inorganics | Copper | 16.40 | MG/KG | Professional judgment was used to qualify the data. |
| B15101 | Inorganics | Nickel | 12.90 | MG/KG | CCV recovery was above the upper control limit.; MS recovery was below the lower control limit. |
| B15101 | Inorganics | Thallium | 0.20 | MG/KG | Blank had a negative value >5X's the IDL. |
| B15101 | Inorganics | Vanadium | 12.10 | MG/KG | Professional judgment was used to qualify the data. |
| B15101 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B15101 | Pesticide/PCBs | alpha-Chlordane | 0.88 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B15104 | Inorganics | Antimony | 0.13 | MG/KG | MS recovery was <30%. |
| B15104 | Inorganics | Cadmium | 2.00 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15104 | Inorganics | Chromium | 26.40 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15104 | Inorganics | Cobalt | 20.80 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15104 | Inorganics | Copper | 36.30 | MG/KG | Professional judgment was used to qualify the data. |

Table G.4-32. Rejected Data Summary


| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B15104 | Inorganics | Nickel | 42.20 | MG/KG | CCV recovery was above the upper control limit.; MS recovery was below the lower control limit. |
| B15104 | Inorganics | Thallium | 0.38 | MG/KG | Blank had a negative value >5X's the IDL.; MS recovery was below the lower control limit. |
| B15104 | Inorganics | Vanadium | 27.70 | MG/KG | Professional judgment was used to qualify the data.; MS recovery was below the lower control limit. |
| B15104 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B15104 | Semi-volatile Organics | 2,4,5-Trichlorophenol | 4000 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | 2,4,6-Trichlorophenol | 830 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | 2,4-Dichlorophenol | 830 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | 2,4-Dimethylphenol | 830 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | 2,4-Dinitrophenol | 4000 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | 2-Chlorophenol | 830 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | 2-Methylphenol | 830 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | 2-Nitrophenol | 830 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | 4,6-Dinitro-2-methylphenol | 4000 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | 4-Chloro-3-methylphenol | 830 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | 4-Methylphenol | 830 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | 4-Nitrophenol | 4000 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | Benzoic Acid | 4000 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | Benzyl Alcohol | 830 | UG/KG | Surrogate recovery was <10%. |
| B15104 | Semi-volatile Organics | Pentachlorophenol | 4000 | UG/KG | Surrogate recovery was <10%. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B15104 | Semi-volatile Organics | Phenol | 830 | UG/KG | Surrogate recovery was <10%. |
| B16002 | Volatile Organics | Acetonitrile | 110 | UG/KG | Initial calibration RRF was <0.05.; Continuing calibration %d was >25%. |
| B17001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B17001 | Pesticide/PCBs | Endrin Aldehyde | 9.0 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B17002 | Inorganics | Gadoliniu | 7.20 | MG/KG | MS recovery was <30%. |
| B17002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B17002 | Pesticide/PCBs | Endrin Aldehyde | 1.9 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B18001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B18002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B19001 | Inorganics | Gadoliniu | 6.30 | MG/KG | MS recovery was <30%. |
| B19001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B19002 | Inorganics | Gadoliniu | 7.00 | MG/KG | MS recovery was <30%. |
| B19002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B19002 | Pesticide/PCBs | alpha-Chlordane | 0.67 | UG/KG | Surrogate/radiological chemical recovery was below the lower control limit.; The %D between the two pesticide/PCB column checks was >25%. |
| B20001 | Inorganics | Gadoliniu | 6.20 | MG/KG | MS recovery was <30%. |
| B20001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B20002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| BB2001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| BB2101 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| BB3001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| BB4001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| BB5001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |

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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| BB6001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| BB7001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| S01001 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| S01101 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| S02001 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| W03001 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| W11001 | Inorganics | Chromium | 0.5 | UG/L | Blank had a negative value >5X's the IDL. |
| W11001 | Inorganics | Bismuth | 2.0 | UG/L | Blank had a negative value >5X's the IDL. |
| W11001 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| W13001 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| W13101 | Inorganics | Cyanide | 20.0 | UG/L | Samples were not preserved properly.; Professional judgment was used to qualify the data. |
| W13101 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| W14001 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| B39801 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |
| B39901 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |
| B40001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B40002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B40101 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |
| B40102 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |

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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B40201 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B40202 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B40301 | Inorganics | Antimony | 2.00 | MG/KG | MS recovery was <30%. |
| B40301 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B40302 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B40311 | Inorganics | Antimony | 2.10 | MG/KG | MS recovery was <30%. |
| B40311 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B40401 | Inorganics | Antimony | 1.90 | MG/KG | MS recovery was <30%. |
| B40401 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B40401 | Pesticide/PCBs | Endrin | 2.0 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B40402 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B40412 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B40501 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |
| B40502 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |
| B40601 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |
| B40602 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |

Table G.4-32. Rejected Data Summary


| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| B40701 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |
| B40701 | Pesticide/PCBs | 4,4'-DDD | 0.22 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| B40702 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |
| B40801 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |
| B40802 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |
| B40802 | GRPC | Sr-90 | -0.47 | PCI/G | Radiological chemical recovery was <20%. |
| B40811 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |
| B40901 | Inorganics | Antimony | 1.90 | MG/KG | MS recovery was <30%. |
| B40901 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B40902 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Analysis holding times were exceeded. |
| B41001 | Inorganics | Thallium | 0.68 | MG/KG | Blank had a negative value >5X's the IDL. |
| B41001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B41002 | Inorganics | Antimony | 0.24 | MG/KG | MS recovery was <30%. |
| B41002 | Inorganics | Thallium | 0.73 | MG/KG | Blank had a negative value >5X's the IDL. |
| B41002 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B41012 | Inorganics | Thallium | 0.73 | MG/KG | Blank had a negative value >5X's the IDL. |
| B41012 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| B41101 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present.; Professional judgment was used to qualify the data. |
| SD0101 | Inorganics | Antimony | 0.25 | MG/KG | MS recovery was <30%. |

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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| SD0101 | Inorganics | Thallium | 0.74 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0101 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD0201 | Inorganics | Antimony | 0.24 | MG/KG | MS recovery was <30%. |
| SD0201 | Inorganics | Thallium | 0.73 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0201 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD0301 | Inorganics | Thallium | 0.77 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0301 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD0401 | Inorganics | Thallium | 0.74 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0401 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD0401 | Pesticide/PCBs | 4,4'-DDE | 0.33 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| SD0501 | Inorganics | Thallium | 0.70 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0501 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD0601 | Explosives | 1,3,5-Trinitrobenzene | 1.5 | MG/KG | Initial calibration RSD was >30%. |
| SD0601 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD0601 | Pesticide/PCBs | Aldrin | 0.099 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| SD0701 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD0801 | Inorganics | Antimony | 1.90 | MG/KG | MS recovery was <30%. |
| SD0801 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD0901 | Inorganics | Dypsprosi | 2.80 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0901 | Inorganics | Europium | 1.00 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0901 | Inorganics | Lutetium | 0.52 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0901 | Inorganics | Thulium | 2.60 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0901 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD0901 | Pesticide/PCBs | Endrin Aldehyde | 2.3 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| SD0911 | Inorganics | Antimony | 0.28 | MG/KG | MS recovery was <30%. |
| SD0911 | Inorganics | Thallium | 0.85 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0911 | Inorganics | Dypsprosi | 3.10 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0911 | Inorganics | Europium | 1.10 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0911 | Inorganics | Lutetium | 0.57 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0911 | Inorganics | Thulium | 2.80 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD0911 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD0911 | Pesticide/PCBs | Endrin Aldehyde | 4.0 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| SD1001 | Inorganics | Antimony | 0.25 | MG/KG | MS recovery was <30%. |
| SD1001 | Inorganics | Thallium | 0.74 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1001 | Inorganics | Dypsprosi | 2.70 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1001 | Inorganics | Europium | 0.99 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1001 | Inorganics | Lutetium | 0.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1001 | Inorganics | Thulium | 2.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD1101 | Inorganics | Antimony | 0.26 | MG/KG | MS recovery was <30%. |
| SD1101 | Inorganics | Thallium | 0.78 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1101 | Inorganics | Europium | 1.00 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1101 | Inorganics | Lutetium | 0.52 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1101 | Inorganics | Thulium | 2.60 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1101 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD1201 | Explosives | 1,3,5-Trinitrobenzene | 1.5 | MG/KG | Initial calibration RSD was >30%. |
| SD1201 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD1301 | Explosives | 1,3,5-Trinitrobenzene | 1.5 | MG/KG | Initial calibration RSD was >30%. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| SD1301 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD1311 | Explosives | 1,3,5-Trinitrobenzene | 1.5 | MG/KG | Initial calibration RSD was >30%. |
| SD1311 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD1401 | Explosives | 1,3,5-Trinitrobenzene | 1.5 | MG/KG | Initial calibration RSD was >30%. |
| SD1401 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD1401 | Pesticide/PCBs | Endosulfan I | 0.20 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| SD1501 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD1501 | Pesticide/PCBs | Endosulfan I | 0.18 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| SD1601 | Inorganics | Antimony | 0.24 | MG/KG | MS recovery was <30%. |
| SD1601 | Inorganics | Thallium | 0.72 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1601 | Explosives | 1,3,5-Trinitrobenzene | 1.5 | MG/KG | Initial calibration RSD was >30%. |
| SD1601 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD1701 | Inorganics | Antimony | 0.24 | MG/KG | MS recovery was <30%. |
| SD1701 | Inorganics | Thallium | 0.73 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1701 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD1701 | Pesticide/PCBs | 4,4'-DDE | 5.2 | UG/KG | The %D between the two pesticide/PCB column checks was >25%.; Surrogate/radiological chemical recovery was below the lower control limit. |
| SD1701 | Pesticide/PCBs | Endrin Aldehyde | 6.2 | UG/KG | The %D between the two pesticide/PCB column checks was >25%.; Surrogate/radiological chemical recovery was below the lower control limit. |
| SD1801 | Inorganics | Antimony | 0.22 | MG/KG | MS recovery was above the upper control limit. |
| SD1801 | Inorganics | Thallium | 0.66 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1801 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD1801 | Pesticide/PCBs | p,p'-Methoxychlor | 3.3 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| SD1901 | Inorganics | Antimony | 0.22 | MG/KG | MS recovery was above the upper control limit. |
| SD1901 | Inorganics | Thallium | 0.65 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD1901 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD1901 | Pesticide/PCBs | Endrin Aldehyde | 4.0 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| SD1901 | Pesticide/PCBs | p,p'-Methoxychlor | 6.0 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| SD2001 | Inorganics | Antimony | 0.24 | MG/KG | MS recovery was above the upper control limit. |
| SD2001 | Inorganics | Thallium | 0.73 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2001 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD2101 | Inorganics | Antimony | 0.25 | MG/KG | MS recovery was above the upper control limit. |
| SD2101 | Inorganics | Thallium | 0.74 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2101 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD2101 | Pesticide/PCBs | Endrin Aldehyde | 0.91 | UG/KG | The %D between the two pesticide/PCB column checks was >25%. |
| SD2111 | Inorganics | Antimony | 0.25 | MG/KG | MS recovery was above the upper control limit. |
| SD2111 | Inorganics | Thallium | 0.75 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2111 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD2201 | Inorganics | Antimony | 0.24 | MG/KG | MS recovery was <30%. |
| SD2201 | Inorganics | Thallium | 0.71 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2201 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD2301 | Inorganics | Antimony | 0.25 | MG/KG | MS recovery was above the upper control limit. |
| SD2301 | Inorganics | Thallium | 0.75 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2301 | Inorganics | Europium | 1.00 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2301 | Inorganics | Lutetium | 0.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2301 | Inorganics | Thulium | 2.50 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2301 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| SD2401 | Inorganics | Antimony | 0.26 | MG/KG | MS recovery was <30%. |
| SD2401 | Inorganics | Thallium | 0.79 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2401 | Inorganics | Dypsprosi | 2.90 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2401 | Inorganics | Europium | 1.00 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2401 | Inorganics | Lutetium | 0.52 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2401 | Inorganics | Thulium | 2.60 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2401 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD2501 | Inorganics | Antimony | 0.24 | MG/KG | MS recovery was <30%. |
| SD2501 | Inorganics | Thallium | 0.72 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2501 | Inorganics | Dypsprosi | 2.70 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2501 | Inorganics | Europium | 0.96 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2501 | Inorganics | Lutetium | 0.48 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2501 | Inorganics | Thulium | 2.40 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2501 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD2601 | Inorganics | Antimony | 0.24 | MG/KG | MS recovery was above the upper control limit. |
| SD2601 | Inorganics | Thallium | 0.73 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2601 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |
| SD2701 | Inorganics | Antimony | 0.26 | MG/KG | MS recovery was <30%. |
| SD2701 | Inorganics | Thallium | 0.79 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2701 | Inorganics | Dypsprosi | 2.90 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2701 | Inorganics | Europium | 1.10 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2701 | Inorganics | Lutetium | 0.53 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2701 | Inorganics | Thulium | 2.60 | MG/KG | Blank had a negative value >5X's the IDL. |
| SD2701 | Explosives | PETN | 1.0 | MG/KG | Surrogate/radiological chemical recovery data was not present. |

Table G.4-32. Rejected Data Summary
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| Sample ID | Analysis Type | Parameter | Results | Units | Rejection Explanation |
|---|---|---|---|---|---|
| W40001 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| W40101 | Inorganics | Selenium | 39.00 | UG/L | MS recovery was <30%. |
| W40101 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| W40201 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| W40211 | Inorganics | Lead | 1.10 | UG/L | Blank had a negative value >5X's the IDL. |
| W40211 | Inorganics | Nickel | 0.80 | UG/L | Blank had a negative value >5X's the IDL. |
| W40211 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| W40801 | Inorganics | Selenium | 39.00 | UG/L | MS recovery was <30%. |
| W40801 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| W41001 | Inorganics | Copper | 0.30 | UG/L | Blank had a negative value >5X's the IDL. |
| W41001 | Inorganics | Lead | 1.10 | UG/L | Blank had a negative value >5X's the IDL. |
| W41001 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |
| W41101 | Explosives | PETN | 1.0 | UG/L | Surrogate/radiological chemical recovery data was not present. |

**Table G.5-1. Summary of Trip Blank Detectsons**

| Collection Date | Trip Blank Sample ID | Parameter | Results (µg/L) | Data Qualifier |
|---|---|---|---|---|
| 27-Jun-94 | TBN007 | Methylene Chloride | 2 | J |
| 28-Jun-94 | TBN008 | 1,1-Dichloroethane | 1 | J |
| 28-Jun-94 | TBN008 | Methylene Chloride | 6 | |
| 29-Jun-94 | TBN009 | Methylene Chloride | 5 | |
| 30-Jun-94 | TBN010 | Methylene Chloride | 3 | J |
| 07-Jul-94 | TBN013 | Acrylonitrile | 47 | J |
| 11-Jul-94 | TBN014 | Acrylonitrile | 15 | J |
| 11-Jul-94 | TBN014 | Chloroform | 1 | J |
| 20-Jul-94 | TBN018 | 4-Methyl-2-pentanone | 1 | J |
| 21-Jul-94 | TBN019 | 4-Methyl-2-pentanone | 1 | J |
| 22-Jun-94 | TBA003 | Trichloroethene | 1 | J |
| 27-Jun-94 | TBA005 | Acrylonitrile | 9 | J |
| 27-Jun-94 | TBA005 | Methylene Chloride | 2 | J |
| 28-Jun-94 | TBA006 | Methylene Chloride | 7 | |
| 29-Jun-94 | TBA007 | Methylene Chloride | 5 | |
| 30-Jun-94 | TBA008 | Methylene Chloride | 4 | J |
| 07-Jul-94 | TBA011 | Acetone | 6 | J |
| 07-Jul-94 | TBA011 | Chloromethane | 13 | |
| 08-Jul-94 | TBA012 | Trichloroethene | 3 | J |
| 09-Aug-94 | TBA022 | Methylene Chloride | 14 | |
| 10-Aug-94 | TBA023 | Acetone | 5 | J |
| 10-Aug-94 | TBA023 | Methylene Chloride | 13 | |

ID identification
J The result value is an estimated value
µg/L micrograms per liter
Note: No qualifier in the Data Qualifier column indicates that the data was not qualified.

Table G.5-2. Summary of Sample Bank Blanks
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| Collection Date | Bank Blank Sample | Parameter | Results (µg/L) | Data Qualifier |
|---|---|---|---|---|
| 20-Jun-94 | BB0009 | Bromodichloromethane | 4 | J |
| 20-Jun-94 | BB0009 | Chloroform | 18 | |
| 30-Jun-94 | BB0010 | Chloroform | 6 | |
| 30-Jun-94 | BB0010 | Hexane | 4 | J |
| 30-Jun-94 | BB0010 | Methylene Chloride | 7 | |
| 30-Jun-94 | BB0010 | Xylene, Total | 1 | J |
| 05-Jul-94 | BB0011 | Acetone | 12 | |
| 05-Jul-94 | BB0011 | Bromodichloromethane | 2 | J |
| 05-Jul-94 | BB0011 | Chloroform | 14 | |
| 11-Jul-94 | BB0012 | Bromodichloromethane | 4 | J |
| 11-Jul-94 | BB0012 | Carbon Tetrachloride | 2 | J |
| 11-Jul-94 | BB0012 | Chloroform | 65 | |
| 14-Jul-94 | BB0013 | Bromodichloromethane | 2 | J |
| 14-Jul-94 | BB0013 | Chloroform | 27 | |
| 20-Jun-94 | BB0001 | Bromodichloromethane | 4 | J |
| 20-Jun-94 | BB0001 | Chloroform | 16 | |
| 27-Jun-94 | BB0002 | Acetone | 16 | |
| 27-Jun-94 | BB0002 | Chloroform | 7 | |
| 27-Jun-94 | BB0002 | Methylene Chloride | 6 | |
| 28-Jun-94 | BB0003 | 1,1-Dichloroethane | 1 | J |
| 28-Jun-94 | BB0003 | Bromodichloromethane | 2 | J |
| 28-Jun-94 | BB0003 | Chloroform | 20 | |
| 28-Jun-94 | BB0003 | Hexane | 1 | J |
| 28-Jun-94 | BB0003 | Methylene Chloride | 8 | |
| 07-Jul-94 | BB0004 | Acetone | 23 | |

**Table G.5-2. Summary of Sample Bank Blanks**
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| Collection Date | Bank Blank Sample | Parameter | Results (µg/L) | Data Qualifier |
|---|---|---|---|---|
| 19-Jul-94 | BB0005 | Bromodichloromethane | 6 | |
| 19-Jul-94 | BB0005 | Carbon Tetrachloride | 3 | J |
| 19-Jul-94 | BB0005 | Chloroform | 67 | |
| 27-Jul-94 | BB0006 | Bromodichloromethane | 2 | J |
| 27-Jul-94 | BB0006 | Chloroform | 15 | |

J The result value is an estimated value
µg/L micrograms per liter
Note: No qualifier in the Data Qualifier column indicates that the data was not qualified.
A blank in the Qualifier column indicates the validator agreed with the result presented by the lab.

Table G.5-3. Summary of Equipment Rinsate Detections
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| Collection Date | Equipment Rinsate Sample ID | Analyte | Results | Data Qualifier | Units |
|---|---|---|---|---|---|
| 15-Jun-94 | ER0015 | Acetone | 2 | J | UG/L |
| 15-Jun-94 | ER0015 | Acrylonitrile | 16 | J | UG/L |
| 15-Jun-94 | ER0015 | Bromodichloromethane | 6 | | UG/L |
| 15-Jun-94 | ER0015 | Calcium | 576.00 | | UG/L |
| 15-Jun-94 | ER0015 | Carbon Tetrachloride | 4 | J | UG/L |
| 15-Jun-94 | ER0015 | Chloroform | 44 | | UG/L |
| 15-Jun-94 | ER0015 | Di-n-butylphthalate | 1 | J | UG/L |
| 15-Jun-94 | ER0015 | Diethylphthalate | 1 | J | UG/L |
| 15-Jun-94 | ER0015 | Phenol | 1 | J | UG/L |
| 15-Jun-94 | ER0015 | Ra-226 | 0.88 | J | PCI/L |
| 27-Jun-94 | ER0017 | Bromodichloromethane | 3 | J | UG/L |
| 27-Jun-94 | ER0016 | Chloroform | 13 | | UG/L |
| 27-Jun-94 | ER0017 | Chloroform | 30 | | UG/L |
| 27-Jun-94 | ER0017 | Kjeldahl Nitrogen | 0.6560 | | MG/L |
| 27-Jun-94 | ER0016 | Methylene Chloride | 5 | | UG/L |
| 27-Jun-94 | ER0017 | Methylene Chloride | 6 | | UG/L |
| 27-Jun-94 | ER0016 | Organic Carbon | 2.8600 | | MG/L |
| 27-Jun-94 | ER0016 | Organic Carbon | 2.9500 | | MG/L |
| 27-Jun-94 | ER0016 | Organic Carbon | 3.0100 | | MG/L |
| 27-Jun-94 | ER0016 | Organic Carbon | 3.0800 | | MG/L |
| 27-Jun-94 | ER0017 | Organic Carbon | 3.4200 | | MG/L |
| 27-Jun-94 | ER0017 | Organic Carbon | 3.4800 | | MG/L |
| 27-Jun-94 | ER0017 | Organic Carbon | 3.5000 | | MG/L |
| 27-Jun-94 | ER0017 | Organic Carbon | 3.7600 | | MG/L |
| 27-Jun-94 | ER0016 | Xylene, Total | 1 | J | UG/L |
| 29-Jun-94 | ER0018 | 1,1,1-Trichloroethane | 1 | J | UG/L |

**Table G.5-3. Summary of Equipment Rinsate Detections**
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| Collection Date | Equipment Rinsate Sample ID | Analyte | Results | Data Qualifier | Units |
|---|---|---|---|---|---|
| 29-Jun-94 | ER0018 | Aluminum | 106.00 | | UG/L |
| 29-Jun-94 | ER0018 | Antimony | 1.20 | | UG/L |
| 29-Jun-94 | ER0018 | Barium | 2.90 | | UG/L |
| 29-Jun-94 | ER0018 | Bromodichloromethane | 3 | J | UG/L |
| 29-Jun-94 | ER0018 | Chloroform | 30 | | UG/L |
| 29-Jun-94 | ER0018 | Copper | 2.40 | | UG/L |
| 29-Jun-94 | ER0018 | Methylene Chloride | 4 | J | UG/L |
| 05-Jul-94 | ER0019 | 1,1,1-Trichloroethane | 1 | J | UG/L |
| 05-Jul-94 | ER0019 | Aluminum | 121.00 | | UG/L |
| 05-Jul-94 | ER0019 | Americium-241 | 0.52 | | PCI/L |
| 05-Jul-94 | ER0019 | Barium | 1.10 | | UG/L |
| 05-Jul-94 | ER0019 | Bromodichloromethane | 3 | J | UG/L |
| 05-Jul-94 | ER0019 | Calcium | 722.00 | | UG/L |
| 05-Jul-94 | ER0019 | Chloroform | 22 | | UG/L |
| 05-Jul-94 | ER0019 | Cobalt | 1.20 | | UG/L |
| 05-Jul-94 | ER0019 | Copper | 4.60 | | UG/L |
| 05-Jul-94 | ER0019 | Endosulfan Sulfate | 0.015 | J | UG/L |
| 05-Jul-94 | ER0019 | Magnesium | 212.00 | | UG/L |
| 05-Jul-94 | ER0019 | Phenol | 1 | J | UG/L |
| 05-Jul-94 | ER0019 | Plutonium-238 | 0.10 | | PCI/L |
| 05-Jul-94 | ER0019 | Plutonium-239/40 | 0.11 | | PCI/L |
| 05-Jul-94 | ER0019 | Tritium | 464.4 | | PCI/L |
| 07-Jul-94 | ER0020 | 1,3-Dinitrobenzene | 0.53 | J | UG/L |
| 07-Jul-94 | ER0020 | Acetone | 25 | | UG/L |
| 07-Jul-94 | ER0020 | Aluminum | 119.00 | | UG/L |
| 07-Jul-94 | ER0020 | Americium-241 | 0.22 | J | PCI/L |
| 07-Jul-94 | ER0020 | Hexane | 2 | J | UG/L |

**Table G.5-3. Summary of Equipment Rinsate Detections**
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| Collection Date | Equipment Rinsate Sample ID | Analyte | Results | Data Qualifier | Units |
|---|---|---|---|---|---|
| 07-Jul-94 | ER0020 | Methylene Chloride | 34 | | UG/L |
| 07-Jul-94 | ER0020 | Sulfate | 2.1700 | | MG/L |
| 11-Jul-94 | ER0021 | 1,3-Dinitrobenzene | 0.43 | J | UG/L |
| 11-Jul-94 | ER0021 | Acrylonitrile | 13 | J | UG/L |
| 11-Jul-94 | ER0021 | Aluminum | 161.00 | | UG/L |
| 11-Jul-94 | ER0021 | Americium-241 | 0.33 | | PCI/L |
| 11-Jul-94 | ER0021 | Antimony | 1.20 | | UG/L |
| 11-Jul-94 | ER0021 | Barium | 2.50 | | UG/L |
| 11-Jul-94 | ER0021 | Bromodichloromethane | 3 | J | UG/L |
| 11-Jul-94 | ER0021 | Calcium | 376.00 | | UG/L |
| 11-Jul-94 | ER0021 | Carbon Tetrachloride | 2 | J | UG/L |
| 11-Jul-94 | ER0021 | Chloroform | 57 | | UG/L |
| 11-Jul-94 | ER0021 | Magnesium | 117.00 | | UG/L |
| 11-Jul-94 | ER0021 | Phenol | 3 | J | UG/L |
| 11-Jul-94 | ER0021 | Plutonium-239/40 | 0.13 | | PCI/L |
| 11-Jul-94 | ER0021 | Thorium-230 | 1.31 | | PCI/L |
| 11-Jul-94 | ER0021 | Thorium-232 | 0.26 | | PCI/L |
| 11-Jul-94 | ER0021 | Toluene | 1 | J | UG/L |
| 12-Jul-94 | ER0022 | 2-Amino-4,6-dinitrotoluene | 0.24 | J | UG/L |
| 12-Jul-94 | ER0022 | Aluminum | 104.00 | | UG/L |
| 12-Jul-94 | ER0022 | Americium-241 | 0.26 | | PCI/L |
| 12-Jul-94 | ER0022 | Bromodichloromethane | 4 | J | UG/L |
| 12-Jul-94 | ER0022 | Calcium | 356.00 | | UG/L |
| 12-Jul-94 | ER0022 | Carbon Tetrachloride | 3 | J | UG/L |
| 12-Jul-94 | ER0022 | Chloroform | 66 | | UG/L |
| 12-Jul-94 | ER0022 | Copper | 1.10 | | UG/L |
| 12-Jul-94 | ER0022 | Magnesium | 116.00 | | UG/L |

**Table G.5-3. Summary of Equipment Rinsate Detections**
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| Collection Date | Equipment Rinsate Sample ID | Analyte | Results | Data Qualifier | Units |
|---|---|---|---|---|---|
| 12-Jul-94 | ER0022 | Radium-226 | 0.25 | J | PCI/L |
| 12-Jul-94 | ER0022 | Sulfate | 2.4900 | | MG/L |
| 12-Jul-94 | ER0022 | bis(2-Ethylhexyl)phthalate | 1 | J | UG/L |
| 20-Jun-94 | ER0001 | Bromodichloromethane | 6 | | UG/L |
| 20-Jun-94 | ER0001 | Carbon Tetrachloride | 2 | J | UG/L |
| 20-Jun-94 | ER0001 | Chloroform | 43 | | UG/L |
| 20-Jun-94 | ER0001 | Chromium | 1.40 | | UG/L |
| 20-Jun-94 | ER0001 | Iron | 20.10 | | UG/L |
| 20-Jun-94 | ER0001 | Magnesium | 86.20 | | UG/L |
| 20-Jun-94 | ER0001 | Organic Carbon | 3.1500 | | MG/L |
| 20-Jun-94 | ER0001 | Organic Carbon | 3.1800 | | MG/L |
| 20-Jun-94 | ER0001 | Organic Carbon | 3.4700 | | MG/L |
| 20-Jun-94 | ER0001 | Organic Carbon | 3.6300 | | MG/L |
| 20-Jun-94 | ER0001 | Pu-238 | 1.74 | J | PIC/L |
| 20-Jun-94 | ER0001 | Pu-239/40 | 0.17 | J | PIC/L |
| 20-Jun-94 | ER0001 | Ra-226 | 0.08 | J | PCI/L |
| 20-Jun-94 | ER0001 | Sodium | 315.00 | | UG/L |
| 20-Jun-94 | ER0001 | Th-228 | 0.67 | J | PIC/L |
| 20-Jun-94 | ER0001 | Th-230 | 0.26 | J | PIC/L |
| 21-Jun-94 | ER0002 | 2,4,6-Trinitrotoluene | 10.0 | J | UG/L |
| 21-Jun-94 | ER0002 | 2,4-Dinitrotoluene | 2.4 | J | UG/L |
| 21-Jun-94 | ER0002 | 2,6-Dinitrotoluene | 2.6 | J | UG/L |
| 21-Jun-94 | ER0002 | Aluminum | 38.00 | | UG/L |
| 21-Jun-94 | ER0002 | Bromodichloromethane | 5 | | UG/L |
| 21-Jun-94 | ER0002 | Carbon Tetrachloride | 2 | J | UG/L |
| 21-Jun-94 | ER0002 | Chloroform | 36 | | UG/L |
| 21-Jun-94 | ER0002 | Iron | 31.20 | | UG/L |

Table G.5-3. Summary of Equipment Rinsate Detections
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| Collection Date | Equipment Rinsate Sample ID | Analyte | Results | Data Qualifier | Units |
|---|---|---|---|---|---|
| 21-Jun-94 | ER0002 | Magnesium | 79.20 | | UG/L |
| 21-Jun-94 | ER0002 | Organic Carbon | 3.5000 | | MG/L |
| 21-Jun-94 | ER0002 | Organic Carbon | 3.6400 | | MG/L |
| 21-Jun-94 | ER0002 | Organic Carbon | 3.8000 | | MG/L |
| 21-Jun-94 | ER0002 | Organic Carbon | 3.8600 | | MG/L |
| 21-Jun-94 | ER0002 | Pu-239/40 | 0.13 | J | PIC/L |
| 21-Jun-94 | ER0002 | Ra-226 | 0.24 | J | PCI/L |
| 21-Jun-94 | ER0002 | Sodium | 360.00 | | UG/L |
| 21-Jun-94 | ER0002 | Th-228 | 1.24 | J | PIC/L |
| 21-Jun-94 | ER0002 | Th-230 | 0.71 | J | PIC/L |
| 21-Jun-94 | ER0002 | Th-232 | 0.57 | J | PIC/L |
| 28-Jun-94 | ER0003 | Aluminum | 43.80 | | UG/L |
| 28-Jun-94 | ER0003 | Chloroform | 5 | | UG/L |
| 28-Jun-94 | ER0003 | Holmium | 10.00 | | UG/L |
| 28-Jun-94 | ER0003 | Iron | 35.50 | | UG/L |
| 28-Jun-94 | ER0003 | Methylene Chloride | 3 | J | UG/L |
| 28-Jun-94 | ER0003 | Organic Carbon | 2.3100 | | MG/L |
| 28-Jun-94 | ER0003 | Organic Carbon | 2.4400 | | MG/L |
| 28-Jun-94 | ER0003 | Organic Carbon | 2.5300 | | MG/L |
| 28-Jun-94 | ER0003 | Ra-226 | 0.24 | J | PCI/L |
| 28-Jun-94 | ER0003 | Samarium | 82.00 | | UG/L |
| 28-Jun-94 | ER0003 | Sodium | 278.00 | | UG/L |
| 28-Jun-94 | ER0003 | Th-228 | 0.66 | J | PIC/L |
| 28-Jun-94 | ER0003 | Th-230 | 0.44 | J | PIC/L |
| 29-Jun-94 | ER0004 | Bromodichloromethane | 3 | J | UG/L |
| 29-Jun-94 | ER0004 | Chloroform | 25 | | UG/L |
| 29-Jun-94 | ER0004 | Copper | 1.90 | | UG/L |

Table G.5-3. Summary of Equipment Rinsate Detections
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| Collection Date | Equipment Rinsate Sample ID | Analyte | Results | Data Qualifier | Units |
|---|---|---|---|---|---|
| 29-Jun-94 | ER0004 | Kjeldahl Nitrogen | 0.7160 | | MG/L |
| 29-Jun-94 | ER0004 | Methylene Chloride | 5 | | UG/L |
| 29-Jun-94 | ER0004 | Organic Carbon | 3.2000 | | MG/L |
| 29-Jun-94 | ER0004 | Organic Carbon | 3.2400 | | MG/L |
| 29-Jun-94 | ER0004 | Organic Carbon | 3.2800 | | MG/L |
| 29-Jun-94 | ER0004 | Organic Carbon | 3.4100 | | MG/L |
| 29-Jun-94 | ER0004 | Ra-226 | 0.01 | J | PCI/L |
| 29-Jun-94 | ER0004 | Sulfate | 2.0500 | | MG/L |
| 29-Jun-94 | ER0004 | Th-228 | 1.08 | J | PIC/L |
| 29-Jun-94 | ER0004 | Th-230 | 0.47 | J | PIC/L |
| 30-Jun-94 | ER0005 | Bromodichloromethane | 3 | J | UG/L |
| 30-Jun-94 | ER0005 | Chloroform | 23 | | UG/L |
| 30-Jun-94 | ER0005 | Methylene Chloride | 5 | | UG/L |
| 30-Jun-94 | ER0005 | Pu-239/40 | 0.16 | J | PIC/L |
| 30-Jun-94 | ER0005 | Ra-226 | 0.81 | J | PCI/L |
| 06-Jul-94 | ER0006 | 2-Amino-4,6-dinitrotoluene | 2.9 | J | UG/L |
| 06-Jul-94 | ER0006 | Acetone | 11 | | UG/L |
| 06-Jul-94 | ER0006 | Am-241 | 0.26 | J | PCI/L |
| 06-Jul-94 | ER0006 | Organic Carbon | 1.3800 | | MG/L |
| 06-Jul-94 | ER0006 | Organic Carbon | 1.4200 | | MG/L |
| 06-Jul-94 | ER0006 | Organic Carbon | 1.4700 | | MG/L |
| 06-Jul-94 | ER0006 | Organic Carbon | 1.7000 | | MG/L |
| 06-Jul-94 | ER0006 | Th-228 | 1.06 | J | PIC/L |
| 06-Jul-94 | ER0006 | Th-230 | 0.28 | J | PIC/L |
| 06-Jul-94 | ER0006 | Tritium | 401.7 | | PCI/L |
| 20-Jul-94 | ER0008 | Am-241 | 0.49 | J | PCI/L |
| 20-Jul-94 | ER0008 | Bromodichloromethane | 5 | | UG/L |

**Table G.5-3. Summary of Equipment Rinsate Detections**
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| Collection Date | Equipment Rinsate Sample ID | Analyte | Results | Data Qualifier | Units |
|---|---|---|---|---|---|
| 20-Jul-94 | ER0008 | Calcium | 326.00 | | UG/L |
| 20-Jul-94 | ER0008 | Carbon Tetrachloride | 2 | J | UG/L |
| 20-Jul-94 | ER0008 | Cerium | 52.00 | | UG/L |
| 20-Jul-94 | ER0008 | Chloroform | 54 | | UG/L |
| 20-Jul-94 | ER0008 | Dypsprosium | 11.00 | | UG/L |
| 20-Jul-94 | ER0008 | Erbium | 30.00 | | UG/L |
| 20-Jul-94 | ER0008 | Europium | 4.00 | | UG/L |
| 20-Jul-94 | ER0008 | Gadolinium | 31.00 | | UG/L |
| 20-Jul-94 | ER0008 | Holmium | 9.00 | | UG/L |
| 20-Jul-94 | ER0008 | Lanthanum | 17.00 | | UG/L |
| 20-Jul-94 | ER0008 | Lutetium | 2.00 | | UG/L |
| 20-Jul-94 | ER0008 | Magnesium | 101.00 | | UG/L |
| 20-Jul-94 | ER0008 | Neodymium | 50.00 | | UG/L |
| 20-Jul-94 | ER0008 | Organic Carbon | 1.8000 | J | MG/L |
| 20-Jul-94 | ER0008 | Organic Carbon | 1.8200 | J | MG/L |
| 20-Jul-94 | ER0008 | Organic Carbon | 1.9200 | J | MG/L |
| 20-Jul-94 | ER0008 | Organic Carbon | 1.9500 | J | MG/L |
| 20-Jul-94 | ER0008 | Potassium | 137.00 | J | UG/L |
| 20-Jul-94 | ER0008 | Praseodymium | 32.00 | | UG/L |
| 20-Jul-94 | ER0008 | Samarium | 82.00 | | UG/L |
| 20-Jul-94 | ER0008 | Terbium | 60.00 | | UG/L |
| 20-Jul-94 | ER0008 | Thulium | 10.00 | | UG/L |
| 20-Jul-94 | ER0008 | Ytterbium | 15.00 | | UG/L |
| 20-Jul-94 | ER0008 | Zinc | 2.20 | | UG/L |
| 22-Jul-94 | ER0009 | Am-241 | 0.19 | | PCI/L |
| 22-Jul-94 | ER0009 | Barium | 1.10 | | UG/L |
| 22-Jul-94 | ER0009 | Bromodichloromethane | 5 | | UG/L |

Table G.5-3. Summary of Equipment Rinsate Detections
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| Collection Date | Equipment Rinsate Sample ID | Analyte | Results | Data Qualifier | Units |
|---|---|---|---|---|---|
| 22-Jul-94 | ER0009 | Calcium | 322.00 | | UG/L |
| 22-Jul-94 | ER0009 | Carbon Tetrachloride | 2 | J | UG/L |
| 22-Jul-94 | ER0009 | Cerium | 52.00 | | UG/L |
| 22-Jul-94 | ER0009 | Chloroform | 47 | | UG/L |
| 22-Jul-94 | ER0009 | Dypsprosium | 11.00 | | UG/L |
| 22-Jul-94 | ER0009 | Erbium | 30.00 | | UG/L |
| 22-Jul-94 | ER0009 | Europium | 4.00 | | UG/L |
| 22-Jul-94 | ER0009 | Gadolinium | 31.00 | | UG/L |
| 22-Jul-94 | ER0009 | Holmium | 9.00 | | UG/L |
| 22-Jul-94 | ER0009 | Lanthanum | 17.00 | | UG/L |
| 22-Jul-94 | ER0009 | Lutetium | 2.00 | | UG/L |
| 22-Jul-94 | ER0009 | Magnesium | 105.00 | | UG/L |
| 22-Jul-94 | ER0009 | Neodymium | 50.00 | | UG/L |
| 22-Jul-94 | ER0009 | Organic Carbon | 1.1200 | J | MG/L |
| 22-Jul-94 | ER0009 | Organic Carbon | 1.1800 | J | MG/L |
| 22-Jul-94 | ER0009 | Organic Carbon | 1.2100 | J | MG/L |
| 22-Jul-94 | ER0009 | Organic Carbon | 1.2200 | J | MG/L |
| 22-Jul-94 | ER0009 | Potassium | 147.00 | J | UG/L |
| 22-Jul-94 | ER0009 | Praseodymium | 32.00 | | UG/L |
| 22-Jul-94 | ER0009 | Samarium | 82.00 | | UG/L |
| 22-Jul-94 | ER0009 | Terbium | 60.00 | | UG/L |
| 22-Jul-94 | ER0009 | Thulium | 10.00 | | UG/L |
| 22-Jul-94 | ER0009 | Ytterbium | 15.00 | | UG/L |
| 26-Jul-94 | ER0010 | Am-241 | 0.17 | J | PCI/L |
| 26-Jul-94 | ER0010 | Barium | 2.30 | | UG/L |
| 26-Jul-94 | ER0010 | Bromodichloromethane | 5 | | UG/L |
| 26-Jul-94 | ER0010 | Calcium | 334.00 | | UG/L |

**Table G.5-3. Summary of Equipment Rinsate Detections**
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| Collection Date | Equipment Rinsate Sample ID | Analyte | Results | Data Qualifier | Units |
|---|---|---|---|---|---|
| 26-Jul-94 | ER0010 | Carbon Tetrachloride | 2 | J | UG/L |
| 26-Jul-94 | ER0010 | Cerium | 52.00 | | UG/L |
| 26-Jul-94 | ER0010 | Chloroform | 46 | | UG/L |
| 26-Jul-94 | ER0010 | Dypsprosium | 11.00 | | UG/L |
| 26-Jul-94 | ER0010 | Erbium | 30.00 | | UG/L |
| 26-Jul-94 | ER0010 | Europium | 4.00 | | UG/L |
| 26-Jul-94 | ER0010 | Gadolinium | 31.00 | | UG/L |
| 26-Jul-94 | ER0010 | Holmium | 9.00 | | UG/L |
| 26-Jul-94 | ER0010 | Lanthanum | 17.00 | | UG/L |
| 26-Jul-94 | ER0010 | Lutetium | 2.00 | | UG/L |
| 26-Jul-94 | ER0010 | Magnesium | 107.00 | | UG/L |
| 26-Jul-94 | ER0010 | Manganese | 1.90 | | UG/L |
| 26-Jul-94 | ER0010 | Neodymium | 50.00 | | UG/L |
| 26-Jul-94 | ER0010 | Organic Carbon | 1.3300 | J | MG/L |
| 26-Jul-94 | ER0010 | Organic Carbon | 1.3600 | J | MG/L |
| 26-Jul-94 | ER0010 | Organic Carbon | 1.6300 | J | MG/L |
| 26-Jul-94 | ER0010 | Potassium | 153.00 | J | UG/L |
| 26-Jul-94 | ER0010 | Praseodymium | 32.00 | | UG/L |
| 26-Jul-94 | ER0010 | Samarium | 82.00 | | UG/L |
| 26-Jul-94 | ER0010 | Terbium | 60.00 | | UG/L |
| 26-Jul-94 | ER0010 | Thulium | 10.00 | | UG/L |
| 26-Jul-94 | ER0010 | Ytterbium | 15.00 | | UG/L |
| 26-Jul-94 | ER0010 | bis(2-Ethylhexyl)phthalate | 2 | J | UG/L |

ID identification
J The result value is an estimated value
MG/L milligrams per liter
PCI/L picocuries per liter
UG/L micrograms per liter
Note: No qualifier in the Data Qualifier column indicates that the data was not qualified.

Table G.5-4. Field Precision Summary
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| Matrix | Analyte | Number of Field Duplicate Pairs | Minimum RPD | Maximum RPD | Number Within Acceptance Limits | Percentage Within Limits |
|---|---|---|---|---|---|---|
| Soil | 1,2-Dichloroethene | 1 | 0.00 | 40.00 | 0 | 0.00 |
| | 4,4'-DDE | 1 | 9.30 | 9.30 | 1 | 100.00 |
| | Acenaphthene | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Acetone | 3 | 0.00 | 0.00 | 3 | 100.00 |
| | Aluminum | 13 | 0.00 | 21.20 | 13 | 100.00 |
| | Anthracene | 4 | 0.00 | 0.00 | 4 | 100.00 |
| | Antimony | 4 | 0.00 | 12.90 | 4 | 100.00 |
| | Aroclor-1254 | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Arsenic | 13 | 0.00 | 56.20 | 11 | 84.62 |
| | Barium | 13 | 0.00 | 37.20 | 12 | 92.31 |
| | Benzo(a)anthracene | 6 | 0.00 | 80.50 | 5 | 83.33 |
| | Benzo(a)pyrene | 6 | 0.00 | 68.20 | 5 | 83.33 |
| | Benzo(b)fluoranthene | 7 | 0.00 | 73.30 | 6 | 85.71 |
| | Benzo(g,h,i)perylene | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Benzo(k)fluoranthene | 7 | 0.00 | 81.20 | 6 | 85.71 |
| | Beryllium | 10 | 0.00 | 8.00 | 10 | 100.00 |
| | Bismuth | 10 | 0.00 | 43.80 | 8 | 80.00 |
| | Cadmium | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Calcium | 13 | 0.00 | 32.20 | 13 | 100.00 |
| | Carbazole | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Cerium | 4 | 0.00 | 0.00 | 4 | 100.00 |
| | Chloride | 11 | 0.00 | 19.60 | 11 | 100.00 |
| | Chromium | 11 | 0.00 | 18.40 | 11 | 100.00 |
| | Chrysene | 6 | 0.00 | 77.80 | 5 | 83.33 |
| | Cobalt | 11 | 0.00 | 11.80 | 11 | 100.00 |
| | Copper | 11 | 0.00 | 10.10 | 11 | 100.00 |
| | Di-n-butylphthalate | 2 | 0.00 | 22.20 | 2 | 100.00 |

Table G.5-4. Field Precision Summary
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| Matrix | Analyte | Number of Field Duplicate Pairs | Minimum RPD | Maximum RPD | Number Within Acceptance Limits | Percentage Within Limits |
|---|---|---|---|---|---|---|
| Soil (continued) | Dibenzofuran | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Dieldrin | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Dypsprosium | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Endrin | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Europium | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Fluoranthene | 8 | 0.00 | 101.00 | 6 | 75.00 |
| | Fluorene | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Fluoride | 11 | 0.00 | 108.00 | 9 | 81.82 |
| | Gadolinium | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Heptachlor Epoxide | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Holmium | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Indeno(1,2,3-cd)pyrene | 4 | 0.00 | 0.00 | 4 | 100.00 |
| | Iron | 13 | 0.00 | 35.70 | 12 | 92.31 |
| | K-40 | 9 | 0.00 | 16.80 | 9 | 100.00 |
| | Lead | 14 | 0.00 | 66.30 | 13 | 92.86 |
| | Lithium | 7 | 0.00 | 7.10 | 7 | 100.00 |
| | Magnesium | 14 | 0.00 | 42.20 | 13 | 92.86 |
| | Manganese | 13 | 0.00 | 146.00 | 12 | 92.31 |
| | Mercury | 3 | 0.00 | 0.00 | 3 | 100.00 |
| | Molybdenum | 5 | 0.00 | 16.20 | 5 | 100.00 |
| | Naphthalene | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Neodymium | 7 | 0.00 | 0.00 | 7 | 100.00 |
| | Nickel | 11 | 0.00 | 19.40 | 11 | 100.00 |
| | Nitrate-Nitrite-N | 9 | 0.00 | 199.00 | 6 | 66.67 |
| | Organic Carbon | 10 | 0.00 | 81.80 | 8 | 80.00 |

Table G.5-4. Field Precision Summary
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| Matrix | Analyte | Number of Field Duplicate Pairs | Minimum RPD | Maximum RPD | Number Within Acceptance Limits | Percentage Within Limits |
|---|---|---|---|---|---|---|
| Soil (continued) | Phenanthrene | 6 | 0.00 | 122.00 | 5 | 83.33 |
| | Potassiumium | 14 | 0.00 | 36.20 | 13 | 92.86 |
| | Praseodym | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Plutonium-238 | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Plutonium-239/40 | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Pyrene | 6 | 0.00 | 91.20 | 5 | 83.33 |
| | Radium-226 | 13 | 0.00 | 28.60 | 13 | 100.00 |
| | Samarium | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Silver | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Sodium | 8 | 0.00 | 22.70 | 8 | 100.00 |
| | Sulfate | 11 | 0.00 | 124.00 | 7 | 63.64 |
| | Terbium | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Tetrachloroethene | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Thorium-228 | 5 | 0.00 | 37.80 | 3 | 60.00 |
| | Thorium-230 | 9 | 0.00 | 39.20 | 8 | 88.89 |
| | Thorium-232 | 9 | 0.00 | 73.90 | 8 | 88.89 |
| | Tin | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Trichloroethene | 1 | 18.20 | 18.20 | 1 | 100.00 |
| | Uranium-234 | 12 | 0.00 | 46.20 | 11 | 91.67 |
| | Uranium-235 | 3 | 0.00 | 0.00 | 3 | 100.00 |
| | Uranium-238 | 12 | 0.00 | 47.50 | 10 | 83.33 |
| | Vanadium | 11 | 0.00 | 19.80 | 11 | 100.00 |
| | Ytterbium | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Zinc | 13 | 0.00 | 160.00 | 12 | 92.31 |

Table G.5-4. Field Precision Summary
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| Matrix | Analyte | Number of Field Duplicate Pairs | Minimum RPD | Maximum RPD | Number Within Acceptance Limits | Percentage Within Limits |
|---|---|---|---|---|---|---|
| Soil (continued) | alpha-Chlordane | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | bis(2-Ethylhexyl)phthalate | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | gamma-Chlordane | 2 | 0.00 | 0.00 | 2 | 100.00 |
| Water | Alkalinity | 1 | 2.50 | 2.50 | 1 | 100.00 |
| | Alkalinity as Calcium Carbonate | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Aluminum | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Arsenic | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Barium | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Benzoic Acid | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Bismuth | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Calcium | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Chloride | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Chromium | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Cobalt | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Copper | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Dissolved Solids | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Fluoride | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Iron | 3 | 0.00 | 121.00 | 2 | 66.67 |
| | Kjeldahl Nitrogen | 3 | 0.00 | 7.90 | 3 | 100.00 |
| | Lead | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Magnesium | 3 | 0.00 | 20.20 | 2 | 66.67 |
| | Manganese | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Nitrate-Nitrite-N | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Organic Carbon | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Potassium | 2 | 0.00 | 0.00 | 2 | 100.00 |

Table G.5-4. Field Precision Summary
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| Matrix | Analyte | Number of Field Duplicate Pairs | Minimum RPD | Maximum RPD | Number Within Acceptance Limits | Percentage Within Limits |
|---|---|---|---|---|---|---|
| Water (continued) | Radium-226 | 2 | 0.00 | 67.70 | 1 | 50.00 |
| | Sodium | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Sulfate | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Suspended Solids | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Thorium-228 | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Thorium-232 | 1 | 0.00 | 0.00 | 1 | 100.00 |
| | Total Phosphorus | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Tritium | 3 | 0.00 | 5.00 | 3 | 100.00 |
| | Uranium-234 | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Uranium-238 | 3 | 0.00 | 6.20 | 3 | 100.00 |
| | Vanadium | 2 | 0.00 | 0.00 | 2 | 100.00 |
| | Zinc | 2 | 0.00 | 0.00 | 2 | 100.00 |

RPD relative percent difference