

AD-A274 680



92156R01
VOLUME II OF II
ORIGINAL

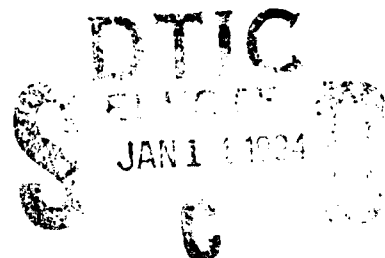
①



**PROGRAM MANAGER
FOR ROCKY MOUNTAIN ARSENAL**

U.S. ARMY
MATERIEL COMMAND

— COMMITTED TO PROTECTION OF THE ENVIRONMENT —



94-01549



Harding Lawson Associates

Environmental Science And Engineering, Inc.

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FOR ROCKY MOUNTAIN ARSENAL
AMXRM-PM, COMMERCE CITY, COLORADO 80022

This document complies with the
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92156R01
VOLUME II OF II
ORIGINAL

TECHNICAL SUPPORT FOR ROCKY MOUNTAIN ARSENAL

DISQUALITY INSPECTED 8

Offpost Operable Unit
Remedial Investigation

Final Addendum

Volume II of II

March 30, 1992
Contract Number DAAA15-88-0021

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PREPARED BY

Harding Lawson Associates
Environmental Science and Engineering

PREPARED FOR

PROGRAM MANAGER FOR ROCKY MOUNTAIN ARSENAL

Rocky Mountain Arsenal
Information Center
Commerce City, Colorado

THIS DOCUMENT IS INTENDED TO COMPLY WITH THE NATIONAL ENVIRONMENTAL POLICY ACT OF 1969.

THE INFORMATION AND CONCLUSIONS PRESENTED IN THIS REPORT REPRESENT THE OFFICIAL POSITION OF THE DEPARTMENT OF THE ARMY UNLESS EXPRESSLY MODIFIED BY A SUBSEQUENT DOCUMENT. THIS REPORT CONSTITUTES THE RELEVANT PORTION OF THE ADMINISTRATION RECORD FOR THIS CERCLA OPERABLE UNIT.

Appendix A

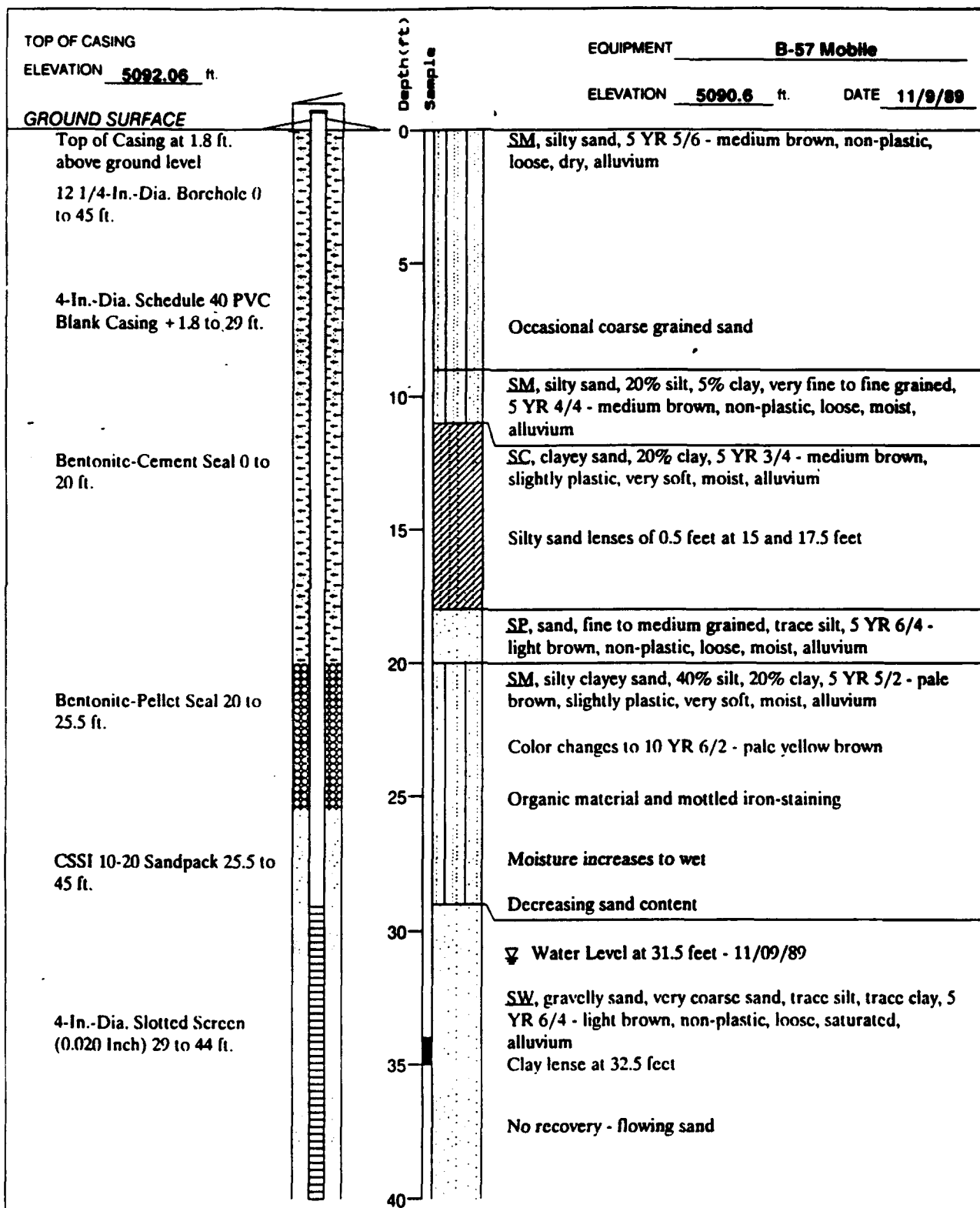
**LITHOLOGIC LOGS, CONSTRUCTION SUMMARIES,
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1



Notes: See Detail A for surface completion.
All PID readings equal to background.
Munsell color chart used.

29

9/89

(Continuation of Well)

(Continuation of Log)

4-In.-Dia. Schedule 40 PVC
Blank Silt Trap 44 to 45 ft.

Bottom Well Cap at 45 ft.

Hole Cleaned Out to 45 ft.



Depth (ft)
Sample

40

Increasing gravel content

Increasing clay content

45

CLAYSTONE, 10 YR 2/2 - yellow brown, low hardness,
weak, slightly fissile, bedrock

Total Depth = 46.0 feet

50

55

60

65

70

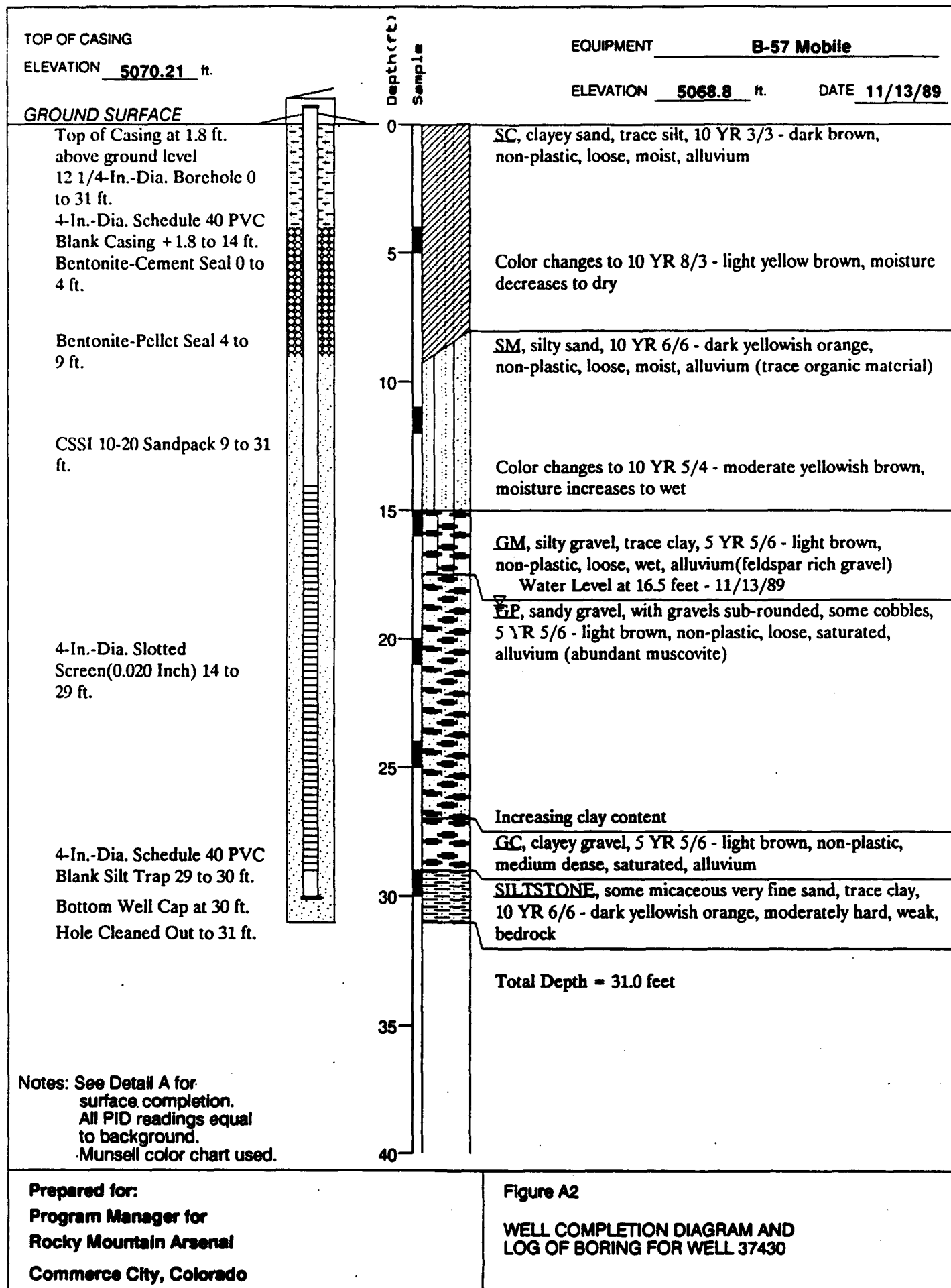
75

80

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Figure A1

WELL COMPLETION DIAGRAM AND
LOG OF BORING FOR WELL 37429



1

TOP OF CASING

ELEVATION 5101.55 ft.

EQUIPMENT

B-57 Mobile

ELEVATION 5100.0 ft.

DATE 11/21/89

GROUND SURFACE

Top of Casing at 1.9 ft.
above ground level

12 1/4-In.-Dia. Borehole 0
to 48 ft.

4-In.-Dia. Schedule 40 PVC
Blank Casing + 1.9 to 31 ft.

Bentonite-Cement Seal 0 to
21 ft.

Bentonite-Pellet Seal 21 to
26 ft.

CSSI 10-20 Sandpack 26 to
48 ft.

4-In.-Dia. Slotted Screen
(0.020 Inch) 31 to 45 ft.

Depth (ft.)
Sample

0

ML, sandy silt, very fine grained, trace clay, 10 YR 4/4 -
dark yellowish brown, slightly plastic, soft, moist, alluvium

5

SC, clayey sand, very fine grained, trace silt, 10 YR 7/6 -
yellow, non-plastic, loose, moist, alluvium

10

Sand size increases to fine

SM, silty sand, 10 YR 7/6 - yellow, non-plastic, loose,
moist, alluvium

15

SC, clayey sand, some silt, 10 YR 5/8 - yellowish brown,
slightly plastic, medium stiff, moist, alluvium

SM, silty sand, trace clay, 10 YR 5/8 - yellowish brown,
non-plastic, loose, moist, alluvium

20

25

SC, clayey sand, some silt, 10 YR 5/8 - yellowish brown,
slightly plastic, medium stiff, moist, alluvium

30

Moisture increases to wet

Sand size increases to medium

Water Level at 31.9 feet - 11/21/89

35

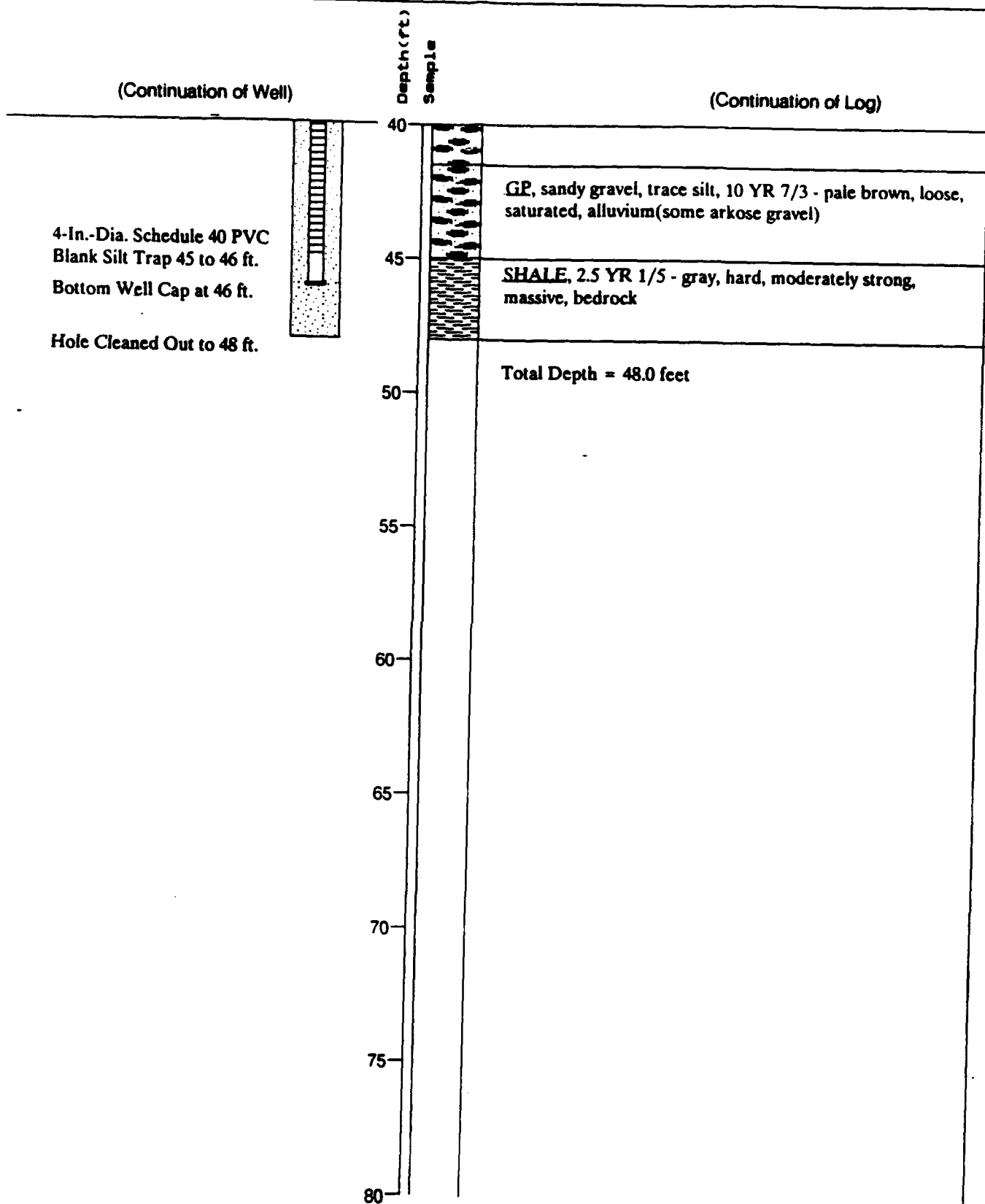
GC, clayey gravel, some sand, 10 YR 6/4 - light yellowish
brown, non-plastic, loose, saturated, alluvium

40

Decreasing clay content

Notes: See Detail A for surface
completion.
All PID readings equal to
background.
Munsell color chart used.

2



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Figure A3
WELL COMPLETION DIAGRAM AND
LOG OF BORING FOR WELL 37433

①

TOP OF CASING

ELEVATION 5089.85 ft.

EQUIPMENT B-57 Mobile

ELEVATION 5090.31 ft. DATE 11/14/89

GROUND SURFACE

Top of Casing at ground level

12 1/4-In.-Dia. Borehole 0 to 52 ft.

4-In.-Dia. Schedule 40 PVC Blank Casing 0 to 33 ft.

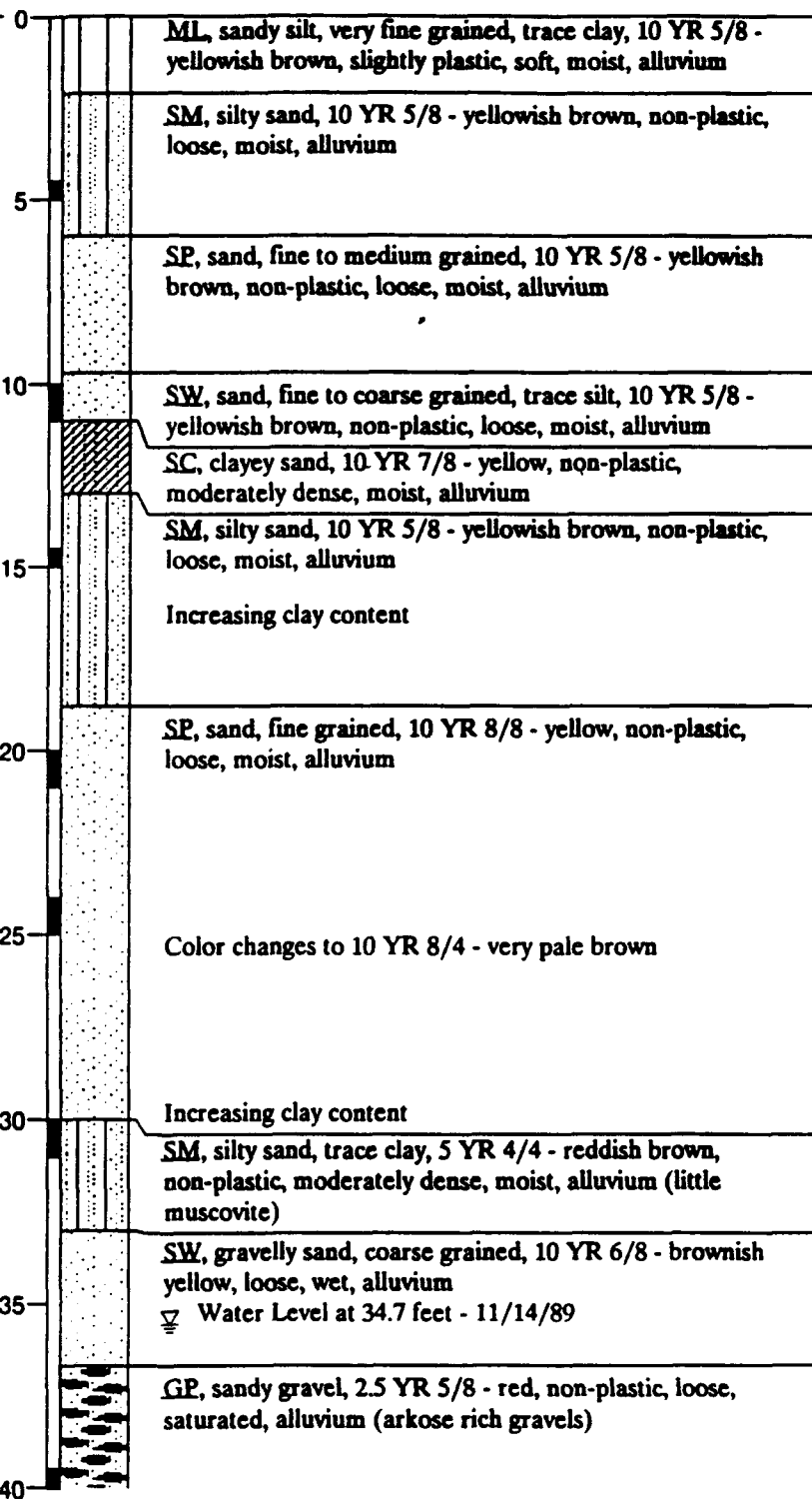
Bentonite-Cement Seal 3 to 22.7 ft.

Bentonite-Pellet Seal 22.7 to 28 ft.

CSSI 10-20 Sandpack 28 to 52 ft.

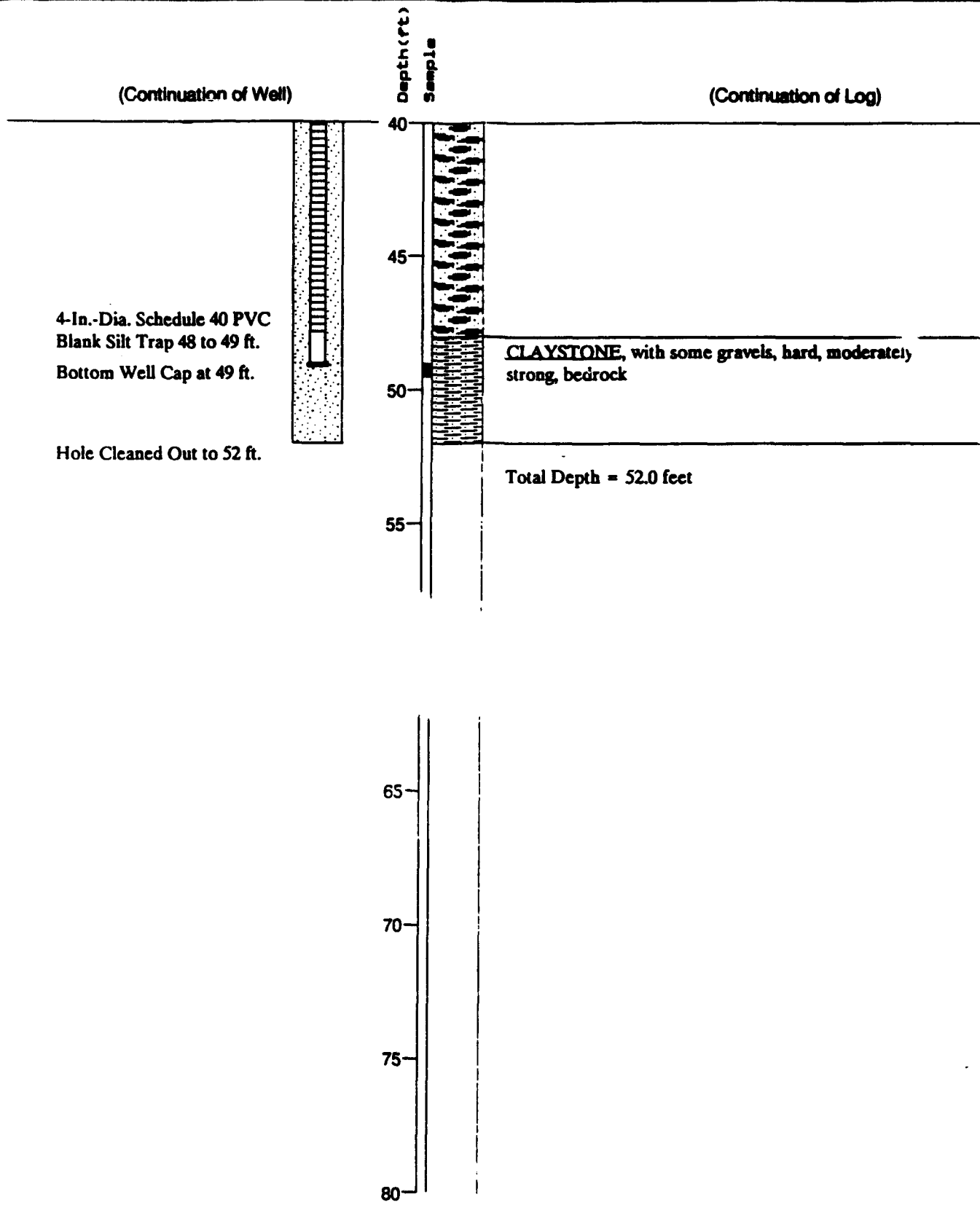
4-In.-Dia. Slotted Screen (0.020 Inch) 33 to 48 ft.

Depth (ft.)
Sample



Notes: See Detail B for surface completion.
All PID readings equal to background
Munsell color chart used.

2



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Figure A4
WELL COMPLETION DIAGRAM AND
LOG OF BORING FOR WELL 37434

1

TOP OF CASING

ELEVATION 5091.10 ft.

EQUIPMENT

B-57 Mobile

ELEVATION 5091.2 ft.

DATE 11/17/89

GROUND SURFACE

Top of Casing at 0.2 ft.
above ground level

12 1/4-In.-Dia. Borehole 0
to 44 ft.

4-In.-Dia. Schedule 40 PVC
Blank Casing +0.2 to 31 ft.

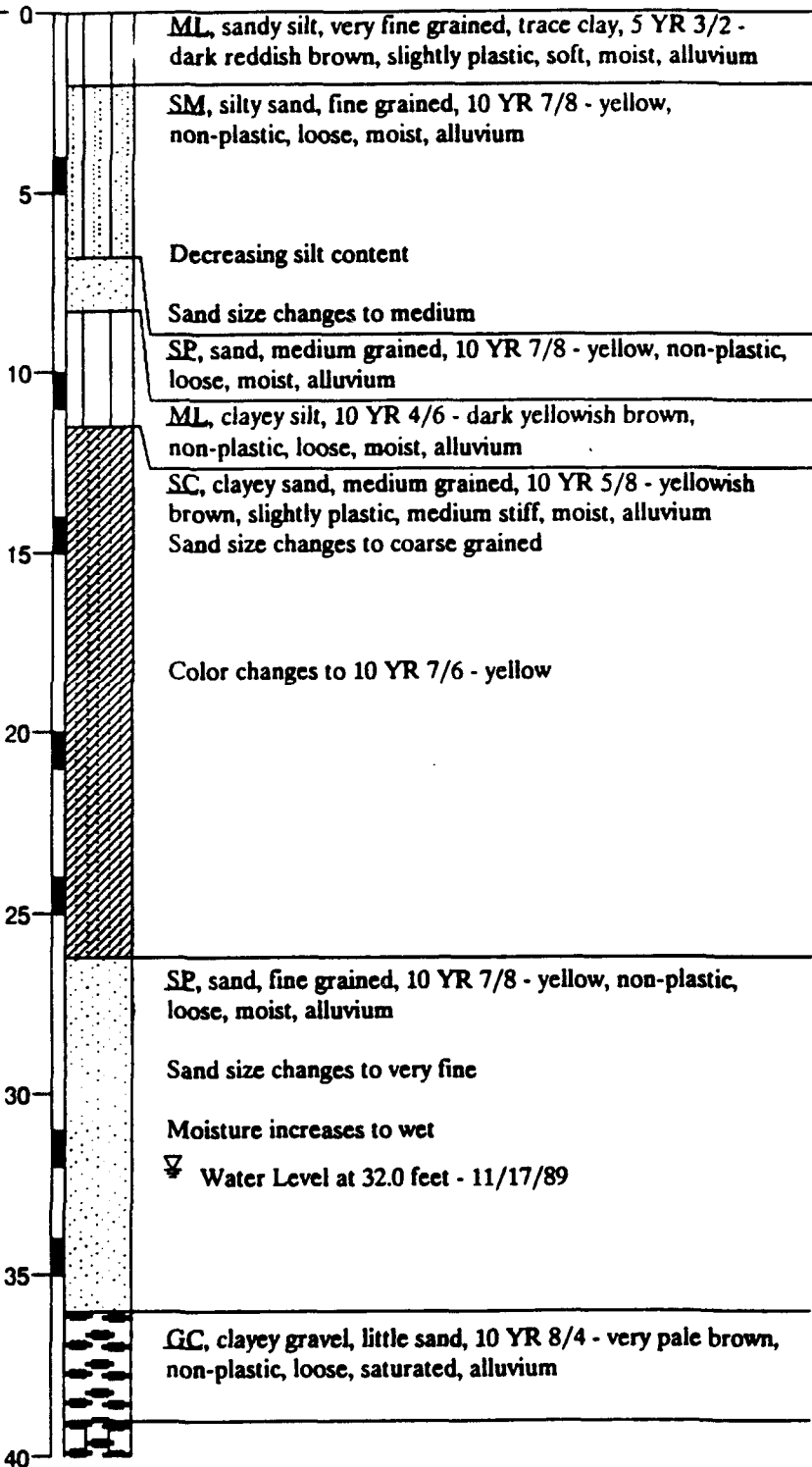
Bentonite-Cement Seal 0 to
21 ft.

Bentonite-Pellet Seal 21 to
26 ft.

CSSI 10-20 Sandpack 26 to
44 ft.

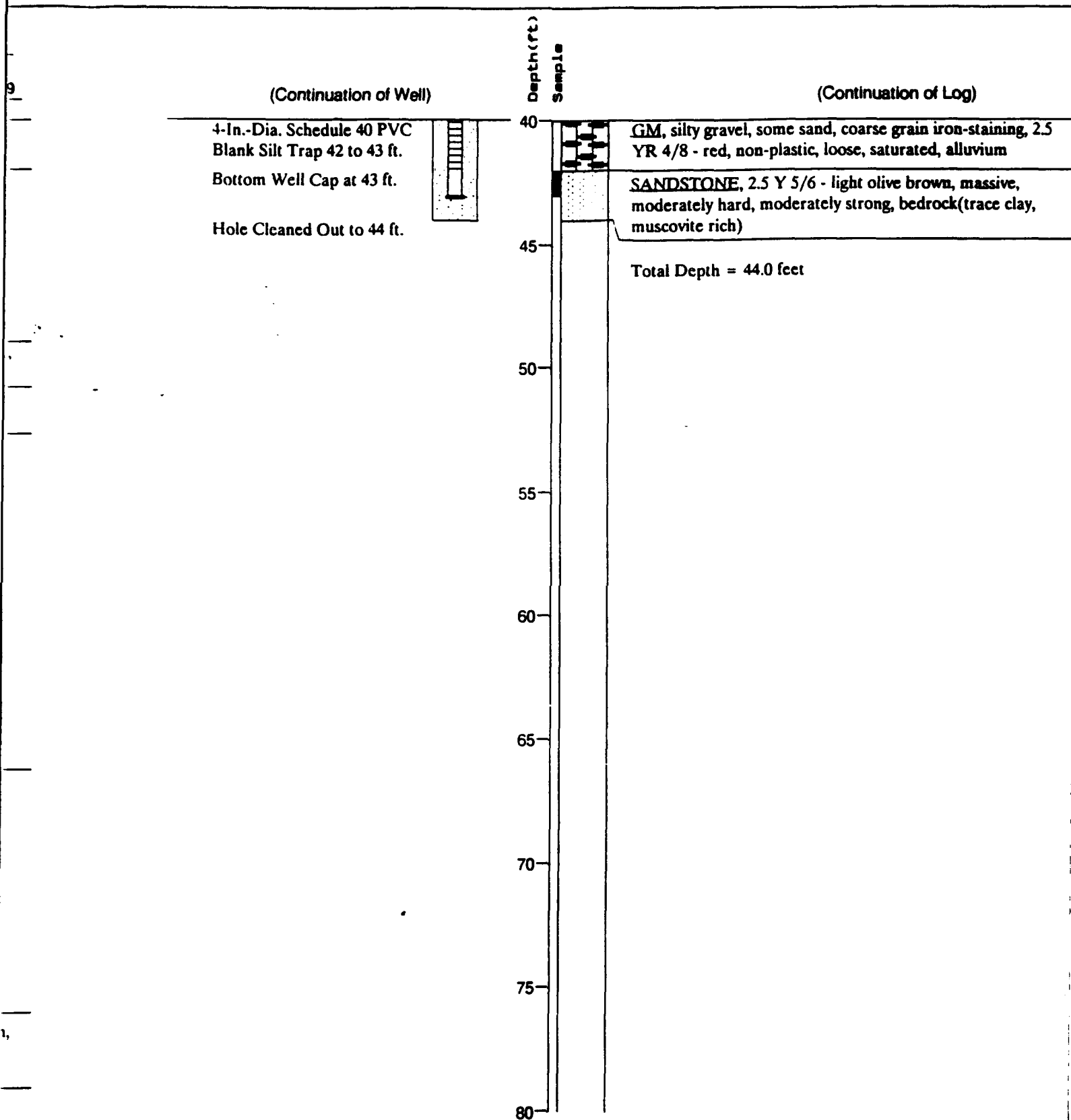
4-In.-Dia. Slotted Screen
(0.020 Inch) 31 to 42 ft.

Depth (ft)
Sample



Notes: See Detail B for
surface completion.
All PID readings equal to
background
Munsell color chart used.

2

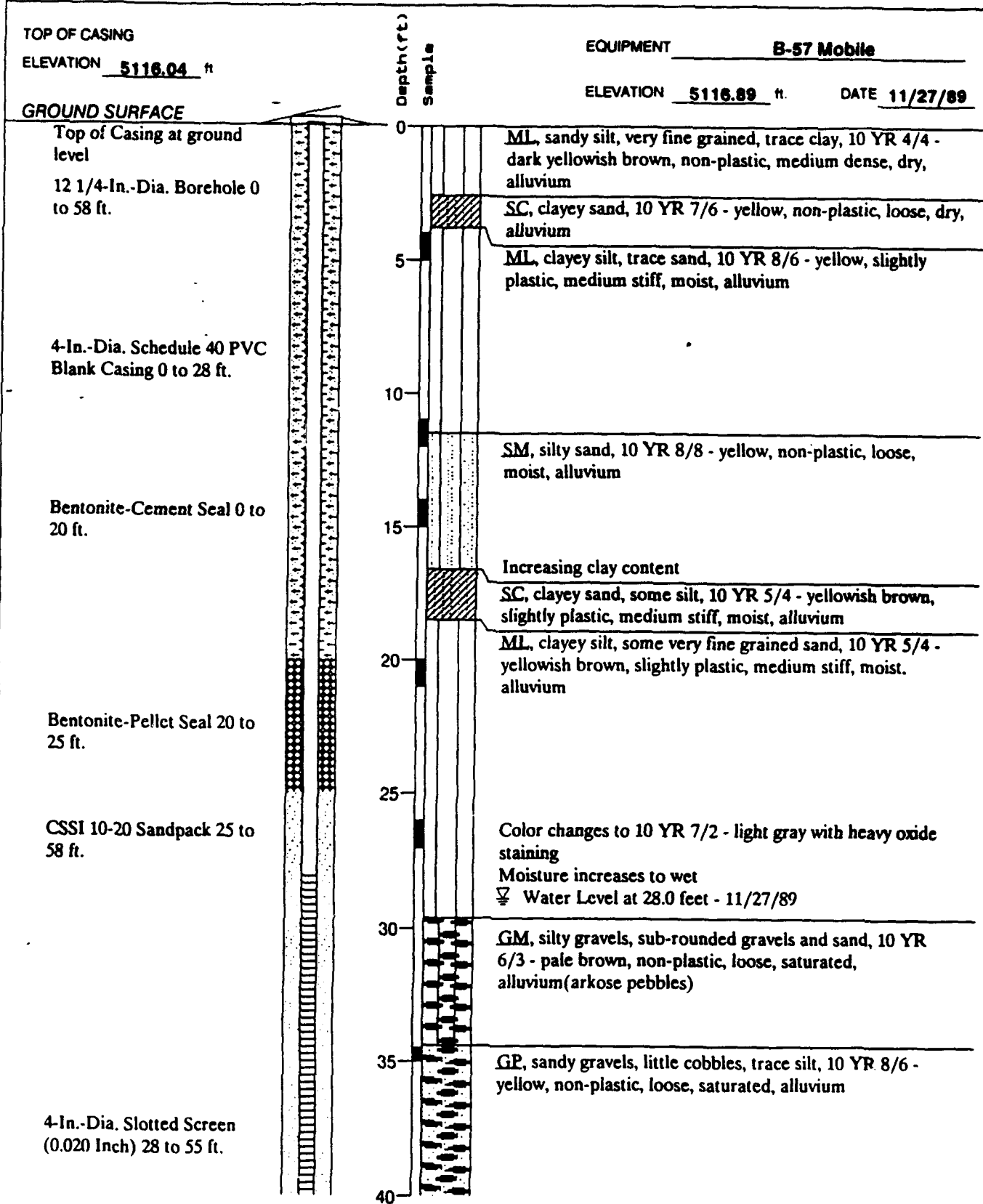


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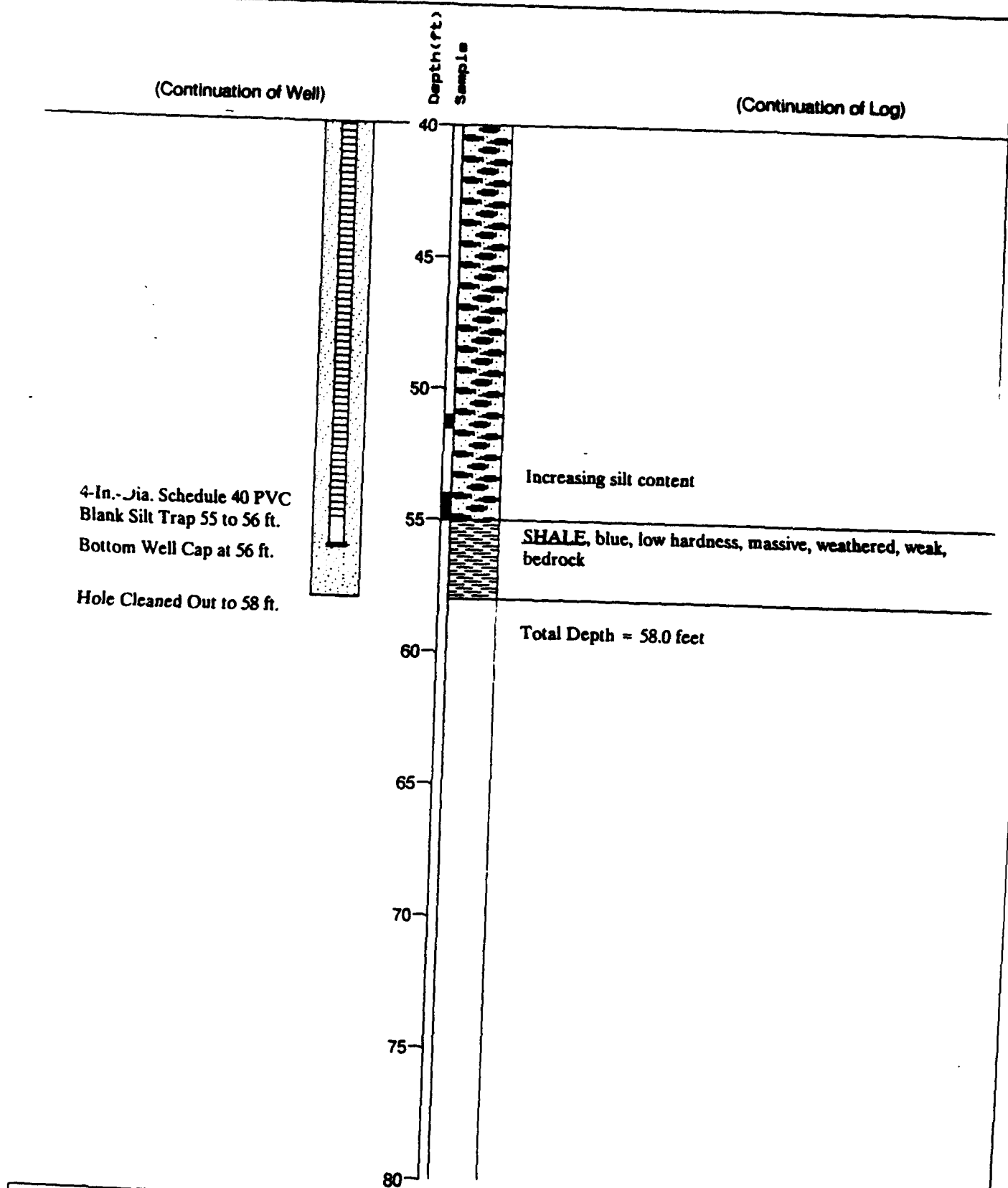
Figure A5

WELL COMPLETION DIAGRAM AND
LOG OF BORING FOR WELL 37435

1



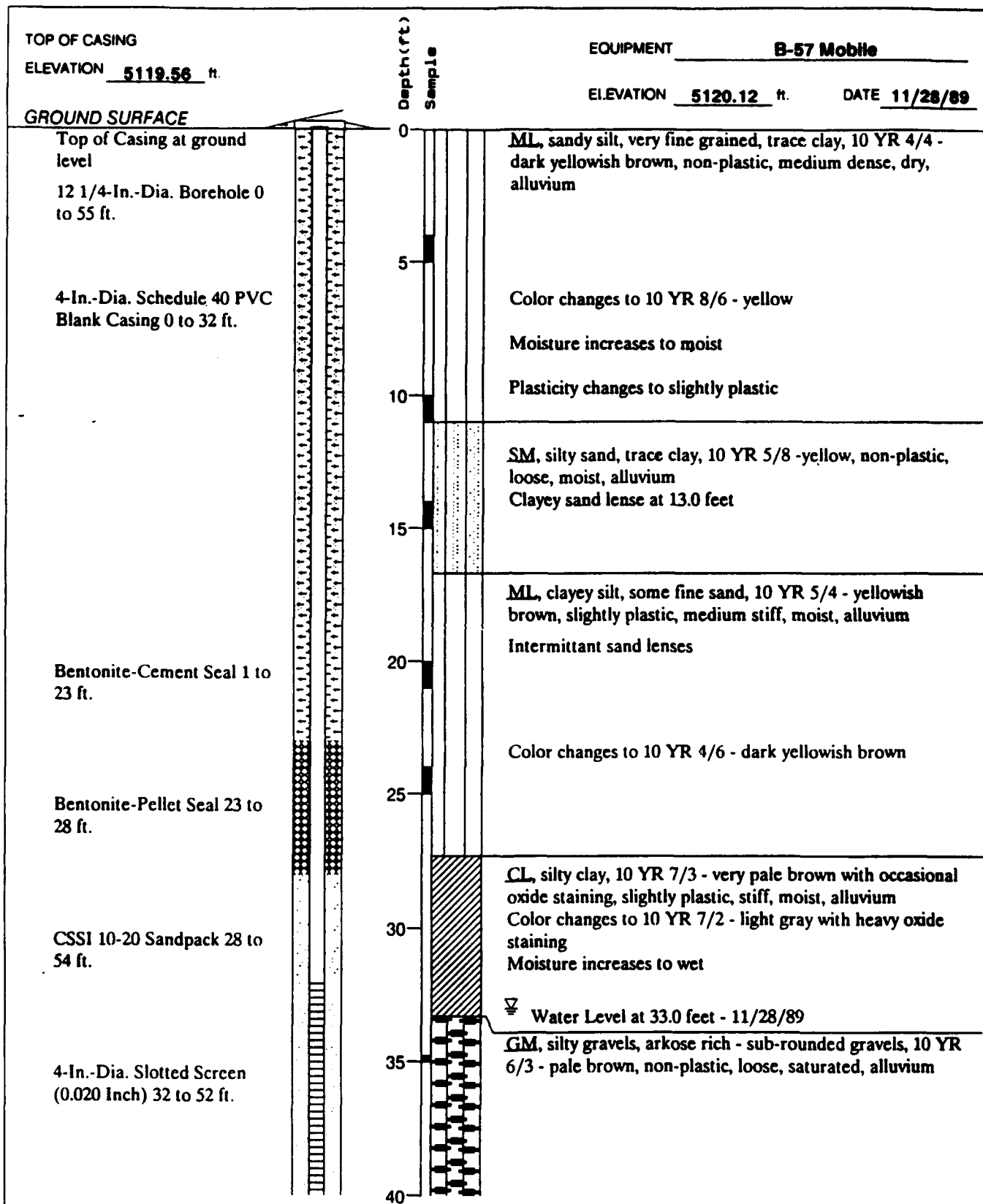
Notes: See Detail B for surface completion.
All PID readings equal to background
Munsell color chart used



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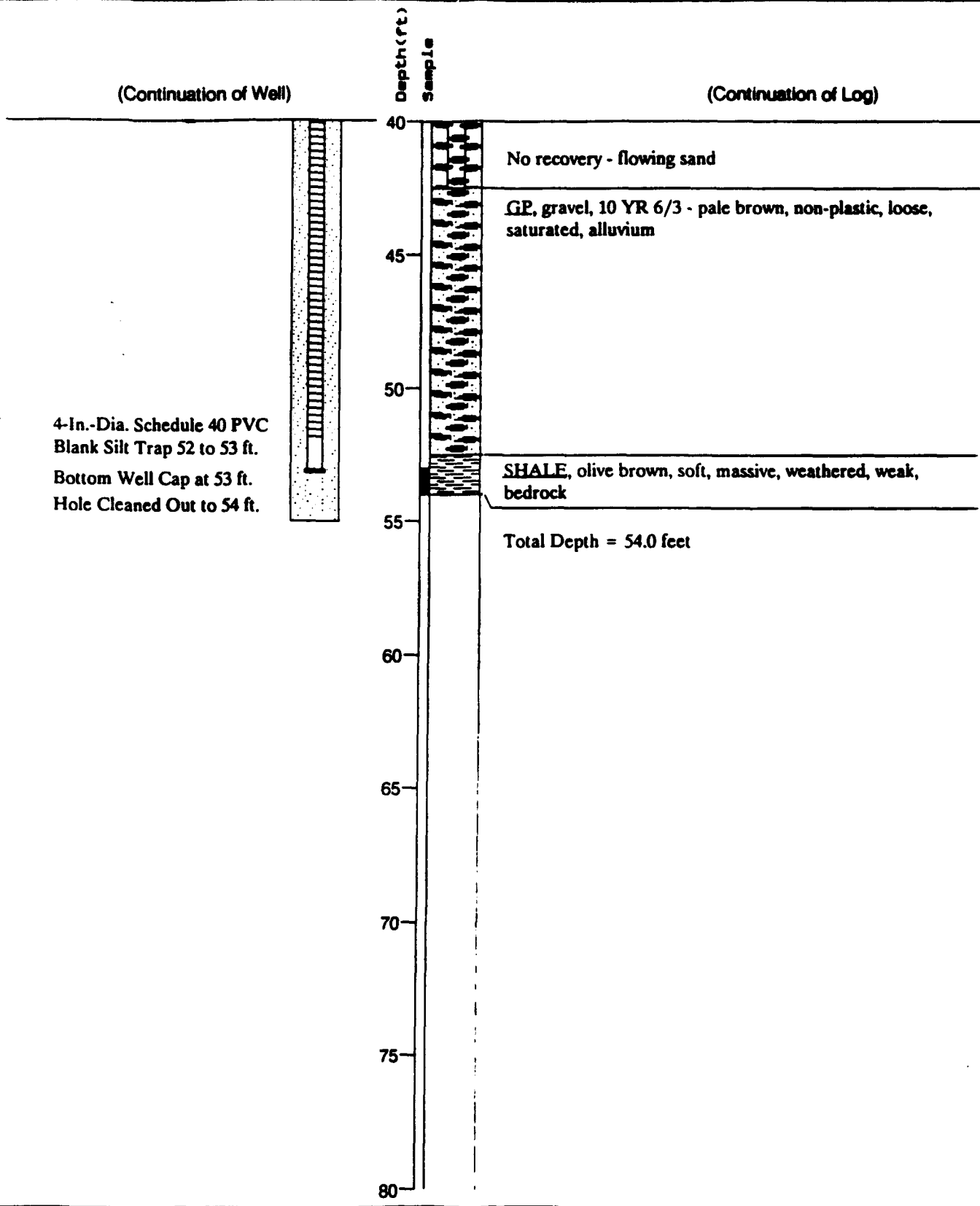
Figure A6
WELL COMPLETION DIAGRAM AND
LOG OF BORING FOR WELL 37436

①



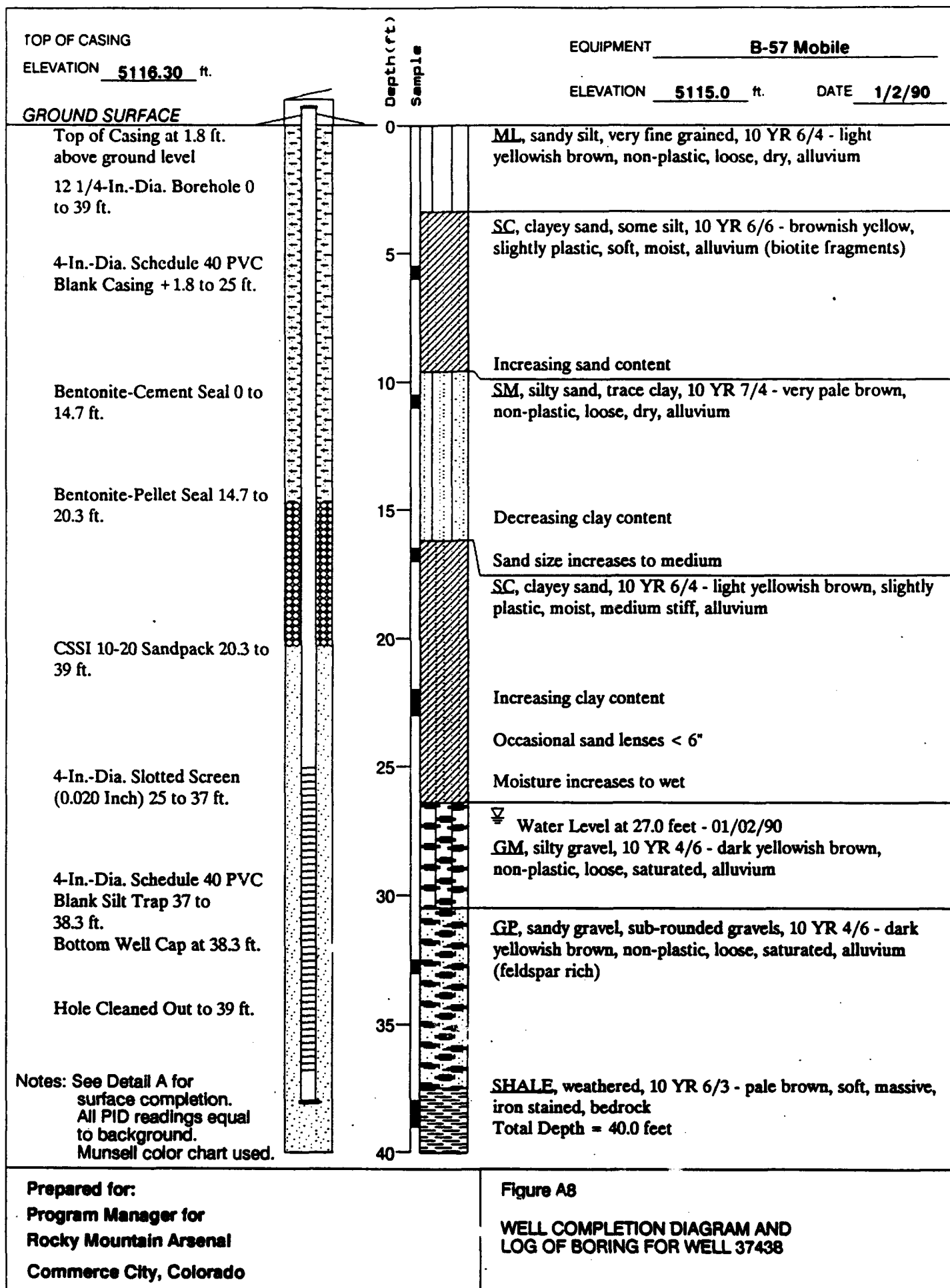
Notes: See Detail B for surface completion.
 * If PID readings equal to background
 Munsell color chart used.

2

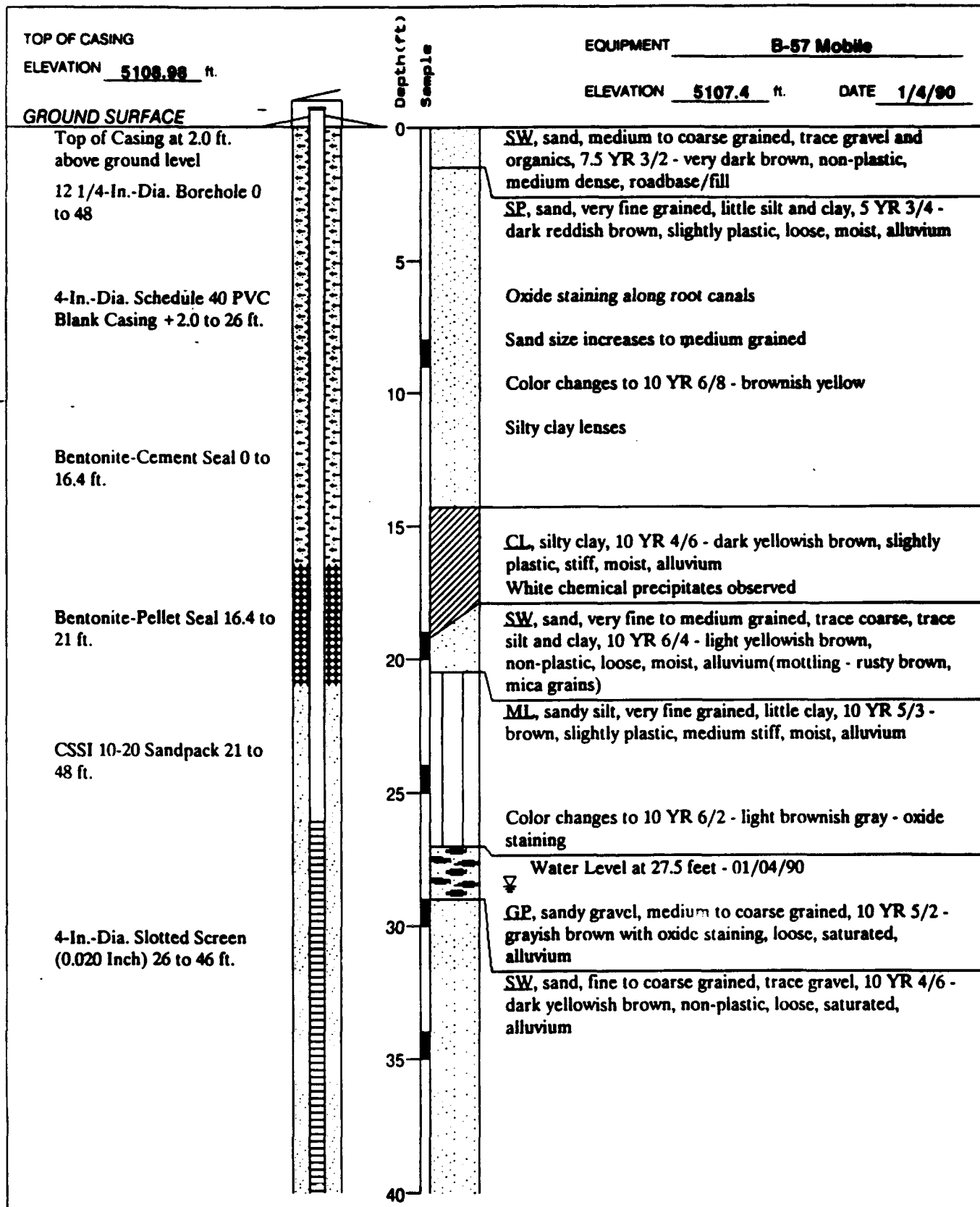


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Figure A7
WELL COMPLETION DIAGRAM AND
LOG OF BORING FOR WELL 37437

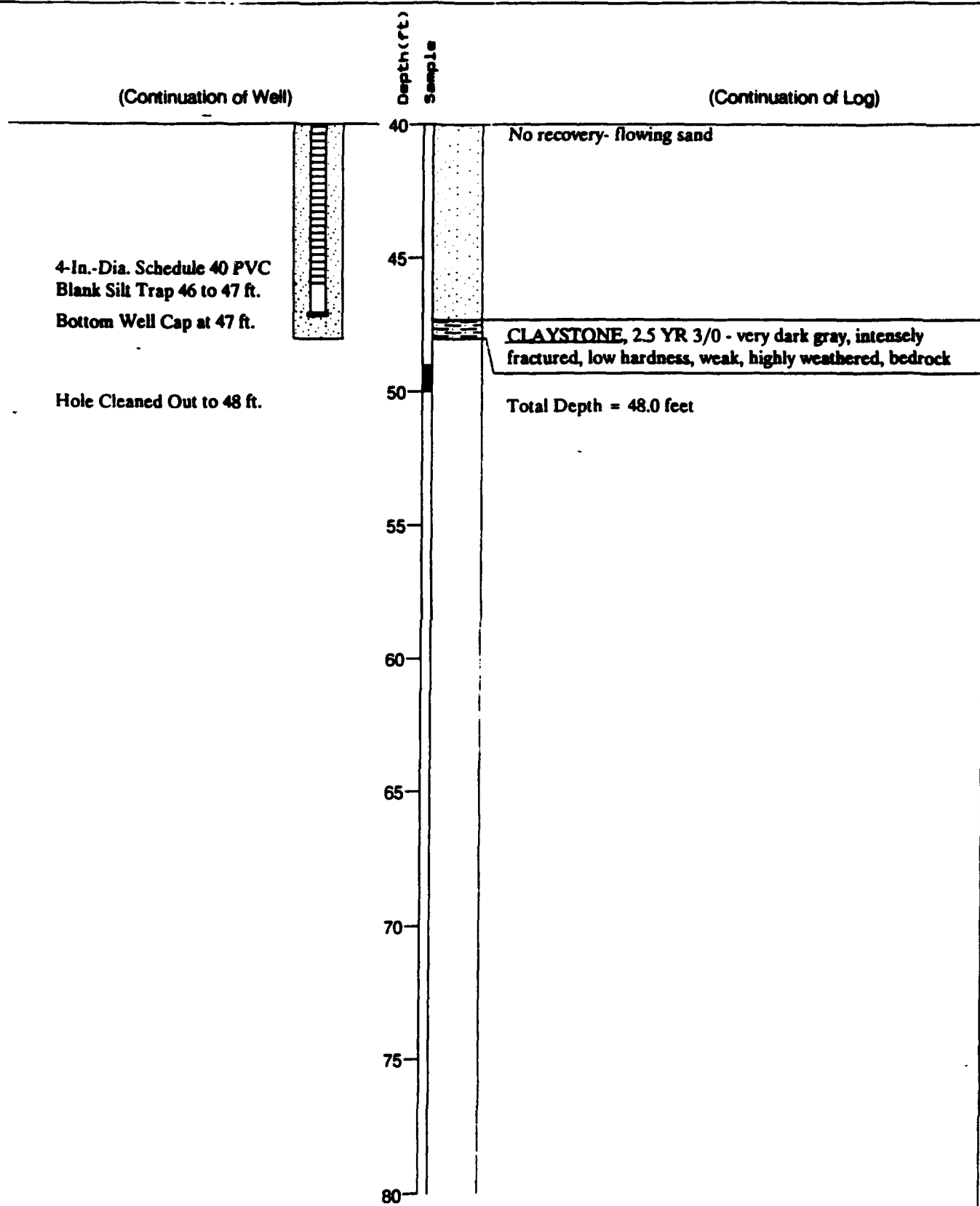


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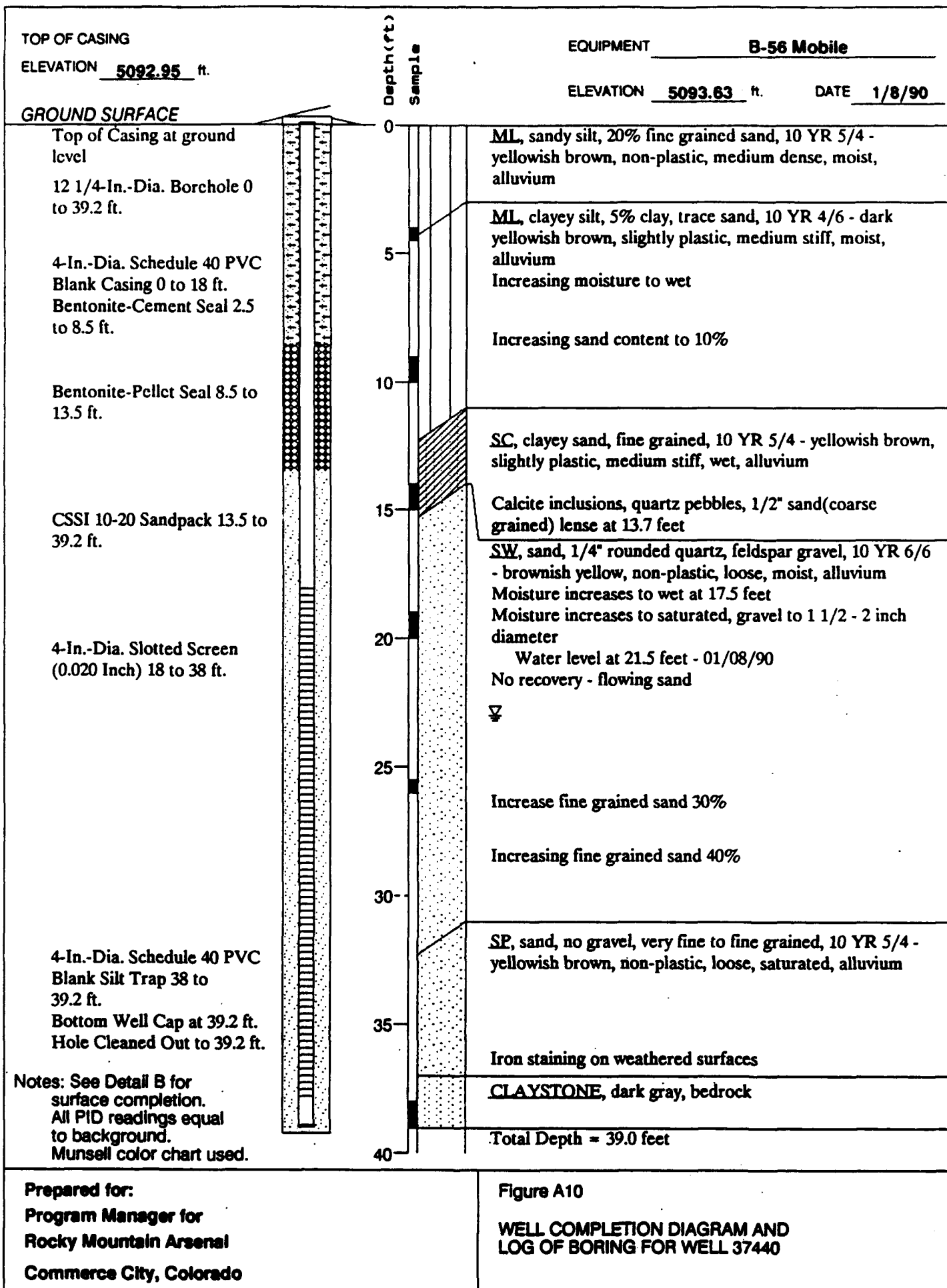
Notes: See Detail A for surface completion.
All PID readings equal to background.
Munsell color chart used

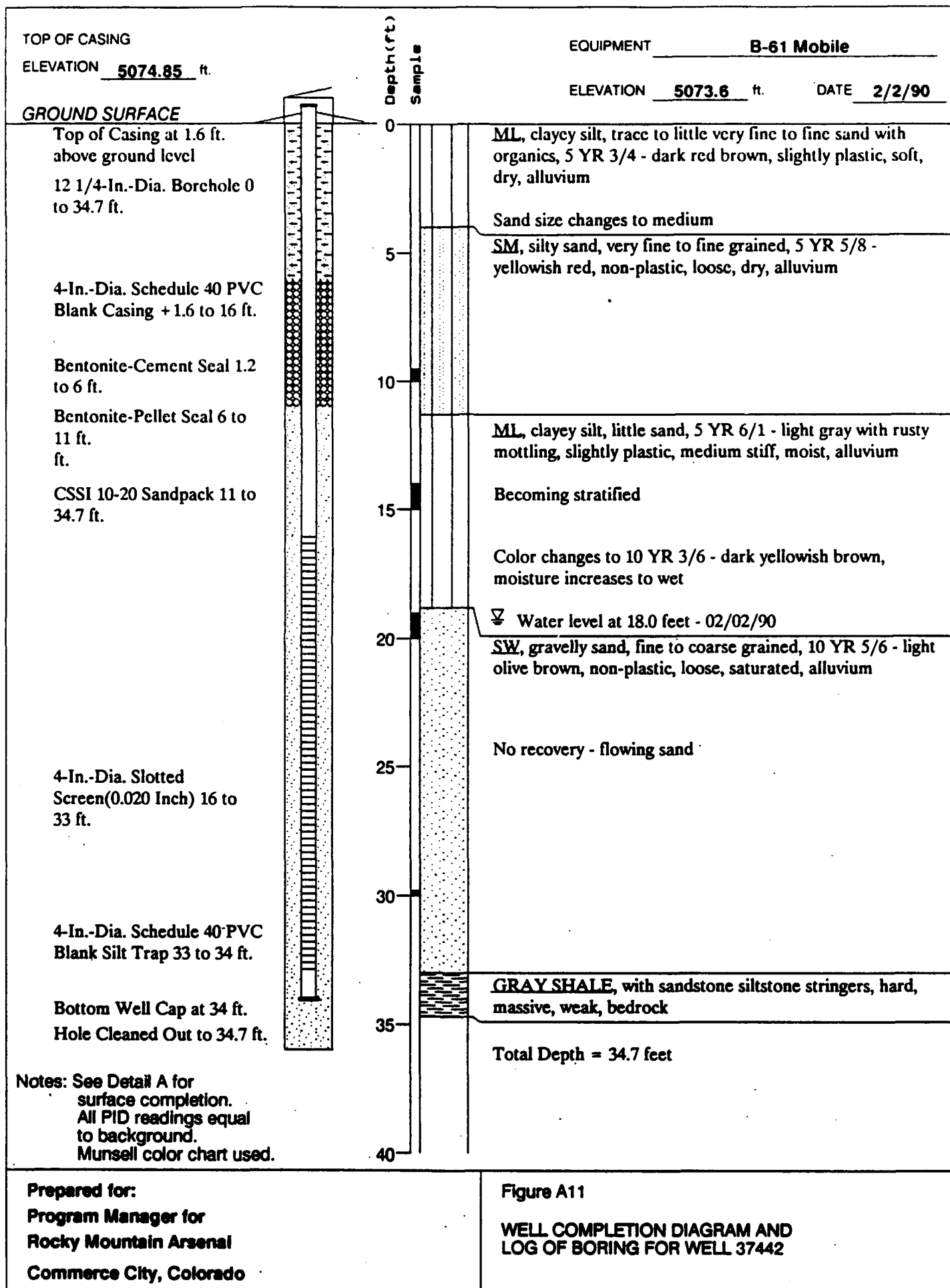
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Figure A9
WELL COMPLETION DIAGRAM AND
LOG OF BORING FOR WELL 37439





ELEVATION 5083.06 ft.

EQUIPMENT B-61 Mobile

ELEVATION 5081.5 ft. DATE 2/7/90

GROUND SURFACE

**Top of Casing at 1.9 ft.
above ground level**

12 1/4-In.-Dia. Borehole 0 to 34.4 ft.

**4-In.-Dia. Schedule 40 PVC
Blank Casing + 1.9 to 12.5 ft.
Bentonite-Cement Seal 1 to
6.3 ft.**

Bentonite-Pellet Seal 6.3 to 10 ft.

CSSI 10-20 Sandpack 10 to 34.4 ft.

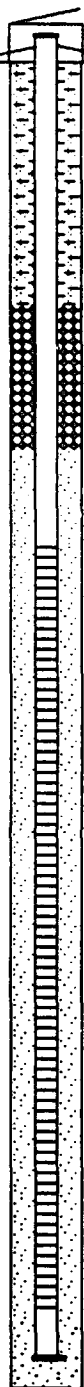
**4-In.-Dia. Slotted Screen
(0.020 Inch) 12.5 to 32.5 ft.**

**4-In.-Dia. Schedule 40 PVC
Blank Silt Trap 32.5 to
33.6 ft.
Bottom Well Cap at 33.6 ft.**

Hole Cleaned Out to 34.4 ft.

**Notes: See Detail A for
surface completion.
All PID readings equal
to background.
Munsell color chart used.**

Sample	Depth(ft)
1	10
2	20
3	30
4	40
5	50
6	60
7	70
8	80
9	90
10	100
11	110
12	120
13	130
14	140
15	150
16	160
17	170
18	180
19	190
20	200
21	210
22	220
23	230
24	240
25	250
26	260
27	270
28	280
29	290
30	300
31	310
32	320
33	330
34	340
35	350
36	360
37	370
38	380
39	390
40	400
41	410
42	420
43	430
44	440
45	450
46	460
47	470
48	480
49	490
50	500
51	510
52	520
53	530
54	540
55	550
56	560
57	570
58	580
59	590
60	600
61	610
62	620
63	630
64	640
65	650
66	660
67	670
68	680
69	690
70	700
71	710
72	720
73	730
74	740
75	750
76	760
77	770
78	780
79	790
80	800
81	810
82	820
83	830
84	840
85	850
86	860
87	870
88	880
89	890
90	900
91	910
92	920
93	930
94	940
95	950
96	960
97	970
98	980
99	990
100	1000



ML, sandy silt, 5 YR 5/6 - yellowish red, slightly plastic, medium stiff, moist, alluvium

SW, sand, fine to coarse grained, little silt, trace gravel, 5
YR 5/8 - yellowish red, non-plastic, loose, moist, alluvium

Increasing gravel content
Decreasing silt content

Color changes to 5 YR 6/4 - light reddish brown
Moisture increases to wet

Color changes to 2.5 YR 5/8 - red
 ♀ Water Level at 15.5 feet - 02/07/90

No recovery - flowing sand

CLAYSTONE, bluish green gray, soft, massive, bedrock
(chlorite rich grains)

Total Depth = 34.4 feet

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Figure A12

WELL COMPLETION DIAGRAM AND LOG OF BORING FOR WELL 37443

TOP OF CASING

ELEVATION 5086.41 ft.

EQUIPMENT

B-61 Mobile

ELEVATION 5085.15 ft.

DATE 2/5/90

GROUND SURFACE

Top of Casing at 1.6 ft.
above ground level

12 1/4-In.-Dia. Borehole 0
to 36.5 ft.

4-In.-Dia. Schedule 40 PVC
Blank Casing +1.6 to 14.6 ft.
Bentonite-Cement Seal 1 to
5.2 ft.

Bentonite-Pellet Seal 5.2 to
10 ft.

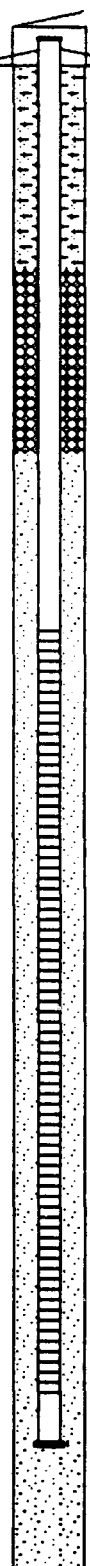
CSSI 10-20 Sandpack 10 to
36.5 ft.

4-In.-Dia. Slotted Screen
(0.020 Inch) 14.6 to 34.6 ft.

4-In.-Dia. Schedule 40 PVC
Blank Silt Trap 34.6 to
35.7 ft.
Bottom Well Cap at 35.7 ft.

Hole Cleaned Out to 36.5 ft.

Notes: See Detail A for
surface completion.
All PID readings equal
to background.
Munsell color chart used.



Depth (ft)
Sample

0

5

10

15

20

25

30

35

40

SM, silty sand, very fine grained, 10 YR 6/4 - light
yellowish brown, non-plastic, poorly graded, loose to
medium dense, dry, alluvium

SP, sand, very fine to medium grained, trace to little silt, 10
YR 6/6 - brownish yellow, non-plastic, poorly graded,
loose, dry, alluvium

SW, sand, medium to coarse grained, some gravel, trace
very fine to fine sand, 7.5 YR 6/6 - reddish yellow,
non-plastic, loose, dry, alluvium

▽ Water Level at 17.0 feet - 02/05/90
Sand size increasing to medium to coarse

No recovery - flowing sand

CLAYSTONE, greenish gray, massive, soft, bedrock (silty,
some sand lenses)

Total Depth = 36.5 feet

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Figure A13

WELL COMPLETION DIAGRAM AND
LOG OF BORING FOR WELL 37444

Depth (ft.)
Sample

EQUIPMENT

B-57 Mobile

ELEVATION

5134.95 ft.

DATE

11/22/89

0

SC, clayey sand, 10 YR 7/4 - very pale brown, slightly plastic, medium stiff, dry, alluvium

5

SM, silty sand, 10 YR 6/8 - brownish yellow, non-plastic, loose, moist, alluvium

10

SC, clayey sand, 10 YR 5/8 - yellowish brown, slightly plastic, medium stiff, moist, alluvium

15

SC, clayey sand, trace gravel, 10 YR 6/6 - brownish yellow, loose, non-plastic, moist, alluvium

20

GC, clayey gravel, sub-rounded gravels, some sand, 10 YR 7/8 - yellow, non-plastic, medium dense, dry, alluvium

25

GP, sandy gravel, arkose rich - sub-rounded gravels, trace silt, 2.5 YR 5/4 - reddish brown, non-plastic, loose, dry, alluvium

Cobbles present

30

▽ Water Level at 30.0 feet - 11/22/89

35

CLAYSTONE, 5 YR 5/1 - gray, low hardness, weathered bedrock

Total Depth = 36.0 feet

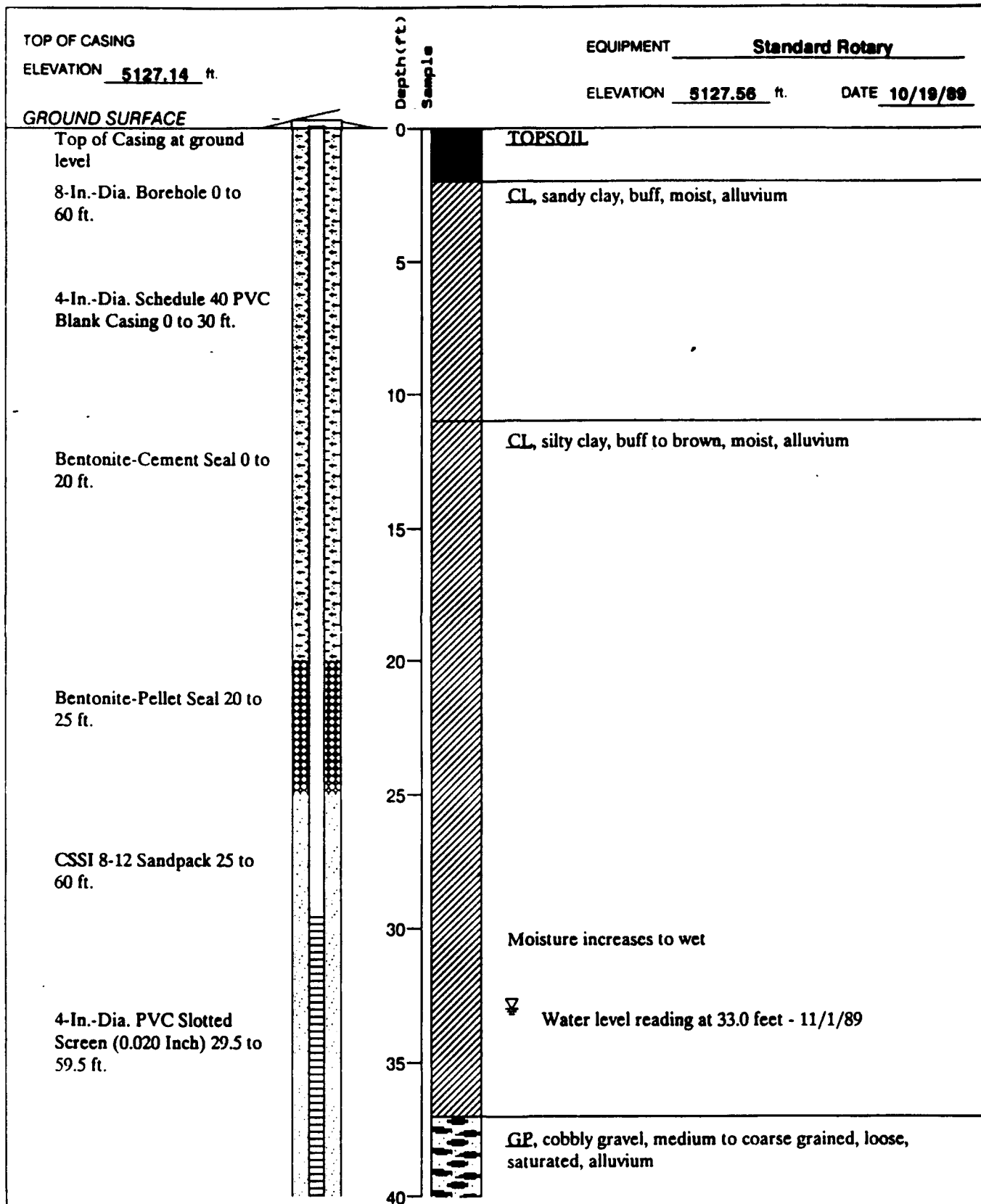
40

Notes: All PID readings equal to background. color chart used.

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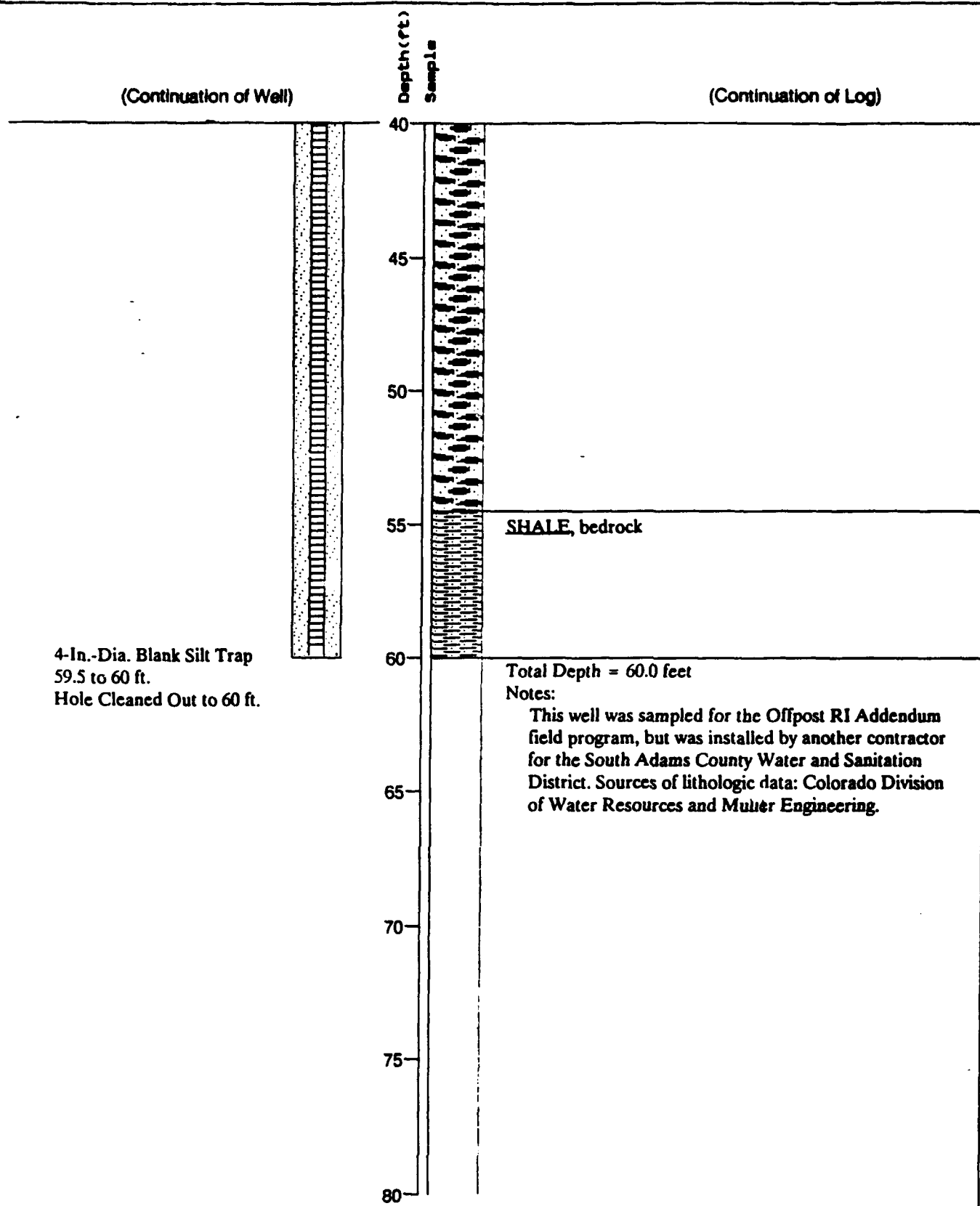
Figure A14
LOG OF BORING RI-15

1



Notes: See Detail B for surface completion.
All PID readings equal to background
Munsell color chart used.

2



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Figure A15

WELL COMPLETION DIAGRAM AND
LOG OF BORING FOR WELL 37441

(1)

TOP OF CASING

ELEVATION 5124.26 ft.

EQUIPMENT Air Rotary

ELEVATION 5121.9 ft. DATE 9/7/89

GROUND SURFACE

Top of Casing above ground level

15-In.-Dia. Borehole 0 to 54 ft.
12-In.-Dia. Black Steel Conductor Casing 0 to 54 ft.

11-7/8-In.-Dia. Borehole 54 to 130 ft.
8-In.-Dia. Black Steel Conductor Casing 0 to 130 ft.

7-7/8-In.-Dia. Borehole 130 to 323 ft.

4-In.-Dia. Black Steel Blank Casing 0 to 210 ft.

Bentonite-Cement Seal 0 to 160 ft.

Bentonite-Pellet Seal 160 to 171 ft.

CSSI 10-20 Sandpack 171 to 323 ft.

4-In.-Dia. Black Steel Blank Casing 0 to 210 ft.

4-In.-Dia. Stainless Steel Slotted Screen (0.020 Inch) 210 to 230 ft.

Depth (ft.)
Sample

0
30
60
90
120
150
180
210
240

SM, silty sand, brown, loose, moist, alluvium

Increasing clay fraction

Lenses of gravels and coarse sands in a silty matrix - brown, alluvium

Lenses of gravels and sands in a silty matrix - brown, alluvium

SP, coarse grained sub-sounded sand and gravel, alluvium

CLAYSTONE, silty, dark yellow-brown, bedrock

SHALE, blue, occasional lignite fragments and subangular sand

Shale and sands interbedded

Dark gray shale with some subangular coarse grained quartzitic sand

Decreasing sand fraction

Cuttings show dark gray shales and yellow-brown clays and claystone to siltstone

Shale fraction decreasing - medium gray clay

Clay with occasional shale lenses

Clay, blue-gray

☞ Water level reading at 134.0 feet - 9/12/89

SHALE, very sandy shale, dark gray, fissile

Very sandy shale

SANDSTONE, sand, very fine grained, light brown, water bearing

SHALE, dark-gray-black, some clay lenses

Dark-gray, fissile, abundant fossil material

Some sandy lenses

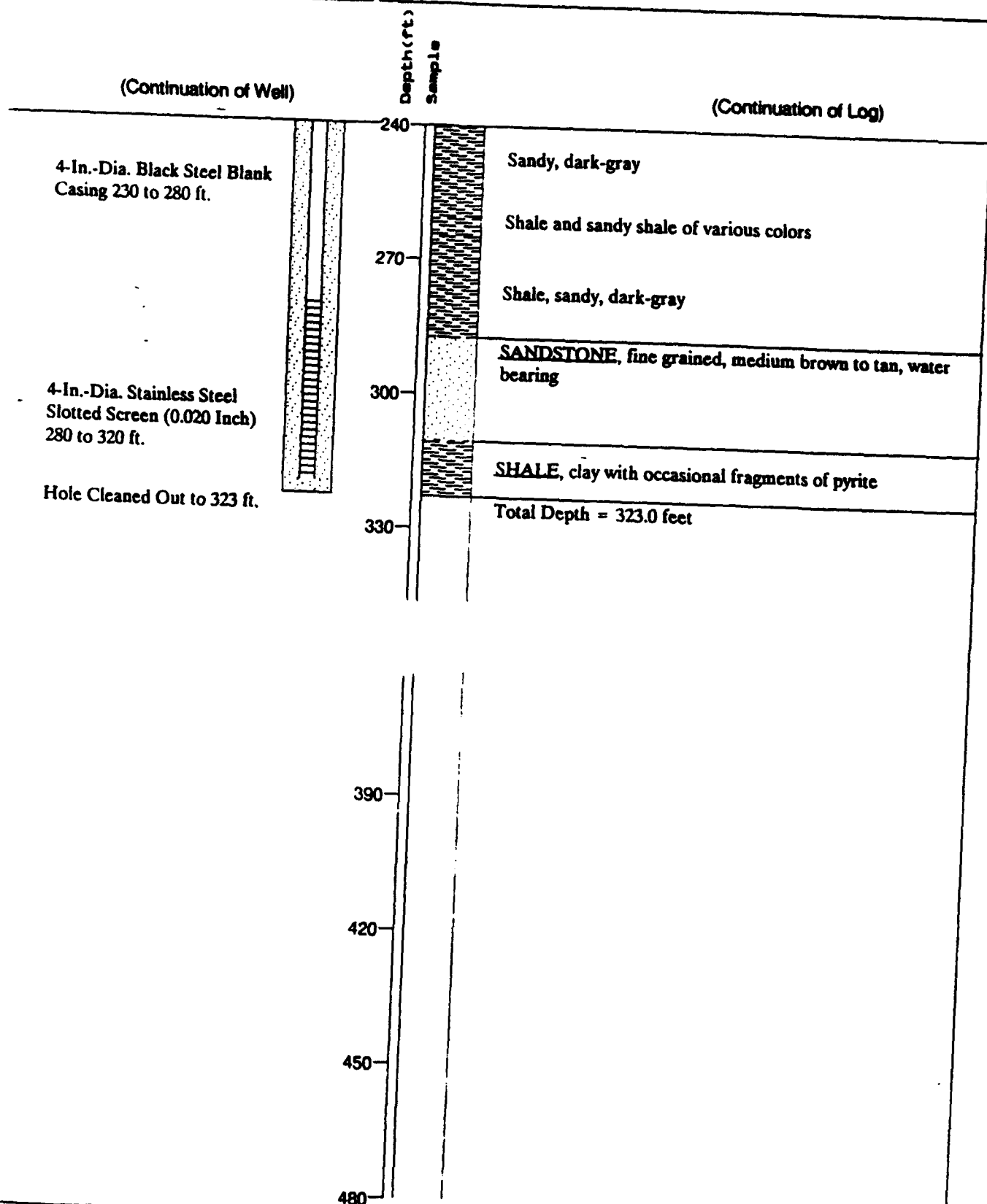
Abundant plant fossils with some minor sands

SANDSTONE, fine grained, uncemented, quartzitic, water bearing

SHALE

Notes: See Detail A for surface completion.
All PID readings equal to background.
Munsell color chart used.

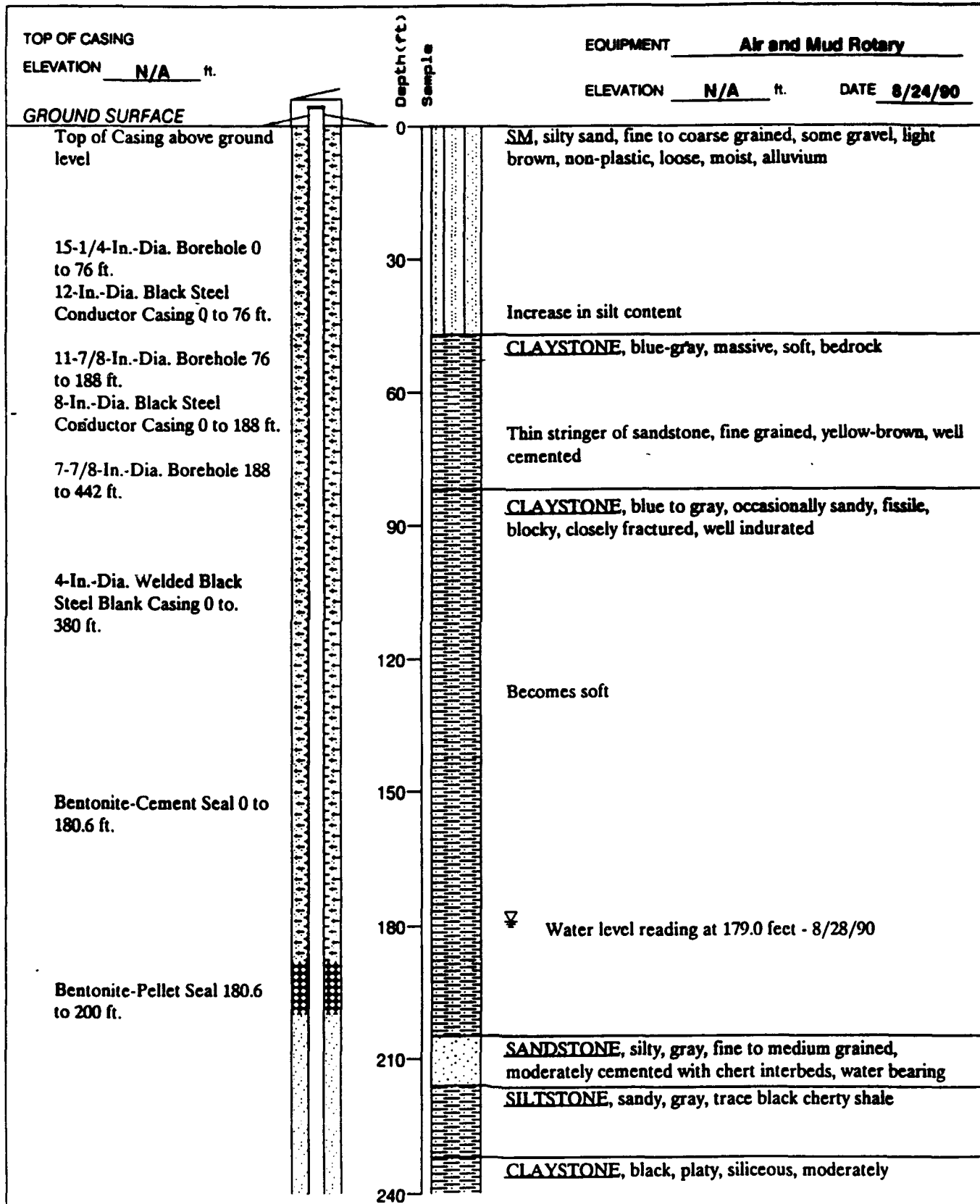
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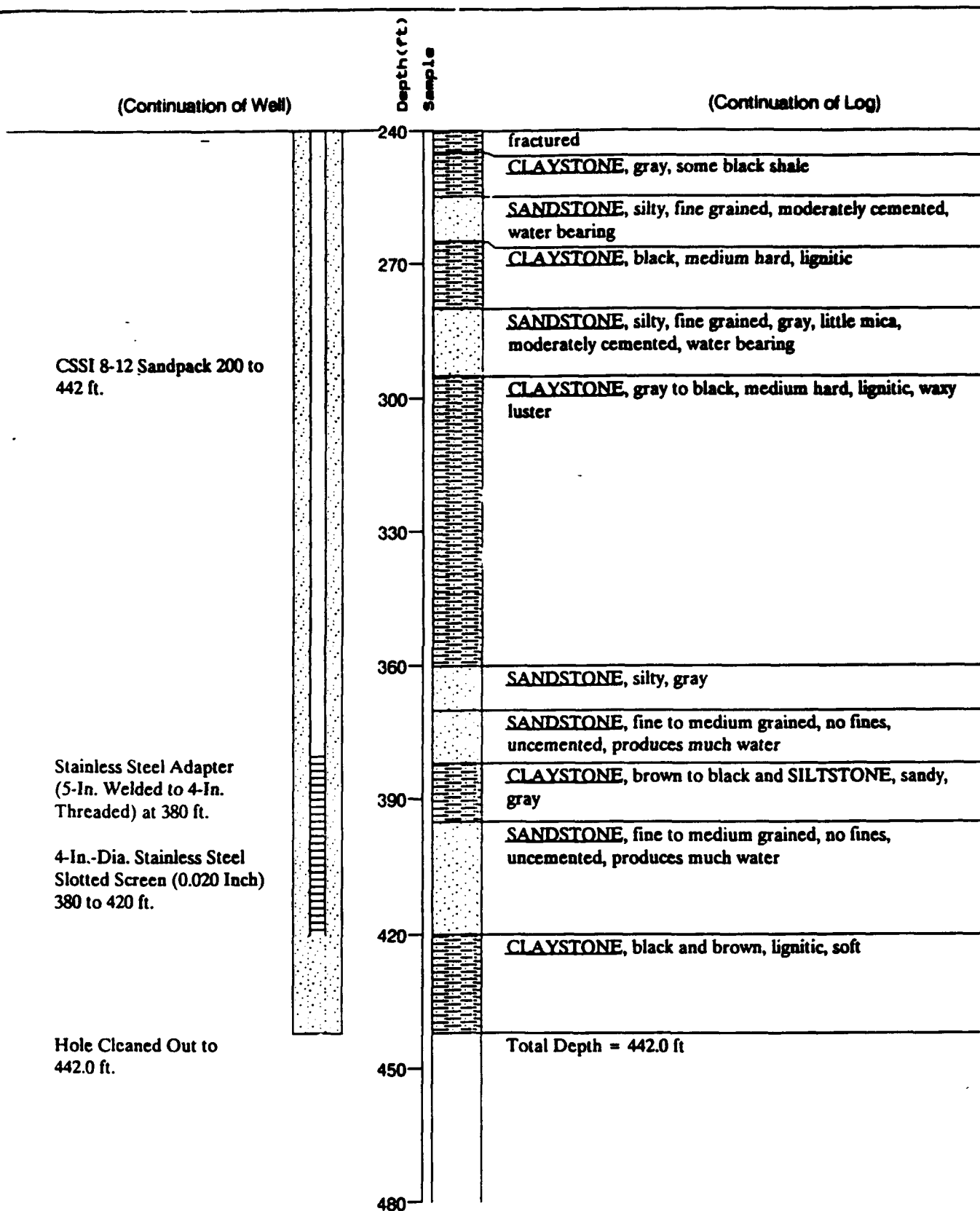
Figure A16
WELL COMPLETION DIAGRAM AND
LOG OF BORING FOR WELL 37431

1



Notes: See Detail A for surface completion.
All PID readings equal to background.
Munsell color chart used.

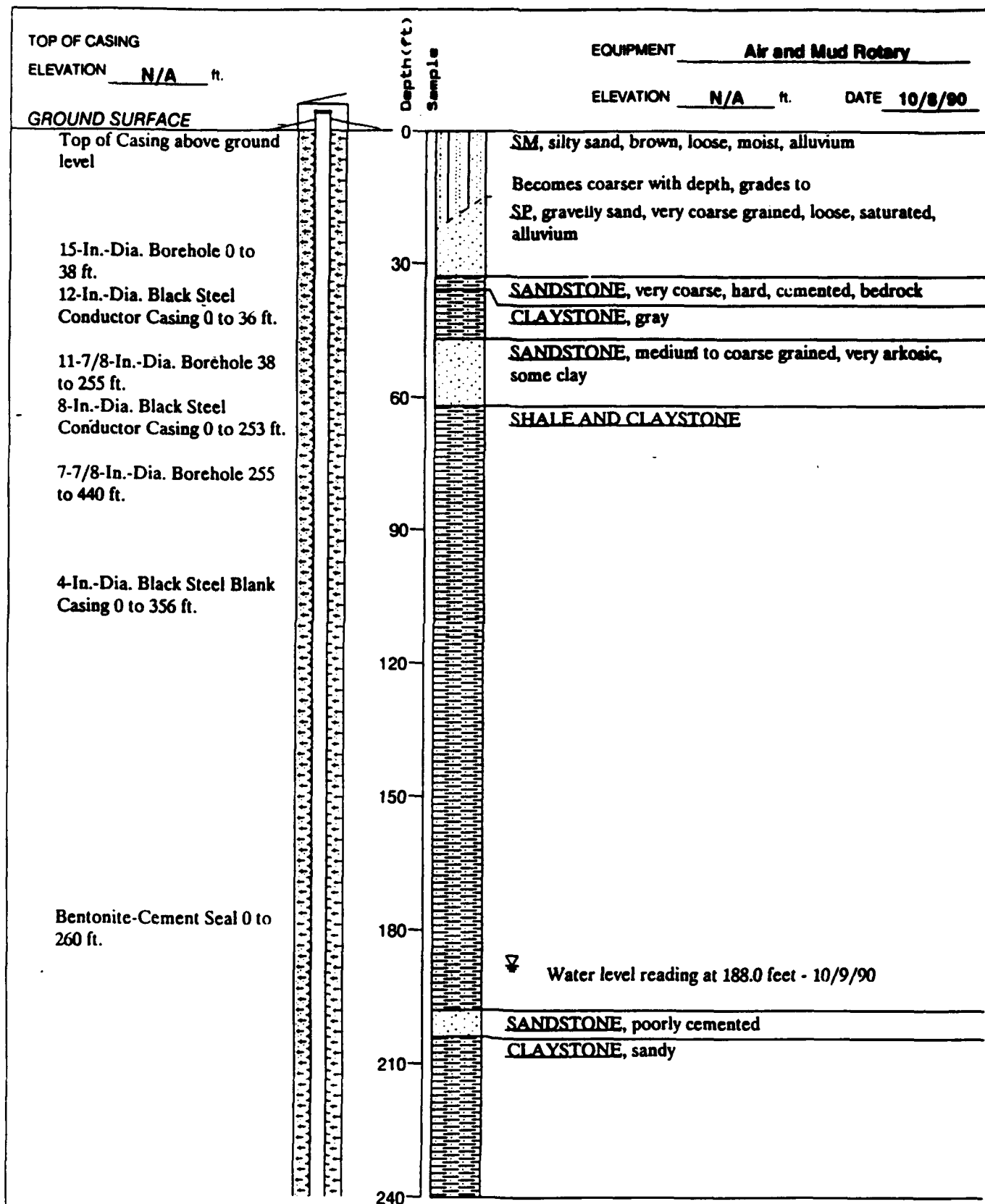
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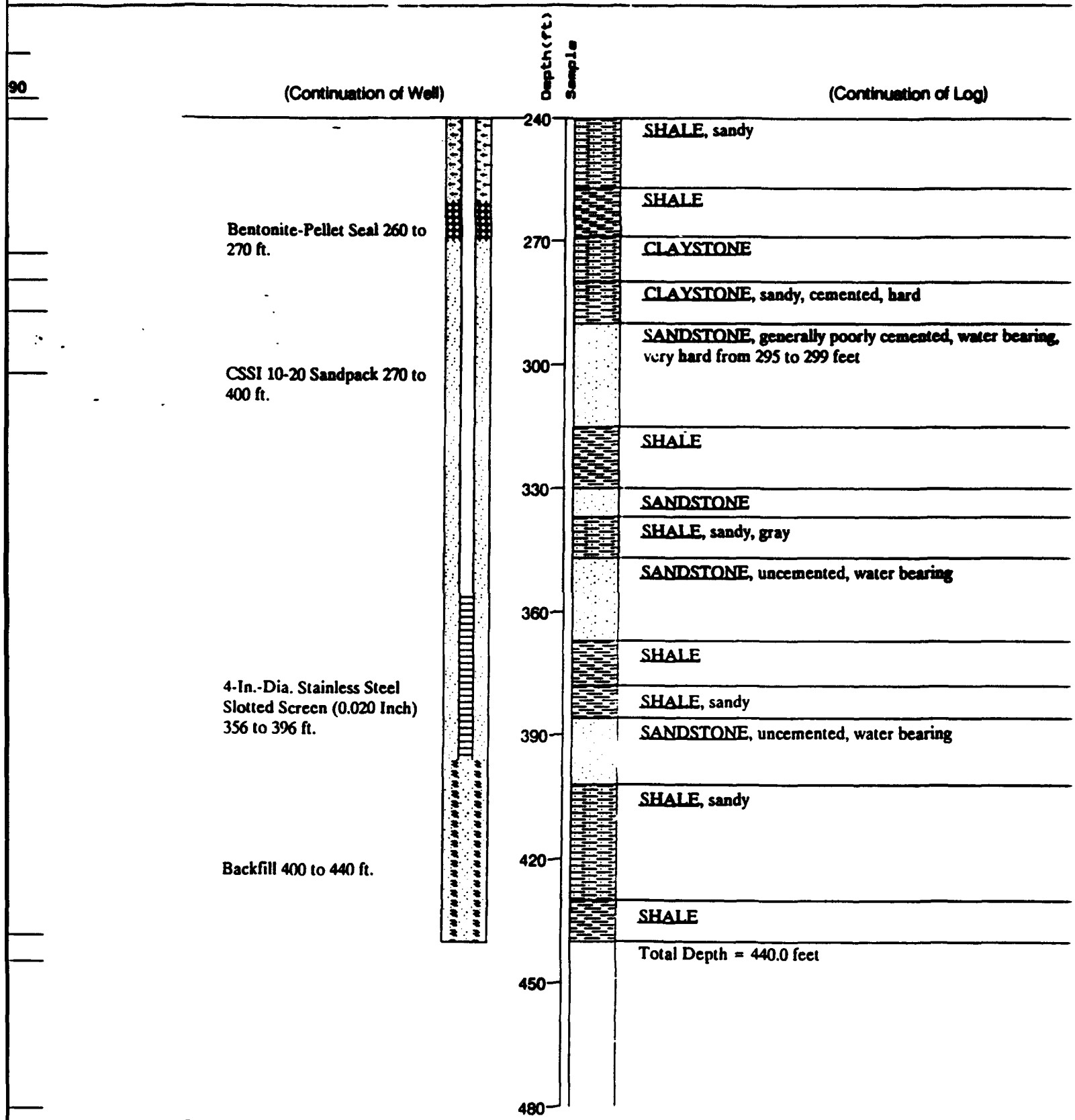
Figure A17
 WELL COMPLETION DIAGRAM AND
 LOG OF BORING FOR WELL 37445

1



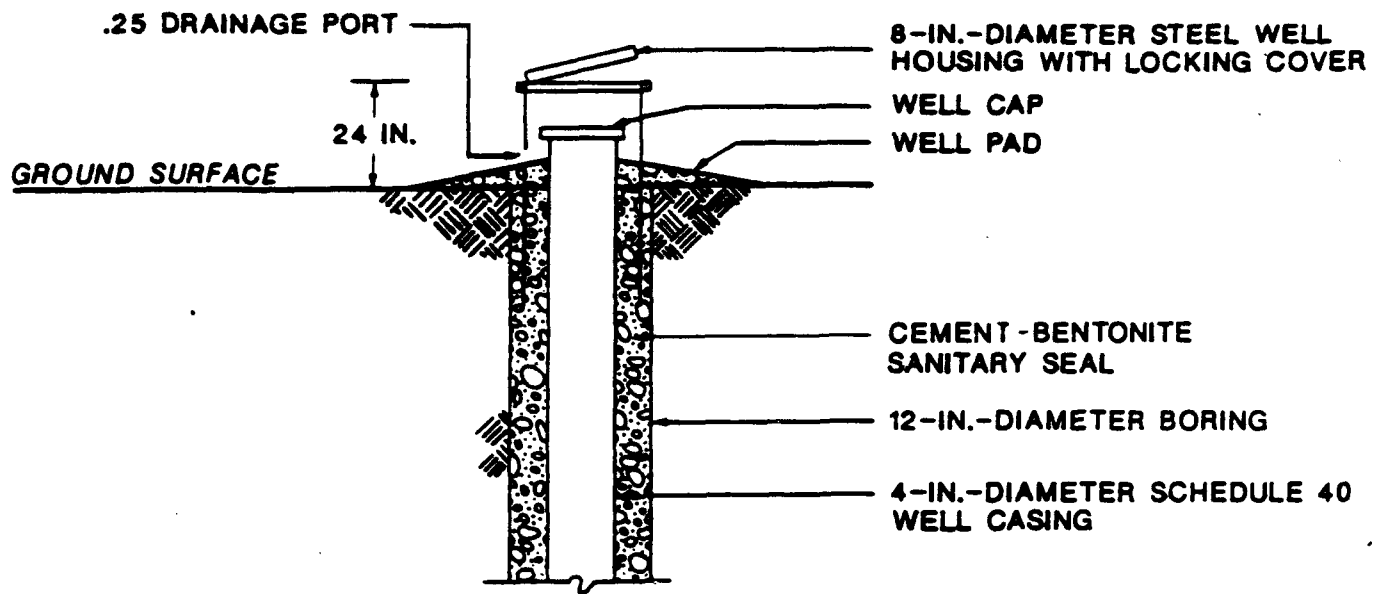
Notes: See Detail A for surface completion.
All PID readings equal to background.
Munsell color chart used.

2

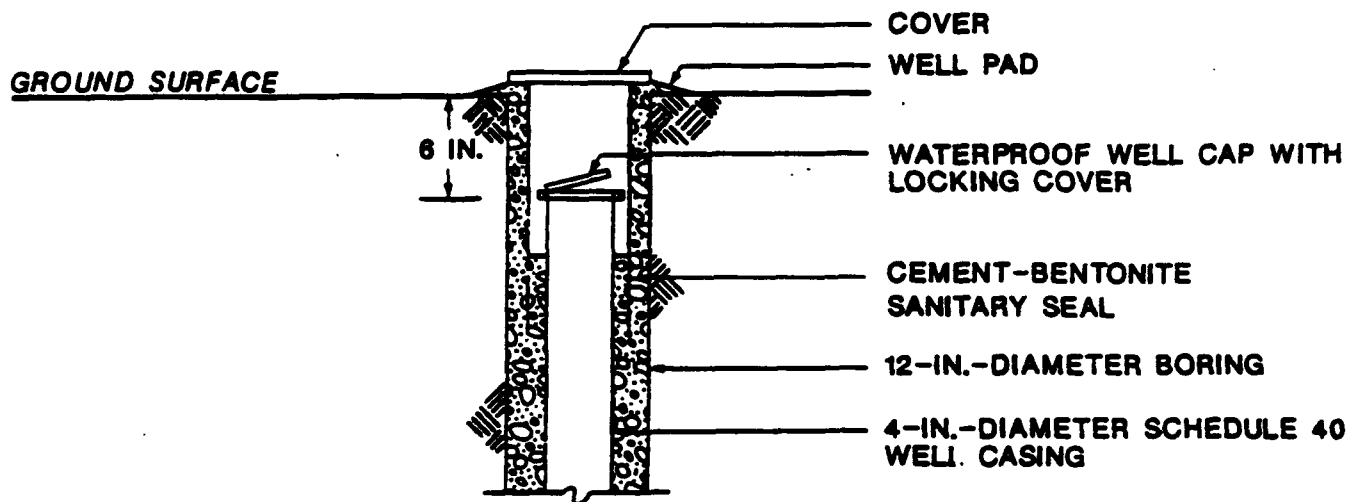


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Figure A18
WELL COMPLETION DIAGRAM AND
LOG OF BORING FOR WELL 37446



DETAIL A: ABOVEGROUND COMPLETION



DETAIL B: SUBSURFACE COMPLETION

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Figure A19
MONITORING WELL SURFACE
COMPLETION DETAILS

MAJOR DIVISIONS					TYPICAL NAMES
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		WELL GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
			GP		POORLY GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
		GRAVELS WITH OVER 12% FINES	GM		SILTY GRAVELS, SILTY GRAVELS WITH SAND
			GC		CLAYEY GRAVELS, CLAYEY GRAVELS WITH SAND
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		WELL GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
			SP		POORLY GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
		SANDS WITH OVER 12% FINES	SM		SILTY SANDS WITH OR WITHOUT GRAVEL
			SC		CLAYEY SANDS WITH OR WITHOUT GRAVEL
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS	ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS	
		CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, CLAYS WITH SANDS AND GRAVELS, LEAN CLAYS	
		OL		ORGANIC SILTS OR CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%	MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS, FINE SANDY OR SILTY SOILS, ELASTIC SILTS	
		CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
		OH		ORGANIC SILTS OR CLAYS OF MEDIUM TO HIGH PLASTICITY	
	HIGHLY ORGANIC SOILS		PT		PEAT AND OTHER HIGHLY ORGANIC SOILS

Prepared for:
Program Manager for
Rocky Mountain Arsenal
Commerce City, Colorado

Figure A20
UNIFIED SOIL CLASSIFICATION SYSTEM
AND SYMBOLS

Appendix B
GROUNDWATER ANALYTICAL DATA

LIST OF TABLES

Table No.

B1	Groundwater Investigative Analytical Data
B2	Groundwater GC/MS Analytical Data
B3	Groundwater QA/QC Analytical Data
B4	Groundwater Duplicate Analytical Data
B5	Investigative Analytical Data for Domestic Well Samples
B6	GC/MS Analytical Data for Domestic Well Samples
B7	QA/QC Analytical Data for Domestic Well Samples
B8	Duplicate Analytical Data for Domestic Well Samples
B9	Vinyl Chloride Analytical Results for Groundwater Samples

Table B1 Groundwater Investigative Analytical Data

Sample ID	37402	37402	37403	37403
Date	09/27/89	02/22/90	09/25/89	02/21/90

Analytes				
Metals/Anions/General Chem				
Arsenic	NA	< 2.50	NA	< 2.50
Cadmium	NA	< 5.00	NA	< 5.00
Calcium	NA	130000	NA	150000
Chloride	NA	190000	NA	240000
Chromium	NA	< 22.0	NA	< 22.0
Copper	NA	< 10.0	NA	< 10.0
Cyanide	NA	< 8.90	NA	< 8.90
Fluoride	NA	< 1000	NA	< 1000
Iron	NA	881	NA	39.9
Lead	NA	< 52.0	NA	< 52.0
Magnesium	NA	43000	NA	51000
Manganese	NA	2630	NA	< 20.0
Mercury	NA	< 0.500	NA	< 0.500
Nitrite, Nitrate -- Non-Specific	NA	220	NA	2200
Potassium	NA	NA	NA	NA
Sodium	NA	180000	NA	230000
Sulfate	NA	380000	NA	510000
Total Organic Carbon	NA	4.00	NA	5.00

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37402	37402	37403	37403
Date	09/27/89	02/22/90	09/25/89	02/21/90
Analytes				
Metals/Anions/General Chem				
Total Suspended Solids	NA	9.00	NA	88.0
Zinc	NA	23.3	NA	< 20.0
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
Phenols				
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
Phenols				
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	NA	< 2.38	NA
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	NA	< 0.0590	NA	< 0.0590

Notes: Values are reported in micrograms per liter.

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37402	37402	37403	37403
Date	09/27/89	02/22/90	09/25/89	02/21/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	NA	< 0.0460	NA	< 0.0460
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	NA	< 5.69	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	NA	< 7.46	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	NA	< 11.5	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	NA	R	NA	R
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	NA	< 4.03	NA
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	NA	< 5.00	NA
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	NA	< 5.90	NA
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	< 7.70	NA	< 7.70
Caprolactam (GCMS)	NA	< 7.70	NA	< 7.70
Chlordane	NA	< 0.152	NA	< 0.152

Notes: Values are reported in micrograms per liter.

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37402	37402	37403	37403
Date	09/27/89	02/22/90	09/25/89	02/21/90
Analytes				
Semivolatiles				
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	NA	< 5.00	NA
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	< 5.50
Dieldrin	NA	< 0.0539	NA	< 0.0539
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	27.4	NA	21.4	NA
Diisopropyl Methylphosphonate (GCMS)	19.8	21.7	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	NA	< 0.188	NA
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	< 1.34	NA	< 1.34	NA
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	NA	< 0.0600	NA	< 0.0600
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	R	< 0.0480	R
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	NA	< 0.0560	NA	< 0.0560
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	NA	< 0.373	NA

Notes: Values are reported in micrograms per liter.

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Table B1 Groundwater Investigative Analytical Data

Sample ID
Date37402
09/27/8937402
02/22/9037403
09/25/8937403
02/21/90

Analytes

Semivolatiles

Malathion (GCMS)

Parathion

Parathion (GCMS)

Pentachlorophenol (GCMS)

Supona

Supona (GCMS)

Vapona

Vapona (GCMS)

Volatiles

1,1,1-Trichloroethane

1,1,1-Trichloroethane (GCMS)

1,1,2-Trichloroethane

1,1,2-Trichloroethane (GCMS)

1,1-Dichloroethane

1,1-Dichloroethane (GCMS)

1,1-Dichloroethane

1,1-Dichloroethane (GCMS)

1,2-Dichloroethane

1,2-Dichloroethane (GCMS)

< 21.0	< 21.0	< 21.0	< 21.0
< 0.647	NA	< 0.647	NA
< 37.0	< 37.0	< 37.0	< 37.0
< 9.10	< 9.10	< 9.10	< 9.10
< 0.787	NA	< 0.787	NA
< 19.0	< 19.0	< 19.0	< 19.0
< 0.384	NA	< 0.384	NA
< 8.50	< 8.50	< 8.50	< 8.50
NA	< 1.09	NA	< 1.09
NA	< 1.00	NA	< 1.00
NA	< 1.63	NA	< 1.63
NA	< 1.00	NA	< 1.00
NA	< 1.93	NA	< 1.93
NA	< 1.00	NA	< 1.00
NA	< 1.85	NA	< 1.85
NA	< 1.00	NA	< 1.00
NA	< 2.07	NA	< 2.07
NA	< 1.00	NA	< 1.00

Notes: Values are reported in micrograms per liter.

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37402	37402	37403	37403
Date	09/27/89	02/22/90	09/25/89	02/21/90
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans)	NA	< 1.75	NA	< 1.75
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	< 5.00	NA	< 5.00
Benzene	NA	2.77 A	NA	8.04 A
Benzene (GCMS)	NA	1.40 A	NA	3.72 A
Carbon Tetrachloride	NA	< 1.69	NA	2.35 A
Carbon Tetrachloride (GCMS)	NA	< 1.00	NA	1.47 A
Chlorobenzene	NA	32.9 A	NA	63.1 A
Chlorobenzene (GCMS)	NA	28.8 A	NA	53.8 A
Chloroform	NA	32.2 A	NA	100 A
Chloroform (GCMS)	NA	31.0 A	NA	120 A
Dibromochloropropane	0.496	NA	0.344	NA
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	NA	< 0.550	NA
Ethyl Benzene	NA	< 0.620	NA	< 0.620
Ethyl Benzene (GCMS)	NA	< 1.00	NA	< 1.00
m-Xylene	NA	< 1.04	NA	< 1.04
m-Xylene (GCMS)	NA	< 1.00	NA	< 1.00
Methylene Chloride	NA	< 2.48	NA	< 2.48

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Table 81 Groundwater Investigative Analytical Data

Sample ID	37402	37402	37403	37403
Date	09/27/89	02/22/90	09/25/89	02/21/90
Analytes				

Volatiles				
Methylene Chloride (GCMS)	NA	< 1.00	NA	< 1.00
Methylisobutyl Ketone	< 4.90	NA	< 4.90	NA
Methylisobutyl Ketone (GCMS)	NA	< 1.40	NA	< 1.40
O,P-Xylene	NA	< 1.34	NA	< 1.34
O,P-Xylene (GCMS)	NA	< 2.00	NA	< 2.00
Tetrachloroethene	NA	< 2.76	NA	< 2.76
Tetrachloroethene (GCMS)	NA	< 1.00	NA	< 1.00
Toluene	NA	< 2.10	NA	< 2.10
Toluene (GCMS)	NA	< 1.00	NA	1.10 A
Trichloroethene	NA	< 1.31	NA	2.04 A
Trichloroethene (GCMS)	NA	< 1.00	NA	1.20 A
Vinyl Chloride	NA	NA	NA	NA
Vinyl Chloride (GCMS)	NA	< 12.0	NA	< 12.0

Notes: Values are reported in micrograms per liter.

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37404	37404	37405	37405
Date	09/26/89	02/22/90	09/26/89	02/21/90
Analytes				

Metals/Anions/General Chem				
Arsenic	NA	< 2.50	NA	2.73
Cadmium	NA	< 5.00	NA	< 5.00
Calcium	NA	160000	NA	100000
Chloride	NA	230000	NA	120000
Chromium	NA	< 22.0	NA	< 22.0
Copper	NA	< 10.0	NA	< 10.0
Cyanide	NA	< 8.90	NA	< 8.90
Fluoride	NA	< 1000	NA	< 1000
Iron	NA	48.6	NA	43.1
Lead	NA	< 52.0	NA	< 52.0
Magnesium	NA	43000	NA	16000
Manganese	NA	< 20.0	NA	< 20.0
Mercury	NA	< 0.500	NA	< 0.500
Nitrite, Nitrate -- Non-Specific	NA	4300	NA	2400
Potassium	NA	NA	NA	NA
Sodium	NA	210000	NA	95000
Sulfate	NA	540000	NA	160000
Total Organic Carbon	NA	5.00	NA	3.00

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37404	37404	37405	37405
Date	09/26/89	02/22/90	09/26/89	02/21/90
Analytes				
Metals/Anions/General Chem				
Total Suspended Solids	NA	23.0	NA	10.0
Zinc	NA	< 20.0	NA	< 20.0
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	NA	< 2.38	NA
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	NA	< 0.0590	NA	< 0.0590

Notes: Values are reported in micrograms per liter.

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Table B1 Groundwater Investigative Analytical Data

Sample ID Date	37404 09/26/89	37404 02/22/90	37405 09/26/89	37405 02/21/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	NA	< 0.0460	NA	< 0.0460
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	NA	< 5.69	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	NA	< 7.46	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	NA	< 11.5	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	NA	R	NA	R
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	NA	< 4.03	NA
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	NA	< 5.00	NA
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	NA	< 5.90	NA
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	< 7.70	NA	< 7.70
Caprolactam (GCMS)	NA	< 7.70	NA	< 7.70
Chlordane	NA	< 0.152	NA	< 0.152

Notes: Values are reported in micrograms per liter.

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Table B1 Groundwater Investigative Analytical Data

Sample ID Date	37404 09/26/89	37404 02/22/90	37405 09/26/89	37405 02/21/90
Analytes				
Semivolatiles				
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	NA	< 5.00	NA
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	< 5.50
Dieldrin	NA	< 0.0539	NA	< 0.0539
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	29.3	NA	< 0.392	NA
Diisopropyl Methylphosphonate (GCMS)	< 21.0	21.7	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	NA	< 0.188	NA
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	< 1.34	NA	< 1.34	NA
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	NA	< 0.0600	NA	< 0.0600
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	R	0.0796	R
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	NA	< 0.0560	NA	< 0.0560
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	NA	< 0.373	NA

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected.

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37404	37404	37405	37405
Date	09/26/89	02/22/90	09/26/89	02/21/90
Analytes				

Semivolatiles				
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	NA	< 0.647	NA
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	NA	< 0.787	NA
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	NA	< 0.384	NA
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
Volatiles				
1,1,1-Trichloroethane	NA	< 1.09	NA	< 1.09
1,1,1-Trichloroethane (GCMS)	NA	< 10.0	NA	< 1.00
1,1,2-Trichloroethane	NA	< 1.63	NA	< 1.63
1,1,2-Trichloroethane (GCMS)	NA	< 10.0	NA	< 1.00
1,1-Dichloroethane	NA	< 1.93	NA	< 1.93
1,1-Dichloroethane (GCMS)	NA	< 10.0	NA	< 1.00
1,1-Dichloroethane	NA	< 1.85	NA	< 1.85
1,1-Dichloroethane (GCMS)	NA	< 10.0	NA	< 1.00
1,2-Dichloroethane	NA	< 2.07	NA	< 2.07
1,2-Dichloroethane (GCMS)	NA	< 10.0	NA	< 1.00

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Date considered anomalous based on evaluation of historical data --> file: 09/26/89

Table 81 Groundwater Investigative Analytical Data

Sample ID	37404	37404	37405	37405
Date	09/26/89	02/22/90	09/26/89	02/21/90
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans)	NA	< 1.75	NA	< 1.75
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	< 50.0	NA	< 5.00
Benzene	NA	27.0 A	NA	< 9.60
Benzene (GCMS)	NA	12.4 A	NA	4.96 A
Carbon Tetrachloride	NA	2.71 A	NA	< 1.69
Carbon Tetrachloride (GCMS)	NA	< 10.0	NA	< 1.00
Chlorobenzene	NA	120 A	NA	92.0 A
Chlorobenzene (GCMS)	NA	91.3 A	NA	65.4 A
Chloroform	NA	440 A	NA	150 A
Chloroform (GCMS)	NA	460 A	NA	140 A
Dibromochloropropane	0.415	NA	0.227	NA
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	NA	< 0.550	NA
Ethyl Benzene	NA	< 0.620	NA	< 0.620
Ethyl Benzene (GCMS)	NA	< 10.0	NA	< 1.00
m-Xylene	NA	< 1.04	NA	< 1.04
m-Xylene (GCMS)	NA	< 10.0	NA	< 1.00
Methylene Chloride	NA	< 2.48	NA	< 2.48

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37404	37404	37405	37405
Date	09/26/89	02/22/90	09/26/89	02/21/90
Analytes				
Volatiles				
Methylene Chloride (GCMS)	NA	< 10.0	NA	< 1.00
Methylisobutyl Ketone	< 4.90	NA	< 4.90	NA
Methylisobutyl Ketone (GCMS)	NA	< 14.0	NA	< 1.40
O,P-Xylene	NA	< 1.34	NA	< 1.34
O,P-Xylene (GCMS)	NA	< 20.0	NA	< 2.00
Tetrachloroethene	NA	< 2.76	NA	< 2.76
Tetrachloroethene (GCMS)	NA	< 10.0	NA	< 1.00
Toluene	NA	3.37 A	NA	< 2.10
Toluene (GCMS)	NA	< 10.0	NA	1.50 A
Trichloroethene	NA	4.36 A	NA	3.13 A
Trichloroethene (GCMS)	NA	< 10.0	NA	1.80 A
Vinyl Chloride	NA	NA	NA	NA
Vinyl Chloride (GCMS)	NA	< 120	NA	< 12.0

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

historical data and field observations.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37406	37406	37407	37407
Date	09/26/89	02/21/90	09/26/89	02/21/90
Analytes				

Metals/Anions/General Chem				
Arsenic	NA	< 2.50	NA	< 2.50
Cadmium	NA	< 5.00	NA	< 5.00
Calcium	NA	190000	NA	250000
Chloride	NA	220000	NA	370000
Chromium	NA	< 22.0	NA	< 22.0
Copper	NA	< 10.0	NA	< 10.0
Cyanide	NA	< 8.90	NA	< 8.90
Fluoride	NA	928	NA	1160
Iron	NA	34.7	NA	604
Lead	NA	< 52.0	NA	< 52.0
Magnesium	NA	55000	NA	58000
Manganese	NA	< 20.0	NA	1250
Mercury	NA	< 0.500	NA	< 0.500
Nitrite, Nitrate -- Non-Specific	NA	3800	NA	1300000
Potassium	NA	NA	NA	NA
Sodium	NA	290000	NA	360000
Sulfate	NA	650000	NA	700000
Total Organic Carbon	NA	3.00	NA	7.00

Notes: Values are reported in micrograms per liter.

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A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table 81 Groundwater Investigative Analytical Data

Sample ID	37406	37406	37407	37407
Date	09/26/89	02/21/90	09/26/89	02/21/90
Analytes				
Metals/Anions/General Chem				
Total Suspended Solids	NA	98.0	NA	< 4.00
Zinc	NA	< 20.0	NA	< 20.0
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	NA	< 2.38	NA
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	NA	< 0.0590	NA	< 0.0590

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37406	37406	37407	37407
Date	09/26/89	02/21/90	09/26/89	02/21/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	NA	< 0.0460	NA	< 0.0460
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	NA	< 5.69	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	NA	< 7.46	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	49.7	NA	< 11.5	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	71.6	101	< 15.0	< 15.0
Aldrin	NA	R	NA	R
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	72.9	NA	< 4.03	NA
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	NA	< 5.00	NA
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	NA	< 5.90	NA
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	< 7.70	NA	< 7.70
Caprolactam (GCMS)	NA	< 7.70	NA	< 7.70
Chlordane	NA	< 0.152	NA	< 0.152

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37406	37406	37407	37407
Date	09/26/89	02/21/90	09/26/89	02/21/90
Analytes				
Semivolatiles				
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	NA	< 5.00	NA
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	< 5.50
Dieldrin	NA	< 0.0539	NA	< 0.0539
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	450	NA	24.3	NA
Diisopropyl Methylphosphonate (GCMS)	> 200	> 200	< 21.0	104
Dimethylmethyl Phosphonate	< 0.188	NA	< 0.188	NA
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	< 1.34	NA	< 1.34	NA
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	NA	< 0.0600	NA	< 0.0600
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	R	< 0.0480	R
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	NA	< 0.0560	NA	< 0.0560
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	NA	< 0.373	NA

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A -- Data considered anomalous based on evaluation of

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Table B1 Groundwater Investigative Analytical Data

Sample ID Date	37406 09/26/89	37406 02/21/90	37407 09/26/89	37407 02/21/90
Analytes				
Semivolatiles				
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	NA	< 0.647	NA
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	NA	< 0.787	NA
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	NA	< 0.384	NA
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
Volatiles				
1,1,1-Trichloroethane	NA	< 1.09	NA	< 1.09
1,1,1-Trichloroethane (GCMS)	NA	< 10.0	NA	< 10.0
1,1,2-Trichloroethane	NA	< 1.63	NA	< 1.63
1,1,2-Trichloroethane (GCMS)	NA	< 10.0	NA	< 10.0
1,1-Dichloroethane	NA	< 1.93	NA	< 1.93
1,1-Dichloroethane (GCMS)	NA	< 10.0	NA	< 10.0
1,1-Dichloroethane	NA	< 1.85	NA	< 1.85
1,1-Dichloroethane (GCMS)	NA	< 10.0	NA	< 10.0
1,2-Dichloroethane	NA	< 2.07	NA	< 2.07
1,2-Dichloroethane (GCMS)	NA	< 10.0	NA	< 10.0

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37406	37406	37407	37407
Date	09/26/89	02/21/90	09/26/89	02/21/90
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans)	NA	< 1.75	NA	< 1.75
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	< 50.0	NA	< 50.0
Benzene	NA	7.74 A	NA	59.0 A
Benzene (GCMS)	NA	< 10.0	NA	30.2 A
Carbon Tetrachloride	NA	2.20 A	NA	6.98 A
Carbon Tetrachloride (GCMS)				
Chlorobenzene	NA	< 10.0	NA	< 10.0
Chlorobenzene (GCMS)	NA	64.6 A	NA	260 A
Chloroform	NA	47.1 A	NA	192 A
Chloroform (GCMS)	NA	230 A	NA	1300 A
	NA	170 A	NA	120 A
Dibromochloropropane				
Dibromochloropropane (GCMS)	2.12	NA	0.377	NA
Dimethyl Disulfide	< 12.0	< 12.0	< 12.0	< 12.0
Ethyl Benzene	< 0.550	NA	< 0.550	NA
Ethyl Benzene (GCMS)	NA	< 0.620	NA	0.933 A
	NA	< 10.0	NA	< 10.0
M-Xylene				
M-Xylene (GCMS)	NA	< 1.04	NA	< 1.04
Methylene Chloride	NA	< 10.0	NA	< 10.0
	NA	< 2.48	NA	< 2.48

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37406	37406	37407	37407
Date	09/26/89	02/21/90	09/26/89	02/21/90
Analytes				

Volatiles				
Methylene Chloride (GCMS)	NA	< 10.0	NA	< 10.0
Methylisobutyl Ketone	< 4.90	NA	< 4.90	NA
Methylisobutyl Ketone (GCMS)	NA	< 14.0	NA	< 14.0
O,P-Xylene	NA	< 1.34	NA	2.11 A
O,P-Xylene (GCMS)	NA	< 20.0	NA	< 20.0
Tetrachloroethene	NA	23.5 A	NA	< 2.76
Tetrachloroethene (GCMS)	NA	12.0 A	NA	< 10.0
Toluene	NA	< 2.10	NA	8.22 A
Toluene (GCMS)	NA	< 10.0	NA	< 10.0
Trichloroethene	NA	4.13 A	NA	11.3 A
Trichloroethene (GCMS)	NA	< 10.0	NA	< 10.0
Vinyl Chloride	NA	NA	NA	NA
Vinyl Chloride (GCMS)	NA	< 120	NA	< 120

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37408	37409	37410	37418
Date	12/01/89	11/29/89	12/04/89	12/18/89
Analytes				
Cations/Anions/General Chem				
Arsenic	4.26	5.23	< 2.35	3.64
Cadmium	< 6.78	< 6.78	< 6.78	< 6.78
Calcium	187000	199000	160000	550000
Chloride	180000	370000	180000	1700000
Chromium	< 16.8	< 16.8	< 16.8	< 16.8
Copper	< 18.8	< 18.8	< 18.8	< 18.8
Cyanide	< 5.00	< 5.00	< 5.00	< 5.00
Fluoride	2320	2510	2360	3310
Iron	217	86.5	204	227
Lead	< 43.4	< 43.4	< 43.4	< 43.4
Magnesium	58000	57600	53900	196000
Manganese	45.4	14.7	11.4	187
Mercury	< 0.100	< 0.100	< 0.100	< 0.100
Nitrite, Nitrate -- Non-Specific	2200	4200	1300	930
Potassium	3850	4900	4150	9540
Sodium	330000	370000	310000	840000
Sulfate	780000	660000	710000	1500000
Total Organic Carbon	1900	3000	2500	12000

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

historical data of field QC

Table B1 Groundwater Investigative Analytical Data

Sample ID	37408	37409	37410	37416
Date	12/01/89	11/29/89	12/04/89	12/18/89
Analytes				
Metals/Anions/General Chem				
Total Suspended Solids	NA	NA	NA	NA
Zinc	70.7	99.5	41.6	90.9
Phenole				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	7.12
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	< 0.0490	0.155	< 0.0490	0.148

Notes: Values are reported in micrograms per liter.

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A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37408	37409	37410	37418
Date	12/01/89	11/29/89	12/04/89	12/18/89
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE)	< 0.0540	< 0.0540	< 0.0540	0.341
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46	8.09
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	26.8	74.5	12.6	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	24.9	380	< 15.0	< 15.0
Aldrin	< 0.0500	< 0.0500	< 0.0500	0.181
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	4.84	< 4.03	4.80
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90
Benothiazole	< 5.00	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	< 7.70	< 7.70	< 7.70	< 10.0
Chlordane	> 1.00	1.05	< 0.0950	0.935

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37408	37409	37410	37418
Date	12/01/89	11/29/89	12/04/89	12/18/89
Analytes				

Semivolatiles				
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	R	R	460
Dicyclopentadiene (GCMS)	< 5.50	11.3	< 5.50	227
Dieldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	160	830	140	5600
Diisopropyl Methylphosphonate (GCMS)	94.3	> 200	67.9	> 200
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	< 1.34	< 1.34	< 1.34	27.3
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	8.45
Endrin	< 0.0500	< 0.0500	< 0.0500	0.100
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	< 0.0510	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	< 0.373	< 0.373	< 0.373

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37408	37409	37410	37418
Date	12/01/89	11/29/89	12/04/89	12/18/89
Analytes				
Semivolatiles				
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
Volatiles				
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10	21.5
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of
isto data file GC p ures

Table B1 Groundwater Investigative Analytical Data

Sample ID	37408	37409	37410	37418
Date	12/01/89	11/29/89	12/04/89	12/18/89

Analytes				

Volatiles				
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	< 1.05	< 1.05	< 1.05	< 1.05
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	< 0.990	2.44	< 0.990	< 0.990

Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	< 0.820	< 0.820	< 0.820	< 0.820
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	14.7	420	8.85	< 0.500
Chloroform (GCMS)	NA	NA	NA	NA

Dibromochloroprop	< 0.195	5.85	< 0.195	< 0.195
Dibromochloropropene (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	NA	NA	NA	NA

m-Xylene	< 1.32	< 1.32	< 1.32	< 1.32
m-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	< 7.40	< 7.40	< 7.40	< 7.40

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37408	37409	37410	37418
Date	12/01/89	11/29/89	12/04/89	12/18/89
Analytes				
Volatiles				
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	< 1.36	< 1.36	< 1.36	< 1.36
O,P-Xylene (GCMS)	NA	NA	NA	NA
Non-Halogenated Aromatics				
Tetrachloroethene	4.45	110	3.53	10.2
Tetrachloroethene (GCMS)	NA	NA	NA	NA
Toluene	< 1.47	< 1.47	< 1.47	< 1.47
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	0.816	3.33	< 0.560	6.52
Halogenated Aromatics				
Trichloroethene (GCMS)	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA
Vinyl Chloride (GCMS)	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

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A -- Data considered anomalous based on evaluation of historical data file.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37418	37419	37420	37421
Date	06/22/90	12/15/89	12/13/89	06/21/90
Analytes				
Metals/Anions/General Chem				
Arsenic	R	< 2.35	3.48	R
Cadmium	< 6.78	< 6.78	< 6.78	< 6.78
Calcium	560000	250000	460000	470000
Chloride	1800000	580000	1100000	1200000
Chromium	< 16.8	< 16.8	< 16.8	< 16.8
Copper	< 18.8	< 18.8	< 18.8	< 18.8
Cyanide	R	< 5.00	< 5.00	R
Fluoride	6300	3390	3180	4400
Iron	1430	216	127	2110
Lead	< 43.4	< 43.4	< 43.4	< 43.4
Magnesium	194000	91500	141000	132000
Manganese	243	33.8	155	472
Mercury	< 0.100	< 0.100	< 0.100	< 0.100
Nitrite, Nitrate -- Non-Specific	540	1200	360	260
Potassium	8690	5230	5860	5220
Sodium	1100000	560000	700000	790000
Sulfate	1800000	1100000	1200000	1400000
Total Organic Carbon	14000	6600	9100	12000

Notes: Values are reported in micrograms per liter.
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or above the Certified Reporting Limit.
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above the Maximum Reporting Limit. NA -- Not Analyzed.
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rejected.
A -- Data considered anomalous based on evaluation of
historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37418	37419	37420	37420
Date	06/22/90	12/15/89	12/13/89	06/21/90
Analytes				
Metals/Anions/General Chem				
Total Suspended Solids	< 4000	NA	NA	< 4000
Zinc	36.3	47.9	71.0	< 18.0
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)				
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)				
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	6.48	< 2.38	< 2.38	5.35
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis[4-(parachlorophenyl)-1,1-Trichloroethane (DDT)]	R	0.161	0.184	< 0.0490

Notes: Values are reported in micrograms per liter.

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Table B1 Groundwater Investigative Analytical Data

Sample ID Date	37418 06/22/90	37419 12/15/89	37420 12/13/89	37420 06/21/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	0.474	1.70	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	7.75	21.0	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	9.18	9.06
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	< 0.0500	0.354	0.311	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	46.0	< 4.03	4.80	13.8
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	13.3	83.6
Caprolactam (GCMS)	< 10.0	< 7.70	< 9.10	< 10.0
Chlordane	< 0.0950	1.60	1.70	< 0.0950

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Table B1 Groundwater Investigative Analytical Data

Sample ID Date	37418 06/22/90	37419 12/15/89	37420 12/13/89	37420 06/21/90
Analytes				
Semivolatiles				
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	370	164	560	570
Dicyclopentadiene (GCMS)	277	93.2	> 300	302
Dieldrin	< 0.0500	< 0.0500	0.0891	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	5800	800	2100	2900
Diisopropyl Methylphosphonate (GCMS)	> 200	> 200	> 200	132
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	28.0	2.88	< 1.34	26.0
Dithiane (GCMS)	< 3.30	< 3.30	7.36	< 3.30
Endrin	< 0.0500	0.136	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	R	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	0.113	0.137	0.113	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	1.76	< 0.373	< 0.373	< 0.373

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37418	37419	37420	37420
Date	06/22/90	12/15/89	12/13/89	06/21/90
Analytes				
Semivolatiles				
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	1.22	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
Volatiles				
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	NA	NA	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	NA	NA	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	NA	NA	< 1.00
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	NA	NA	< 1.00
1,2-Dichloroethane	21.2	< 1.10	22.7	20.6
1,2-Dichloroethane (GCMS)	< 1.00	NA	NA	< 1.00

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37418	37419	37420
Date	06/22/90	12/15/89	12/13/89
			06/21/90
Analytes			

Volatiles			
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	NA	< 5.00
Benzene	2.39	< 1.05	< 1.05
Benzene (GCMS)	1.94	NA	< 1.00
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	< 1.00	NA	< 1.00
Chlorobenzene	13.0	< 0.820	9.35
Chlorobenzene (GCMS)	22.1	NA	< 1.00
Chloroform	30.0	< 0.500	10.6
Chloroform (GCMS)	49.0	NA	< 1.00
Dibromochloropropane	0.326	< 0.195	< 0.195
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	< 1.00	NA	< 1.00
m-Xylene	< 1.32	< 1.32	< 1.32
m-Xylene (GCMS)	< 1.00	NA	< 1.00
Methylene Chloride	< 7.40	< 7.40	< 7.40

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

field data, field QC procedures

Table B1 Groundwater Investigative Analytical Data

Sample ID	37418	37419	37420	37420
Date	06/22/90	12/15/89	12/13/89	06/21/90
Analytes				

Volatiles				
Methylene Chloride (GCMS)	< 1.00	NA	NA	< 1.00
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	< 1.40	NA	NA	< 1.40
O,P-Xylene	< 1.36	< 1.36	< 1.36	< 1.36
O,P-Xylene (GCMS)	< 2.00	NA	NA	< 2.00
Tetrachloroethene				
Tetrachloroethene (GCMS)	9.73	12.3	12.1	13.1
Toluene	< 1.47	< 1.47	< 1.47	< 1.47
Toluene (GCMS)	< 1.00	NA	NA	< 1.00
Trichloroethene	6.75	2.68	4.14	5.13
Trichloroethene (GCMS)				
Vinyl Chloride	6.00	NA	NA	< 1.00
Vinyl Chloride (GCMS)	NA	NA	NA	NA
	< 12.0	NA	NA	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

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A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37428	37429	37429	37430
Date	12/27/89	12/29/89	02/26/90	12/28/89
Analytes				

Metals/Anions/General Chem				
Arsenic	3.23	< 2.35	< 2.35	< 2.35
Cadmium	< 6.78	< 6.78	< 6.78	< 6.78
Calcium	117000	97300	91200	114000
Chloride	140000	55000	63000	150000
Chromium	< 16.8	< 16.8	< 16.8	< 16.8
Copper	< 18.8	< 18.8	< 18.8	< 18.8
Cyanide	< 5.00	< 5.00	< 5.00	< 5.00
Fluoride	1610	1480	1700	2370
Iron	NA	NA	< 77.5	NA
Lead	< 43.4	< 43.4	< 43.4	< 43.4
Magnesium	34200	21900	21300	33200
Manganese	NA	NA	< 9.67	NA
Mercury	< 0.100	< 0.100	< 0.100	< 0.100
Nitrite, Nitrate -- Non-Specific	65.1	7000	3700	7400
Potassium	5020	4500	3650	3330
Sodium	170000	83000	80000	170000
Sulfate	290000	160000	160000	230000
Total Organic Carbon	2100	1300	< 1000	1000

Notes: Values are reported in micrograms per liter.

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A -- Data considered anomalous based on evaluation of

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Table 81 Groundwater Investigative Analytical Data

Sample ID	37428	37429	37429	37430
Date	12/27/89	12/29/89	02/26/90	12/28/89
Analytes				
Metals/Anions/General Chem				
Total Suspended Solids	NA	NA	NA	NA
Zinc	< 18.0	23.7	< 18.0	< 18.0
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	R	< 0.0490	< 0.0490	< 0.0490

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37428	37429	37430
Date	12/27/89	12/29/89	12/28/89
Analytes			

Semi-volatiles			
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCMS)	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE)	< 0.0540	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE) (GCMS)	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0
Aldrin	R	< 0.0500	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	< 7.70	< 7.70	< 7.70
Chlordane	< 0.0950	< 0.0950	< 0.0950

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37428	37429	37429	37430
Date	12/27/89	12/29/89	02/26/90	12/28/89
Analytes				

Semivolatiles				
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	< 5.50
Dieldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	140	18.6	10.1	5.74
Diisopropyl Methylphosphonate (GCMS)	88.7	< 21.0	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	< 1.34	< 1.34	< 1.34	< 1.34
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	0.0769	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	< 0.0510	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	< 0.373	< 0.373	< 0.373

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table 81 Groundwater Investigative Analytical Data

Sample ID	37428	37429	37429	37430
Date	12/27/89	12/29/89	02/26/90	12/28/89

Analytes				

Semivolatiles				
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50

Volatiles				
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	NA	NA	< 1.00	NA
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	NA	NA	< 1.00	NA
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	NA	NA	< 1.00	NA
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	NA	NA	< 1.00	NA
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	NA	NA	< 1.00	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37428	37429	37430
Date	12/27/89	12/29/89	12/28/89
Analytes			
Volatiles			
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA
Benzene	< 1.05	< 1.05	< 1.05
Benzene (GCMS)	NA	NA	NA
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	NA	NA	NA
Chlorobenzene	< 0.820	< 0.820	< 0.820
Chlorobenzene (GCMS)	NA	NA	NA
Chloroform	< 0.500	< 0.500	1.35
Chloroform (GCMS)	NA	NA	NA
Dibromochloropropane	< 0.195	< 0.195	< 0.195
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	NA	NA	NA
m-Xylene	< 1.32	< 1.32	< 1.32
m-Xylene (GCMS)	NA	NA	NA
Methylene Chloride	< 7.40	< 7.40	< 7.40

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37428	37429	37429	37430
Date	12/27/89	12/29/89	02/26/90	12/28/89
Analytes				
Volatiles				
Methylene Chloride (GCMS)	NA	NA	< 1.00	NA
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	NA	NA	< 1.40	NA
O,P-Xylene	< 1.36	< 1.36	2.40 A	< 1.36
O,P-Xylene (GCMS)	NA	NA	< 2.00	NA
Tetrachloroethene	< 0.750	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	NA	NA	< 1.00	NA
Toluene	< 1.47	< 1.47	2.62 A	< 1.47
Toluene (GCMS)	NA	NA	< 1.00	NA
Trichloroethene	< 0.560	< 0.560	< 0.560	< 0.560
Trichloroethene (GCMS)	NA	NA	< 1.00	NA
Vinyl Chloride	NA	NA	NA	NA
Vinyl Chloride (GCMS)	NA	NA	< 12.0	NA

Notes: Values are reported in micrograms per liter.

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A -- Data considered anomalous based on evaluation of

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37430	37433	37433	37434
Date	02/26/90	01/03/90	02/26/90	01/03/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.35	< 2.35	< 2.35	< 2.35
Cadmium	< 6.78	< 6.78	< 6.78	< 6.78
Calcium	120000	81200	113000	79900
Chloride	170000	75000	140000	72000
Chromium	< 16.8	< 16.8	< 16.8	< 16.8
Copper	< 18.8	< 18.8	< 18.8	< 18.8
Cyanide	< 5.00	< 5.00	< 5.00	< 5.00
Fluoride	2790	1260	1570	1530
Iron	< 77.5	NA	< 77.5	NA
Lead	< 43.4	< 43.4	< 43.4	< 43.4
Magnesium	37400	15200	22300	17600
Manganese	< 9.67	NA	< 9.67	NA
Mercury	< 0.100	< 0.100	< 0.100	< 0.100
Nitrite, Nitrate -- Non-Specific	6100	3300	510	5300
Potassium	2680	6030	4420	4540
Sodium	130000	77000	99000	91000
Sulfate	250000	190000	200000	190000
Total Organic Carbon	2000	< 1000	2000	< 1000

Notes: Values are reported in micrograms per liter.

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37430	37433	37433	37434
Date	02/26/90	01/03/90	02/26/90	01/03/90
Analytes				
Metals/Anions/General Chem				
Total Suspended Solids	NA	NA	NA	NA
Zinc	< 18.0	50.3	< 18.0	< 18.0
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	< 0.0490	< 0.0490

Notes: Values are reported in micrograms per liter.

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Table 81 Groundwater Investigative Analytical Data

Sample ID	37430	37433	37433	37434
Date	02/26/90	01/03/90	02/26/90	01/03/90
Analytes				
Semivolatiles				
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
Volatiles				
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	NA	< 1.00	NA

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37430	37433	37433	37434
Date	02/26/90	01/03/90	02/26/90	01/03/90
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	NA	< 5.00	NA
Benzene	17.3 A	< 1.05	5.48 A	< 1.05
Benzene (GCMS)	10.9 A	NA	3.10 A	NA
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	1.38 A	NA	< 1.00	NA
Chlorobenzene	51.2 A	< 0.820	28.0 A	< 0.820
Chlorobenzene (GCMS)	82.7 A	NA	46.2 A	NA
Chloroform	300 A	< 0.500	72.7 A	< 0.500
Chloroform (GCMS)	> 150 A	NA	73.0 A	NA
Dibromochloropropane	0.926 A	< 0.195	0.275 A	< 0.195
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	< 1.00	NA	< 1.00	NA
M-Xylene	< 1.32	< 1.32	< 1.32	< 1.32
M-Xylene (GCMS)	< 1.00	NA	< 1.00	NA
Methylene Chloride	< 7.40	< 7.40	< 7.40	< 7.40

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37430	37433	37433	37434
Date	02/26/90	01/03/90	02/26/90	01/03/90
Analytes				

Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	< 0.0540	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	< 7.70	< 7.70	< 7.70	< 7.70
Chlordane	< 0.0950	< 0.0950	< 0.0950	< 0.0950

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table 81 Groundwater Investigative Analytical Data

Sample ID	37430	37433	37433	37434
Date	02/26/90	01/03/90	02/26/90	01/03/90
Analytes				
Semivolatiles				
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	< 5.50
Dieldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	8.07	0.828	3.31	4.52
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	< 1.34	< 1.34	< 1.34	< 1.34
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	< 0.0510	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	< 0.373	< 0.373	< 0.373

Notes: Values are reported in micrograms per liter.

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> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37430	37433	37433	37434
Date	02/26/90	01/03/90	02/26/90	01/03/90
Analytes				
Volatiles				
Methylene Chloride (GCMS)	< 1.00	NA	< 1.00	NA
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	< 1.40	NA	< 1.40	NA
O,p-Xylene	< 1.36	< 1.36	< 1.36	< 1.36
O,p-Xylene (GCMS)	< 2.00	NA	< 2.00	NA
Tetrachloroethene	< 0.750	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	< 1.00	NA	< 1.00	NA
Toluene	3.17 A	< 1.47	< 1.47	< 1.47
Toluene (GCMS)	2.70 A	NA	1.30 A	NA
Trichloroethene	1.65 A	< 0.560	0.803 A	< 0.560
Trichloroethene (GCMS)	< 1.00	NA	1.10 A	NA
Vinyl Chloride	NA	NA	NA	NA
Vinyl Chloride (GCMS)	< 12.0	NA	< 12.0	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37434	37435	37435	37436
Date	02/27/90	12/29/89	02/27/90	12/29/89
Analytes				

Metals/Anions/General Chem				
Arsenic	< 2.35	< 2.35	< 2.35	NA
Cadmium	< 6.78	< 6.78	< 6.78	NA
Calcium	85500	134000	123000	NA
Chloride	84000	120000	98000	NA
Chromium	< 16.8	< 16.8	< 16.8	NA
Copper	< 18.8	< 18.8	< 18.8	NA
Cyanide	< 5.00	< 5.00	< 5.00	NA
Fluoride	1740	1730	1890	NA
Iron	< 77.5	NA	< 77.5	NA
Lead	< 43.4	< 43.4	< 43.4	NA
Magnesium	19600	37000	37000	NA
Manganese	10.5	NA	< 9.67	NA
Mercury	< 0.100	< 0.100	< 0.100	NA
Nitrite, Nitrate -- Non-Specific	3700	3300	1700	5800
Potassium	4130	6510	4580	NA
Sodium	100000	190000	130000	NA
Sulfate	200000	390000	290000	NA
Total Organic Carbon	2000	3000	3000	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

data file. /QC f lures

Table B1 Groundwater Investigative Analytical Data

Sample ID	37434	37435	37435	37436
Date	02/27/90	12/29/89	02/27/90	12/29/89
Analytes				
Metals/Anions/General Chem				
Total Suspended Solids	NA	NA	NA	NA
Zinc	< 18.0	< 18.0	< 18.0	NA
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	NA
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	NA
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	NA
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	NA
2,6-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	NA
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	NA
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	NA
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	NA
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	NA
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	NA
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	NA
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	NA
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	NA
SemiVolatiles				
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	NA
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	< 0.0490	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37434	37435	37436
Date	02/27/90	12/29/89	12/29/89
Analytes			
Semivolatiles			
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	< 0.0540	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	NA
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	NA
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	NA
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	NA
Aldrin	< 0.0500	< 0.0500	NA
Aldrin (GCMS)	< 13.0	< 13.0	NA
Atrazine	< 4.03	< 4.03	NA
Atrazine (GCMS)	< 5.90	< 5.90	NA
Benzothiazole	< 5.00	< 5.00	NA
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	NA
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	NA
Caprolactam (GCMS)	< 7.70	< 7.70	NA
Chlordane	< 0.0950	< 0.0950	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data file.

Table 81 Groundwater Investigative Analytical Data

Sample ID	37434	37435	37435	37436
Date	02/27/90	12/29/89	02/27/90	12/29/89
Analytes				
Semivolatiles				
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	NA
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	NA
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	NA
Dieldrin	< 0.0500	< 0.0500	< 0.0500	NA
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	NA
Diisopropyl Methylphosphonate	3.63	15.5	10.8	NA
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 21.0	NA
Dimethylmethyl Phosphonate	< 0.188	< 0.188	1.01	NA
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	NA
Dithiane	< 1.34	< 1.34	< 1.34	NA
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	NA
Endrin	< 0.0500	< 0.0500	< 0.0500	NA
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	NA
Hexachlorocyclopentadiene	< 0.0480	0.0914	< 0.0480	NA
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	NA
Isodrin	< 0.0510	< 0.0510	< 0.0510	NA
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	NA
Melathion	< 0.373	< 0.373	< 0.373	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or

above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table 81 Groundwater Investigative Analytical Data

Sample ID	37434	37435	37436
Date	02/27/90	12/29/89	02/27/90
Analytes			

Semivolatiles			
Malathion (GCMS)	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50
Volatiles			
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	NA	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	NA	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	NA	< 1.00
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	NA	< 1.00
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	NA	< 1.00

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

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Table 81 Groundwater Investigative Analytical Data

Sample ID	37434	37435	37435	37436
Date	02/27/90	12/29/89	02/27/90	12/29/89
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	NA	< 5.00	NA
Benzene	4.61 A	< 1.05	10.7 A	NA
Benzene (GCMS)	2.71 A	NA	9.30 A	NA
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990	NA
Carbon Tetrachloride (GCMS)				
Chlorobenzene	< 1.00	NA	1.10 A	NA
Chlorobenzene (GCMS)	39.2 A	< 0.820	58.1 A	NA
Chloroform	40.4 A	NA	70.2 A	NA
Chloroform (GCMS)	64.0 A	< 0.500	214 A	NA
	68.0 A	NA	> 150 A	NA
Dibromochloropropane				
Dibromochloropropane (GCMS)	0.428 A	< 0.195	1.26 A	NA
Dimethyl Disulfide	< 12.0	< 12.0	< 12.0	NA
Ethyl Benzene	< 0.550	< 0.550	< 0.550	NA
Ethyl Benzene (GCMS)	< 1.37	< 1.37	< 1.37	NA
	< 1.00	NA	< 1.00	NA
M-Xylene				
M-Xylene (GCMS)	< 1.32	< 1.32	< 1.32	NA
Methylene Chloride	< 1.00	NA	< 1.00	NA
	< 7.40	< 7.40	< 7.40	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37434	37435	37435	37436
Date	02/27/90	12/29/89	02/27/90	12/29/89
Analytes				

Volatiles				
Methylene Chloride (GCMS)	< 1.00	NA	< 1.00	NA
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	NA
Methylisobutyl Ketone (GCMS)	< 1.40	NA	< 1.40	NA
O,P-Xylene	< 1.36	< 1.36	< 1.36	NA
O,P-Xylene (GCMS)	< 2.00	NA	< 2.00	NA
Tetrachloroethene	< 0.750	< 0.750	< 0.750	NA
Tetrachloroethene (GCMS)	< 1.00	NA	< 1.00	NA
Toluene	< 1.47	< 1.47	2.12	NA
Toluene (GCMS)	1.10	NA	2.30	NA
Trichloroethene	0.971	< 0.560	1.78	NA
Trichloroethene (GCMS)	1.20	NA	2.30	NA
Vinyl Chloride	NA	NA	NA	NA
Vinyl Chloride (GCMS)	< 12.0	NA	< 12.0	NA

Notes: Values are reported in micrograms per liter.

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A -- Data considered anomalous based on evaluation of

historical data field QC figures

Table B1 Groundwater Investigative Analytical Data

Sample ID	37436	37436	37437	37437
Date	01/02/90	02/28/90	01/02/90	02/28/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.35	< 2.35	< 2.35	< 2.35
Cadmium	< 6.78	< 6.78	< 6.78	< 6.78
Calcium	124000	109000	76900	76100
Chloride	73000	76000	82000	84000
Chromium	< 16.8	< 16.8	< 16.8	< 16.8
Copper	< 18.8	< 18.8	< 18.8	< 18.8
Cyanide	< 5.00	< 5.00	< 5.00	< 5.00
Fluoride	1220	1350	1170	1310
Iron	NA	< 77.5	NA	< 77.5
Lead	< 43.4	< 43.4	< 43.4	< 43.4
Magnesium	24700	23200	16700	17400
Manganese	NA	12.4	NA	< 9.67
Mercury	< 0.100	< 0.100	< 0.100	< 0.100
Nitrite, Nitrate -- Non-Specific	NA	5000	2400	1500
Potassium	4380	3930	3870	3240
Sodium	73000	81000	78000	75000
Sulfate	220000	220000	110000	110000
Total Organic Carbon	2000	2000	1000	1000

Notes: Values are reported in micrograms per liter.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37436	37436	37437	37437
Date	01/02/90	02/28/90	01/02/90	02/28/90
Analytes				
Metals/Anions/General Chem	NA	NA	NA	NA
Total Suspended Solids	< 18.0	< 18.0	< 18.0	< 18.0
Zinc				
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	< 0.0490	< 0.0490

Notes: Values are reported in micrograms per liter.

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37436	37436	37437	37437
Date	01/02/90	02/28/90	01/02/90	02/28/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DIT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0540	< 0.0540	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	< 7.70	< 7.70	< 7.70	< 7.70
Chlordane	< 0.0950	< 0.0950	< 0.0950	< 0.0950

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table 81 Groundwater Investigative Analytical Data

Sample ID	37436	37436	37437	37437
Date	01/02/90	02/28/90	01/02/90	02/28/90
Analytes				
Semivolatiles				
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	< 5.50
Dieldrin	0.0468	< 0.0500	0.0744	0.0893
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	< 0.392	2.15	< 0.392	< 0.392
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	< 1.34	< 1.34	< 1.34	< 1.34
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	< 0.0510	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	< 0.373	< 0.373	< 0.373

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

hist. file /QC

Table B1 Groundwater Investigative Analytical Data

Sample ID	37436	37437	37437
Date	01/02/90	02/28/90	01/02/90
Analytes			
Semivolatiles			
Methathion (GCMS)	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50
Volatiles			
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	NA	NA	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	NA	NA	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	NA	NA	< 1.00
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	NA	NA	< 1.00
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	NA	NA	< 1.00

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37436	37436	37437	37437
Date	01/02/90	02/28/90	01/02/90	02/28/90
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	< 5.00	NA	< 5.00
Benzene	< 1.05	< 1.05	< 1.05	2.14 A
Benzene (GCMS)	NA	< 1.00	NA	< 1.00
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	NA	< 1.00	NA	< 1.00
Chlorobenzene	< 0.820	11.0 A	< 0.820	42.8 A
Chlorobenzene (GCMS)	NA	9.62 A	NA	17.3 A
Chloroform	< 0.500	15.1 A	< 0.500	40.9 A
Chloroform (GCMS)	NA	12.0 A	NA	27.0 A
Dibromochloropropene	< 0.195	< 0.195	< 0.195	0.302 A
Dibromochloropropene (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	NA	< 1.00	NA	< 1.00
m-Xylene	< 1.32	< 1.32	< 1.32	< 1.32
m-Xylene (GCMS)	NA	< 1.00	NA	< 1.00
Methylene Chloride	< 7.40	< 7.40	< 7.40	< 7.40

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

date data field QC purposes

Table B1 Groundwater Investigative Analytical Data

Sample ID	37436	37436	37437	37437
Date	01/02/90	02/28/90	01/02/90	02/28/90
Analytes				
Volatiles				
Methylene Chloride (GCMS)	NA	< 1.00	NA	< 1.00
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	NA	< 1.40	NA	< 1.40
O,P-Xylene	< 1.36	< 1.36	< 1.36	< 1.36
O,P-Xylene (GCMS)	NA	< 2.00	NA	< 2.00
Chlorinated Hydrocarbons				
Tetrachloroethene	< 0.750	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	NA	< 1.00	NA	< 1.00
Toluene	< 1.47	< 1.47	< 1.47	< 1.47
Toluene (GCMS)	NA	< 1.00	NA	< 1.00
Trichloroethene	< 0.560	< 0.560	< 0.560	0.729 A
Other Organic Compounds				
Trichloroethene (GCMS)	NA	< 1.00	NA	< 1.00
Vinyl Chloride	NA	NA	NA	NA
Vinyl Chloride (GCMS)	NA	< 12.0	NA	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37438	37438	37439	37439
Date	01/25/90	02/28/90	01/25/90	03/01/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.35	< 2.35	< 2.35	< 2.35
Cadmium	< 6.78	< 6.78	< 6.78	< 6.78
Calcium	66700	66800	83600	104000
Chloride	R	280000	R	200000
Chromium	< 16.8	< 16.8	< 16.8	< 16.8
Copper	< 18.8	< 18.8	< 18.8	< 18.8
Cyanide	< 5.00	< 5.00	< 5.00	< 5.00
Fluoride	R	4070	R	2340
Iron	NA	< 77.5	NA	< 77.5
Lead	< 43.4	< 43.4	< 43.4	< 43.4
Magnesium	19300	21200	20400	28200
Manganese	NA	< 9.67	NA	28.8
Mercury	< 0.100	< 0.100	< 0.100	< 0.100
Nitrite, Nitrate -- Non-Specific	5300	4900	3000	1800
Potassium	2600	2600	3290	3810
Sodium	300000	260000	180000	150000
Sulfate	R	170000	R	180000
Total Organic Carbon	< 1000	2000	< 1000	2000

Notes: Values are reported in micrograms per liter.

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or above the Certified Reporting Limit.

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above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

historical data.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37438	37438	37439	37439
Date	01/25/90	02/28/90	01/25/90	03/01/90
Analytes				

Metals/Anions/General Chem				
Total Suspended Solids	NA	NA	NA	NA
Zinc	< 18.0	< 18.0	< 18.0	< 18.0
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	< 0.0490	< 0.0490	< 0.0490	< 0.0490

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37438	37438	37439	37439
Date	01/25/90	02/28/90	01/25/90	03/01/90
Analytes				

Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0540	< 0.0540	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	< 0.0500	0.0711	< 0.0500	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	10.4	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	< 10.0	< 7.70	< 10.0	< 7.70
Chlordane	< 0.0950	< 0.0950	< 0.0950	< 0.0950

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

historical data file /QC /ture:

Table B1 Groundwater Investigative Analytical Data

Sample ID Date	37438 01/25/90	37438 02/28/90	37439 01/25/90	37439 03/01/90
Analytes				
Semivolatiles				
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	< 5.50
Dieldrin	0.150	0.127	0.0541	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	3.57	3.47	2.07	2.54
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	< 1.34	< 1.34	< 1.34	< 1.34
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	< 0.0510	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	< 0.373	< 0.373	< 0.373

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37438	37438	37439	37439
Date	01/25/90	02/28/90	01/25/90	03/01/90
Analytes				
Semivolatiles				
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
Volatiles				
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00

Notes: Values are reported in micrograms per liter.

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37438	37438	37439	37439
Date	01/25/90	02/28/90	01/25/90	03/01/90
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	< 5.00	< 5.00
Benzene	< 1.05	8.46 A	25.8 A	2.99 A
Benzene (GCMS)	48.8 A	6.59 A	12.4 A	1.16 A
Carbon Tetrachloride	12.7 A	< 0.990	1.86 A	< 0.990
Carbon Tetrachloride (GCMS)	5.23 A	< 1.00	1.38 A	< 1.00
Chlorobenzene	19.0 A	103 A	180 A	23.4 A
Chlorobenzene (GCMS)	> 150 A	84.6 A	125 A	23.1 A
Chloroform	1200 A	160 A	420 A	75.1 A
Chloroform (GCMS)	> 150 A	> 150 A	> 150 A	30.0 A
Dibromochloropropane	3.03 A	1.18 A	0.842 A	0.539 A
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	1.20 A	< 1.00	< 1.00	< 1.00
m-Xylene	< 1.32	< 1.32	< 1.32	< 1.32
m-Xylene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Methylene Chloride	< 7.40	< 7.40	< 7.40	< 7.40

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37438	37438	37439	37439
Date	01/25/90	02/28/90	01/25/90	03/01/90
Analytes				
Volatiles				
Methylene Chloride (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	< 1.40	< 1.40
O,P-Xylene	< 1.36	< 1.36	< 1.36	< 1.36
O,P-Xylene (GCMS)	1.98 A	< 2.00	< 2.00	< 2.00
Tetrachloroethene	1.66 A	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Toluene	< 1.47	2.22 A	3.42 A	< 1.47
Toluene (GCMS)	7.50 A	2.80 A	3.00 A	< 1.00
Trichloroethene	19.1 A	2.36 A	5.48 A	0.619 A
Trichloroethene (GCMS)	12.0 A	2.30 A	4.20 A	< 1.00
Vinyl Chloride	NA	NA	NA	NA
Vinyl Chloride (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

histogram of field data

Table 81 Groundwater Investigative Analytical Data

Sample ID	37440	37440	37441	37441
Date	01/25/90	03/01/90	01/29/90	03/01/90

Analytes				

Metals/Anions/General Chem				
Arsenic	< 2.35	< 2.35	< 2.35	< 2.35
Cadmium	< 6.78	< 6.78	< 6.78	< 6.78
Calcium	77400	81200	114000	102000
Chloride	R	86000	R	53000
Chromium	< 16.8	< 16.8	< 16.8	< 16.8
Copper	< 18.8	< 18.8	< 18.8	< 18.8
Cyanide	< 5.00	< 5.00	< 5.00	< 5.00
Fluoride	R	1360	R	1230
Iron	NA	< 77.5	NA	< 77.5
Lead	< 43.4	< 43.4	< 43.4	< 43.4
Magnesium	14900	17100	20800	19900
Manganese	NA	< 9.67	NA	< 9.67
Mercury	< 0.100	< 0.100	< 0.100	< 0.100
Nitrite, Nitrate -- Non-Specific	1700	2000	8500	810
Potassium	4030	2920	4050	4540
Sodium	83000	80000	92000	78000
Sulfate	R	120000	R	160000
Total Organic Carbon	< 1000	2000	< 1000	2000

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37440	37440	37441	37441
Date	01/25/90	03/01/90	01/29/90	03/01/90
Analytes				

Metals/Anions/General Chem				
Total Suspended Solids	NA	NA	NA	NA
Zinc	< 18.0	< 18.0	< 18.0	< 18.0
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)				
2-Chlorophenol (GCMS)	< 176	< 176	< 176	< 176
2-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Nitrophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
3-Methyl-4-Chlorophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)				
4-Nitrophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
Phenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0
	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	< 0.0490	< 0.0490

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

historical data and field analytical procedures

Table B1 Groundwater Investigative Analytical Data

Sample ID	37440	37440	37441	37441
Date	01/25/90	03/01/90	01/29/90	03/01/90
Analytes				

Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DOE)	< 0.0540	< 0.0540	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DOE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	< 10.0	< 7.70	< 10.0	< 7.70
Chlordane	< 0.0950	< 0.0950	< 0.0950	< 0.0950

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37440	37440	37441	37441
Date	01/25/90	03/01/90	01/29/90	03/01/90
Analytes				
Semivolatiles				
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	< 5.50
Dieldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	< 0.392	< 0.392	< 0.392	< 0.392
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	< 1.34	< 1.34	< 1.34	< 1.34
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	< 0.0510	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	< 0.373	< 0.373	< 0.373

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. MA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

historical data field QC figures

Table 81 Groundwater Investigative Analytical Data

Sample ID	37440	37440	37441	37441
Date	01/25/90	03/01/90	01/29/90	03/01/90

Analytes				

SemiVolatiles				
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
Volatiles				
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. MA -- Not Analyzed.
R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37440	37440	37441	37441
Date	01/25/90	03/01/90	01/29/90	03/01/90
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	< 5.00	< 5.00
Benzene	30.6 A	< 1.05	41.3 A	< 1.05
Benzene (GCMS)	12.4 A	0.930 A	9.30 A	< 1.00
Carbon Tetrachloride	2.57 A	< 0.990	3.09 A	< 0.990
Carbon Tetrachloride (GCMS)	1.56 A	< 1.00	2.20 A	< 1.00
Chlorobenzene	192 A	14.9 A	130 A	< 0.820
Chlorobenzene (GCMS)	115 A	22.1 A	115 A	< 1.00
Chloroform	220 A	18.4 A	880 A	< 0.500
Chloroform (GCMS)	> 150 A	24.0 A	> 150 A	< 1.00
Dibromochloropropene	0.697 A	< 0.195	1.27 A	< 0.195
Dibromochloropropene (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
m-Xylene	< 1.32	< 1.32	< 1.32	< 1.32
m-Xylene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Methylene Chloride	< 7.40	< 7.40	< 7.40	< 7.40

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37440	37440	37441	37441
Date	01/25/90	03/01/90	01/29/90	03/01/90

Analytes				

Volatiles				
Methylene Chloride (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	< 1.40	< 1.40
O,P-Xylene	< 1.36	< 1.36	< 1.36	< 1.36
O,P-Xylene (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00

Tetrachloroethene	< 0.750	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	< 1.00	< 1.00	1.02	< 1.00
Toluene	4.09	A	4.72	A
Toluene (GCMS)	2.80	A	3.00	A
Trichloroethene	5.51	A	7.76	A

Trichloroethene (GCMS)	3.80	A	4.90	A
Vinyl Chloride	NA	NA	NA	NA
Vinyl Chloride (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37441	37442	37442	37443
Date	06/12/90	03/02/90	06/12/90	03/01/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.35	< 2.35	< 2.35	< 2.35
Cadmium	< 6.78	< 6.78	< 6.78	< 6.78
Calcium	113000	119000	118000	93500
Chloride	54000	140000	91000	130000
Chromium	< 16.8	< 16.8	< 16.8	< 16.8
Copper	< 18.8	< 18.8	< 18.8	< 18.8
Cyanide	R	< 5.00	R	< 5.00
Fluoride	1020	2020	1850	2430
Iron	NA	< 77.5	NA	< 77.5
Lead	< 43.4	< 43.4	< 43.4	< 43.4
Magnesium	20100	29400	26400	26800
Manganese	NA	391	NA	15.3
Mercury	1.64	< 0.100	0.210	< 0.100
Nitrite, Nitrate -- Non-Specific	8100	2700	1300	7100
Potassium	3410	3770	2770	4010
Sodium	73000	99000	95000	26100
Sulfate	160000	150000	150000	210000
Total Organic Carbon	2000	2000	3000	2000

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37441	37442	37442	37443
Date	06/12/90	03/02/90	06/12/90	03/01/90
Analytes				
Metals/Anions/General Chem				
Total Suspended Solids	NA	NA	NA	NA
Zinc	< 18.0	< 18.0	< 18.0	< 18.0
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(perchlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	< 0.0490	< 0.0490

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37441	37442	37442	37443
Date	06/12/90	03/02/90	06/12/90	03/01/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0540	< 0.0540	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	< 10.0	< 7.70	< 10.0	< 7.70
Chlordane	< 0.0950	< 0.0950	< 0.0950	< 0.0950

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above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

rejected.

A -- Data considered anomalous based on evaluation of

historical data -- 1 figure

Table B1 Groundwater Investigative Analytical Data

Sample ID	37441	37442	37442	37443
Date	06/12/90	03/02/90	06/12/90	03/01/90
Analytes				
Semivolatiles				
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	< 5.50
Dieldrin	< 0.0500	< 0.0500	< 0.0500	0.0590
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	< 0.392	0.476	< 0.392	7.28
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	< 1.34	< 1.34	< 1.34	< 1.34
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	< 0.0510	0.236	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Melathion	< 0.373	< 0.373	< 0.373	< 0.373

Notes: Values are reported in micrograms per liter.

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A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID Date	37441 06/12/90	37442 03/02/90	37442 06/12/90	37443 03/01/90
Analytes				
Semivolatiles				
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
Volatiles				
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

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Table 81 Groundwater Investigative Analytical Data

Sample ID	37441	37442	37442	37443
Date	06/12/90	03/02/90	06/12/90	03/01/90
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	< 5.00	< 5.00
Benzene	< 1.05	< 1.05	< 1.05	< 1.05
Benzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Chlorobenzene	< 0.820	10.7 A	< 0.820	11.7 A
Chlorobenzene (GCMS)	< 1.00	11.5 A	< 1.00	11.5 A
Chloroform	< 0.500	25.9 A	< 0.500	15.2 A
Chloroform (GCMS)	< 1.00	12.0 A	< 1.00	9.30 A
Dibromochloropropene	< 0.195	0.206 A	< 0.195	< 0.195
Dibromochloropropene (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
m-Xylene	< 1.32	< 1.32	< 1.32	< 1.32
m-Xylene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Methylene Chloride	< 7.40	< 7.40	< 7.40	< 7.40

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37441	37442	37443
Date	06/12/90	03/02/90	06/12/90
Analytes			
Volatiles			
Methylene Chloride (GCMS)	< 1.00	< 1.00	< 1.00
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	< 1.40
O,P-Xylene	< 1.36	< 1.36	< 1.36
O,P-Xylene (GCMS)	< 2.00	< 2.00	< 2.00
Tetrachloroethene	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	< 1.00	< 1.00	< 1.00
Toluene	< 1.47	< 1.47	< 1.47
Toluene (GCMS)	< 1.00	< 1.00	< 1.00
Trichloroethene	< 0.560	< 0.560	< 0.560
Trichloroethene (GCMS)	6.00	< 1.00	< 1.00
Vinyl Chloride	NA	NA	NA
Vinyl Chloride (GCMS)	< 12.0	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

historical data and field data.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37443	37444	37444
Date	06/13/90	03/02/90	06/13/90
Analytes			

Metals/Anions/General Chem			
Arsenic	2.65	< 2.35	2.65
Cadmium	< 6.78	< 6.78	< 6.78
Calcium	101000	82300	109000
Chloride	130000	110000	140000
Chromium	< 16.8	< 16.8	< 16.8
Copper	< 18.8	< 18.8	< 18.8
Cyanide	R	< 5.00	R
Fluoride	2200	1540	1330
Iron	NA	< 77.5	NA
Lead	< 43.4	< 43.4	< 43.4
Magnesium	27500	19400	23900
Manganese	NA	46.5	NA
Mercury	1.19	< 0.100	1.01
Nitrite, Nitrate -- Non-Specific	7000	3700	4200
Potassium	2920	3630	2610
Sodium	140000	110000	100000
Sulfate	180000	130000	130000
Total Organic Carbon	2000	2000	1000

Notes: Values are reported in micrograms per liter.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table 81 Groundwater Investigative Analytical Data

Sample ID	37443	37444	37444
Date	06/13/90	03/02/90	06/13/90
Analytes			

Metals/Anions/General Chem			
Total Suspended Solids	NA	NA	NA
Zinc	< 18.0	< 18.0	< 18.0
Phenols			
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40
Phenols			
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50
Phenols			
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20
Semivolatiles			
1,4-Oxathiane	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	< 0.0490	< 0.0490	< 0.0490

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

historical data file 06/13/90

Table B1 Groundwater Investigative Analytical Data

Sample ID	37443	37444	37444
Date	06/13/90	03/02/90	06/13/90
Analytes			

Semivolatiles			
2,2-Bis(parachlorophenyl)-1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0
Aldrin	< 0.0500	< 0.0500	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	< 10.0	< 7.70	< 10.0
Chlordane	< 0.0950	< 0.0950	< 0.0950

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37443	37444	37444
Date	06/13/90	03/02/90	06/13/90

Analytes			

Semivolatiles			
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50
Dieldrin	0.0619	< 0.0500	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0

Diisopropyl Methylphosphonate	5.54	0.475	0.814
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130
Dithiane	< 1.34	< 1.34	< 1.34

Dithiane (GCMS)	< 3.30	< 3.30	< 3.30
Endrin	< 0.0500	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0

Isodrin	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	< 0.373	< 0.373

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37443	37444	37444
Date	06/13/90	03/02/90	06/13/90
Analytes			
Semivolatiles			
Melathion (GCMS)	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50
Volatiles			
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B1 Groundwater Investigative Analytical Data

Sample ID	37443	37444	37444
Date	06/13/90	03/02/90	06/13/90
Analytes			
Volatiles			
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	< 5.00
Benzene	< 1.05	1.77 A	< 1.05
Benzene (GCMS)	< 1.00	1.09 A	< 1.00
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)			
Chlorobenzene	< 1.00	< 1.00	< 1.00
Chlorobenzene (GCMS)	< 0.820	10.6 A	< 0.820
Chloroform	< 1.00	19.2 A	< 1.00
Chloroform (GCMS)	1.55	30.8 A	2.65
	2.20	26.0 A	3.80
Dibromochloropropane			
Dibromochloropropane (GCMS)	< 0.195	0.223 A	< 0.195
Dimethyl Disulfide	< 12.0	< 12.0	< 12.0
Ethyl Benzene	< 0.550	< 0.550	< 0.550
Ethyl Benzene (GCMS)	< 1.37	< 1.37	< 1.37
	< 1.00	< 1.00	< 1.00
M-Xylene			
M-Xylene (GCMS)	< 1.32	< 1.32	< 1.32
Methylene Chloride	< 1.00	< 1.00	< 1.00
	< 7.40	< 7.40	< 7.40

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

A -- Data considered anomalous based on evaluation of

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Table B1 Groundwater Investigative Analytical Data

Sample ID	37443	37444	37444
Date	06/13/90	03/02/90	06/13/90
Analytes			

Volatiles			
Methylene Chloride (GCMS)	< 1.00	< 1.00	< 1.00
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	< 1.40
O,P-Xylene	< 1.36	< 1.36	< 1.36
O,P-Xylene (GCMS)	< 2.00	< 2.00	< 2.00
Tetrachloroethene	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	< 1.00	< 1.00	< 1.00
Toluene	< 1.47	< 1.47	< 1.47
Toluene (GCMS)	< 1.00	< 1.00	< 1.00
Trichloroethene	< 0.560	< 0.560	< 0.560
Trichloroethene (GCMS)	< 1.00	< 1.00	< 1.00
Vinyl Chloride	NA	NA	NA
Vinyl Chloride (GCMS)	< 12.0	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit. NA -- Not Analyzed.

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A -- Data considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table 86 GC/MS Analytical Data
for Domestic Well Samples

Sample ID	NA1150	NA1170
Date	01/26/90	02/2/90
	GC/MS of	GC/MS of
	11841TU096	10021TUPEO

Analytes

Phenols

2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40

2,4-Dinitrophenol (GCMS)

< 176

2-Chlorophenol (GCMS)

< 2.80

2-Methylphenol (GCMS)

< 3.60

2-Nitrophenol (GCMS)

< 8.20

3-Methyl-4-Chlorophenol (GCMS)

< 8.50

4-Methylphenol (GCMS)

< 2.80

4-Nitrophenol (GCMS)

< 96.0

Phenol (GCMS)

< 2.20

Semivolatiles

1,4-Oxathiane (GCMS)

< 27.0

2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCMS)

< 18.0

2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)

< 14.0

Notes: Values are reported in micrograms per liter.

Values are reported to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table B6 GC/MS Analytical Data
for Domestic Well Samples

Sample ID	HA1150	HA1170
Date	01/26/90	02/27/90
Analytes	GC/MS of 11841TW096	GC/MS of 10021TWPEO
Semivolatiles		
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0
Aldrin (GCMS)	< 13.0	< 13.0
Atrazine (GCMS)	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70
Caprolactam (GCMS)	< 10.0	< 7.70
Chlordane (GCMS)	< 37.0	< 37.0
Dicyclopentadiene (GCMS)	< 5.50	< 5.50
Dieldrin (GCMS)	< 26.0	< 26.0
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130
Dithiane (GCMS)	< 3.30	< 3.30
Endrin (GCMS)	< 18.0	< 18.0
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0
Isodrin (GCMS)	< 7.80	< 7.80

Notes: Values are reported in micrograms per liter.

Values are reported to three significant figures.

< -- Indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- Indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
reje

Table B6 GC/MS Analytical Data
for Domestic Well Samples

Sample ID	HA1150	HA1170
Date	01/26/90	02/27/90
	GC/MS of	GC/MS of
	11841TW096	10021TUPEO

Analytes

SemiVolatiles

Malathion (GCMS)	< 21.0	< 21.0
Parathion (GCMS)	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10
Supona (GCMS)	< 19.0	< 19.0
Vapona (GCMS)	< 8.50	< 8.50

Volatiles

1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00

1,2-Dichloroethanes (cis & trans) (GCMS)

Benzene (GCMS)	< 5.00	< 5.00
Carbon Tetrachloride (GCMS)	< 1.00	< 1.00
Chlorobenzene (GCMS)	< 1.00	< 1.00
Chloroform (GCMS)	< 1.00	< 1.00

Dibromochloropropane (GCMS)

	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

Values are reported to three significant figures.

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or above the Certified Reporting Limit.> -- Indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table B6 GC/MS Analytical Data
for Domestic Well Samples

Sample ID	HA1150	HA1170
Date	01/26/90	02/27/90
	GC/MS of	GC/MS of
	11841TU096	10021TUPEO

Analytes

Volatiles

Ethyl Benzene (GCMS)	< 1.00	< 1.00
m-Xylene (GCMS)	< 1.00	< 1.00
Methylene Chloride (GCMS)	< 1.00	< 1.00
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40
O,P-Xylene (GCMS)	< 2.00	< 2.00
Tetrachloroethene (GCMS)	< 1.00	< 1.00
Toluene (GCMS)	< 1.00	< 1.00
Trichloroethene (GCMS)	< 1.00	< 1.00
Vinyl Chloride (GCMS)	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.
 Values are reported to three significant figures.
 < -- Indicates that the target analyte was not detected at
 or above the Certified Reporting Limit.
 > -- Indicates that the target analyte was detected at or
 above the Maximum Reporting Limit.
 NA -- Not Analyzed.
 R -- Data did not meet quality control criteria and were
 rej . .

Table B7 QA/QC Analytical Data
for Domestic Well Samples

Sample ID MA1151
Date 01/26/90
TB of
11841TU096

Analytes

Volatiles

1,1,1-Trichloroethane < 0.760
1,1,2-Trichloroethane < 0.780
1,1-Dichloroethane < 0.730
1,1-Dichloroethene < 1.70
1,2-Dichloroethane < 1.10

1,2-Dichloroethenes (cis & trans)

Benzene < 0.760
Carbon Tetrachloride < 1.05
Chlorobenzene < 0.990
Chloroform < 0.820
Chloroform < 0.500

Ethyl Benzene

M-Xylene < 1.37
Methylen Chloride < 1.32
O,P-Xylene < 7.40
Tetrachloroethene < 1.36
Tetrachloroethene < 0.750

Notes: Values are reported in micrograms per liter.

Values are reported to three significant figures.

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or above the Certified Reporting Limit.> -- Indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

TB -- Trip Blank

Table 87 QA/QC Analytical Data
for Domestic Well Samples

HA1151
01/26/90
18 of
11841TW096

Sample ID
Date

Analytes

Volatiles

Toluene

Trichloroethene

< 1.47
< 0.560

Notes: Values are reported in micrograms per liter.
Values are reported to three significant figures.
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or above the Certified Reporting Limit.
> -- Indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

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Table B8 Duplicate Analytical Data
for Domestic Well Samples

Sample ID Date	HA1030 01/17/89 Dup of 13350TW104	HA1031 01/31/89 Dup of 11830TW112	HA1068 12/28/89 Dup of 10720TW8R1	HA1149 01/26/90 Dup of 11841TW096	HA1271 08/21/90 Dup of 11841TW096
Analytes					
Metals/Anions/General Chem					
Arsenic	< 2.35	< 2.35	< 2.35	< 2.35	< 2.35
Cadmium	< 8.40	< 8.40	< 6.78	< 6.78	< 6.78
Calcium	84200	110000	134000	1460	1380
Chloride	69000	86000	140000	R	3420
Chromium	< 24.0	< 24.0	< 16.8	< 16.8	< 16.8
Copper	< 26.0	< 26.0	< 18.8	< 18.8	< 18.8
Cyanide	< 5.00	10.2	< 5.00	< 5.00	< 8.90
Fluoride	1580	1520	1890	R	2910
Iron	NA	NA	NA	NA	< 77.5
Lead	< 74.0	< 74.0	< 43.4	< 43.4	< 43.4
Magnesium	9110	31100	32000	< 135	< 135
Manganese	NA	NA	NA	NA	< 9.67
Mercury	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
Nitrite, Nitrate -- Non-Specific	290	3500	7400	37.7	140
Potassium	1030	4530	3330	< 1240	< 1240
Sodium	200000	80600	160000	100000	93000

Notes: Values are reported in micrograms per liter.

Values are reported to three significant figures.

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or above the Certified Reporting Limit.> -- Indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table B8 Duplicate Analytical Data
for Domestic Well Samples

Sample ID Date	HA1030 01/17/89 Dup of 13350TW104	HA1031 01/31/89 Dup of 11830TW112	HA1068 12/28/89 Dup of 10720TWBR1	HA1149 01/26/90 Dup of 11841TW096	HA1271 08/21/90 Dup of 11841TW096
Analytes					
Metals/Anions/General Chem					
Sulfate	320000	200000	290000	R	21000
Total Organic Carbon	NA	NA	600	< 1000	< 1000
Zinc	24.6	< 22.0	51.3	< 18.0	< 18.0
Phenols					
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	NA	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20	< 2.20

Notes: Values are reported in micrograms per liter.

Values are reported to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rej

Table B8 Duplicate Analytical Data
for Domestic Well Samples

Sample ID Date	HA1030 01/17/89 Dup of 13350TW104	HA1031 01/31/89 Dup of 11830TW112	HA1068 12/28/89 Dup of 10720TW8RI	HA1149 01/26/90 Dup of 11841TW096	HA1271 08/21/90 Dup of 11841TW096
Analytes					
Semivolatiles					
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	< 0.0490	< 0.0490	< 0.0490
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	< 0.0540	< 0.0540	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	< 4.03	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90	< 5.90

Notes: Values are reported in micrograms per liter.

Values are reported to three significant figures.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table 88 Duplicate Analytical Data
for Domestic Well Samples

Sample ID Date	HA1030 01/17/89 Dup of 13350TW104	HA1031 01/31/89 Dup of 11830TW112	HA1068 12/28/89 Dup of 10720TW8RI	HA1149 01/26/90 Dup of 11841TW096	HA1271 08/21/90 Dup of 11841TW096
Analytes					
Semivolatiles					
Benzothiazole	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	NA	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	NA	NA	< 7.70	< 10.0	< 7.70
Chlordane	< 0.0950	< 0.0950	< 0.0950	< 0.0950	< 0.0950
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	< 5.50	< 5.50
Dieldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	18.9	5.61	79.0	< 0.392	< 0.392
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	77.4	< 21.0	< 21.0
Dimethyl(methyl Phosphonate	< 0.188	0.253	< 0.188	< 0.188	< 0.188
Dimethyl(methyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130	< 130
Dithiane	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30	< 3.30

Notes: Values are reported in micrograms per liter.

Values are reported to three significant figures.

< -- Indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- Indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

rej l.

Table B8 Duplicate Analytical Data
for Domestic Well Samples

Sample ID Date	HA1030 01/17/89 Dup of 13350TW104	HA1031 01/31/89 Dup of 11830TW112	HA1068 12/28/89 Dup of 10720TW8R1	HA1149 01/26/90 Dup of 11841TW096	HA1271 08/21/90 Dup of 11841TW096
Analytes					
Semivolatiles					
Endrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	< 0.0510	< 0.0510	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	< 0.373	< 0.373	< 0.373	< 0.373
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50	< 8.50
Volatiles					
1,1,1-Trichloroethane	< 0.760	< 0.760	3.26	< 0.760	< 0.760

Notes: Values are reported in micrograms per liter.

Values are reported to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table B8 Duplicate Analytical Data
for Domestic Well Samples

Sample ID Date	HA1030 01/17/89 Dup of 13350TW104	HA1031 01/31/89 Dup of 11830TW112	HA1068 12/28/89 Dup of 10720TW8R1	HA1149 01/26/90 Dup of 11841TW096	HA1271 08/21/90 Dup of 11841TW096
Analytes					
Volatiles					
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	< 1.00	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	< 1.00	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	NA	NA	NA	< 1.00	< 1.00
1,1-Dichloroethene	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70
1,1-Dichloroethene (GCMS)	NA	NA	NA	< 1.00	< 1.00
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	NA	NA	NA	< 1.00	< 1.00
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	< 5.00	< 5.00
Benzene	< 1.05	< 1.05	< 1.05	< 1.05	< 1.05
Benzene (GCMS)	NA	NA	NA	< 1.00	< 1.00
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	NA	NA	NA	< 1.00	< 1.00
Chlorobenzene	< 0.820	< 0.820	< 0.820	< 0.820	< 0.820

Notes: Values are reported in micrograms per liter.

Values are reported to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

rej l.

Table 88 Duplicate Analytical Data
for Domestic Well Samples

Sample ID Date	HA1030 01/17/89 Dup of 13350TW104	HA1031 01/31/89 Dup of 11830TW112	HA1068 12/28/89 Dup of 10720TW8R1	HA1149 01/26/90 Dup of 11841TW096	HA1271 08/21/90 Dup of 11841TW096
Analytes					
Volatiles					
Chlorobenzene (GCMS)	NA	NA	NA	< 1.00	< 1.00
Chloroform	< 0.500	< 0.500	0.962	< 0.500	< 0.500
Chloroform (GCMS)	NA	NA	NA	< 1.00	< 1.00
Dibromochloropropane	< 0.195	< 0.195	< 0.195	< 0.195	< 0.195
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	NA	NA	NA	< 1.00	< 1.00
m-Xylene	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32
m-Xylene (GCMS)	NA	NA	NA	< 1.00	< 1.00
Methylene Chloride	< 7.40	< 7.40	< 7.40	< 7.40	< 7.40
Methylene Chloride (GCMS)	NA	NA	NA	< 1.00	< 1.00
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	NA	NA	NA	< 1.40	< 1.40
O,P-Xylene	< 1.36	< 1.36	< 1.36	< 1.36	< 1.36
O,P-Xylene (GCMS)	NA	NA	NA	< 2.00	< 2.00

Notes: Values are reported in micrograms per liter.

Values are reported to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table B8 Duplicate Analytical Data
for Domestic Well Samples

Sample ID Date	HA1030 01/17/89 Dup of 13350TW104	HA1031 01/31/89 Dup of 11830TW112	HA1068 12/28/89 Dup of 10720TW8RI	HA1149 01/26/90 Dup of 11841TW096	HA1271 08/21/90 Dup of 11841TW096
Analytes					
Volatiles					
Tetrachloroethene	< 0.750	< 0.750	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	NA	NA	NA	< 1.00	< 1.00
Toluene	< 1.47	< 1.47	< 1.47	< 1.47	< 1.47
Toluene (GCMS)	NA	NA	NA	< 1.00	< 1.00
Trichloroethene	< 0.560	< 0.560	< 0.560	< 0.560	< 0.560
Trichloroethene (GCMS)	NA	NA	NA	< 1.00	< 1.00
Vinyl Chloride (GCMS)	NA	NA	NA	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

Values are reported to three significant figures.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

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rej

Table B9: Vinyl Chloride Analytical Results for Groundwater Samples

Sample ID	Sample Date	Value
37307	11/09/89	< 0.4600
37308	11/07/89	< 0.4600
37309	11/07/89	< 0.4600
37312	11/07/89	< 0.4600
37313	11/27/89	< 0.4600
37316	11/08/89	< 0.4600
37317	11/08/89	< 0.4600
37318	11/16/89	< 0.4600
37320	10/25/89	< 0.4600
37321	10/26/89	< 0.4600
37322	10/26/89	< 0.4600
37323	11/09/89	< 0.4600
37327	11/08/89	< 0.4600
37330	10/31/89	< 0.4600
37338	11/09/89	< 0.4600
37339	11/09/89	< 0.4600
37341	10/26/89	< 0.4600
37342	10/31/89	< 0.4600
37343	10/25/89	< 0.4600
37344	10/31/89	< 0.4600
37362	11/14/89	< 0.4600
37365	11/07/89	< 0.4600
37367	11/02/89	< 0.4600
37368	11/07/89	< 0.4600
37369	10/25/89	< 0.4600
37370	11/07/89	< 0.4600
37371	11/08/89	< 0.4600
37372	11/07/89	< 0.4600
37373	10/31/89	< 0.4600
37374	10/31/89	< 0.4600
37376	11/14/89	< 0.4600
37377	10/25/89	< 0.4600
37378	11/17/89	< 0.4600
37379	11/16/89	< 0.4600
37380	11/15/89	< 0.4600
37381	11/02/89	< 0.4600
37383	11/02/89	< 0.4600
37387	11/15/89	< 0.4600
37388	11/02/89	< 0.4600
37389	11/08/89	< 0.4600
37391	10/25/89	< 0.4600
37392	10/25/89	< 0.4600
37395	11/15/89	< 0.4600
37396	11/08/89	< 0.4600
37397	11/08/89	< 0.4600
BOLLER	11/27/89	< 0.4600

Notes: Values are reported in micrograms per liter.

Table B2 Groundwater GC/MS Analytical Data

Sample ID Date	NA1048 12/18/89 GC/MS of 37418	NA1069 12/28/89 GC/MS of 37430	NA1163 02/01/90 GC/MS of NA1072	NA1168 02/22/90 GC/MS of 37404
Analytes				
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	NA
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	NA
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	NA
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	NA
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	NA
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	NA
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	NA
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	NA
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	NA
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	NA
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	NA
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	NA
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	NA
Semivolatiles				
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DGT) (GCMS)	< 18.0	< 18.0	< 18.0	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	NA

Notes: Values are reported in micrograms per liter.
 Reported values are accurate to three significant figures.
 < -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.
 > -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.
 R -- Data did not meet quality control criteria and were rejected. NA -- Not Analyzed.
 A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B2 Groundwater GC/MS Analytical Data

Sample ID Date	NA1048 12/18/89 GC/MS of 37418	NA1069 12/28/89 GC/MS of 37430	NA1163 02/01/90 GC/MS of NA1072	NA1168 02/22/90 GC/MS of 37404
Analytes				
Semivolatiles				
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	NA
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	NA
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	NA
Bis (2-Ethylhexyl) Phthalate (GCMS)	176	NA	< 7.70	NA
Caprolactam (GCMS)	< 10.0	NA	< 10.0	NA
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	NA
Dicyclopentadiene (GCMS)	264	< 5.50	365	NA
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	NA
Diisopropyl Methylphosphonate (GCMS)	> 200	< 21.0	> 200	NA
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	NA
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	NA
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	NA
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	NA
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data. fl -- 1/1/90

Table B2 Groundwater GC/MS Analytical Data

Sample ID Date	HA1048 12/18/89 GC/MS of 37418	HA1069 12/28/89 GC/MS of 37430	HA1163 02/01/90 GC/MS of NA1072	HA1168 02/22/90 GC/MS of 37404
Analytes				
Semivolatiles				
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	NA
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	NA
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	NA
Supona (GCMS)	< 19.0	< 19.0	< 19.0	NA
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	NA
Volatiles				
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane (GCMS)	23.1	< 1.00	12.0	< 1.00
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	< 5.00	< 5.00
Benzene (GCMS)	< 1.00	< 1.00	< 1.00	15.5 A
Carbon Tetrachloride (GCMS)	< 1.00	< 1.00	< 1.00	1.56 A
Chlorobenzene (GCMS)	< 1.00	< 1.00	< 1.00	96.2 A
Chloroform (GCMS)	< 1.00	< 1.00	< 1.00	> 150 A
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0	NA

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B2 Groundwater GC/MS Analytical Data

Sample ID	NA1048	NA1069	NA1163	NA1168
Date	12/18/89	12/28/89	02/01/90	02/22/90
Analytes	GC/MS of 37418	GC/MS of 37430	GC/MS of NA1072	GC/MS of 37404
Volatiles				
Ethyl Benzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
m-Xylene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Methylene Chloride (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	< 1.40	< 1.40
O,p-Xylene (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00
Tetrachloroethene (GCMS)				
Toluene (GCMS)	13.9	< 1.00	7.41	< 1.00
Trichloroethene (GCMS)	< 1.00	< 1.00	< 1.00	3.00 A
Vinyl Chloride (GCMS)	8.20	< 1.00	2.60	3.50 A
	< 12.0	< 12.0	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field GC/MS procedure.

Table B2 Groundwater GC/MS Analytical Data

Sample ID Date	HA1169 02/27/90 GC/MS of 37435	HA1171 02/28/90 GC/MS of 37438	HA1199 06/12/90 GC/MS of 37441
Analytes			
Phenols			
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20
Semivolatiles			
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCMS)	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE) (GCMS)	< 14.0	< 14.0	< 14.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.
MA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B2 Groundwater GC/MS Analytical Data

Sample ID	HA1169	HA1171	HA1199
Date	02/27/90	02/28/90	06/12/90
Analytes	GC/MS of 37435	GC/MS of 37438	GC/MS of 37441
Semivolatiles			
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	< 7.70	< 7.70	< 10.0
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 21.0
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30
Endrin (GCMS)	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of

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Table B2 Groundwater GC/MS Analytical Data

Sample ID Date	HA1169 02/27/90 GC/MS of 37435	HA1171 02/28/90 GC/MS of 37438	HA1199 06/12/90 GC/MS of 37441
Analytes			
Semivolatiles			
Malathion (GCMS)	< 21.0	< 21.0	< 21.0
Parathion (GCMS)	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10
Supona (GCMS)	< 19.0	< 19.0	< 19.0
Vapona (GCMS)	< 8.50	< 8.50	< 8.50
Volatiles			
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	5.23
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00
1,1-Dichloroethene (GCMS)	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	< 5.00
Benzene (GCMS)	7.44	9.30	< 1.00
Carbon Tetrachloride (GCMS)	1.10	1.47	< 1.00
Chlorobenzene (GCMS)	73.1	96.2	< 1.00
Chloroform (GCMS)	> 150	> 150	< 1.00
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B2 Groundwater GC/MS Analytical Data

Sample ID	HA1169	HA1171	HA1199
Date	02/27/90	02/28/90	06/12/90
Analytes	GC/MS of 37435	GC/MS of 37438	GC/MS of 37441

Volatiles			
Ethyl Benzene (GCMS)	< 1.00	< 1.00	< 1.00
m-Xylene (GCMS)	< 1.00	< 1.00	< 1.00
Methylene Chloride (GCMS)	< 1.00	< 1.00	< 1.00
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	< 1.40
O,p-Xylene (GCMS)	< 2.00	< 2.00	< 2.00
Tetrachloroethene (GCMS)	< 1.00	< 1.00	< 1.00
Toluene (GCMS)	2.30 A	3.30 A	< 1.00
Trichloroethene (GCMS)	2.30 A	3.20 A	27.0
Vinyl Chloride (GCMS)	< 12.0	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. MA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data file: /OC dure

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1018 09/27/89 RB of 37402	HA1019 09/27/89 FB of 37402	HA1021 10/26/89 RB of 37341	HA1025 11/09/89 TB of 37307	HA1046 02/12/90 RB of 37408
Analytes					
Metals/Anions/General Chem					
Arsenic	NA	NA	NA	NA	< 2.35
Cadmium	NA	NA	NA	NA	< 6.78
Calcium	NA	NA	NA	NA	459
Chloride	NA	NA	NA	NA	< 278
Chromium	NA	NA	NA	NA	< 16.8
Copper	NA	NA	NA	NA	< 18.8
Cyanide	NA	NA	NA	NA	< 5.00
Fluoride	NA	NA	NA	NA	< 153
Iron	NA	NA	NA	NA	266
Lead	NA	NA	NA	NA	< 43.4
Magnesium	NA	NA	NA	NA	< 135
Manganese	NA	NA	NA	NA	< 9.67
Mercury	NA	NA	NA	NA	< 0.100
Nitrite, Nitrate -- Non-Specific	NA	NA	NA	NA	116
Potassium	NA	NA	NA	NA	< 1240
Sodium	NA	NA	NA	NA	456

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

RB - Rinse Blank TB - Trip Blank FB - Field Blank.

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1018 09/27/89 RB of 37402	HA1019 09/27/89 FB of 37402	HA1021 10/26/89 RB of 37341	HA1025 11/09/89 TB of 37307	HA1046 02/12/90 RB of 37408
Analytes					
Metals/Anions/General Chem					
Sulfate	NA	NA	NA	NA	362
Total Organic Carbon	NA	NA	NA	NA	< 1000
Total Suspended Solids	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	< 18.0
Phenols					
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	NA	NA	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	NA	NA	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	NA	NA	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	NA	NA	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	NA	NA	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	NA	NA	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	NA	NA	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	NA	NA	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	NA	NA	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	NA	NA	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	NA	NA	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	NA	NA	< 96.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< - Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

Rins nk Trip FB eld

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1018 09/27/89 RB of 37402	HA1019 09/27/89 FB of 37402	HA1021 10/26/89 RB of 37341	HA1025 11/09/89 TB of 37307	HA1046 02/12/90 RB of 37408
Analytes					
Semivolatiles					
Dichloroethene (GCMS)	< 3.30	< 3.30	NA	NA	< 3.30
Endrin	NA	NA	NA	NA	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	NA	NA	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	NA	NA	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	NA	NA	< 54.0
Isodrin	NA	NA	NA	NA	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	NA	NA	< 7.80
Malathion	< 0.373	< 0.373	NA	NA	< 0.373
Malathion (GCMS)	< 21.0	< 21.0	NA	NA	< 21.0
Parathion	< 0.647	< 0.647	NA	NA	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	NA	NA	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	NA	NA	< 9.10
Supona	< 0.787	< 0.787	NA	NA	R
Supona (GCMS)	< 19.0	< 19.0	NA	NA	< 19.0
Vapona	< 0.384	< 0.384	NA	NA	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	NA	NA	< 8.50

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< - Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

RB - Rinse Blank TB - Trip Blank FB - Field Blank.

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1018 09/27/89 RB of 37402	HA1019 09/27/89 FB of 37402	HA1021 10/26/89 RB of 37341	HA1025 11/09/89 TB of 37307	HA1046 02/12/90 RB of 37408
Analytes					
Volatiles					
1,1,1-Trichloroethane	NA	NA	NA	NA	< 0.760
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA	< 1.00
1,1,2-Trichloroethane	NA	NA	NA	NA	< 0.780
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA	< 1.00
1,1-Dichloroethane	NA	NA	NA	NA	< 0.730
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA	< 1.00
1,1-Dichloroethane	NA	NA	NA	NA	< 1.70
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA	< 1.00
1,2-Dichloroethane	NA	NA	NA	NA	< 1.10
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA	< 1.00
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA	< 5.00
Benzene	NA	NA	NA	NA	< 1.05
Benzene (GCMS)	NA	NA	NA	NA	< 1.00
Carbon Tetrachloride	NA	NA	NA	NA	< 0.990
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA	< 1.00

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

FB -- Field Blank

Table B3 Groundwater QA/QC Analytical Data

Sample ID	HA1018	HA1019	HA1021	HA1025	HA1046
Date	09/27/89	09/27/89	10/26/89	11/09/89	02/12/90
Analytes	RB of	FB of	RB of	FB of	RB of
Phenols	37402	37402	37341	37307	37408
Phenol (GCMS)	< 2.20	< 2.20	NA	NA	< 2.20
Semivolatiles					
1,4-Oxathiane	< 2.38	< 2.38	NA	NA	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	NA	NA	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	NA	NA	NA	NA	< 0.0490
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	NA	NA	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	NA	NA	NA	NA	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	< 14.0	< 14.0	NA	NA	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	NA	NA	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	NA	NA	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	NA	NA	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	NA	NA	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	NA	NA	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	NA	NA	< 15.0
Aldrin	NA	NA	NA	NA	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	NA	NA	< 13.0
Atrazine	< 4.03	< 4.03	NA	NA	< 4.03

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

RB - Rinse Blank TB - Trip Blank FB - Field Blank.

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1018 09/27/89 RB of 37402	HA1019 09/27/89 FB of 37402	HA1021 10/26/89 RB of 37341	HA1025 11/09/89 TB of 37307	HA1046 02/12/90 RB of 37408
Analytes					
Semivolatiles					
Atrazine (GCMS)	< 5.90	< 5.90	NA	NA	< 5.90
Benzothiazole	< 5.00	< 5.00	NA	NA	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	NA	NA	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	NA	NA	NA	< 7.70
Caprolactam (GCMS)	NA	NA	NA	NA	< 10.0
Chlordane	NA	NA	NA	NA	< 0.0950
Chlordane (GCMS)	< 37.0	< 37.0	NA	NA	< 37.0
Dicyclopentadiene	< 5.00	< 5.00	NA	NA	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	NA	NA	< 5.50
Dieldrin	NA	NA	NA	NA	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	NA	NA	< 26.0
Diisopropyl Methylphosphonate	< 0.392	< 0.392	NA	NA	< 0.392
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	NA	NA	< 21.0
Dimethylmethyl Phosphonate	< 0.188	< 0.188	NA	NA	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	NA	NA	< 130
Dithiane	< 1.34	< 1.34	NA	NA	< 1.34

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

Rim Ink Trip : FB Field

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	NA1018 09/27/89 RB of 37402	NA1019 09/27/89 FB of 37402	NA1021 10/26/89 RB of 37341	NA1025 11/09/89 TB of 37307	NA1046 02/12/90 RB of 37408
Analytes					
Volatiles					
Chlorobenzene	NA	NA	NA	NA	< 0.820
Chlorobenzene (GCMS)	NA	NA	NA	NA	< 1.00
Chloroform	NA	NA	NA	NA	< 0.500
Chloroform (GCMS)	NA	NA	NA	NA	< 1.00
Dibromochloropropane	< 0.195	< 0.195	NA	NA	< 0.195
Dibromochloropropane (GCMS)	< 12.0	< 12.0	NA	NA	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	NA	NA	< 0.550
Ethyl Benzene	NA	NA	NA	NA	< 1.37
Ethyl Benzene (GCMS)	NA	NA	NA	NA	< 1.00
n-Xylene	NA	NA	NA	NA	< 1.32
m-Xylene (GCMS)	NA	NA	NA	NA	< 1.00
Methylene Chloride	NA	NA	NA	NA	< 7.40
Methylene Chloride (GCMS)	NA	NA	NA	NA	< 1.00
Methylisobutyl Ketone	< 4.90	< 4.90	NA	NA	< 4.90
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA	< 1.40
O,p-Xylene	NA	NA	NA	NA	< 1.36

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

RB - Rinse Blank TB - Trip Blank FB - Field Blank.

Table B3 Groundwater QA/QC Analytical Data

Sample ID	NA1018	NA1019	NA1021	NA1025	NA1046
Date	09/27/89	09/27/89	10/26/89	11/09/89	02/12/90
Analytes	RB of	FB of	RB of	FB of	RB of
	37402	37402	37341	37307	37408
Volatiles					
O,P-Xylene (GCMS)	NA	NA	NA	NA	< 2.00
Tetrachloroethene	NA	NA	NA	NA	< 0.750
Tetrachloroethene (GCMS)	NA	NA	NA	NA	< 1.00
Toluene	NA	NA	NA	NA	< 1.47
Toluene (GCMS)	NA	NA	NA	NA	< 1.00
Trichloroethene	NA	NA	NA	NA	< 0.560
Trichloroethene (GCMS)	NA	NA	NA	NA	< 1.00
Vinyl Chloride	NA	NA	< 0.460	< 0.460	NA
Vinyl Chloride (GCMS)	NA	NA	NA	NA	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< - Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

Line. W T rip FB old E

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1047 12/18/89 FB of 37418	HA1066 12/29/89 RB of 37429	HA1067 12/29/89 FB of 37429	HA1164 02/01/90 TB of HA1072	HA1167 02/21/90 TB of 37407
Analytes					
Metals/Anions/General Chem					
Arsenic	< 2.35	< 2.35	< 2.35	NA	NA
Cadmium	< 6.78	< 6.78	< 6.78	NA	NA
Calcium	< 105	127	< 105	NA	NA
Chloride	< 278	< 278	< 278	NA	NA
Chromium	< 16.8	< 16.8	< 16.8	NA	NA
Copper	< 18.8	< 18.8	< 18.8	NA	NA
Cyanide	< 5.00	< 5.00	< 5.00	NA	NA
Fluoride	< 153	< 153	< 153	NA	NA
Iron	< 77.5	NA	NA	NA	NA
Lead	< 43.4	< 43.4	< 43.4	NA	NA
Magnesium	< 135	< 135	< 135	NA	NA
Manganese	< 9.67	NA	NA	NA	NA
Mercury	< 0.100	< 0.100	< 0.100	NA	NA
Nitrite, Nitrate -- Non-Specific	490	20.7	20.5	NA	NA
Potassium	< 1240	< 1240	< 1240	NA	NA
Sodium	< 279	< 279	< 279	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

RB - Rinse Blank TB - Trip Blank FB - Field Blank.

Table B3 Groundwater QA/QC Analytical Data

Sample ID	HA1047	HA1066	HA1067	HA1164	HA1167
Date	12/18/89	12/29/89	12/29/89	02/01/90	02/21/90
	FB of	RB of	FB of	TB of	TB of
	37418	37429	37429	NA1072	37407
Analytes					
Metals/Anions/General Chem					
Sulfate	< 175	< 175	< 175	NA	NA
Total Organic Carbon	< 500	< 500	< 500	NA	NA
Total Suspended Solids	< 4000	NA	NA	NA	NA
Zinc	< 18.0	< 18.0	< 18.0	NA	NA
Phenols					
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	NA	NA
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	NA	NA
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	NA	NA
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	NA	NA
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	NA	NA
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	NA	NA
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	NA	NA
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	NA	NA
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	NA	NA
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	NA	NA
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	NA	NA
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< - Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

Rins nk Trip FE Field

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1047 12/18/89 FB of 37418	HA1066 12/29/89 RB of 37429	HA1067 12/29/89 FB of 37429	HA1164 02/01/90 TB of NA1072	HA1167 02/21/90 TB of 37407
Analytes					
Phenols					
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	NA	NA
Semivolatiles					
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	NA	NA
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	NA	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	< 0.0490	NA	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	NA	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	< 0.0540	< 0.0540	NA	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	NA	NA
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	NA	NA
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	NA	NA
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	NA	NA
Aldrin	< 0.0500	< 0.0500	< 0.0500	NA	NA
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	NA	NA
Atrazine	< 4.03	< 4.03	< 4.03	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< - Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

RB - Rinse Blank TB - Trip Blank FB - Field Blank.

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1047 12/18/89 FB of 37418	HA1066 12/29/89 RB of 37429	HA1067 12/29/89 FB of 37429	HA1164 02/01/90 TB of NA1072	HA1167 02/21/90 TB of 37407
Analytes					
Semivolatiles					
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	NA	NA
Benothiazole	< 5.00	< 5.00	< 5.00	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	NA	NA
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70	NA	NA
Caprolactam (GCMS)	< 10.0	< 7.70	< 7.70	NA	NA
Chlordane	< 0.0950	< 0.0950	< 0.0950	NA	NA
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	NA	NA
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	NA	NA
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	NA	NA
Dieldrin	< 0.0500	< 0.0500	< 0.0500	NA	NA
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	NA	NA
Diisopropyl Methylphosphonate	< 0.392	< 0.392	< 0.392	NA	NA
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 21.0	NA	NA
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 0.188	NA	NA
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	NA	NA
Dithiane	< 1.34	< 1.34	< 1.34	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< - indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> - indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

Rim nk Trip : FB eld

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1047 12/18/89 FB of 37418	HA1066 12/29/89 RB of 37429	HA1067 12/29/89 FB of 37429	HA1164 02/01/90 TB of HA1072	HA1167 02/21/90 TB of 37407
Analytes					
Semivolatiles					
Dichloroethene (GCMS)	< 3.30	< 3.30	< 3.30	NA	NA
Endrin	< 0.0500	< 0.0500	< 0.0500	NA	NA
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	NA	NA
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	NA	NA
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	NA	NA
Isodrin	< 0.0510	< 0.0510	< 0.0510	NA	NA
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	NA	NA
Malathion	< 0.373	< 0.373	< 0.373	NA	NA
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	NA	NA
Parathion	< 0.647	< 0.647	< 0.647	NA	NA
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	NA	NA
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	NA	NA
Supona	< 0.787	< 0.787	< 0.787	NA	NA
Supona (GCMS)	< 19.0	< 19.0	< 19.0	NA	NA
Vapona	< 0.384	< 0.384	< 0.384	NA	NA
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< - indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> - indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

RB - Rinse Blank TB - Trip Blank FB - Field Blank.

Table 83 Groundwater QA/QC Analytical Data

Sample ID	HA1047	HA1066	HA1067	HA1164	HA1167
Date	12/18/89	12/29/89	12/29/89	02/01/90	02/21/90
Analytes	FB of	RB of	FB of	TB of	TB of
	37418	37429	37429	HA1072	37407
Volatiles					
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760	< 0.760	< 1.09
1,1,1-Trichloroethane (GCMS)	< 1.00	NA	NA	NA	NA
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780	< 1.63
1,1,2-Trichloroethane (GCMS)	< 1.00	NA	NA	NA	NA
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730	< 1.93
1,1-Dichloroethane (GCMS)	< 1.00	NA	NA	NA	NA
1,1 Dichloroethane	< 1.70	< 1.70	< 1.70	< 1.70	< 1.85
1,1-Dichloroethane (GCMS)	< 1.00	NA	NA	NA	NA
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10	< 1.10	< 2.07
1,2-Dichloroethane (GCMS)	< 1.00	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	< 0.760	< 1.75
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	NA	NA	NA	NA
Benzene	< 1.05	< 1.05	< 1.05	< 1.05	< 1.92
Benzene (GCMS)	< 1.00	NA	NA	NA	NA
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990	< 0.990	< 1.69
Carbon Tetrachloride (GCMS)	< 1.00	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> - indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

Rim: Blank Trip: CFE Field

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1047 12/18/89 FB of 37418	HA1066 12/29/89 RB of 37429	HA1067 12/29/89 FB of 37429	HA1164 02/01/90 TB of HA1072	HA1167 02/21/90 TB of 37407
Analytes					
Volatiles					
Chlorobenzene	< 0.820	< 0.820	< 0.820	< 0.820	< 1.36
Chlorobenzene (GCMS)	< 1.00	NA	NA	NA	NA
Chloroform	1.01	< 0.500	< 0.500	< 0.500	< 1.88
Chloroform (GCMS)	< 1.00	NA	NA	NA	NA
Dibromochloropropane	< 0.195	< 0.195	< 0.195	NA	NA
Dibromochloropropane (GCMS)					
Dimethyl Disulfide	< 12.0	< 12.0	< 12.0	NA	NA
Ethyl Benzene	< 0.550	< 0.550	< 0.550	NA	NA
Ethyl Benzene (GCMS)	< 1.37	< 1.37	< 1.37	< 1.37	< 0.620
M-Xylene	< 1.00	NA	NA	NA	NA
	< 1.32	< 1.32	< 1.32	< 1.32	< 1.04
M-Xylene (GCMS)					
Methylene Chloride	< 1.00	NA	NA	NA	NA
Methylene Chloride (GCMS)	< 7.40	< 7.40	< 7.40	< 7.40	< 2.48
Methylisobutyl Ketone	< 1.00	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	< 4.90	< 4.90	< 4.90	NA	NA
	< 1.40	NA	NA	NA	NA
O,P-Xylene	< 1.36	< 1.36	< 1.36	< 1.36	< 1.34

Notes: Values are reported in micrograms per liter.
 Reported values are accurate to three significant figures.
 < - Indicates that the target analyte was not detected at or above the Certified Reporting Limit.
 > - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.
 R -- Data did not meet quality control criteria and were rejected.
 NA -- Not Analyzed.
 RB - Rinse Blank TB - Trip Blank FB - Field Blank.

Table B3 Groundwater QA/QC Analytical Data

Sample ID	HA1047	HA1066	HA1067	HA1164	HA1167
Date	12/18/89	12/29/89	12/29/89	02/01/90	02/21/90
Analytes	FB of 37418	RB of 37429	FB of 37429	TB of HA1072	TB of 37407

Volatiles					
O,P-Xylene (GCMS)	< 2.00	NA	NA	NA	NA
Tetrachloroethene	< 0.750	< 0.750	< 0.750	< 0.750	< 2.76
Tetrachloroethene (GCMS)	< 1.00	NA	NA	NA	NA
Toluene	< 1.47	< 1.47	< 1.47	< 1.47	< 2.10
Toluene (GCMS)	< 1.00	NA	NA	NA	NA
Trichloroethene	< 0.560	< 0.560	< 0.560	< 0.560	< 1.31
Trichloroethene (GCMS)	< 1.00	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA
Vinyl Chloride (GCMS)	< 12.0	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< - Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

-- Rins -- Trip -- FB --

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1175 02/28/90 RB of 37438	HA1176 02/28/90 FB of 37438	HA1177 02/28/90 TB of 37438
Analytes			
Metals/Anions/General Chem			
Arsenic	< 2.35	< 2.35	NA
Cadmium	< 6.78	< 6.78	NA
Calcium	19800	< 105	NA
Chloride	14000	< 278	NA
Chromium	< 16.8	< 16.8	NA
Copper	< 18.8	< 18.8	NA
Cyanide	< 5.00	< 5.00	NA
Fluoride	863	< 153	NA
Iron	< 77.5	< 77.5	NA
Lead	< 43.4	< 43.4	NA
Magnesium	4300	< 135	NA
Manganese	< 9.67	< 9.67	NA
Mercury	< 0.100	< 0.100	NA
Nitrite, Nitrate -- Non-Specific	260	32.3	NA
Potassium	< 1240	< 1240	NA
Sodium	11400	337	NA

Notes: Values are reported in micrograms per liter.
 Reported values are accurate to three significant figures.
 < - Indicates that the target analyte was not detected at or above the Certified Reporting Limit.
 > - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.
 R -- Data did not meet quality control criteria and were rejected.
 NA -- Not Analyzed.
 RB - Rinse Blank TB - Trip Blank FB - Field Blank.

Table B3 Groundwater QA/QC Analytical Data

Sample ID	HA1175	HA1176	HA1177
Date	02/28/90	02/28/90	02/28/90
Analytes	RB of	FB of	FB of
	37438	37438	37438
Metals/Anions/General Chem			
Sulfate	42000	< 175	NA
Total Organic Carbon	< 1000	< 1000	NA
Total Suspended Solids	NA	NA	NA
Zinc	117	< 18.0	NA
Phenols			
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	NA
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	NA
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	NA
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	NA
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	NA
2,4-Dinitrophenol (GCMS)	< 176	< 176	NA
2-Chlorophenol (GCMS)	< 2.80	< 2.80	NA
2-Methylphenol (GCMS)	< 3.60	< 3.60	NA
2-Nitrophenol (GCMS)	< 8.20	< 8.20	NA
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	NA
4-Methylphenol (GCMS)	< 2.80	< 2.80	NA
4-Nitrophenol (GCMS)	< 96.0	< 96.0	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

-- Rins -- Trip -- FB -- Field

Table B3 Groundwater QA/QC Analytical Data

Sample ID	HA1175	HA1176	HA1177
Date	02/28/90	02/28/90	02/28/90
Analytes	RB of	FB of	TB of
.....	37438	37438	37438
Phenols			
Phenol (GCMS)	< 2.20	< 2.20	NA
Semivolatiles			
1,4-Oxathiane	< 2.38	< 2.38	NA
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	< 0.0540	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	NA
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	NA
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	NA
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	NA
Aldrin	< 0.0500	< 0.0500	NA
Aldrin (GCMS)	< 13.0	< 13.0	NA
Atrazine	< 4.03	< 4.03	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

RB - Rinse Blank TB - Trip Blank FB - Field Blank.

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	NA1175 02/28/90 RB of 37438	NA1176 02/28/90 FB of 37438	NA1177 02/28/90 TB of 37438
Analytes			
Semivolatiles			
Atrazine (GCMS)	< 5.90	< 5.90	NA
Benzothiazole	< 5.00	< 5.00	NA
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	NA
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	NA
Caprolactam (GCMS)	< 7.70	< 7.70	NA
Chlordane	< 0.0950	< 0.0950	NA
Chlordane (GCMS)	< 37.0	< 37.0	NA
Dicyclopentadiene	< 5.00	< 5.00	NA
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	NA
Dieldrin	< 0.0500	< 0.0500	NA
Dieldrin (GCMS)	< 26.0	< 26.0	NA
Diisopropyl Methylphosphonate	< 0.392	< 0.392	NA
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	NA
Dimethylmethyl Phosphonate	< 0.188	< 0.188	NA
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	NA
Dithiane	< 1.34	< 1.34	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

Rim Trip Field

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1175 02/28/90 RB of 37438	HA1176 02/28/90 FB of 37438	HA1177 02/28/90 TB of 37438
Analytes			
Semivolatiles			
Dithiane (GCMS)	< 3.30	< 3.30	NA
Endrin	< 0.0500	< 0.0500	NA
Endrin (GCMS)	< 18.0	< 18.0	NA
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	NA
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	NA
Isodrin	< 0.0510	< 0.0510	NA
Isodrin (GCMS)	< 7.80	< 7.80	NA
Malathion	< 0.373	< 0.373	NA
Malathion (GCMS)	< 21.0	< 21.0	NA
Parathion	< 0.647	< 0.647	NA
Parathion (GCMS)	< 37.0	< 37.0	NA
Pentachlorophenol (GCMS)	< 9.10	< 9.10	NA
Supona	< 0.787	< 0.787	NA
Supona (GCMS)	< 19.0	< 19.0	NA
Vapona	< 0.384	< 0.384	NA
Vapona (GCMS)	< 8.50	< 8.50	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

RB - Rinse Blank TB - Trip Blank FB - Field Blank.

Table B3 Groundwater QA/QC Analytical Data

Sample ID Date	HA1175 02/28/90 RB of 37438	HA1176 02/28/90 FB of 37438	HA1177 02/28/90 TB of 37438
Analytes			
Volatiles			
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	NA
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	NA
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	NA
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	NA
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	NA
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	NA
Benzene	11.4	< 1.05	< 1.05
Benzene (GCMS)	6.98	< 1.00	NA
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	1.10	< 1.00	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

Rins: wk 1 rip FB std

Table B3 Groundwater QA/QC Analytical Data

Sample ID	HA1175	HA1176	HA1177
Date	02/28/90	02/28/90	02/28/90
	RB of	FB of	TB of
	37438	37438	37438

Analytes			

Volatiles			
Chlorobenzene	90.0	< 0.820	< 0.820
Chlorobenzene (GCMS)	80.8	1.25	NA
Chloroform	193	< 0.500	0.612
Chloroform (GCMS)	> 150	< 1.00	NA
Dibromochloropropane	0.813	< 0.195	NA

Dibromochloropropane (GCMS)	< 12.0	< 12.0	NA
Dimethyl Disulfide	< 0.550	< 0.550	NA
Ethyl Benzene	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	< 1.00	< 1.00	NA
M-Xylene	< 1.32	< 1.32	< 1.32

M-Xylene (GCMS)	< 1.00	< 1.00	NA
Methylene Chloride	< 7.40	< 7.40	< 7.40
Methylene Chloride (GCMS)	< 1.00	< 1.00	NA
Methylisobutyl Ketone	< 4.90	< 4.90	NA
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	NA

O,P-Xylene	< 1.36	< 1.36	< 1.36

Notes: Values are reported in micrograms per liter.
 Reported values are accurate to three significant figures.
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 > - indicates that the target analyte was detected at or above the Maximum Reporting Limit.
 R -- Data did not meet quality control criteria and were rejected.
 NA -- Not Analyzed.
 RB - Rinse Blank TB - Trip Blank FB - Field Blank.

Table B3 Groundwater QA/QC Analytical Data

Sample ID	HA1175	HA1176	HA1177
Date	02/28/90	02/28/90	02/28/90
Analytes	RB of	FB of	TB of
	37438	37438	37438
Volatiles			
O,P-Xylene (GCMS)	< 2.00	< 2.00	NA
Tetrachloroethene	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	< 1.00	< 1.00	NA
Toluene	2.67	< 1.47	< 1.47
Toluene (GCMS)	2.60	< 1.00	NA
Trichloroethene	2.09	< 0.560	< 0.560
Trichloroethene (GCMS)	2.40	< 1.00	NA
Vinyl Chloride	NA	NA	NA
Vinyl Chloride (GCMS)	< 12.0	< 12.0	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< - Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> - Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected.

NA -- Not Analyzed.

Rins, Trip, FB

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1022 10/31/89 Dup of 37330	HA1023 11/02/89 Dup of 37367	HA1024 11/27/89 Dup of Boller	HA1026 10/31/89 Dup of 37374
Analytes				
Metals/Anions/General Chem				
Arsenic	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chloride	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Cyanide	NA	NA	NA	NA
Fluoride	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	NA	NA	NA	NA
Nitrite, Nitrate -- Non-Specific	NA	NA	NA	NA
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.
 Reported values are accurate to three significant figures.
 < -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.
 > -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.
 R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.
 A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1022 10/31/89 Dup of 37330	HA1023 11/02/89 Dup of 37367	HA1024 11/27/89 Dup of Boller	HA1026 10/31/89 Dup of 37374
Analytes				
Metals/Anions/General Chem				
Sulfate	NA	NA	NA	NA
Total Organic Carbon	NA	NA	NA	NA
Total Suspended Solids	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Phenols				
2,3,6-Trichlorophenol (GCMS)	NA	NA	NA	NA
2,4,5-Trichlorophenol (GCMS)	NA	NA	NA	NA
2,4,6-Trichlorophenol (GCMS)	NA	NA	NA	NA
2,4-Dichlorophenol (GCMS)	NA	NA	NA	NA
2,4-Dimethylphenol (GCMS)	NA	NA	NA	NA
2,4-Dinitrophenol (GCMS)	NA	NA	NA	NA
2-Chlorophenol (GCMS)	NA	NA	NA	NA
2-Methylphenol (GCMS)	NA	NA	NA	NA
2-Nitrophenol (GCMS)	NA	NA	NA	NA
3-Methyl-4-Chlorophenol (GCMS)	NA	NA	NA	NA
4-Methylphenol (GCMS)	NA	NA	NA	NA
4-Nitrophenol (GCMS)	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of

data. det. file. /OC f. lures

Table B4 Groundwater Duplicate Analytical Data

Sample ID	NA1022	NA1023	NA1024	NA1026
Date	10/31/89	11/02/89	11/27/89	10/31/89
Analytes	Dup of 37330	Dup of 37367	Dup of Botler	Dup of 37374
Phenols				
Phenol (GCMS)	NA	NA	NA	NA
Semivolatiles				
1,4-Oxathiane	NA	NA	NA	NA
1,4-Oxathiane (GCMS)	NA	NA	NA	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	NA	NA	NA	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	NA	NA	NA	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	NA	NA	NA	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA
Aldrin (GCMS)	NA	NA	NA	NA
Atrazine	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1022 10/31/89 Dup of 37330	HA1023 11/02/89 Dup of 37367	HA1024 11/27/89 Dup of Boller	HA1026 10/31/89 Dup of 37374
Analytes				
Semivolatiles				
Atrazine (GCMS)	NA	NA	NA	NA
Benzothiazole	NA	NA	NA	NA
Bicyclo (2,2,1) hepta-2,5-diene	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	NA	NA	NA
Caprolactam (GCMS)	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA
Chlordane (GCMS)	NA	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA
Dicyclopentadiene (GCMS)	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA
Dieldrin (GCMS)	NA	NA	NA	NA
Diisopropyl Methylphosphonate	NA	NA	NA	NA
Diisopropyl Methylphosphonate (GCMS)	NA	NA	NA	NA
Dimethylmethyl Phosphonate	NA	NA	NA	NA
Dimethylmethyl Phosphonate (GCMS)	NA	NA	NA	NA
Dithiane	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of

historical data and field measurements

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1022 10/31/89 Dup of 37330	HA1023 11/02/89 Dup of 37367	HA1024 11/27/89 Dup of Boller	HA1026 10/31/89 Dup of 37374
Analytes				
Semivolatiles				
Dithiane (GCMS)	NA	NA	NA	NA
Endrin	NA	NA	NA	NA
Endrin (GCMS)	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA
Hexachlorocyclopentadiene (GCMS)	NA	NA	NA	NA
Isodrin				
Isodrin (GCMS)	NA	NA	NA	NA
Malathion	NA	NA	NA	NA
Malathion (GCMS)	NA	NA	NA	NA
Parathion	NA	NA	NA	NA
Parathion (GCMS)				
Pentachlorophenol (GCMS)	NA	NA	NA	NA
Supona	NA	NA	NA	NA
Supona (GCMS)	NA	NA	NA	NA
Vapona	NA	NA	NA	NA
Vapona (GCMS)	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1022 10/31/89 Dup of 37330	HA1023 11/02/89 Dup of 37367	HA1024 11/27/89 Dup of Boller	HA1026 10/31/89 Dup of 37374
Analytes				
Volatiles				
1,1,1-Trichloroethane	NA	NA	NA	NA
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data. Significant difference

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1022 10/31/89 Dup of 37330	HA1023 11/02/89 Dup of 37367	HA1024 11/27/89 Dup of Boller	HA1026 10/31/89 Dup of 37374
Analytes				
Volatiles				
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)				
Dimethyl Disulfide	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
M-Xylene	NA	NA	NA	NA
M-Xylene (GCMS)				
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	NA1022 10/31/89 Dup of 37330	NA1023 11/02/89 Dup of 37367	NA1024 11/27/89 Dup of Boller	NA1026 10/31/89 Dup of 37374
Analytes				
Volatiles				
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA
Vinyl Chloride	< 0.460	< 0.460	< 0.460	< 0.460
Vinyl Chloride (GCMS)	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.
 Reported values are accurate to three significant figures.
 < -- Indicates that the target analyte was not detected at
 or above the Certified Reporting Limit.
 > -- Indicates that the target analyte was detected at or
 above the Maximum Reporting Limit.
 R -- Data did not meet quality control criteria and were
 rejected. Dup - Duplicate. NA -- Not Analyzed.
 A -- Results considered anomalous based on evaluation of
 hist - 1 day 3 files 1/OC date

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1027 11/08/89 Dup of 37396	HA1028 10/31/89 Dup of 37344	HA1029 11/09/89 Dup of 37323	HA1045 12/18/89 Dup of 37418
Analytes				
Metals/Anions/General Chem				
Arsenic	NA	NA	NA	3.80
Cadmium	NA	NA	NA	< 6.78
Calcium	NA	NA	NA	590000
Chloride	NA	NA	NA	1600000
Chromium	NA	NA	NA	< 16.8
Copper	NA	NA	NA	< 18.8
Cyanide	NA	NA	NA	< 5.00
Fluoride	NA	NA	NA	3290
Iron	NA	NA	NA	276
Lead	NA	NA	NA	< 43.4
Magnesium	NA	NA	NA	199000
Manganese	NA	NA	NA	197
Mercury	NA	NA	NA	< 0.100
Nitrite, Nitrate -- Non-Specific	NA	NA	NA	1200
Potassium	NA	NA	NA	10200
Sodium	NA	NA	NA	870000

Notes: Values are reported in micrograms per liter.
 Reported values are accurate to three significant figures.
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 R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.
 A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID	NA1027	NA1028	NA1029	NA1045
Date	11/08/89	10/31/89	11/09/89	12/18/89
Analytes	Dup of	Dup of	Dup of	Dup of
	37396	37344	37323	37418
Metals/Anions/General Chem				
Sulfate	NA	NA	NA	1500000
Total Organic Carbon	NA	NA	NA	10000
Total Suspended Solids	NA	NA	NA	4000
Zinc	NA	NA	NA	124
Phenols				
2,3,6-Trichlorophenol (GCMS)	NA	NA	NA	< 1.70
2,4,5-Trichlorophenol (GCMS)	NA	NA	NA	< 2.80
2,4,6-Trichlorophenol (GCMS)	NA	NA	NA	< 3.60
2,4-Dichlorophenol (GCMS)	NA	NA	NA	< 8.40
2,4-Dimethylphenol (GCMS)	NA	NA	NA	< 4.40
2,4-Dinitrophenol (GCMS)	NA	NA	NA	< 176
2-Chlorophenol (GCMS)	NA	NA	NA	< 2.80
2-Methylphenol (GCMS)	NA	NA	NA	< 3.60
2-Nitrophenol (GCMS)	NA	NA	NA	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	NA	NA	NA	< 8.50
4-Methylphenol (GCMS)	NA	NA	NA	< 2.80
4-Nitrophenol (GCMS)	NA	NA	NA	< 96.0

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data for this field location.

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1027 11/08/89 Dup of 37396	HA1028 10/31/89 Dup of 37344	HA1029 11/09/89 Dup of 37323	HA1045 12/18/89 Dup of 37418
Analytes				
Phenols				
Phenol (GCMS)	NA	NA	NA	< 2.20
Semivolatiles				
1,4-Oxathiane	NA	NA	NA	8.94
1,4-Oxathiane (GCMS)	NA	NA	NA	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	NA	NA	NA	0.139
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	NA	NA	NA	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	NA	NA	NA	0.400
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	NA	NA	NA	< 14.0
4-Chlorophenylmethyl Sulfide	NA	NA	NA	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	NA	NA	NA	< 10.0
4-Chlorophenylmethyl Sulfone	NA	NA	NA	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	NA	NA	NA	< 5.30
4-Chlorophenylmethyl Sulfoxide	NA	NA	NA	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	NA	NA	< 15.0
Aldrin	NA	NA	NA	0.300
Aldrin (GCMS)	NA	NA	NA	< 13.0
Atrazine	NA	NA	NA	< 4.03

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1027 11/08/89 Dup of 37396	HA1028 10/31/89 Dup of 37344	HA1029 11/09/89 Dup of 37323	HA1045 12/18/89 Dup of 37418
Analytes				
Semivolatiles				
Atrazine (GCMS)	NA	NA	NA	< 5.90
Benzothiazole	NA	NA	NA	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	NA	NA	< 7.70
Caprolactam (GCMS)	NA	NA	NA	< 10.0
Chlordane	NA	NA	NA	1.40
Chlordane (GCMS)	NA	NA	NA	< 37.0
Dicyclopentadiene	NA	NA	NA	530
Dicyclopentadiene (GCMS)	NA	NA	NA	227
Dieldrin	NA	NA	NA	< 0.0500
Dieldrin (GCMS)	NA	NA	NA	< 26.0
Diisopropyl Methylphosphonate	NA	NA	NA	4300
Diisopropyl Methylphosphonate (GCMS)	NA	NA	NA	> 200
Dimethylmethyl Phosphonate	NA	NA	NA	< 0.188
Dimethylmethyl Phosphonate (GCMS)	NA	NA	NA	< 130
Dithiane	NA	NA	NA	25.6

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of hist 1 da 3 flr 1/OC dare

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1027 11/08/89 Dup of 37396	HA1028 10/31/89 Dup of 37344	HA1029 11/09/89 Dup of 37323	HA1045 12/18/89 Dup of 37418
Analytes				
Semivolatiles				
Dichloro (GCMS)	NA	NA	NA	7.73
Endrin	NA	NA	NA	< 0.0500
Endrin (GCMS)	NA	NA	NA	< 18.0
Hexachlorocyclopentadiene	NA	NA	NA	< 0.0480
Hexachlorocyclopentadiene (GCMS)	NA	NA	NA	< 54.0
Isodrin	NA	NA	NA	0.120
Isodrin (GCMS)	NA	NA	NA	< 7.80
Malathion	NA	NA	NA	< 0.373
Malathion (GCMS)	NA	NA	NA	< 21.0
Parathion	NA	NA	NA	< 0.647
Parathion (GCMS)	NA	NA	NA	< 37.0
Pentachlorophenol (GCMS)	NA	NA	NA	< 9.10
Supona	NA	NA	NA	< 0.787
Supona (GCMS)	NA	NA	NA	< 19.0
Vapona	NA	NA	NA	< 0.384
Vapona (GCMS)	NA	NA	NA	< 8.50

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table 84 Groundwater Duplicate Analytical Data

Sample ID	HA1027	HA1028	HA1029	HA1045
Date	11/08/89	10/31/89	11/09/89	12/18/89
Analytes	Dup of	Dup of	Dup of	Dup of
	37396	37344	37323	37418
Volatiles				
1,1,1-Trichloroethane	NA	NA	NA	< 0.760
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	< 1.00
1,1,2-Trichloroethane	NA	NA	NA	< 0.780
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	< 1.00
1,1-Dichloroethane	NA	NA	NA	< 0.730
1,1-Dichloroethane (GCMS)	NA	NA	NA	< 1.00
1,1-Dichloroethane	NA	NA	NA	< 1.70
1,1-Dichloroethane (GCMS)	NA	NA	NA	< 1.00
1,2-Dichloroethane	NA	NA	NA	23.7
1,2-Dichloroethane (GCMS)	NA	NA	NA	19.1
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	< 5.00
Benzene	NA	NA	NA	< 1.05
Benzene (GCMS)	NA	NA	NA	< 1.00
Carbon Tetrachloride	NA	NA	NA	< 0.990
Carbon Tetrachloride (GCMS)	NA	NA	NA	< 1.00

Notes: Values are reported in micrograms per liter.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of ifatc dat file 'QC p ures

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	NA1027 11/08/89 Dup of 37396	NA1028 10/31/89 Dup of 37344	NA1029 11/09/89 Dup of 37323	NA1045 12/18/89 Dup of 37418
Analytes				
Volatiles				
Chlorobenzene	NA	NA	NA	< 0.820
Chlorobenzene (GCMS)	NA	NA	NA	< 1.00
Chloroform	NA	NA	NA	< 0.500
Chloroform (GCMS)	NA	NA	NA	< 1.00
Dibromochloropropane	NA	NA	NA	< 0.195
Dibromochloropropane (GCMS)				
Dimethyl Disulfide	NA	NA	NA	< 12.0
Ethyl Benzene	NA	NA	NA	< 0.550
Ethyl Benzene (GCMS)	NA	NA	NA	< 1.37
M-Xylene	NA	NA	NA	< 1.00
				< 1.32
M-Xylene (GCMS)	NA	NA	NA	< 1.00
Methylene Chloride	NA	NA	NA	< 7.40
Methylene Chloride (GCMS)	NA	NA	NA	< 1.00
Methylisobutyl Ketone	NA	NA	NA	< 4.90
Methylisobutyl Ketone (GCMS)	NA	NA	NA	< 1.40
O,P-Xylene	NA	NA	NA	< 1.36

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1027 11/08/89 Dup of 37396	HA1028 10/31/89 Dup of 37344	HA1029 11/09/89 Dup of 37323	HA1045 12/18/89 Dup of 37418
Analytes				
Volatiles	NA	NA	NA	< 2.00
O,P-Xylene (GCMS)	NA	NA	NA	11.2
Tetrachloroethene	NA	NA	NA	7.50
Tetrachloroethene (GCMS)	NA	NA	NA	3.80
Toluene	NA	NA	NA	< 1.00
Toluene (GCMS)	NA	NA	NA	
Trichloroethene	NA	NA	NA	7.08
Trichloroethene (GCMS)	NA	NA	NA	4.80
Vinyl Chloride	< 0.460	< 0.460	< 0.460	NA
Vinyl Chloride (GCMS)	NA	NA	NA	< 12.0

Notes: Values are reported in micrograms per liter.
 Reported values are accurate to three significant figures.
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 > -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.
 R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.
 A -- Results considered anomalous based on evaluation of

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Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1079 06/22/90 Dup of 37418	HA1165 02/22/90 Dup of 37404	HA1166 02/21/90 Dup of 37407	HA1172 02/27/90 Dup of 37435
Analytes				
Metals/Anions/General Chem				
Arsenic	R	< 2.50	< 2.50	< 2.35
Cadmium	< 6.78	< 5.00	< 5.00	< 6.78
Calcium	174000	170000	240000	118000
Chloride	1800000	220000	360000	100000
Chromium	71.5	< 22.0	< 22.0	< 16.8
Copper	108	< 10.0	< 10.0	< 18.8
Cyanide	R	< 8.90	< 8.90	< 5.00
Fluoride	6300	< 1000	1250	1740
Iron	46400	37.5	794	< 77.5
Lead	< 43.4	< 52.0	< 52.0	< 43.4
Magnesium	80800	46000	58000	36100
Manganese	2650	< 20.0	1360	12.6
Mercury	< 0.100	< 0.500	< 0.500	< 0.100
Nitrite, Nitrate -- Non-Specific	410	4200	4300	1800
Potassium	12200	NA	NA	4570
Sodium	150000	220000	340000	130000

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1079 06/22/90 Dup of 37418	HA1165 02/22/90 Dup of 37404	HA1166 02/21/90 Dup of 37407	HA1172 02/27/90 Dup of 37435
Analytes				
Metals/Anions/General Chem				
Sulfate	1700000	530000	680000	300000
Total Organic Carbon	15000	6.00	7.00	3000
Total Suspended Solids	< 4000	27.0	< 4.00	NA
Zinc	117	24.4	23.3	< 18.0
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of

hist. data. 11/1/90

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1079 06/22/90 Dup of 37418	HA1165 02/22/90 Dup of 37404	HA1166 02/21/90 Dup of 37407	HA1172 02/27/90 Dup of 37435
Analytes				
Phenols				
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	6.86	NA	NA	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	R	< 0.0590	< 0.0590	< 0.0490
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0540	< 0.0460	< 0.0460	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	NA	NA	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	NA	NA	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	NA	NA	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	< 1.0500	R	R	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	NA	NA	< 4.03

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1079 06/22/90 Dup of 37418	HA1165 02/22/90 Dup of 37404	HA1166 02/21/90 Dup of 37407	HA1172 02/27/90 Dup of 37435
Analytes				
Semivolatiles				
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	NA	NA	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	NA	NA	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	< 10.0	< 7.70	< 7.70	< 7.70
Chlordane	< 0.0950	< 0.152	< 0.152	< 0.0950
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	380	NA	NA	< 5.00
Dicyclopentadiene (GCMS)	202	< 5.50	< 5.50	< 5.50
Dieldrin	< 0.0500	< 0.0539	< 0.0539	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Disopropyl Methylphosphonate	3900	NA	NA	10.0
Disopropyl Methylphosphonate (GCMS)	> 200	< 21.0	76.4	< 21.0
Dimethylmethyl Phosphonate	< 0.188	NA	NA	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	30.0	NA	NA	< 1.34

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of

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Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1079 06/22/90 Dup of 37418	HA1165 02/22/90 Dup of 37404	HA1166 02/21/90 Dup of 37407	HA1172 02/27/90 Dup of 37435
Analytes				
Semivolatiles				
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	< 0.0500	< 0.0600	< 0.0600	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	R	R	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	0.103	< 0.0560	< 0.0560	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	1.63	NA	NA	< 0.373
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	1.07	NA	NA	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	NA	NA	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	NA	NA	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID	HA1079	HA1165	HA1166	HA1172
Date	06/22/90	02/22/90	02/21/90	02/27/90
Analytes	Dup of	Dup of	Dup of	Dup of
	37418	37404	37407	37435
Volatiles				
1,1,1-Trichloroethane	< 0.760	< 1.09	< 1.09	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	< 10.0	< 1.00
1,1,2-Trichloroethane	< 0.780	< 1.63	< 1.63	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	< 10.0	< 1.00
1,1-Dichloroethane	< 0.730	< 1.93	< 1.93	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 10.0	< 1.00
1,1-Dichloroethane	< 1.70	< 1.85	< 1.85	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 10.0	< 1.00
1,2-Dichloroethane	22.1	< 2.07	< 2.07	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	< 10.0	< 1.00
1,2-Dichloroethenes (cis & trans)	< 0.760	< 1.75	< 1.75	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	< 50.0	< 5.00
Benzene	3.90	4.62	30.0	19.2
Benzene (GCMS)	< 1.00	2.56	12.4	7.67
Carbon Tetrachloride	< 0.990	< 1.69	3.44	1.32
Carbon Tetrachloride (GCMS)	< 1.00	< 1.00	< 10.0	1.01

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of

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Table B4 Groundwater Duplicate Analytical Data

Sample ID	NA1079	NA1165	NA1166	NA1172
Date	06/22/90	02/22/90	02/21/90	02/27/90
Analytes	Dup of	Dup of	Dup of	Dup of
	37418	37404	37407	37435
Volatiles				
Chlorobenzene	29.7	38.5	A	150
Chlorobenzene (GCMS)	2.98	31.7	A	91.3
Chloroform	45.1	49.6	A	540
Chloroform (GCMS)	5.30	40.0	A	510
Dibromochloropropane	0.391	NA	NA	NA
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	NA	NA	< 0.550
Ethyl Benzene	< 1.37	< 0.620	< 0.620	< 1.37
Ethyl Benzene (GCMS)	< 1.00	< 1.00	< 10.0	< 1.00
n-Xylene	< 1.32	< 1.04	< 1.04	< 1.32
m-Xylene (GCMS)	< 1.00	< 1.00	< 10.0	< 1.00
Methylene Chloride	< 7.40	< 2.48	< 2.48	< 7.40
Methylene Chloride (GCMS)	< 1.00	< 1.00	< 10.0	< 1.00
Methylisobutyl Ketone	< 4.90	NA	NA	< 4.90
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	< 14.0	< 1.40
O,P-Xylene	< 1.36	< 1.34	< 1.34	< 1.36

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1079 06/22/90 Dup of 37418	HA1165 02/22/90 Dup of 37404	HA1166 02/21/90 Dup of 37407	HA1172 02/27/90 Dup of 37435
Analytes				
Volatiles				
O,P-Xylene (GCMS)	< 2.00	< 2.00	< 20.0	< 2.00
Tetrachloroethene	8.98	< 2.76	< 2.76	< 0.750
Tetrachloroethene (GCMS)	< 1.00	< 1.00	< 10.0	< 1.00
Toluene	< 1.47	< 2.10	4.35	3.23
Toluene (GCMS)	< 1.00	< 1.00	< 10.0	2.10
Trichloroethene	6.18	< 1.31	6.65	2.43
Trichloroethene (GCMS)	< 1.00	< 1.00	< 10.0	2.10
Vinyl Chloride	NA	NA	NA	NA
Vinyl Chloride (GCMS)	< 12.0	< 12.0	< 120	< 12.0

Notes: Values are reported in micrograms per liter.
 Reported values are accurate to three significant figures.
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 R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.
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Table B4 Groundwater Duplicate Analytical Data

Sample ID	HA1173	HA1174	HA1198
Date	02/28/90	03/01/90	06/13/90
Analytes	Dup of	Dup of	Dup of
	37438	37439	37444
Metals/Anions/General Chem			
Arsenic	< 2.35	< 2.35	< 2.35
Cadmium	< 6.78	< 6.78	< 6.78
Calcium	65600	99300	99700
Chloride	280000	200000	140000
Chromium	< 16.8	< 16.8	< 16.8
Copper	20.7	< 18.8	< 18.8
Cyanide	< 5.00	< 5.00	R
Fluoride	4080	2350	1320
Iron	< 77.5	< 77.5	NA
Lead	< 43.4	< 43.4	< 43.4
Magnesium	21000	27100	21900
Manganese	< 9.67	21.0	NA
Mercury	< 0.100	< 0.100	1.49
Nitrite, Nitrate -- Non-Specific	5000	1800	4200
Potassium	2190	3880	2800
Sodium	260000	160000	100000

Notes: Values are reported in micrograms per liter.

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A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1173 02/28/90 Dup of 37438	HA1174 03/01/90 Dup of 37439	HA1198 06/13/90 Dup of 37444
Analytes			
Metals/Anions/General Chem			
Sulfate	170000	170000	130000
Total Organic Carbon	2000	2000	1000
Total Suspended Solids	NA	NA	NA
Zinc	< 18.0	< 18.0	< 18.0
Phenols			
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0

Notes: Values are reported in micrograms per liter.

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A -- Results considered anomalous based on evaluation of data. Date: 01/01/91

Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1173 02/28/90 Dup of 37438	HA1174 03/01/90 Dup of 37439	HA1198 06/13/90 Dup of 37444
Analytes			
Phenols			
Phenol (GCMS)	< 2.20	< 2.20	< 2.20
Semivolatiles			
1,4-Oxathiane	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	< 0.0490
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0540	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0
Aldrin	< 0.0500	< 0.0500	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	< 4.03	< 4.03

Notes: Values are reported in micrograms per liter.

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A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID	HA1173	HA1174	HA1198
Date	02/28/90	03/01/90	06/13/90
Analytes	Dup of	Dup of	Dup of
	37438	37439	37444
Semivolatiles			
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90
Benzoisazole	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	< 7.70	< 7.70	< 10.0
Chlordane	< 0.0950	< 0.0950	< 0.0950
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50
Dieldrin	0.110	< 0.0500	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	3.76	2.56	5.54
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130
Dichlorane	< 1.34	< 1.34	< 1.34

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A -- Results considered anomalous based on evaluation of

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Table B4 Groundwater Duplicate Analytical Data

Sample ID Date	HA1173 02/28/90 Dup of 37438	HA1174 03/01/90 Dup of 37439	HA1198 06/13/90 Dup of 37444

Analytes			

Semivolatiles			
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30
Endrin	< 0.0500	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0
Isodrin	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	< 0.373	< 0.373
Malathion (GCMS)	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50

Notes: Values are reported in micrograms per liter.

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Table B4 Groundwater Duplicate Analytical Data

Sample ID	HA1173	HA1174	HA1198
Date	02/28/90	03/01/90	06/13/90
Analytes	Dup of 37438	Dup of 37439	Dup of 37444

Volatiles			
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	< 5.00
Benzene	21.9 A	2.07 A	< 1.05
Benzene (GCMS)	13.2 A	2.25 A	< 1.00
Carbon Tetrachloride	2.13 A	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	2.02 A	< 1.00	< 1.00

Notes: Values are reported in micrograms per liter.

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A -- Results considered anomalous based on evaluation of data file. QC p res

Table B4 Groundwater Duplicate Analytical Data

Sample ID	HA1173	HA1174	HA1198
Date	02/28/90	03/01/90	06/13/90
Analytes	Dup of	Dup of	Dup of
	37438	37439	37444
Volatiles			
Chlorobenzene	110 A	18.2 A	< 0.820
Chlorobenzene (GCMS)	115 A	40.4 A	< 1.00
Chloroform	440 A	34.4 A	3.23
Chloroform (GCMS)	> 150 A	94.0 A	3.10
Dibromochloropropane	1.10 A	0.463 A	< 0.195
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	< 1.00	< 1.00	< 1.00
m-Xylene	< 1.32	< 1.32	< 1.32
m-Xylene (GCMS)	< 1.00	< 1.00	< 1.00
Methylene Chloride	< 7.40	< 7.40	< 7.40
Methylene Chloride (GCMS)	< 1.00	< 1.00	< 1.00
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	< 1.40
O,p-Xylene	< 1.36	< 1.36	< 1.36

Notes: Values are reported in micrograms per liter.

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R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of historical data and field QA/QC procedures.

Table B4 Groundwater Duplicate Analytical Data

Sample ID	HA1173	HA1174	HA1198
Date	02/28/90	03/01/90	06/13/90
Analytes	Dup of 37438	Dup of 37439	Dup of 37444
Volatiles			
O,P-Xylene (GCMS)	< 2.00	< 2.00	< 2.00
Tetrachloroethene	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	< 1.00	< 1.00	< 1.00
Toluene	3.77 A	< 1.47	< 1.47
Toluene (GCMS)	3.90 A	1.20 A	< 1.00
Trichloroethene	3.47 A	< 0.560	< 0.560
Trichloroethene (GCMS)	NA	1.20 A	< 1.00
Vinyl Chloride	NA	NA	NA
Vinyl Chloride (GCMS)	< 12.0	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were rejected. Dup - Duplicate. NA -- Not Analyzed.

A -- Results considered anomalous based on evaluation of

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	09200TW090 01/17/89	09200TW090 09/08/89	10021TWPEO 02/27/90	10100TW108 05/30/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.35	NA	< 2.35	NA
Cadmium	< 8.40	NA	< 6.78	NA
Calcium	2170	NA	1600	NA
Chloride	5130	NA	3000	NA
Chromium	< 24.0	NA	< 16.8	NA
Copper	< 26.0	NA	< 18.8	NA
Cyanide	< 5.00	NA	< 5.00	NA
Fluoride	2330	NA	3090	NA
Iron	NA	NA	< 77.5	NA
Lead	< 74.0	NA	< 43.4	NA
Magnesium	< 500	NA	149	NA
Manganese	NA	NA	< 9.67	NA
Mercury	< 0.100	NA	< 0.100	NA
Nitrite, Nitrate -- Non-Specific	290	NA	2000000	NA
Potassium	< 250	NA	< 1240	NA
Sodium	78000	NA	96000	NA
Sulfate	13300	NA	10300	NA
Total Organic Carbon	NA	NA	< 1000	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	09200TW090 01/17/89	09200TW090 09/08/89	10021TW090 02/27/90	10100TW108 05/30/90
Analytes				
Metals/Anions/General Chem				
Zinc	< 22.0	NA	< 16.0	NA
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	NA
2,4,5-Trichlorophenol (GCMS)	NA	< 2.80	< 2.80	NA
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	NA
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	NA
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	NA
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	NA
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	NA
2-Methylphenol (GCMS)	< 3.60	< 0.600	< 3.60	NA
2-Nitrophenol (GCMS)	< 8.20	< 3.00	< 8.20	NA
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 0.300	< 8.50	NA
4-Methylphenol (GCMS)	< 2.80	< 0.600	< 2.80	NA
4-Nitrophenol (GCMS)	< 96.0	< 0.400	< 96.0	NA
Phenol (GCMS)	< 2.20	< 0.320	< 2.20	NA
Semivolatiles				
1,4-Oxathiane	< 2.38	< 1.97	< 2.38	NA
1,4-Oxathiane (GCMS)	< 27.0	< 0.160	< 27.0	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	NA	< 0.0490	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 1.20	< 18.0	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	09200TW090 01/17/89	09200TW090 09/08/89	10021TW090 02/27/90	10100TW108 05/30/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	NA	< 0.0540	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 3.39	< 14.0	NA
4-Chlorophenylmethyl Sulfide	< 5.69	< 10.5	< 5.69	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 1.30	< 10.0	NA
4-Chlorophenylmethyl Sulfone	< 7.46	< 4.70	< 7.46	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 0.750	< 5.30	NA
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 15.2	< 11.5	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 0.500	< 15.0	NA
A Irin	< 0.0500	NA	< 0.0500	NA
Aldrin (GCMS)	< 13.0	< 0.800	< 13.0	NA
Atrazine	< 4.03	< 4.03	< 4.03	NA
Atrazine (GCMS)	< 5.90	< 0.500	< 5.90	NA
Benothiazole	< 5.00	< 0.00234	< 5.00	NA
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	NA
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	NA	< 7.70	NA
Caprolactam (GCMS)	NA	NA	< 7.70	NA
Chlordane	< 0.0950	NA	< 0.0950	NA
Chlordane (GCMS)	< 37.0	< 0.260	< 37.0	NA

Notes: Values are reported in micrograms per liter.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
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Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID	092001W090	092001W090	10021TW090	101001W108
Date	01/17/89	09/08/89	02/27/90	05/30/90
Analytes				

Semivolatiles				
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	NA
Dicyclopentadiene (GCMS)	< 5.50	< 0.560	< 5.50	NA
Dieldrin	< 0.0500	NA	< 0.0500	NA
Dieldrin (GCMS)	< 26.0	< 0.930	< 26.0	NA
Diisopropyl Methylphosphonate	1.32	1.38	< 0.392	< 0.392
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 1.60	< 21.0	NA
Dimethylmethyl Phosphonate	< 0.188	< 4.23	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 0.700	< 130	NA
Dithiane	< 1.34	< 0.114	< 1.34	NA
Dithiane (GCMS)	< 3.30	< 0.710	< 3.30	NA
Endrin	< 0.0500	NA	< 0.0500	NA
Endrin (GCMS)	< 18.0	< 0.100	< 18.0	NA
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	NA
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 0.520	< 54.0	NA
Isodrin	< 0.0510	NA	< 0.0510	NA
Isodrin (GCMS)	< 7.80	< 0.990	< 7.80	NA
Malathion	< 0.373	< 0.373	< 0.373	NA
Malathion (GCMS)	< 21.0	< 0.620	< 21.0	NA

Notes: Values are reported in micrograms per liter.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	09200TU090 01/17/89	09200TU090 09/08/89	10021TUPE0 02/27/90	10100TU108 05/30/90
Analytes				
Semivolatiles				
Parathion	< 0.647	< 0.647	< 0.647	NA
Parathion (GCMS)	< 37.0	< 8.10	< 37.0	NA
Pentachlorophenol (GCMS)	< 9.10	< 0.290	< 9.10	NA
Supona	< 0.787	< 0.787	< 0.787	NA
Supona (GCMS)	< 19.0	< 3.90	< 19.0	NA
Vapona	< 0.384	< 0.384	< 0.384	NA
Vapona (GCMS)	< 8.50	< 0.670	< 8.50	NA
Volatiles				
1,1,1-Trichloroethane	< 0.760	NA	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	NA	NA	< 1.00	NA
1,1,2-Trichloroethane	< 0.780	NA	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	NA	NA	< 1.00	NA
1,1-Dichloroethane	< 0.730	NA	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	NA	NA	< 1.00	NA
1,1-Dichloroethene	< 1.70	NA	< 1.70	< 1.70
1,1-Dichloroethene (GCMS)	NA	NA	< 1.00	NA
1,2-Dichloroethane	< 1.10	NA	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	NA	NA	< 1.00	NA
1,2-Dichloroethenes (cis & trans)	< 0.760	NA	< 0.760	< 0.760

Notes: Values are reported in micrograms per liter.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	09200TW090 01/17/89	09200TW090 09/08/89	10021TW090 02/27/90	10100TW108 05/30/90
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	< 5.00	NA
Benzene	< 1.05	NA	< 1.05	NA
Benzene (GCMS)	NA	NA	< 1.00	NA
Carbon Tetrachloride	< 0.990	NA	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	NA	NA	< 1.00	NA
Chlorobenzene	< 0.820	NA	< 0.820	< 0.820
Chlorobenzene (GCMS)	NA	NA	< 1.00	NA
Chloroform	< 0.500	NA	< 0.500	< 0.500
Chloroform (GCMS)	NA	NA	< 1.00	NA
Dibromochloropropane	< 0.195	< 0.195	< 0.195	NA
Dibromochloropropane (GCMS)	< 12.0	< 0.250	< 12.0	NA
Dimethyl Disulfide	< 0.550	< 0.133	< 0.550	NA
Ethyl Benzene	< 1.37	NA	< 1.37	NA
Ethyl Benzene (GCMS)	NA	NA	< 1.00	NA
M-Xylene	< 1.32	NA	< 1.32	NA
M-Xylene (GCMS)	NA	NA	< 1.00	NA
Methylene Chloride	< 7.60	NA	< 7.60	< 7.60
Methylene Chloride (GCMS)	NA	NA	< 1.00	NA

Notes: Values are reported in micrograms per liter.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	09200TW090 01/17/89	09200TW090 09/08/89	10021TWPE0 02/27/90	10100TW108 05/30/90
Analytes				
Volatiles				
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	NA
Methylisobutyl Ketone (GCMS)	NA	NA	< 1.40	NA
O,P-Xylene	< 1.36	NA	< 1.36	NA
O,P-Xylene (GCMS)	NA	NA	< 2.00	NA
Tetrachloroethene	< 0.750	NA	< 0.750	< 0.750
Tetrachloroethene (GCMS)	NA	NA	< 1.00	NA
Toluene	< 1.47	NA	< 1.47	NA
Toluene (GCMS)	NA	NA	< 1.00	NA
Trichloroethene	< 0.560	NA	< 0.560	< 0.560
Trichloroethene (GCMS)	NA	NA	< 1.00	NA
Vinyl Chloride (GCMS)	NA	NA	< 12.0	NA

Notes: Values are reported in micrograms per liter.

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or above the Certified Reporting Limit.> -- Indicates that the target analyte was detected at or
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Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID	101501UHY2	107201U8R1	107201U8R1	107911U8R1
Date	05/30/90	09/08/89	12/28/89	05/09/90
Analytes				
Metals/Anions/General Chem				
Arsenic	NA	NA	< 2.35	NA
Cadmium	NA	NA	< 6.78	NA
Calcium	NA	NA	143000	NA
Chloride	NA	NA	150000	NA
Chromium	NA	NA	< 16.8	NA
Copper	NA	NA	< 18.8	NA
Cyanide	NA	NA	< 5.00	NA
Fluoride	NA	NA	1830	NA
Iron	NA	NA	NA	NA
Lead	NA	NA	< 43.4	NA
Magnesium	NA	NA	34100	NA
Manganese	NA	NA	NA	NA
Mercury	NA	NA	< 0.100	NA
Nitrite, Nitrate -- Non-Specific	NA	NA	7800	NA
Potassium	NA	NA	4180	NA
Sodium	NA	NA	160000	NA
Sulfate	NA	NA	300000	NA
Total Organic Carbon	NA	NA	1400	NA

Notes: Values are reported in micrograms per liter.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	10150TWHY2	10720TWBRI	10720TWBRI	10791TWBRI
Date	05/30/90	09/08/89	12/28/89	05/09/90
Analytes				
Metals/Anions/General Chem				
Zinc	NA	NA	54.8	NA
Phenols				
2,3,6-Trichlorophenol (GCMS)	NA	< 1.70	< 1.70	NA
2,4,5-Trichlorophenol (GCMS)	NA	< 2.80	< 2.80	NA
2,4,6-Trichlorophenol (GCMS)	NA	< 3.60	< 3.60	NA
2,4-Dichlorophenol (GCMS)	NA	< 8.40	< 8.40	NA
2,4-Dimethylphenol (GCMS)	NA	< 4.40	< 4.40	NA
2,4-Dinitrophenol (GCMS)	NA	< 176	< 176	NA
2-Chlorophenol (GCMS)	NA	< 2.80	< 2.80	NA
2-Methylphenol (GCMS)	NA	< 0.600	< 3.60	NA
2-Nitrophenol (GCMS)	NA	< 3.00	< 8.20	NA
3-Methyl-4-Chlorophenol (GCMS)	NA	< 0.300	< 8.50	NA
4-Methylphenol (GCMS)	NA	< 0.600	< 2.80	NA
4-Nitrophenol (GCMS)	NA	< 0.400	< 96.0	NA
Phenol (GCMS)	NA	< 0.320	< 2.20	NA
Semivolatiles				
1,4-Oxathiane	NA	< 1.97	< 2.38	NA
1,4-Oxathiane (GCMS)	NA	< 0.160	< 27.0	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	NA	NA	< 0.0490	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	NA	< 1.20	< 18.0	NA

Notes: Values are reported in micrograms per liter.

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Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	10150TWHY2 05/30/90	10720TUBRI 09/08/89	10720TUBRI 12/28/89	10791TUBRI 05/09/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	NA	NA	< 0.0540	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	NA	< 3.39	< 14.0	NA
4-Chlorophenylmethyl Sulfide	NA	< 10.5	< 5.69	NA
4-Chlorophenylmethyl Sulfide (GCMS)	NA	< 1.30	< 10.0	NA
4-Chlorophenylmethyl Sulfone	NA	< 4.70	< 7.46	NA
4-Chlorophenylmethyl Sulfone (GCMS)	NA	< 0.750	< 5.30	NA
4-Chlorophenylmethyl Sulfoxide	NA	< 15.2	< 11.5	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	< 0.500	< 15.0	NA
Aldrin	NA	NA	< 0.0500	NA
Aldrin (GCMS)	NA	< 0.800	< 13.0	NA
Atrazine	NA	< 4.03	< 4.03	NA
Atrazine (GCMS)	NA	< 0.500	< 5.90	NA
Benzothiazole	NA	< 0.00234	< 5.00	NA
Bicyclo [2,2,1] hepta-2,5-diene	NA	< 5.90	< 5.90	NA
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	NA	< 7.70	NA
Caprolactam (GCMS)	NA	NA	< 7.70	NA
Chlordane	NA	NA	< 0.0950	NA
Chlordane (GCMS)	NA	< 0.260	< 37.0	NA

Notes: Values are reported in micrograms per liter.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	10150TWHY2	10720TWBR1	10720TWBR1	10791TWBR1
Date	05/30/90	09/08/89	12/28/89	05/09/90
Analytes				
Semivolatiles				
Dicyclopentadiene	NA	< 5.00	< 5.00	NA
Dicyclopentadiene (GCMS)	NA	< 0.560	< 5.50	NA
Dieldrin	NA	NA	< 0.0500	NA
Dieldrin (GCMS)	NA	< 0.930	< 26.0	NA
Diisopropyl Methylphosphonate	5.11	81.0	80.0	13.4
Diisopropyl Methylphosphonate (GCMS)	NA	77.3	56.6	NA
Dimethylmethyl Phosphonate	< 0.188	< 4.23	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	NA	< 0.700	< 130	NA
Dithiane	NA	< 0.114	< 1.34	NA
Dithiane (GCMS)	NA	< 0.710	< 3.30	NA
Endrin	NA	NA	< 0.0500	NA
Endrin (GCMS)	NA	< 0.100	< 18.0	NA
Hexachlorocyclopentadiene	NA	< 0.0480	< 0.0480	NA
Hexachlorocyclopentadiene (GCMS)	NA	< 0.520	< 54.0	NA
Isodrin	NA	NA	< 0.0510	NA
Isodrin (GCMS)	NA	< 0.990	< 7.80	NA
Malathion	NA	< 0.373	< 0.373	NA
Malathion (GCMS)	NA	< 0.620	< 21.0	NA

Notes: Values are reported in micrograms per liter.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	10150TWHY2	10720TWBRI	10720TWBRI	10791TWBRI
Date	05/30/90	09/08/89	12/28/89	05/09/90
Analytes				
Semivolatiles				
Parathion	NA	< 0.647	< 0.647	NA
Parathion (GCMS)	NA	< 8.10	< 37.0	NA
Pentachlorophenol (GCMS)	NA	< 0.290	< 9.10	NA
Supona	NA	< 0.787	< 0.787	NA
Supona (GCMS)	NA	< 3.90	< 19.0	NA
Vapona	NA	< 0.384	< 0.384	NA
Vapona (GCMS)	NA	< 0.670	< 8.50	NA
Volatiles				
1,1,1-Trichloroethane	< 0.760	NA	3.34	< 0.760
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	< 0.780	NA	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	< 0.730	NA	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	< 1.70	NA	< 1.70	< 1.70
1,1-Dichloroethene (GCMS)	NA	NA	NA	NA
1,2-Dichloroethane	< 1.10	NA	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	< 0.760	NA	< 0.760	< 0.760

Notes: Values are reported in micrograms per liter.

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above the Maximum Reporting Limit.

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Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	101501WHY2 05/30/90	107201WBR1 09/08/89	107201WBR1 12/28/89	107911WBR1 05/09/90
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans) (GCMS)				
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	< 1.05	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	< 0.990	NA	< 0.990	< 0.990
	NA	NA	NA	NA
Chlorobenzene	< 0.820	NA	< 0.820	< 0.820
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	< 0.500	NA	0.961	< 0.500
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	< 0.195	< 0.195	NA
Dibromochloropropane (GCMS)	NA	< 0.250	< 12.0	NA
Dimethyl Disulfide	NA	< 0.133	< 0.550	NA
Ethyl Benzene	NA	NA	< 1.37	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
M-Xylene	NA	NA	< 1.32	NA
M-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	< 7.40	NA	< 7.40	< 7.40
Methylene Chloride (GCMS)	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

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above the Maximum Reporting Limit.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	10150TWHY2 05/30/90	10720TWBR1 09/08/89	10720TWBR1 12/28/89	10791TWBR1 05/09/90
Analytes				
Volatiles				
Methylisobutyl Ketone	NA	< 4.90	< 4.90	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	NA	< 1.36	NA
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	< 0.750	NA	< 0.750	< 0.750
Tetrachloroethene (GCMS)	NA	NA	NA	NA
Toluene	NA	NA	< 1.47	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	< 0.560	NA	< 0.560	< 0.560
Trichloroethene (GCMS)	NA	NA	NA	NA
Vinyl Chloride (GCMS)	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- Indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

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reanalyzed.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11010TUNAV	11071TW112	11071TW112	11071TW112	11295TW108
Date	01/26/90	01/31/89	01/31/89	08/21/90	01/31/89
Analytes					

Metals/Anions/General Chem					
Arsenic	< 2.35	< 2.35	< 2.35	< 2.35	< 2.35
Cadmium	< 6.78	< 8.40	< 8.40	< 6.78	< 8.40
Calcium	93500	101000	101000	117000	60600
Chloride	R	58000	58000	92000	35000
Chromium	< 16.8	< 24.0	< 24.0	< 16.8	< 24.0
Copper	< 18.8	< 26.0	< 26.0	< 18.8	< 26.0
Cyanide	< 5.00	6.16	6.16	< 8.90	5.87
Fluoride	R	1630	1630	1660	1640
Iron	NA	NA	NA	< 77.5	NA
Lead	< 43.4	< 74.0	< 74.0	< 43.4	< 74.0
Magnesium	28900	25600	25600	30800	14800
Manganese	NA	NA	NA	< 9.67	NA
Mercury	< 0.100	< 0.100	< 0.100	1.64	< 0.100
Nitrite, Nitrate -- Non-Specific	9300	7000	7000	5300	3100
Potassium	3120	3190	3190	4290	1970
Sodium	100000	80500	80500	130000	60700
Sulfate	R	220000	220000	230000	100000
Total Organic Carbon	< 1000	NA	NA	2400	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	11010TMAV 01/26/90	11071TW112 01/31/89	11071TW112 08/21/90	11295TW108 01/31/89
Analytes				
Metals/Anions/General Chem				
Zinc	245	36.5	28.7	24.9
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	< 0.0490	< 0.0490
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0

Notes: Values are reported in micrograms per liter.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID	110101WNAV	11071TW112	11071TW112	112951W108
Date	01/26/90	01/31/89	08/21/90	01/31/89
Analytes				

Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	< 0.0540	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90
Benothiazole	< 5.00	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	NA	< 7.70	NA
Caprolactam (GCMS)	< 10.0	NA	< 7.70	NA
Chlordane	< 0.0950	< 0.0950	< 0.0950	< 0.0950
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0

Notes: Values are reported in micrograms per liter.

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NA -- Not Analyzed.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	11010TMAV 01/26/90	11071TW112 01/31/89	11071TW112 08/21/90	11295TW108 01/31/89
Analytes				
Semivolatiles				
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	< 5.50
Dieldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	14.9	13.7	10.0	R
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	0.382	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130
Dithiane	< 1.34	< 1.34	< 1.34	< 1.34
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	< 0.0510	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	< 0.373	< 0.373	< 0.373
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0

Notes: Values are reported in micrograms per liter.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	11010TMAV 01/26/90	11071TW112 01/31/89	11071TW112 08/21/90	11295TW108 01/31/89
Analytes				
Semivolatiles				
Parathion	< 0.647	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50
Volatiles				
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	< 0.760

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11010TUMAV	11071TW112	11071TW112	11295TUM08
Date	01/26/90	01/31/89	08/21/90	01/31/89
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	NA	< 5.00	NA
Benzene	< 1.05	< 1.05	< 1.05	< 1.05
Benzene (GCMS)	< 1.00	NA	< 1.00	NA
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	< 1.00	NA	< 1.00	NA
Chlorobenzene	< 0.820	< 0.820	< 0.820	< 0.820
Chlorobenzene (GCMS)	< 1.00	NA	< 1.00	NA
Chloroform	< 0.500	< 0.500	2.32	< 0.500
Chloroform (GCMS)	< 1.00	NA	23.0	NA
Dibromochloropropane	< 0.195	< 0.195	< 0.195	< 0.195
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	< 1.00	NA	< 1.00	NA
m-Xylene	< 1.32	< 1.32	< 1.32	< 1.32
m-Xylene (GCMS)	< 1.00	NA	< 1.00	NA
Methylene Chloride	< 7.40	< 7.40	< 7.40	< 7.40
Methylene Chloride (GCMS)	< 1.00	NA	< 1.00	NA

Notes: Values are reported in micrograms per liter.

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Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	11010TUNAV 01/26/90	11071TW112 01/31/89	11071TW112 08/21/90	11293TJ108 01/31/89
Analytes				
Volatiles				
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	< 1.40	NA	< 1.40	NA
O,P-Xylene	< 1.36	< 1.36	< 1.36	< 1.36
O,P-Xylene (GCMS)	< 2.00	NA	< 2.00	NA
Tetrachloroethene	< 0.750	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	< 1.00	NA	< 1.00	NA
Toluene	< 1.47	< 1.47	< 1.47	< 1.47
Toluene (GCMS)	< 1.00	NA	< 1.00	NA
Trichloroethene	< 0.560	< 0.560	< 0.560	< 0.560
Trichloroethene (GCMS)	< 1.00	NA	< 1.00	NA
Vinyl Chloride (GCMS)	< 12.0	NA	< 12.0	NA

Notes: Values are reported in micrograms per liter.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11295TW108	11295TW108	11460TUPEO	11755TMR1
Date	08/22/90	08/24/90	08/21/90	05/30/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.35	NA	< 2.35	NA
Cadmium	< 6.78	NA	< 6.78	NA
Calcium	79900	NA	113000	NA
Chloride	65000	NA	86000	NA
Chromium	< 16.8	NA	< 16.8	NA
Copper	< 18.8	NA	< 18.8	NA
Cyanide	< 8.90	NA	< 8.90	NA
Fluoride	1520	NA	1510	NA
Iron	< 77.5	NA	< 77.5	NA
Lead	44.7	NA	< 43.4	NA
Magnesium	18900	NA	29600	NA
Manganese	< 9.67	NA	< 9.67	NA
Mercury	1.34	NA	1.09	NA
Nitrite, Nitrate -- Non-Specific	3400	NA	5300	NA
Potassium	3240	NA	5490	NA
Sodium	76000	NA	120000	NA
Sulfate	140000	NA	160000	NA
Total Organic Carbon	NA	1900	2500	NA

Notes: Values are reported in micrograms per liter.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11295TW108	11295TW108	11460TWPEO	11755TWBR1
Date	08/22/90	08/24/90	08/21/90	05/30/90
Analytes				
Metals/Anions/General Chem				
Zinc	34.8	NA	< 18.0	NA
Phenols				
2,3,6-Trichlorophenol (GCMS)	NA	< 1.70	< 1.70	NA
2,4,5-Trichlorophenol (GCMS)	NA	< 2.80	< 2.80	NA
2,4,6-Trichlorophenol (GCMS)	NA	< 3.60	< 3.60	NA
2,4-Dichlorophenol (GCMS)	NA	< 8.40	< 8.40	NA
2,4-Dimethylphenol (GCMS)	NA	< 4.40	< 4.40	NA
2,4-Dinitrophenol (GCMS)	NA	< 176	< 176	NA
2-Chlorophenol (GCMS)	NA	< 2.80	< 2.80	NA
2-Methylphenol (GCMS)	NA	< 3.60	< 3.60	NA
2-Nitrophenol (GCMS)	NA	< 8.20	< 8.20	NA
3-Methyl-4-Chlorophenol (GCMS)	NA	< 8.50	< 8.50	NA
4-Methylphenol (GCMS)	NA	< 2.80	< 2.80	NA
4-Nitrophenol (GCMS)	NA	< 96.0	< 96.0	NA
Phenol (GCMS)	NA	< 2.20	< 2.20	NA
Semivolatiles				
1,4-Oxathiane	NA	< 2.38	< 2.38	NA
1,4-Oxathiane (GCMS)	NA	< 27.0	< 27.0	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	NA	< 0.0490	< 0.0490	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	NA	< 18.0	< 18.0	NA

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Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11295TW108	11295TW108	11460TWPEO	11755TWBRI
Date	08/22/90	08/24/90	08/21/90	05/30/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	NA	< 0.0540	< 0.0540	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	NA	< 14.0	< 14.0	NA
4-Chlorophenylmethyl Sulfide	NA	< 5.69	< 5.69	NA
4-Chlorophenylmethyl Sulfide (GCMS)	NA	< 10.0	< 10.0	NA
4-Chlorophenylmethyl Sulfone	NA	< 7.46	< 7.46	NA
4-Chlorophenylmethyl Sulfone (GCMS)	NA	< 5.30	< 5.30	NA
4-Chlorophenylmethyl Sulfoxide	NA	< 11.5	< 11.5	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	< 15.0	< 15.0	NA
Aldrin	NA	< 0.0500	< 0.0500	NA
Aldrin (GCMS)	NA	< 13.0	< 13.0	NA
Atrazine	NA	< 4.03	< 4.03	NA
Atrazine (GCMS)	NA	< 5.90	< 5.90	NA
Benothiazole	NA	< 5.00	< 5.00	NA
Bicyclo [2,2,1] hepta-2,5-diene	NA	< 5.90	< 5.90	NA
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	< 7.70	< 7.70	NA
Caprolactam (GCMS)	NA	< 10.0	< 7.70	NA
Chlordane	NA	< 0.0950	< 0.0950	NA
Chlordane (GCMS)	NA	< 37.0	< 37.0	NA

Notes: Values are reported in micrograms per liter.

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Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11295TW108	11295TW108	11460TWPE0	11755TU0R1
Date	08/22/90	08/24/90	08/21/90	05/30/90
Analytes				
Semivolatiles				
Dicyclopentadiene	NA	< 5.00	< 5.00	NA
Dicyclopentadiene (GCMS)	NA	< 5.50	< 5.50	NA
Dieldrin	NA	< 0.0500	< 0.0500	NA
Dieldrin (GCMS)	NA	< 26.0	< 26.0	NA
Diisopropyl Methylphosphonate	NA	3.24	0.830	< 0.392
Diisopropyl Methylphosphonate (GCMS)	NA	< 21.0	< 21.0	NA
Dimethylmethyl Phosphonate	NA	< 0.188	< 0.188	26.6
Dimethylmethyl Phosphonate (GCMS)	NA	< 130	< 130	NA
Dithiane	NA	< 1.34	< 1.34	NA
Dithiane (GCMS)	NA	< 3.30	< 3.30	NA
Endrin	NA	< 0.0500	< 0.0500	NA
Endrin (GCMS)	NA	< 16.0	< 16.0	NA
Hexachlorocyclopentadiene	NA	< 0.0480	< 0.0480	NA
Hexachlorocyclopentadiene (GCMS)	NA	< 54.0	< 54.0	NA
Isodrin	NA	< 0.0510	< 0.0510	NA
Isodrin (GCMS)	NA	< 7.80	< 7.80	NA
Malathion	NA	< 0.373	< 0.373	NA
Malathion (GCMS)	NA	< 21.0	< 21.0	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

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rejected.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11295TW108	11295TW108	11460TWPEO	11755TWBR1
Date	08/22/90	08/24/90	08/21/90	05/30/90
Analytes				
Semivolatiles				
Parathion	NA	< 0.647	< 0.647	NA
Parathion (GCMS)	NA	< 37.0	< 37.0	NA
Pentachlorophenol (GCMS)	NA	< 9.10	< 9.10	NA
Supona	NA	< 0.787	< 0.787	NA
Supona (GCMS)	NA	< 19.0	< 19.0	NA
Vapona	NA	< 0.384	< 0.384	NA
Vapona (GCMS)	NA	< 8.50	< 8.50	NA
Volatiles				
1,1,1-Trichloroethane	< 0.760	NA	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,1,2-Trichloroethane	< 0.780	NA	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,1-Dichloroethane	< 0.730	NA	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,1-Dichloroethene	< 1.70	NA	< 1.70	< 1.70
1,1-Dichloroethene (GCMS)	< 1.00	NA	< 1.00	NA
1,2-Dichloroethane	< 1.10	NA	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	NA	< 1.00	NA
1,2-Dichloroethenes (cis & trans)	< 0.760	NA	< 0.760	< 0.760

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11295TW108	11295TW108	11460TUPEO	11755TUBRI
Date	08/22/90	08/24/90	08/21/90	05/30/90
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans) (GCMS)				
Benzene	< 5.00	NA	< 5.00	NA
Benzene (GCMS)	< 1.05	NA	< 1.05	NA
Carbon Tetrachloride	< 1.00	NA	< 1.00	NA
Carbon Tetrachloride (GCMS)	< 0.990	NA	< 0.990	< 0.990
	< 1.00	NA	< 1.00	NA
Chlorobenzene	< 0.820	NA	< 0.820	< 0.820
Chlorobenzene (GCMS)	< 1.00	NA	< 1.00	NA
Chloroform	< 0.500	NA	< 0.500	< 0.500
Chloroform (GCMS)	< 1.00	NA	< 1.00	NA
Dibromochloropropane	< 0.195	NA	< 0.195	NA
Dibromochloropropane (GCMS)				
Dimethyl Disulfide	NA	< 12.0	< 12.0	NA
Ethyl Benzene	NA	< 0.550	< 0.550	NA
Ethyl Benzene (GCMS)	< 1.37	NA	< 1.37	NA
M-Xylene	< 1.00	NA	< 1.00	NA
	< 1.32	NA	< 1.32	NA
M-Xylene (GCMS)	< 1.00	NA	< 1.00	NA
Methylene Chloride	< 7.40	NA	< 7.40	< 7.40
Methylene Chloride (GCMS)	< 1.00	NA	< 1.00	NA

Notes: Values are reported in micrograms per liter.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11295TW108	11295TW108	11460TWPEO	11755TWBRI
Date	08/22/90	08/24/90	08/21/90	05/30/90
Analytes				
Volatiles				
Methylisobutyl Ketone	NA	< 4.90	< 4.90	NA
Methylisobutyl Ketone (GCMS)	< 1.40	NA	< 1.40	NA
O,P-Xylene	< 1.36	NA	< 1.36	NA
O,P-Xylene (GCMS)	< 2.00	NA	< 2.00	NA
Tetrachloroethene	< 0.750	NA	< 0.750	< 0.750
Tetrachloroethene (GCMS)				
Toluene	< 1.00	NA	< 1.00	NA
Toluene (GCMS)	< 1.47	NA	< 1.47	NA
Trichloroethene	< 1.00	NA	< 1.00	NA
Trichloroethene (GCMS)	< 0.560	NA	< 0.560	< 0.560
	< 1.00	NA	< 1.00	NA
Vinyl Chloride (GCMS)	< 12.0	NA	< 12.0	NA

Notes: Values are reported in micrograms per liter.

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above the Maximum Reporting Limit.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11810TW8R1	11830TW112	11830TW112	11841TU096
Date	05/10/90	01/31/89	09/08/89	09/07/89
Analytes				

Metals/Anions/General Chem				
Arsenic	NA	< 2.35	NA	NA
Cadmium	NA	< 8.40	NA	NA
Calcium	NA	100000	NA	NA
Chloride	NA	87000	NA	NA
Chromium	NA	< 24.0	NA	NA
Copper	NA	< 26.0	NA	NA
Cyanide	NA	12.0	NA	NA
Fluoride	NA	1840	NA	NA
Iron	NA	NA	NA	NA
Lead	NA	< 74.0	NA	NA
Magnesium	NA	32500	NA	NA
Manganese	NA	NA	NA	NA
Mercury	NA	< 0.100	NA	NA
Nitrite, Nitrate -- Non-Specific	NA	3400	NA	NA
Potassium	NA	4200	NA	NA
Sodium	NA	78500	NA	NA
Sulfate	NA	200000	NA	NA
Total Organic Carbon	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	11810TWBRI 05/10/90	11830TW112 01/31/89	11830TW112 09/08/89	11841TW096 09/07/89
Analytes				
Metals/Anions/General Chem				
Zinc	NA	< 22.0	NA	NA
Phenols				
2,3,6-Trichlorophenol (GCMS)	NA	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	NA	< 2.80	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	NA	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	NA	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	NA	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	NA	< 176	< 176	< 176
2-Chlorophenol (GCMS)	NA	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	NA	< 3.60	< 0.600	< 0.600
2-Nitrophenol (GCMS)	NA	< 8.20	< 3.00	< 3.00
3-Methyl-4-Chlorophenol (GCMS)	NA	< 8.50	< 0.300	< 0.300
4-Methylphenol (GCMS)	NA	< 2.80	< 0.600	< 0.600
4-Nitrophenol (GCMS)	NA	< 96.0	< 0.400	< 0.400
Phenol (GCMS)	NA	< 2.20	< 0.320	< 0.320
Semivolatiles				
1,4-Oxathiane	NA	< 2.38	< 1.97	< 1.97
1,4-Oxathiane (GCMS)	NA	< 27.0	< 0.160	< 0.160
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	NA	< 0.0490	NA	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	NA	< 18.0	< 1.20	< 1.20

Notes: Values are reported in micrograms per liter.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11810TWBRI	11830TW112	11830TW112	11841TU096
Date	05/10/90	01/31/89	09/08/89	09/07/89
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	NA	< 0.0540	NA	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	NA	< 14.0	< 3.39	< 3.39
4-Chlorophenylmethyl Sulfide	NA	< 5.69	< 10.5	< 10.5
4-Chlorophenylmethyl Sulfide (GCMS)	NA	< 10.0	< 1.30	< 1.30
4-Chlorophenylmethyl Sulfone	NA	< 7.46	< 4.70	< 4.70
4-Chlorophenylmethyl Sulfone (GCMS)	NA	< 5.30	< 0.750	< 0.750
4-Chlorophenylmethyl Sulfoxide	NA	< 11.5	< 15.2	< 15.2
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	< 15.0	< 0.500	< 0.500
Aldrin	NA	< 0.0500	NA	NA
Aldrin (GCMS)	NA	< 13.0	< 0.800	< 0.800
Atrazine	NA	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	NA	< 5.90	< 0.500	< 0.500
Benothiazole	NA	< 5.00	< 0.00234	< 0.00234
Bicyclo [2,2,1] hepta-2,5-diene	NA	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	NA	NA	NA
Caprolactam (GCMS)	NA	NA	NA	NA
Chlordane	NA	< 0.0950	NA	NA
Chlordane (GCMS)	NA	< 37.0	< 0.260	< 0.260

Notes: Values are reported in micrograms per liter.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11810TWBR1	11830TW112	11830TW112	11841TU096
Date	05/10/90	01/31/89	09/08/89	09/07/89
Analytes				
Semivolatiles				
Dicyclopentadiene	NA	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	NA	< 5.50	< 0.560	< 0.560
Dieldrin	NA	< 0.0500	NA	NA
Dieldrin (GCMS)	NA	< 26.0	< 0.930	< 0.930
Diisopropyl Methylphosphonate	140	5.11	0.477	< 1.26
Diisopropyl Methylphosphonate (GCMS)	NA	< 21.0	< 1.60	< 1.60
Dimethylmethyl Phosphonate	< 0.188	0.241	< 4.23	< 4.23
Dimethylmethyl Phosphonate (GCMS)	NA	< 130	< 0.700	< 0.700
Dithiane	NA	< 1.34	< 0.114	< 0.114
Dithiane (GCMS)	NA	< 3.30	< 0.710	< 0.710
Endrin	NA	< 0.0500	NA	NA
Endrin (GCMS)	NA	< 18.0	< 0.100	< 0.100
Hexachlorocyclopentadiene	NA	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	NA	< 54.0	< 0.520	< 0.520
Isodrin	NA	< 0.0510	NA	NA
Isodrin (GCMS)	NA	< 7.80	< 0.990	< 0.990
Malathion	NA	< 0.373	< 0.373	< 0.373
Malathion (GCMS)	NA	< 21.0	< 0.620	< 0.620

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11810TWBRI	11830TW112	11830TW112	11841TW096
Date	05/10/90	01/31/89	09/08/89	09/07/89
Analytes				
Semivolatiles				
Parathion	NA	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	NA	< 37.0	< 8.10	< 8.10
Pentachlorophenol (GCMS)	NA	< 9.10	< 0.290	< 0.290
Supona	NA	< 0.787	< 0.787	< 0.787
Supona (GCMS)	NA	< 19.0	< 3.90	< 3.90
Vapona	NA	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	NA	< 8.50	< 0.670	< 0.670
Volatiles				
1,1,1-Trichloroethane	< 0.760	< 0.760	NA	NA
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	< 0.780	< 0.780	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	< 0.730	< 0.730	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	< 1.70	< 1.70	NA	NA
1,1-Dichloroethene (GCMS)	NA	NA	NA	NA
1,2-Dichloroethane	< 1.10	< 1.10	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	NA	NA

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11810TWBR1	11830TW112	11830TW112	11841TW096
Date	05/10/90	01/31/89	09/08/89	09/07/89
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans) (GCMS)				
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	< 1.05	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	< 0.990	< 0.990	NA	NA
	NA	NA	NA	NA
Chlorobenzene	< 0.820	< 0.820	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	< 0.500	< 0.500	NA	NA
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	< 0.195	< 0.195	< 0.195
Dibromochloropropane (GCMS)	NA	< 12.0	< 0.250	< 0.250
Dimethyl Disulfide	NA	< 0.550	< 0.133	< 0.133
Ethyl Benzene	NA	< 1.37	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
m-Xylene	NA	< 1.32	NA	NA
m-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	< 7.40	< 7.40	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11810TW8RI	11830TW112	11830TW112	11841TW096
Date	05/10/90	01/31/89	09/08/89	09/07/89
Analytes				
Volatiles				
Methylisobutyl Ketone	NA	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	< 1.36	NA	NA
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	< 0.750	< 0.750	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA
Toluene	NA	< 1.47	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	< 0.560	< 0.560	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA
Vinyl Chloride (GCMS)	NA	NA	NA	NA

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11841TW096	11841TW096	11921TW096	12001TW096
Date	01/26/90	08/21/90	09/07/89	05/10/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.35	< 2.35	NA	NA
Cadmium	< 6.78	< 6.78	NA	NA
Calcium	1510	1480	NA	NA
Chloride	R	3390	NA	NA
Chromium	< 16.8	< 16.8	NA	NA
Copper	< 18.8	< 18.8	NA	NA
Cyanide	< 5.00	< 8.90	NA	NA
Fluoride	R	2920	NA	NA
Iron	NA	< 77.5	NA	NA
Lead	< 43.4	< 43.4	NA	NA
Magnesium	< 135	51.3	NA	NA
Manganese	NA	< 9.67	NA	NA
Mercury	< 0.100	1.35	NA	NA
Nitrite, Nitrate -- Non-Specific	44.2	150	NA	NA
Potassium	< 1240	< 1240	NA	NA
Sodium	100000	93000	NA	NA
Sulfate	R	21000	NA	NA
Total Organic Carbon	< 1000	< 1000	NA	NA

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11841TW096	11841TW096	11921TW096	12001TW096
Date	01/26/90	08/21/90	09/07/89	05/10/90
Analytes				
Metals/Anions/General Chem				
Zinc	< 18.0	< 18.0	NA	NA
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	NA
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	NA
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	NA
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	NA
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	NA
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	NA
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	NA
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 0.600	NA
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 3.00	NA
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 0.300	NA
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 0.600	NA
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 0.400	NA
Phenol (GCMS)	< 2.20	< 2.20	< 0.320	NA
Semivolatiles				
1,4-Oxathiane	< 2.38	< 2.38	< 1.97	NA
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 0.160	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	NA	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 1.20	NA

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11841TW096	11841TW096	11921TW096	12001TW096
Date	01/26/90	08/21/90	09/07/89	05/10/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	< 0.0540	NA	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 3.39	NA
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 10.5	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 1.30	NA
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 4.70	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 0.750	NA
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 15.2	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 0.500	NA
Aldrin	< 0.0500	< 0.0500	NA	NA
Aldrin (GCMS)	< 13.0	< 13.0	< 0.800	NA
Atrazine	< 4.03	< 4.03	< 4.03	NA
Atrazine (GCMS)	< 5.90	< 5.90	< 0.500	NA
Benothiazole	< 5.00	< 5.00	< 0.00234	NA
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	NA
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	NA	NA
Caprolactam (GCMS)	< 10.0	< 7.70	NA	NA
Chlordane	< 0.0950	< 0.0950	NA	NA
Chlordane (GCMS)	< 37.0	< 37.0	< 0.260	NA

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rejected.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11841TW096	11841TW096	11921TW096	12001TW096
Date	01/26/90	08/21/90	09/07/89	05/10/90
Analytes				
Semivolatiles				
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	NA
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 0.560	NA
Dieldrin	< 0.0500	< 0.0500	NA	NA
Dieldrin (GCMS)	< 26.0	< 26.0	< 0.930	NA
Diisopropyl Methylphosphonate	0.521	< 0.392	< 1.26	6.52
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 1.60	NA
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 4.23	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 0.700	NA
Dithiane	< 1.34	< 1.34	< 0.114	NA
Dithiane (GCMS)	< 3.30	< 3.30	< 0.710	NA
Endrin	< 0.0500	< 0.0500	NA	NA
Endrin (GCMS)	< 18.0	< 18.0	< 0.100	NA
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	NA
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 0.520	NA
Isodrin	< 0.0510	< 0.0510	NA	NA
Isodrin (GCMS)	< 7.80	< 7.80	< 0.990	NA
Malathion	< 0.373	< 0.373	< 0.373	NA
Malathion (GCMS)	< 21.0	< 21.0	< 0.620	NA

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11841TW096	11841TW096	11921TW096	12001TW096
Date	01/26/90	08/21/90	09/07/89	05/10/90
Analytes				
Semivolatiles				
Parathion	< 0.647	< 0.647	< 0.647	NA
Parathion (GCMS)	< 37.0	< 37.0	< 8.10	NA
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 0.290	NA
Supona	< 0.787	< 0.787	< 0.787	NA
Supona (GCMS)	< 19.0	< 19.0	< 3.90	NA
Vapona	< 0.384	< 0.384	< 0.384	NA
Vapona (GCMS)	< 8.50	< 8.50	< 0.670	NA
Volatiles				
1,1,1-Trichloroethane	< 0.760	< 0.760	NA	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	NA	NA
1,1,2-Trichloroethane	< 0.780	< 0.780	NA	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	NA	NA
1,1-Dichloroethane	< 0.730	< 0.730	NA	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	NA	NA
1,1-Dichloroethene	< 1.70	< 1.70	NA	< 1.70
1,1-Dichloroethene (GCMS)	< 1.00	< 1.00	NA	NA
1,2-Dichloroethane	< 1.10	< 1.10	NA	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	NA	NA
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	NA	< 0.760

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	11841TW096	11841TW096	11921TW096	12001TW096
Date	01/26/90	08/21/90	09/07/89	05/10/90
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	NA	NA
Benzene	< 1.05	< 1.05	NA	NA
Benzene (GCMS)	< 1.00	< 1.00	NA	NA
Carbon Tetrachloride	< 0.990	< 0.990	NA	< 0.990
Carbon Tetrachloride (GCMS)	< 1.00	< 1.00	NA	NA
Chlorobenzene	< 0.820	< 0.820	NA	< 0.820
Chlorobenzene (GCMS)	< 1.00	< 1.00	NA	NA
Chloroform	24.9	1.17	NA	< 0.500
Chloroform (GCMS)	< 1.00	< 1.00	NA	NA
Dibromochloropropane	< 0.195	< 0.195	< 0.195	NA
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 0.250	NA
Dimethyl Disulfide	< 0.550	< 0.550	< 0.133	NA
Ethyl Benzene	< 1.37	< 1.37	NA	NA
Ethyl Benzene (GCMS)	< 1.00	< 1.00	NA	NA
M-Xylene	< 1.32	< 1.32	NA	NA
M-Xylene (GCMS)	< 1.00	< 1.00	NA	NA
Methylene Chloride	< 7.40	< 7.40	NA	< 7.40
Methylene Chloride (GCMS)	< 1.00	< 1.00	NA	NA

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID Date	11841TW096 01/26/90	11841TW096 08/21/90	11921TW096 09/07/89	12001TW096 05/10/90
Analytes				
Volatiles				
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	NA
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	NA	NA
O,P-Xylene	< 1.36	< 1.36	NA	NA
O,P-Xylene (GCMS)	< 2.00	< 2.00	NA	NA
Tetrachloroethene	< 0.750	< 0.750	NA	< 0.750
Tetrachloroethene (GCMS)	< 1.00	< 1.00	NA	NA
Toluene	< 1.47	< 1.47	NA	NA
Toluene (GCMS)	< 1.00	< 1.00	NA	NA
Trichloroethene	< 0.560	< 0.560	NA	< 0.560
Trichloroethene (GCMS)	< 1.00	< 1.00	NA	NA
Vinyl Chloride (GCMS)	< 12.0	< 12.0	NA	NA

Notes: Values are reported in micrograms per liter.
 Reported values are accurate to three significant figures.
 < -- indicates that the target analyte was not detected at
 or above the Certified Reporting Limit.
 > -- indicates that the target analyte was detected at or
 above the Maximum Reporting Limit.
 NA -- Not Analyzed.
 R -- Data did not meet quality control criteria and were
 rejected.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	13350TW104	13701TW104	37431
Date	01/17/89	01/17/89	11/21/89
Analytes			
Metals/Anions/General Chem			
Arsenic	< 2.35	< 2.35	3.22
Cadmium	< 8.40	< 8.40	< 6.78
Calcium	83500	34000	1810
Chloride	60000	38000	2580
Chromium	< 24.0	< 24.0	19.8
Copper	< 26.0	< 26.0	< 18.8
Cyanide	< 5.00	< 5.00	< 5.00
Fluoride	1540	3450	NA
Iron	NA	NA	NA
Lead	< 74.0	< 74.0	< 43.4
Magnesium	8790	7110	< 135
Manganese	NA	NA	NA
Mercury	< 0.100	< 0.100	< 0.100
Nitrite, Nitrate -- Non-Specific	290	57.5	1000
Potassium	1070	916	< 1240
Sodium	190000	160000	120000
Sulfate	280000	180000	2490
Total Organic Carbon	NA	NA	< 500

Notes: Values are reported in micrograms per liter.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	13350TW104	13701TW104	37431	37431
Date	01/17/89	01/17/89	09/13/89	11/21/89
Analytes				
Metals/Anions/General Chem	23.1	667	NA	< 18.0
Zinc				
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	NA	NA	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 0.600	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 3.00	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 0.300	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 0.600	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 0.400	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 0.320	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	< 2.38	< 1.97	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 0.160	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	NA	< 0.0490
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 1.20	< 18.0

Notes: Values are reported in micrograms per liter.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	13350TW104	13701TW104	37431	37431
Date	01/17/89	01/17/89	09/13/89	11/21/89
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	< 0.0540	NA	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0	< 3.39	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 10.5	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 1.30	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 4.70	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 0.750	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 15.2	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 0.500	< 15.0
Aldrin	< 0.0500	< 0.0500	NA	< 0.0500
Aldrin (GCMS)	< 13.0	< 13.0	< 0.800	< 13.0
Atrazine	< 4.03	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	< 5.90	< 5.90	< 0.500	< 5.90
Benzothiazole	< 5.00	< 5.00	< 0.00234	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	NA	NA	< 7.70
Caprolactam (GCMS)	NA	NA	NA	< 10.0
Chlordane	< 0.0950	< 0.0950	NA	< 0.0950
Chlordane (GCMS)	< 37.0	< 37.0	< 0.260	< 37.0

Notes: Values are reported in micrograms per liter.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID	13350TW104	13701TW104	37431	37431
Date	01/17/89	01/17/89	09/13/89	11/21/89
Analytes				
Semivolatiles				
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 0.560	< 5.50
Dieldrin	< 0.0500	< 0.0500	NA	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 0.930	< 26.0
Diisopropyl Methylphosphonate	22.0	3.87	< 1.26	< 0.392
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 1.60	< 21.0
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 4.23	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 0.700	< 130
Dithiane	< 1.34	< 1.34	< 0.114	< 1.34
Dithiane (GCMS)	< 3.30	< 3.30	< 0.710	< 3.30
Endrin	< 0.0500	< 0.0500	NA	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 0.100	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 0.520	< 54.0
Isodrin	< 0.0510	< 0.0510	NA	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 0.990	< 7.80
Malathion	< 0.373	< 0.373	< 0.373	< 0.373
Malathion (GCMS)	< 21.0	< 21.0	< 0.620	< 21.0

Notes: Values are reported in micrograms per liter.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

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rejected.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	13350TW104	13701TW104	37431	37431
Date	01/17/89	01/17/89	09/13/89	11/21/89
Analytes				
Semivolatiles				
Parathion	< 0.647	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 8.10	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 0.290	< 9.10
Supona	< 0.787	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 3.90	< 19.0
Vapona	< 0.384	< 0.384	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50	< 0.670	< 8.50
Volatiles				
1,1,1-Trichloroethane	< 0.760	< 0.760	NA	< 0.760
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	< 0.780	< 0.780	NA	< 0.780
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	< 0.730	< 0.730	NA	< 0.730
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	< 1.70	< 1.70	NA	< 1.70
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethane	< 1.10	< 1.10	NA	< 1.10
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	NA	< 0.760

Notes: Values are reported in micrograms per liter.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	13350TW104	13701TW104	37431	37431
Date	01/17/89	01/17/89	09/13/89	11/21/89
Analytes				
Volatiles				
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	< 1.05	< 1.05	NA	< 1.05
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	< 0.990	< 0.990	NA	< 0.990
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	< 0.820	< 0.820	NA	< 0.820
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	< 0.500	< 0.500	NA	< 0.500
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	< 0.195	< 0.195	< 0.195	< 0.195
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 0.250	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.133	< 0.550
Ethyl Benzene	< 1.37	< 1.37	NA	< 1.37
Ethyl Benzene (GCMS)	NA	NA	NA	NA
M-Xylene	< 1.32	< 1.32	NA	< 1.32
M-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	< 7.40	< 7.40	NA	< 7.40
Methylene Chloride (GCMS)	NA	NA	NA	NA

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rejected.

Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID	13350TW104	13701TW104	37431	37431
Date	01/17/89	01/17/89	09/13/89	11/21/89
Analytes				
Volatiles				
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	< 1.36	< 1.36	NA	< 1.36
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	< 0.750	< 0.750	NA	< 0.750
Tetrachloroethene .MS)	NA	NA	NA	NA
Toluene	< 1.47	< 1.47	NA	< 1.47
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	< 0.560	< 0.560	NA	< 0.560
Trichloroethene (GCMS)	NA	NA	NA	NA
Vinyl Chloride (GCMS)	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

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rejected.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	37445	8834ATW096	8834ATW096	8834ATW096
Date	08/28/90	08/22/90	08/24/90	08/22/90

Analytes				
Metals/Anions/General Chem				
Arsenic	4.89	< 2.35	NA	< 2.35
Cadmium	< 6.78	NA	NA	NA
Calcium	2450	NA	NA	NA
Chloride	9960	120000	NA	64000
Chromium	< 16.8	NA	NA	NA
Copper	31.8	NA	NA	NA
Cyanide	< 8.90	NA	NA	NA
Fluoride	2850	1370	NA	1080
Iron	NA	NA	NA	NA
Lead	< 43.4	NA	NA	NA
Magnesium	161	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.100	< 0.100	NA	< 0.100
Nitrite, Nitrate -- Non-Specific	140	2500	NA	7000
Potassium	< 1240	NA	NA	NA
Sodium	120000	NA	NA	NA
Sulfate	38000	110000	NA	170000
Total Organic Carbon	< 1500	NA	1500	NA

Notes: Values are reported in micrograms per liter.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
reanalyzed.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	37445	88344TW096	88344TW096	88348TW096
Date	08/28/90	08/22/90	08/24/90	08/22/90
Analytes				
Metals/Anions/General Chem				
Zinc	616	NA	NA	NA
Phenols				
2,3,6-Trichlorophenol (GCMS)	< 1.70	NA	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	NA	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	NA	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	NA	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	NA	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	NA	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	NA	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	NA	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	NA	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	NA	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	NA	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	NA	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	NA	< 2.20	< 2.20
Semivolatiles				
1,4-Oxathiane	< 2.38	NA	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	NA	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	NA	< 0.0490	< 0.0490
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	NA	< 18.0	< 18.0

Notes: Values are reported in micrograms per liter.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

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rejected.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	37445	8834ATW096	8834ATW096	8834ATW096
Date	08/28/90	08/22/90	08/24/90	08/22/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	NA	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	NA	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	NA	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	NA	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	NA	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	NA	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	NA	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	NA	< 15.0	< 15.0
Aldrin	< 0.0500	NA	< 0.0500	< 0.0500
Aldrin (GCMS)	< 13.0	NA	< 13.0	< 13.0
Atrazine	< 4.03	NA	< 4.03	< 4.03
Atrazine (GCMS)	< 5.90	NA	< 5.90	< 5.90
Benzothiazole	< 5.00	NA	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	NA	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	NA	< 7.70	< 7.70
Caprolactam (GCMS)	< 10.0	NA	< 7.70	< 7.70
Chlordane	< 0.0950	NA	< 0.0950	< 0.0950
Chlordane (GCMS)	< 37.0	NA	< 37.0	< 37.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

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rejected.

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	37445	8834ATW096	8834ATW096	8834ATW096
Date	08/28/90	08/22/90	08/24/90	08/22/90
Analytes				
Semivolatiles				
Dicyclopentadiene	< 5.00	NA	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	NA	< 5.50	< 5.50
Dieldrin	< 0.0500	NA	< 0.0500	< 0.0500
Dieldrin (GCMS)	< 26.0	NA	< 26.0	< 26.0
Diisopropyl Methylphosphonate	< 0.392	NA	7.86	< 0.392
Diisopropyl Methylphosphonate (GCMS)	< 21.0	NA	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	NA	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	NA	< 130	< 130
Dithiane	< 1.34	NA	< 1.34	< 1.34
Dithiane (GCMS)	< 3.30	NA	< 3.30	< 3.30
Endrin	< 0.0500	NA	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	NA	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	NA	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	NA	< 54.0	< 54.0
Isodrin	< 0.0510	NA	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	NA	< 7.80	< 7.80
Malathion	< 0.373	NA	< 0.373	< 0.373
Malathion (GCMS)	< 21.0	NA	< 21.0	< 21.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

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Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	37445	8834ATW096	8834ATW096	88348TW096
Date	08/28/90	08/22/90	08/24/90	08/22/90
Analytes				
Semivolatiles				
Parathion	< 0.647	NA	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	NA	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	NA	< 9.10	< 9.10
Supona	< 0.787	NA	< 0.787	< 0.787
Supona (GCMS)	< 19.0	NA	< 19.0	< 19.0
Vapona	< 0.384	NA	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	NA	< 8.50	< 8.50
Volatiles				
1,1,1-Trichloroethane	< 0.760	< 0.760	NA	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	NA	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	NA	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	NA	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	NA	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	NA	< 1.00
1,1-Dichloroethene	< 1.70	< 1.70	NA	< 1.70
1,1-Dichloroethene (GCMS)	< 1.00	< 1.00	NA	< 1.00
1,2-Dichloroethane	< 1.10	< 1.10	NA	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	NA	< 1.00
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	NA	< 0.760

Notes: Values are reported in micrograms per liter.

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NA -- Not Analyzed.

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retested

Table B5 Investigative Analytical Data
for Domestic Well Samples

Sample ID	37445	8834ATW096	8834ATW096	8834ATW096	8834ATW096
Date	08/28/90	08/22/90	08/22/90	08/24/90	08/22/90
Analytes					
Volatiles					
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00		NA	< 5.00
Benzene	< 1.05	< 1.05		NA	< 1.05
Benzene (GCMS)	< 1.00	< 1.00		NA	< 1.00
Carbon Tetrachloride	< 0.990	< 0.990		NA	< 0.990
Carbon Tetrachloride (GCMS)	< 1.00	< 1.00		NA	< 1.00
Chlorobenzene	< 0.820	< 0.820		NA	< 0.820
Chlorobenzene (GCMS)	< 1.00	< 1.00		NA	< 1.00
Chloroform	< 0.500	2.74		NA	< 0.500
Chloroform (GCMS)	< 1.00	33.0		NA	< 1.00
Dibromochloropropane	< 0.195	< 0.195		NA	< 0.195
Dibromochloropropane (GCMS)					
Dimethyl Disulfide	< 12.0	NA		< 12.0	< 12.0
Ethyl Benzene	< 0.550	NA		< 0.550	< 0.550
Ethyl Benzene (GCMS)	< 1.37	< 1.37		NA	< 1.37
M-Xylene	< 1.00	< 1.00		NA	< 1.00
	< 1.32	< 1.32		NA	< 1.32
M-Xylene (GCMS)	< 1.00	< 1.00		NA	< 1.00
Methylene Chloride	< 7.40	< 7.40		NA	< 7.40
Methylene Chloride (GCMS)	< 1.00	< 1.00		NA	< 1.00

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table 85 Investigative Analytical Data
for Domestic Well Samples

Sample ID	37445	8834ATW096	8834ATW096	88348TW096
Date	08/28/90	08/22/90	08/24/90	08/22/90
Analytes				
Volatiles				
Methylisobutyl Ketone	< 4.90	NA	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	NA	< 1.40
O,P-Xylene	< 1.36	< 1.36	NA	< 1.36
O,P-Xylene (GCMS)	< 2.00	< 2.00	NA	< 2.00
Tetrachloroethene	< 0.750	< 0.750	NA	< 0.750
Tetrachloroethene (GCMS)	< 1.00	< 1.00	NA	< 1.00
Toluene	< 1.47	< 1.47	NA	< 1.47
Toluene (GCMS)	< 1.00	< 1.00	NA	< 1.00
Trichloroethene	< 0.560	< 0.560	NA	< 0.560
Trichloroethene (GCMS)	< 1.00	< 1.00	NA	< 1.00
Vinyl Chloride (GCMS)	< 12.0	< 12.0	NA	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
reanalyzed.

Table B5 Investigative Analytical Data
for Domestic Well Samples8834CTW096
08/22/90Sample ID
Date

Analytes

Metals/Anions/General Chem

Arsenic	< 2.35
Cadmium	< 6.78
Calcium	2470
Chloride	2710
Chromium	< 16.8
Copper	< 18.8
Cyanide	NA
Fluoride	2890
Iron	< 77.5
Lead	< 43.4
Magnesium	< 135
Manganese	< 9.67
Mercury	< 0.100
Nitrite, Nitrate -- Non-Specific	240
Potassium	< 1240
Sodium	100000
Sulfate	9180
Total Organic Carbon	< 1000

Notes: Values are reported in micrograms per liter.
 Reported values are accurate to three significant figures.
 < -- indicates that the target analyte was not detected at
 or above the Certified Reporting Limit.
 > -- indicates that the target analyte was detected at or
 above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table 85 Investigative Analytical Data
for Domestic Well Samples8834CTW096
08/22/90Sample ID
Date

Analytes

Metals/Anions/General Chem

Zinc

< 18.0

Phenols

2,3,6-Trichlorophenol (GCMS)

< 1.70

2,4,5-Trichlorophenol (GCMS)

< 2.80

2,4,6-Trichlorophenol (GCMS)

< 3.60

2,4-Dichlorophenol (GCMS)

< 8.40

2,4-Dimethylphenol (GCMS)

< 4.40

2,4-Dinitrophenol (GCMS)

< 176

2-Chlorophenol (GCMS)

< 2.80

2-Methylphenol (GCMS)

< 3.60

2-Nitrophenol (GCMS)

< 8.20

3-Methyl-4-Chlorophenol (GCMS)

< 8.50

4-Methylphenol (GCMS)

< 2.80

4-Nitrophenol (GCMS)

< 96.0

Phenol (GCMS)

< 2.20

Semivolatiles

1,4-Oxathiane

< 2.38

1,4-Oxathiane (GCMS)

< 27.0

2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)

< 0.0490

2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)

< 18.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table 85 Investigative Analytical Data
for Domestic Well Samples8834CTW096
08/22/90Sample ID
Date

Analytes

Semivolatiles

2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0
Aldrin	< 0.0500
Aldrin (GCMS)	< 13.0
Atrazine	< 4.03
Atrazine (GCMS)	< 5.90
Benzothiazole	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70
Caprolactam (GCMS)	< 7.70
Chlordane	< 0.0950
Chlordane (GCMS)	< 37.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table 85 Investigative Analytical Data
for Domestic Well Samples8834CTW096
08/22/90Sample ID
Date

Analytes

Semivolatiles

Dicyclopentadiene	< 5.00
Dicyclopentadiene (GCMS)	< 5.50
Dieldrin	< 0.0500
Dieldrin (GCMS)	< 26.0
Diisopropyl Methylphosphonate	< 0.392
Diisopropyl Methylphosphonate (GCMS)	< 21.0
Dimethylmethyl Phosphonate	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130
Dithiane	< 1.34
Dithiane (GCMS)	< 3.30
Endrin	< 0.0500
Endrin (GCMS)	< 18.0
Hexachlorocyclopentadiene	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0
Isodrin	< 0.0510
Isodrin (GCMS)	< 7.80
Malathion	< 0.373
Malathion (GCMS)	< 21.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
retested.

Table 85 Investigative Analytical Data
for Domestic Well SamplesSample ID
Date
8834CTW096
08/22/90

Analytes

Semivolatiles

Parathion	< 0.647
Parathion (GCMS)	< 37.0
Pentachlorophenol (GCMS)	< 9.10
Supona	< 0.787
Supona (GCMS)	< 19.0
Vapona	< 0.384
Vapona (GCMS)	< 8.50

Volatiles

1,1,1-Trichloroethane	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00
1,1,2-Trichloroethane	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00
1,1-Dichloroethane	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00
1,1-Dichloroethene	< 1.70
1,1-Dichloroethene (GCMS)	< 1.00
1,2-Dichloroethane	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00
1,2-Dichloroethenes (cis & trans)	< 0.760

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table 85 Investigative Analytical Data
for Domestic Well Samples8834CTW096
08/22/90Sample ID
Date

Analytes

Volatiles

1,2-Dichloroethenes (cis & trans) (GCMS)

Benzene

Benzene (GCMS)

Carbon Tetrachloride

Carbon Tetrachloride (GCMS)

Chlorobenzene

Chlorobenzene (GCMS)

Chloroform

Chloroform (GCMS)

Dibromochloropropane

Dibromochloropropane (GCMS)

Dimethyl Disulfide

Ethyl Benzene

Ethyl Benzene (GCMS)

M-Xylene

M-Xylene (GCMS)

Methylene Chloride

Methylene Chloride (GCMS)

< 5.00

< 1.05

< 1.00

< 0.990

< 1.00

< 0.820

< 1.00

< 0.500

< 1.00

< 0.195

< 12.0

< 0.550

< 1.37

< 1.00

< 1.32

< 1.00

< 7.40

< 1.00

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
omitted.

Table B5 Investigative Analytical Data
for Domestic Well SamplesSample ID
Date8834CTM096
08/22/90

Analytes

Volatiles

Methylisobutyl Ketone

Methylisobutyl Ketone (GCMS)

O,P-Xylene

O,P-Xylene (GCMS)

Tetrachloroethene

Tetrachloroethene (GCMS)

Toluene

Toluene (GCMS)

Trichloroethene

Trichloroethene (GCMS)

Vinyl Chloride (GCMS)

< 4.90
 < 1.40
 < 1.36
 < 2.00
 < 0.750

 < 1.00
 < 1.47
 < 1.00
 < 0.560
 < 1.00

 < 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Appendix C
SURFACE-WATER ANALYTICAL DATA

LIST OF TABLES

Table No.

C1	Surface-Water Investigative Analytical Data
C2	Surface-Water GC/MS Analytical Data
C3	Surface-Water Duplicate Analytical Data

Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA0971SW 11/11/88	HA0973SW 11/11/88	HA0977SW 11/15/88	HA0978SW 11/15/88	HA0979SW 11/15/88
Analytes					
Metals/Anions/General Chem					
Arsenic	280	< 2.35	4.55	4.31	5.27
Cadmium	< 8.40	< 8.40	< 8.40	< 8.40	< 8.40
Calcium	790000	190000	150000	160000	160000
Chloride	530000	320000	280000	300000	310000
Chromium	< 24.0	< 24.0	< 24.0	< 24.0	< 24.0
Copper	< 26.0	< 26.0	< 26.0	< 26.0	< 26.0
Cyanide	12.3	< 5.00	< 5.00	< 5.00	< 5.00
Fluoride	6360	3960	3740	3810	4590
Lead	< 74.0	< 74.0	< 74.0	< 74.0	< 74.0
Magnesium	180000	78500	66700	68900	70200
Mercury	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
Nitrite, Nitrate -- Non-Specific	5000	2600	3000	3300	1900
Potassium	8570	4290	4530	4140	4740
Sodium	510000	290000	230000	240000	240000
Sulfate	1500000	480000	410000	440000	430000
Total Organic Carbon	NA	NA	NA	NA	NA
Zinc	93.3	33.6	< 22.0	< 22.0	< 22.0
Phenols					
2,3,6-Trichlorophenol (GCMS)	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol (GCMS)	NA	NA	NA	NA	NA

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA0971SW 11/11/88	HA0973SW 11/11/88	HA0977SW 11/15/88	HA0978SW 11/15/88	HA0979SW 11/15/88
Analytes					
Phenols					
2,4,6-Trichlorophenol (GCMS)	NA	NA	NA	NA	NA
2,4-Dichlorophenol (GCMS)	NA	NA	NA	NA	NA
2,4-Dimethylphenol (GCMS)	NA	NA	NA	NA	NA
2,4-Dinitrophenol (GCMS)	NA	NA	NA	NA	NA
2-Chlorophenol (GCMS)	NA	NA	NA	NA	NA
2-Methylphenol (GCMS)	NA	NA	NA	NA	NA
2-Nitrophenol (GCMS)	NA	NA	NA	NA	NA
3-Methyl-4-Chlorophenol (GCMS)	NA	NA	NA	NA	NA
4-Methylphenol (GCMS)	NA	NA	NA	NA	NA
4-Nitrophenol (GCMS)	NA	NA	NA	NA	NA
Phenol (GCMS)	NA	NA	NA	NA	NA
Semivolatiles					
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 7.90	< 7.90	< 7.90	< 7.90	< 7.90
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	< 0.0490	< 0.0490	< 0.0490
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 9.20	< 9.20	< 9.20	< 9.20	< 9.20
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0540	< 0.0540	< 0.0540	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 17.0	< 17.0	< 17.0	< 17.0	< 17.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

rejt

Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA0971SW 11/11/88	HA0973SW 11/11/88	HA0977SW 11/15/88	HA0978SW 11/15/88	HA0979SW 11/15/88
Analytes					
Semivolatiles					
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	19.4	< 7.46	170
4-Chlorophenylmethyl Sulfone (GCMS)	< 7.20	< 7.20	< 7.20	< 7.20	< 7.20
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5	< 11.5	120
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 29.0	< 29.0	< 29.0	< 29.0	< 29.0
Aldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Aldrin (GCMS)	< 7.50	< 7.50	< 7.50	< 7.50	< 7.50
Atrazine	< 4.03	< 4.03	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60
Benzothiazole	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	NA	NA	NA	NA
Caprolactam (GCMS)	NA	NA	NA	NA	NA
Chlordane	< 0.0950	< 0.0950	< 0.0950	< 0.0950	< 0.0950
Chlordane (GCMS)	< 9.40	< 9.40	< 9.40	< 9.40	< 9.40
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 7.30	< 7.30	< 7.30	< 7.30	< 7.30
Dieldrin	< 0.0500	0.147	< 0.0500	< 0.0500	0.0764
Dieldrin (GCMS)	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70
Diisopropyl Methylphosphonate	4.92	5.90	6.11	5.47	4.76

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA0971SW 11/11/88	HA0973SW 11/11/88	HA0977SW 11/15/88	HA0978SW 11/15/88	HA0979SW 11/15/88
Analytes					
Semivolatiles					
Diisopropyl Methylphosphonate (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0	< 14.0
Dimethylmethyl Phosphonate	0.227	0.238	0.257	0.209	0.251
Dimethylmethyl Phosphonate (GCMS)	< 33.0	< 33.0	< 33.0	< 33.0	< 33.0
Dithiane	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34
Dithiane (GCMS)	< 21.0	< 21.0	44.2	< 21.0	< 21.0
Endrin	NA	NA	NA	NA	NA
Endrin (GCMS)	< 8.00	< 8.00	< 8.00	< 8.00	< 8.00
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	< 0.0480	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0	< 21.0
Isodrin	< 0.0510	< 0.0510	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	< 3.70	< 3.70	< 3.70	< 3.70	< 3.70
Malathion	< 0.373	< 0.373	< 0.373	< 0.373	< 0.373
Malathion (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0	< 14.0
Parathion	< 0.647	< 0.647	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0	< 19.0
Pentachlorophenol (GCMS)	NA	NA	NA	NA	NA
Supona	R	R	R	R	R
Supona (GCMS)	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30
Vapona	< 0.384	< 0.384	< 0.384	< 0.384	< 0.384

Notes: Values are reported in micrograms per liter.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were reje

Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA0971SW 11/11/88	HA0973SW 11/11/88	HA0977SW 11/15/88	HA0978SW 11/15/88	HA0979SW 11/15/88
Analytes					
Semivolatiles					
Vapona (GCMS)	< 17.0	< 17.0	< 17.0	< 17.0	< 17.0
Volatiles					
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethene	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70
1,1-Dichloroethene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Benzene	< 1.05	< 1.05	< 1.05	< 1.05	< 1.05
Benzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chlorobenzene	< 0.820	< 0.820	< 0.820	< 0.820	< 0.820
Chlorobenzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00

Notes: Values are reported in micrograms per liter.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA0971SW 11/11/88	HA0973SW 11/11/88	HA0977SW 11/15/88	HA0978SW 11/15/88	HA0979SW 11/15/88
Analytes					
Volatiles					
Chloroform	< 0.500	< 0.500	< 0.500	0.599	< 0.500
Chloroform (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Dibromochloropropane	< 0.195	< 0.195	< 0.195	< 0.195	< 0.195
Dibromochloropropane (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0	< 19.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
m-Xylene	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32
m-Xylene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Methylene Chloride	< 7.40	< 7.40	< 7.40	< 7.40	< 7.40
Methylene Chloride (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	< 4.90	< 4.90
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40
O,P-Xylene	< 1.36	< 1.36	< 1.36	< 1.36	< 1.36
O,P-Xylene (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00
Tetrachloroethene	< 0.750	< 0.750	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Toluene	< 1.47	< 1.47	< 1.47	< 1.47	< 1.47
Toluene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA0971SW 11/11/88	HA0973SW 11/11/88	HA0977SW 11/15/88	HA0978SW 11/15/88	HA0979SW 11/15/88
Analytes					
Volatiles					
Trichloroethene	< 0.560	< 0.560	< 0.560	< 0.560	< 0.560
Trichloroethene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Vinyl Chloride (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

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Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA0980SW 11/18/88	HA1154SW 05/17/90	HA1156SW 05/17/90	HA1158SW 05/15/90	HA1160SW 05/11/90
Analytes					
Metals/Anions/General Chem					
Arsenic	20.9	2.78	< 2.35	< 2.35	< 2.35
Cadmium	< 8.40	< 6.78	< 6.78	< 6.78	< 6.78
Calcium	40000	87700	55500	61200	58800
Chloride	200000	140000	40000	40000	38000
Chromium	< 24.0	< 16.8	< 16.8	< 16.8	< 16.8
Copper	< 26.0	< 18.8	< 18.8	< 18.8	< 18.8
Cyanide	< 5.00	R	R	R	R
Fluoride	4690	2330	976	1060	867
Lead	< 74.0	< 43.4	< 43.4	< 43.4	< 43.4
Magnesium	20600	44700	12500	13800	13200
Mercury	< 0.100	0.393	0.508	0.303	0.321
Nitrite, Nitrate -- Non-Specific	108	< 10.0	1800	1800	2000
Potassium	5230	4330	4210	4220	3620
Sodium	220000	210000	49700	50500	45100
Sulfate	3900	360000	130000	110000	100000
Total Organic Carbon	NA	7470	5190	3620	4800
Zinc	< 22.0	< 18.0	< 18.0	< 18.0	< 18.0
Phenols					
2,3,6-Trichlorophenol (GCMS)	NA	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	NA	< 2.80	< 2.80	< 2.80	< 2.80

Notes: Values are reported in micrograms per liter.

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Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA0980SW 11/18/88	HA1154SW 05/17/90	HA1156SW 05/17/90	HA1158SW 05/15/90	HA1160SW 05/11/90
Analytes					
Phenols					
2,4,6-Trichlorophenol (GCMS)	NA	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	NA	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	NA	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	NA	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	NA	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	NA	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	NA	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	NA	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	NA	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	NA	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	NA	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles					
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	NA	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.490	< 0.0490	< 0.0490	0.184	< 0.0490
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	NA	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.540	< 0.0540	< 0.0540	0.399	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	NA	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	NA	< 10.0	< 10.0	< 10.0	< 10.0

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Table C1 Surface-Water Investigative Analytical Data

Sample ID	HA0980SW	HA1154SW	HA1156SW	HA1158SW	HA1160SW
Date	11/18/88	05/17/90	05/17/90	05/15/90	05/11/90

Analytes					

Semivolatiles					
4-Chlorophenyl/methyl Sulfone	< 7.46	< 7.46	< 7.46	< 7.46	< 7.46
4-Chlorophenyl/methyl Sulfone (GCMS)	NA	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenyl/methyl Sulfoxide	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5
4-Chlorophenyl/methyl Sulfoxide (GCMS)	NA	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	< 0.500	< 0.0500	< 0.0500	< 0.0500	< 0.0500

Aldrin (GCMS)	NA	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	6.80	< 4.03	< 4.03	< 4.03
Atrazine (GCMS)	NA	< 5.90	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	NA	< 5.90	< 5.90	< 5.90	< 5.90

Bis (2-Ethylhexyl) Phthalate (GCMS)	NA	22.0	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	NA	< 10.0	< 10.0	< 10.0	< 10.0
Chlordane	< 0.950	0.388	< 0.0950	< 0.0950	< 0.0950
Chlordane (GCMS)	NA	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	NA	R	< 5.00	< 5.00	< 5.00

Dicyclopentadiene (GCMS)	NA	7.43	< 5.50	< 5.50	< 5.50
Dieldrin	< 0.500	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Dieldrin (GCMS)	NA	< 26.0	< 26.0	< 26.0	< 26.0
Diisopropyl Methylphosphonate	13.1	59.0	2.91	0.532	< 0.392

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Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA0980SW 11/18/88	HA1154SW 05/17/90	HA1156SW 05/17/90	HA1158SW 05/15/90	HA1160SW 05/11/90
Analytes					
Semivolatiles					
Diisopropyl Methylphosphonate (GCMS)	NA	39.6	< 21.0	< 21.0	< 21.0
Dimethylmethyl Phosphonate	4.92	< 0.188	< 0.188	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	NA	< 130	< 130	< 130	< 130
Dithiane	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34
Dithiane (GCMS)	NA	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	< 0.500	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Endrin (GCMS)	NA	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.480	< 0.0480	< 0.0480	< 0.0480	R
Hexachlorocyclopentadiene (GCMS)	NA	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	< 0.510	< 0.0510	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	NA	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	< 0.373	< 0.373	< 0.373	< 0.373
Malathion (GCMS)	NA	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	NA	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	NA	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787	< 0.787	< 0.787
Supona (GCMS)	NA	< 19.0	< 19.0	< 19.0	< 19.0
Vepona	< 0.384	< 0.384	< 0.384	< 0.384	< 0.384

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Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA0980SW 11/18/88	HA1154SW 05/17/90	HA1156SW 05/17/90	HA1158SW 05/15/90	HA1160SW 05/11/90
Analytes					
Semivolatiles					
Vapona (GCMS)	NA	< 8.50	< 8.50	< 8.50	< 8.50
Volatiles					
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Benzene	< 1.05	< 1.05	< 1.05	< 1.05	< 1.05
Benzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chlorobenzene	< 0.820	< 0.820	< 0.820	< 0.820	< 0.820
Chlorobenzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00

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Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA0980SW 11/18/88	HA1154SW 05/17/90	HA1156SW 05/17/90	HA1158SW 05/15/90	HA1160SW 05/11/90
Analytes					
Volatiles					
Chloroform	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
Chloroform (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Dibromochloropropane	< 0.195	< 0.195	< 0.195	< 0.195	< 0.195
Dibromochloropropane (GCMS)	NA	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
M-Xylene	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32
M-Xylene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Methylene Chloride	< 7.40	< 7.40	< 7.40	< 7.40	< 7.40
Methylene Chloride (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Methylisobutyl Ketone	NA	< 4.90	< 4.90	< 4.90	R
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40
O,P-Xylene	< 1.36	< 1.36	< 1.36	< 1.36	< 1.36
O,P-Xylene (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00
Tetrachloroethene	< 0.750	< 0.750	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Toluene	< 1.47	< 1.47	< 1.47	< 1.47	< 1.47
Toluene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00

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Table C1 Surface-Water Investigative Analytical Data

Sample ID	HA0980SW	HA1154SW	HA1156SW	HA1158SW	HA1160SW
Date	11/18/88	05/17/90	05/17/90	05/15/90	05/11/90

Analytes					

Volatiles					
Trichloroethene	< 0.560	< 0.560	< 0.560	< 0.560	< 0.560
Trichloroethene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Vinyl Chloride (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0	< 12.0

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Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA1161SW 05/15/90	HA1178SW 05/15/90	HA1179SW 05/15/90	HA1185SW 05/10/90	HA1196SW 06/01/90
Analytes					
Metals/Anions/General Chem					
Arsenic	< 2.35	< 2.35	< 2.35	< 2.35	2.82
Cadmium	< 6.78	< 6.78	< 6.78	< 6.78	< 6.78
Calcium	63500	62000	61800	67200	57600
Chloride	41000	42000	40000	54000	57000
Chromium	< 16.8	< 16.8	< 16.8	< 16.8	< 16.8
Copper	< 18.8	< 18.8	< 18.8	< 18.8	< 18.8
Cyanide	R	R	R	R	R
Fluoride	1130	1070	1090	1020	905
Lead	< 43.4	< 43.4	< 43.4	< 43.4	< 43.4
Magnesium	14000	13600	13500	15100	12400
Mercury	0.297	0.230	0.557	0.315	< 0.100
Nitrite, Nitrate -- Non-Specific	1900	2000	1900	1800	2300
Potassium	3970	3990	4860	5310	3640
Sodium	52000	48600	49500	73000	52400
Sulfate	110000	110000	110000	120000	130000
Total Organic Carbon	2670	3970	3920	7700	5000
Zinc	< 18.0	< 18.0	< 18.0	< 18.0	< 18.0
Phenols					
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80	< 2.80

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Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA1161SW 05/15/90	HA1178SW 05/15/90	HA1179SW 05/15/90	HA1185SW 05/10/90	HA1196SW 06/01/90
Analytes					
Phenols					
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40	< 8.40	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40	< 4.40	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176	< 176	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20	< 8.20	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80	< 2.80	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0	< 96.0	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20	< 2.20	< 2.20	< 2.20
Semivolatiles					
1,4-Oxathiane	< 2.38	< 2.38	< 2.38	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0	< 27.0	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490	< 0.0490	< 0.0490	< 0.0490
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0540	< 0.0540	< 0.0540	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	< 14.0	< 14.0	< 14.0	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69	< 5.69	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0

Notes: Values are reported in micrograms per liter.

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Sample ID Date	HA1161SW 05/15/90	HA1178SW 05/15/90	HA1179SW 05/15/90	HA1185SW 05/10/90	HA1196SW 06/01/90
Analytes					
Semivolatiles					
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46	< 7.46	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30	< 5.30	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5	< 11.5	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0	< 15.0	< 15.0	< 15.0
Aldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500	R
Aldrin (GCMS)	< 13.0	< 13.0	< 13.0	< 13.0	< 13.0
Atrazine	< 4.03	< 4.03	< 4.03	< 4.03	4.13
Atrazine (GCMS)	< 5.90	< 5.90	< 5.90	< 5.90	< 5.90
Benzothiazole	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90	< 5.90	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70	< 7.70	< 7.70	< 7.70
Caprolactam (GCMS)	< 10.0	< 10.0	< 10.0	< 10.0	< 7.70
Chlordane	< 0.0950	< 0.0950	< 0.0950	< 0.0950	< 0.0950
Chlordane (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50	< 5.50	< 5.50	< 5.50
Dieldrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0	< 26.0	< 26.0	< 26.0
Disopropyl Methylphosphonate	0.840	1.11	1.33	< 0.392	< 0.392

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA1161SW 05/15/90	HA1178SW 05/15/90	HA1179SW 05/15/90	HA1185SW 05/10/90	HA1196SW 06/01/90
Analytes					
Semivolatiles					
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	< 0.188	< 0.188	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130	< 130	< 130	< 130
Dithiane	< 1.34	< 1.34	< 1.34	< 1.34	< 1.34
Dithiane (GCMS)	< 3.30	< 3.30	< 3.30	< 3.30	< 3.30
Endrin	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0	< 18.0	< 18.0	< 18.0
Hexachlorocyclopentadiene	< 0.0480	< 0.0480	< 0.0480	R	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0	< 54.0	< 54.0	< 54.0
Isodrin	< 0.0510	< 0.0510	< 0.0510	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80	< 7.80	< 7.80	< 7.80
Malathion	< 0.373	< 0.373	< 0.373	< 0.373	< 0.373
Malathion (GCMS)	< 21.0	< 21.0	< 21.0	< 21.0	< 21.0
Parathion	< 0.647	< 0.647	< 0.647	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0	< 37.0	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10	< 9.10	< 9.10	< 9.10
Supona	< 0.787	< 0.787	< 0.787	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0	< 19.0	< 19.0	< 19.0
Vapona	< 0.384	< 0.384	< 0.384	< 0.384	< 0.384

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

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Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA1161SW 05/15/90	HA1178SW 05/15/90	HA1179SW 05/15/90	HA1185SW 05/10/90	HA1196SW 06/01/90
Analytes					
Semivolatiles					
Vapona (GCMS)	< 8.50	< 8.50	< 8.50	< 8.50	< 8.50
Volatiles					
1,1,1-Trichloroethane	< 0.760	< 0.760	< 0.760	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780	< 0.780	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730	< 0.730	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethene	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70
1,1-Dichloroethene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethane	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760	< 0.760	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Benzene	< 1.05	< 1.05	< 1.05	< 1.05	< 1.05
Benzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Carbon Tetrachloride	< 0.990	< 0.990	< 0.990	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chlorobenzene	< 0.820	< 0.820	< 0.820	< 0.820	< 0.820
Chlorobenzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00

Notes: Values are reported in micrograms per liter.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table C1 Surface-Water Investigative Analytical Data

Sample ID	HA1161SW	HA1178SW	HA1179SW	HA1185SW	HA1196SW
Date	05/15/90	05/15/90	05/15/90	05/10/90	06/01/90
Analytes					
Volatiles					
Chloroform	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500
Chloroform (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Dibromochloropropane	< 0.195	< 0.195	< 0.195	< 0.195	< 0.195
Dibromochloropropane (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550	< 0.550	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37	< 1.37	< 1.37	< 1.37
Ethyl Benzene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
M-Xylene	< 1.32	< 1.32	< 1.32	< 1.32	< 1.32
M-Xylene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Methylene Chloride	< 7.40	< 7.40	< 7.40	< 7.40	< 7.40
Methylene Chloride (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Methylisobutyl Ketone	< 4.90	< 4.90	< 4.90	R	< 4.90
Methylisobutyl Ketone (GCMS)	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40
O,P-Xylene	< 1.36	< 1.36	< 1.36	< 1.36	< 1.36
O,P-Xylene (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00
Tetrachloroethene	< 0.750	< 0.750	< 0.750	< 0.750	< 0.750
Tetrachloroethene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Toluene	< 1.47	< 1.47	< 1.47	< 1.47	< 1.47
Toluene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00

Notes: Values are reported in micrograms per liter.

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NA -- Not Analyzed.

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Table C1 Surface-Water Investigative Analytical Data

Sample ID Date	HA1161SW 05/15/90	HA1178SW 05/15/90	HA1179SW 05/15/90	HA1185SW 05/10/90	HA1196SW 06/01/90
Analytes					
Volatiles					
Trichloroethene	< 0.560	< 0.560	< 0.560	< 0.560	< 0.560
Trichloroethene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Vinyl Chloride (GCMS)	< 12.0	< 12.0	< 12.0	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

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> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

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Table C1 Surface-Water Investigative Analytical Data

Sample ID
Date

HA1197SW
06/01/90

Analytes

Metals/Anions/General Chem

Arsenic 2.82
Cadmium < 6.78
Calcium 59300
Chloride 56000
Chromium < 16.8

Copper < 18.8
Cyanide R
Fluoride 906
Lead < 43.4
Magnesium 12600

Mercury < 0.100
Nitrite, Nitrate -- Non-Specific 2300
Potassium 3660
Sodium 54000
Sulfate 130000

Total Organic Carbon 5000
Zinc < 18.0

Phenols

2,3,6-Trichlorophenol (GCMS) < 1.70
2,4,5-Trichlorophenol (GCMS) < 2.80

Notes: Values are reported in micrograms per liter.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table C1 Surface-Water Investigative Analytical Data

Sample ID
Date

HA1197SW
06/01/90

Analytes

Phenols

2,4,6-Trichlorophenol (GCMS) < 3.60
2,4-Dichlorophenol (GCMS) < 8.40
2,4-Dimethylphenol (GCMS) < 4.40
2,4-Dinitrophenol (GCMS) < 176
2-Chlorophenol (GCMS) < 2.80

2-Methylphenol (GCMS)

< 3.60

2-Nitrophenol (GCMS)

< 8.20

3-Methyl-4-Chlorophenol (GCMS)

< 8.50

4-Methylphenol (GCMS)

< 2.80

4-Nitrophenol (GCMS)

< 96.0

Phenol (GCMS)

< 2.20

Semi-volatiles

1,4-Oxathiane

< 2.38

1,4-Oxathiane (GCMS)

< 27.0

2,2-Bis(parachlorophenyl)-1,1-Trichloroethane (DDT)

< 0.0490

2,2-Bis(parachlorophenyl)-1,1-Trichloroethane (DDT) (GCMS)

< 18.0

2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)

< 0.0540

2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)

< 14.0

4-Chlorophenylmethyl Sulfide

< 5.69

4-Chlorophenylmethyl Sulfide (GCMS)

< 10.0

Notes: Values are reported in micrograms per liter.

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Table C1 Surface-Water Investigative Analytical Data

Sample ID
Date

HA1197SW
06/01/90

Analytes

SemiVolatiles

4-Chlorophenylmethyl Sulfone < 7.46
 4-Chlorophenylmethyl Sulfone (GCMS) < 5.30
 4-Chlorophenylmethyl Sulfoxide < 11.5
 4-Chlorophenylmethyl Sulfoxide (GCMS) < 15.0
 Aldrin R

Aldrin (GCMS) < 13.0
 Atrazine < 4.03
 Atrazine (GCMS) < 5.90
 Benzothiazole < 5.00
 Bicyclo [2,2,1] hepta-2,5-diene < 5.90

Bis (2-Ethylhexyl) Phthalate (GCMS) < 7.70
 Caprolactam (GCMS) < 10.0
 Chlordane < 0.0950
 Chlordane (GCMS) < 37.0
 Dicyclopentadiene < 5.00

Dicyclopentadiene (GCMS) < 5.50
 Dieldrin < 0.0500
 Dieldrin (GCMS) < 26.0
 Diisopropyl Methylphosphonate < 0.392

Notes: Values are reported in micrograms per liter.

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 above the Maximum Reporting Limit.

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Table C1 Surface-Water Investigative Analytical Data

Sample ID
Date

HA1197SW
06/01/90

Analytes

SemiVolatiles

Diisopropyl Methylphosphonate (GCMS)

< 21.0

Dimethylmethyl Phosphonate

< 0.188

Dimethylmethyl Phosphonate (GCMS)

< 130

Dichlorane

< 1.34

Dichlorane (GCMS)

< 3.30

Endrin

< 0.0500

Endrin (GCMS)

< 18.0

Hexachlorocyclopentadiene

< 0.0480

Hexachlorocyclopentadiene (GCMS)

< 54.0

Isodrin

< 0.0510

Isodrin (GCMS)

< 7.80

Malathion

< 0.373

Malathion (GCMS)

< 21.0

Parathion

< 0.647

Parathion (GCMS)

< 37.0

Pentachlorophenol (GCMS)

< 9.10

Supona

< 0.787

Supona (GCMS)

< 19.0

Vapona

< 0.384

Notes: Values are reported in micrograms per liter.

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Table C1 Surface-Water Investigative Analytical Data

Sample ID
Date

HA1197SW
06/01/90

Analytes

Semi-volatiles

Vapona (GCMS)

< 8.50

Volatiles

1,1,1-Trichloroethane

< 0.760

1,1,1-Trichloroethane (GCMS)

< 1.00

1,1,2-Trichloroethane

< 0.780

1,1,2-Trichloroethane (GCMS)

< 1.00

1,1-Dichloroethane

< 0.730

1,1-Dichloroethane (GCMS)

< 1.00

1,1-Dichloroethane

< 1.70

1,1-Dichloroethane (GCMS)

< 1.00

1,2-Dichloroethane

< 1.10

1,2-Dichloroethane (GCMS)

< 1.00

1,2-Dichloroethenes (cis & trans)

< 0.760

1,2-Dichloroethenes (cis & trans) (GCMS)

< 5.00

Benzene

< 1.05

Benzene (GCMS)

< 1.00

Carbon Tetrachloride

< 0.990

Carbon Tetrachloride (GCMS)

< 1.00

Chlorobenzene

< 0.820

Chlorobenzene (GCMS)

< 1.00

Notes: Values are reported in micrograms per liter.

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Table C1 Surface-Water Investigative Analytical Data

Sample ID
Date

HA1197SW
06/01/90

Analytes

Volatiles

Chloroform < 0.500
 Chloroform (GCMS) < 1.00
 Dibromochloropropane < 0.195
 Dibromochloropropane (GCMS) < 12.0
 Dimethyl Disulfide < 0.550

Ethyl Benzene < 1.37
 Ethyl Benzene (GCMS) < 1.00
 M-Xylene < 1.32
 M-Xylene (GCMS) < 1.00
 Methylene Chloride < 7.40

Methylene Chloride (GCMS) < 1.00
 Methylisobutyl Ketone < 4.90
 Methylisobutyl Ketone (GCMS) < 1.40
 O,P-Xylene < 1.36
 O,P-Xylene (GCMS) < 2.00

Tetrachloroethene < 0.750
 Tetrachloroethene (GCMS) < 1.00
 Toluene < 1.47
 Toluene (GCMS) < 1.00

Notes: Values are reported in micrograms per liter.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table C1 Surface-Water Investigative Analytical Data

Sample ID
Date

HA1197SW
06/01/90

Analytes

Volatiles

Trichloroethene
Trichloroethene (GCMS)
Vinyl Chloride (GCMS)

< 0.560
< 1.00
< 12.0

Notes: Values are reported in micrograms per liter.
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above the Maximum Reporting Limit.
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R -- Data did not meet quality control criteria and were
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Table C2 Surface-Water GC/MS Analytical Data

Sample ID	HA1190SW	HA1191SW
Date	05/10/90	06/01/90
	GC/MS OF	GC/MS OF
	HA1185SW	HA1196SW

Analytes

Phenols		
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20
Semivolatiles		
1,4-Oxathiane (GCMS)	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table C2 Surface-Water GC/MS Analytical Data

Sample ID	HA1190SW	HA1191SW
Date	05/10/90	06/01/90
Analytes	GC/MS OF	GC/MS OF
HA1185SW	HA1196SW	

Semivolatiles		
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0
Aldrin (GCMS)	< 13.0	< 13.0
Atrazine (GCMS)	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70
Caprolactam (GCMS)	< 10.0	< 10.0
Chlordane (GCMS)	< 37.0	< 37.0
Dicyclopentadiene (GCMS)	< 5.50	< 5.50
Dieldrin (GCMS)	< 26.0	< 26.0
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130
Dithiane (GCMS)	< 3.30	< 3.30
Endrin (GCMS)	< 18.0	< 18.0
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0
Isodrin (GCMS)	< 7.80	< 7.80
Malathion (GCMS)	< 21.0	< 21.0
Parathion (GCMS)	< 37.0	< 37.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table C2 Surface-Water GC/MS Analytical Data

Sample ID	HA1190SW	HA1191SW
Date	05/10/90	06/01/90
Analytes	GC/MS OF	GC/MS OF
	HA1185SW	HA1196SW
Semivolatiles		
Pentachlorophenol (GCMS)	< 9.10	< 9.10
Supona (GCMS)	< 19.0	< 19.0
Vapona (GCMS)	< 8.50	< 8.50
Volatiles		
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00
1,1-Dichloroethene (GCMS)	< 1.00	< 1.00
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00
Benzene (GCMS)	< 1.00	< 1.00
Carbon Tetrachloride (GCMS)	< 1.00	< 1.00
Chlorobenzene (GCMS)	< 1.00	< 1.00
Chloroform (GCMS)	< 1.00	< 1.00
Dibromochloropropane (GCMS)	< 12.0	< 12.0
Ethyl Benzene (GCMS)	< 1.00	< 1.00
m-Xylene (GCMS)	< 1.00	< 1.00
Methylene Chloride (GCMS)	< 1.00	< 1.00

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table C2 Surface-Water GC/MS Analytical Data

Sample ID	HA1190SW	HA1191SW
Date	05/10/90	06/01/90
Analytes	GC/MS OF	GC/MS OF
	HA1185SW	HA1196SW
Volatiles		
Methyl isobutyl Ketone (GCMS)	< 1.40	< 1.40
O,P-Xylene (GCMS)	< 2.00	< 2.00
Tetrachloroethene (GCMS)	< 1.00	< 1.00
Toluene (GCMS)	< 1.00	< 1.00
Trichloroethene (GCMS)	< 1.00	< 1.00
Vinyl Chloride (GCMS)	< 12.0	< 12.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

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Table C3 Surface-Water Duplicate Analytical Data

Sample ID Date	HA1189SW 05/10/90 Dup of HA1185SW	HA1162SW 06/01/90 Dup of HA1196SW
Analytes		
Metals/Anions/General Chem		
Arsenic	< 2.35	< 2.35
Cadmium	< 6.78	< 6.78
Calcium	63000	58700
Chloride	49000	54000
Chromium	< 16.8	< 16.8
Copper	< 18.8	< 18.8
Cyanide	R	R
Fluoride	1030	907
Lead	< 43.4	< 43.4
Magnesium	14000	12600
Mercury	0.538	< 0.100
Nitrite, Nitrate -- Non-Specific	1800	2200
Potassium	4670	4430
Sodium	62000	53000
Sulfate	130000	130000
Total Organic Carbon	9800	5000
Zinc	< 18.0	< 18.0

Notes: Values are reported in micrograms per liter.
 Reported values are accurate to three significant figures.
 < -- Indicates that the target analyte was not detected at
 or above the Certified Reporting Limit.
 > -- Indicates that the target analyte was detected at or
 above the Maximum Reporting Limit.
 NA -- Not Analyzed.
 R -- Data did not meet quality control criteria and were
 rejected.

Table C3 Surface-Water Duplicate Analytical Data

Sample ID	HA1189SW	HA1162SW
Date	05/10/90	06/01/90
Analytes	Dup of	Dup of
	HA1185SW	HA1196SW
Phenols		
2,3,6-Trichlorophenol (GCMS)	< 1.70	< 1.70
2,4,5-Trichlorophenol (GCMS)	< 2.80	< 2.80
2,4,6-Trichlorophenol (GCMS)	< 3.60	< 3.60
2,4-Dichlorophenol (GCMS)	< 8.40	< 8.40
2,4-Dimethylphenol (GCMS)	< 4.40	< 4.40
2,4-Dinitrophenol (GCMS)	< 176	< 176
2-Chlorophenol (GCMS)	< 2.80	< 2.80
2-Methylphenol (GCMS)	< 3.60	< 3.60
2-Nitrophenol (GCMS)	< 8.20	< 8.20
3-Methyl-4-Chlorophenol (GCMS)	< 8.50	< 8.50
4-Methylphenol (GCMS)	< 2.80	< 2.80
4-Nitrophenol (GCMS)	< 96.0	< 96.0
Phenol (GCMS)	< 2.20	< 2.20
Semivolatiles		
1,4-Oxathiane	< 2.38	< 2.38
1,4-Oxathiane (GCMS)	< 27.0	< 27.0
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.0490	< 0.0490
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 18.0	< 18.0

Notes: Values are reported in micrograms per liter.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table C3 Surface-Water Duplicate Analytical Data

Sample ID	HA1189SW	HA1162SW
Date	05/10/90	06/01/90
Analytes	Dup of	Dup of
HA1185SW	HA1196SW	

Semivolatiles		
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.0540	< 0.0540
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 14.0	< 14.0
4-Chlorophenylmethyl Sulfide	< 5.69	< 5.69
4-Chlorophenylmethyl Sulfide (GCMS)	< 10.0	< 10.0
4-Chlorophenylmethyl Sulfone	< 7.46	< 7.46
4-Chlorophenylmethyl Sulfone (GCMS)	< 5.30	< 5.30
4-Chlorophenylmethyl Sulfoxide	< 11.5	< 11.5
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 15.0	< 15.0
Aldrin	< 0.0500	R
Aldrin (GCMS)	< 13.0	< 13.0
Atrazine	< 4.03	4.58
Atrazine (GCMS)	< 5.90	< 5.90
Benothiazole	< 5.00	< 5.00
Bicyclo [2,2,1] hepta-2,5-diene	< 5.90	< 5.90
Bis (2-Ethylhexyl) Phthalate (GCMS)	< 7.70	< 7.70
Caprolactam (GCMS)	< 10.0	< 10.0
Chlordane	< 0.0950	< 0.0950

Notes: Values are reported in micrograms per liter.

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Table C3 Surface-Water Duplicate Analytical Data

Sample ID	HA1189SW	HA1162SW
Date	05/10/90	06/01/90
Analytes	Dup of HA1185SW	Dup of HA1196SW

Semivolatiles		
Chlordane (GCMS)	< 37.0	< 37.0
Dicyclopentadiene	< 5.00	< 5.00
Dicyclopentadiene (GCMS)	< 5.50	< 5.50
Dieldrin	< 0.0500	< 0.0500
Dieldrin (GCMS)	< 26.0	< 26.0
Diisopropyl Methylphosphonate	< 0.392	< 0.392
Diisopropyl Methylphosphonate (GCMS)	< 21.0	< 21.0
Dimethylmethyl Phosphonate	< 0.188	< 0.188
Dimethylmethyl Phosphonate (GCMS)	< 130	< 130
Dithiane	< 1.34	< 1.34
Dithiane (GCMS)	< 3.30	< 3.30
Endrin	< 0.0500	< 0.0500
Endrin (GCMS)	< 18.0	< 18.0
Hexachlorocyclopentadiene	R	< 0.0480
Hexachlorocyclopentadiene (GCMS)	< 54.0	< 54.0
Isodrin	< 0.0510	< 0.0510
Isodrin (GCMS)	< 7.80	< 7.80

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Table C3 Surface-Water Duplicate Analytical Data

Sample ID	HA1189SW	HA1162SW
Date	05/10/90	06/01/90
Analytes	Dup of HA1185SW	Dup of HA1196SW
.....		
Semivolatiles		
Malathion	< 0.373	< 0.373
Malathion (GCMS)	< 21.0	< 21.0
Parathion	< 0.647	< 0.647
Parathion (GCMS)	< 37.0	< 37.0
Pentachlorophenol (GCMS)	< 9.10	< 9.10
Supona	< 0.787	< 0.787
Supona (GCMS)	< 19.0	< 19.0
Vapona	< 0.384	< 0.384
Vapona (GCMS)	< 8.50	< 8.50
Volatiles		
1,1,1-Trichloroethane	< 0.760	< 0.760
1,1,1-Trichloroethane (GCMS)	< 1.00	< 1.00
1,1,2-Trichloroethane	< 0.780	< 0.780
1,1,2-Trichloroethane (GCMS)	< 1.00	< 1.00
1,1-Dichloroethane	< 0.730	< 0.730
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00
1,1-Dichloroethane	< 1.70	< 1.70
1,1-Dichloroethane (GCMS)	< 1.00	< 1.00

Notes: Values are reported in micrograms per liter.

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Table C3 Surface-Water Duplicate Analytical Data

Sample ID	HA1189SW	HA1162SW
Date	05/10/90	06/01/90
Analytes	Dup of	Dup of
HA1185SW	HA1196SW	

Volatiles		
1,2-Dichloroethane	< 1.10	< 1.10
1,2-Dichloroethane (GCMS)	< 1.00	< 1.00
1,2-Dichloroethenes (cis & trans)	< 0.760	< 0.760
1,2-Dichloroethenes (cis & trans) (GCMS)	< 5.00	< 5.00
Benzene	< 1.05	< 1.05
Benzene (GCMS)	< 1.00	< 1.00
Carbon Tetrachloride	< 0.990	< 0.990
Carbon Tetrachloride (GCMS)	< 1.00	< 1.00
Chlorobenzene	< 0.820	< 0.820
Chlorobenzene (GCMS)	< 1.00	< 1.00
Chloroform	< 0.500	< 0.500
Chloroform (GCMS)	< 1.00	< 1.00
Dibromochloropropene	< 0.195	< 0.195
Dibromochloropropene (GCMS)	< 12.0	< 12.0
Dimethyl Disulfide	< 0.550	< 0.550
Ethyl Benzene	< 1.37	< 1.37
Ethyl Benzene (GCMS)	< 1.00	< 1.00

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Table C3 Surface-Water Duplicate Analytical Data

Sample ID	HA1189SW	HA1162SW
Date	05/10/90	06/01/90
Analytes	Dup of	Dup of
	HA1185SW	HA1196SW

Volatiles		
M-Xylene	< 1.32	< 1.32
M-Xylene (GCMS)	< 1.00	< 1.00
Methylene Chloride	< 7.40	< 7.40
Methylene Chloride (GCMS)	< 1.00	< 1.00
Methylisobutyl Ketone	R	< 4.90
Methylisobutyl Ketone (GCMS)		
O,P-Xylene	< 1.40	< 1.40
O,P-Xylene (GCMS)	< 1.36	< 1.36
Tetrachloroethene	< 2.00	< 2.00
Tetrachloroethene (GCMS)	< 0.750	< 0.750
	< 1.00	< 1.00
Toluene	< 1.47	< 1.47
Toluene (GCMS)	< 1.00	< 1.00
Trichloroethene	< 0.560	< 0.560
Trichloroethene (GCMS)	< 1.00	< 1.00
Vinyl Chloride (GCMS)	< 12.0	< 12.0

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Table C3 Surface-Water Duplicate Analytical Data

Sample ID	HA1189SW	HA1162SW
Date	05/10/90	06/01/90
	Dup of	Dup of
	HA1185SW	HA1196SW

Analytes

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Appendix D
STREAM-BOTTOM SEDIMENT ANALYTICAL DATA

LIST OF TABLES

Table No.

D1	Stream-Bottom Sediment Investigative Analytical Data
D2	Stream-Bottom Sediment GC/MS Analytical Data
D3	Stream-Bottom Sediment Duplicate Analytical Data

Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA0972SE	HA0974SE	HA0975SE	HA0976SE
Depth	5 cm	15 cm	15 cm	15 cm
Date	11/11/88	11/14/88	11/14/88	11/14/88
Analytes				
Metals/Anions/General Chem				
Arsenic	7.17	3.70	3.27	2.48
Cadmium	< 0.740	0.926	< 0.740	< 0.740
Chromium	< 6.50	9.93	< 6.50	< 6.50
Copper	< 4.70	10.1	6.16	< 4.70
Cyanide	NA	NA	NA	NA
Lead	< 8.40	24.4	< 8.40	< 8.40
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Total Organic Carbon	NA	NA	NA	NA
Zinc	11.8	45.9	26.3	< 8.70
Semivolatiles				
1,4-Oxathiane	< 1.74	< 1.74	< 1.74	< 1.74
1,4-Oxathiane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	< 0.00200	0.0222	< 0.00200	< 0.00200
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE)	< 0.00240	< 0.00240	< 0.00240	< 0.00240
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE) (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
4-Chlorophenylmethyl Sulfide	< 4.40	< 4.40	< 4.40	< 4.40
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA0972SE	NA0974SE	NA0975SE	NA0976SE
Depth	5 cm	15 cm	15 cm	15 cm
Date	11/11/88	11/14/88	11/14/88	11/14/88
Analytes				
Semivolatiles				
4-Chlorophenylmethyl Sulfone	< 9.01	< 9.01	< 9.01	< 9.01
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
4-Chlorophenylmethyl Sulfoxide	< 4.81	< 4.81	< 4.81	< 4.81
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Aldrin	< 0.00190	0.00391	0.0120	< 0.00190
Aldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Atrazine	NA	NA	NA	NA
Atrazine (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Benzothiazole	< 2.04	< 2.04	< 2.04	< 2.04
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	< 0.360	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Chlordane (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00
Dicyclopentadiene	NA	NA	NA	NA
Dicyclopentadiene (GCMS)	< 0.640	< 1.00	< 1.00	< 1.00
Dieldrin	0.370	0.0277	0.0264	< 0.00330
Dieldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA0972SE	HA0974SE	HA0975SE	HA0976SE
Depth	5 cm	15 cm	15 cm	15 cm
Date	11/11/88	11/14/88	11/14/88	11/14/88
Analytes				
Semivolatiles				
Diisopropyl Methylphosphonate	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dimethylmethyl Phosphonate	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Dithiane	< 1.45	< 1.45	< 1.45	< 1.45
Dithiane (GCMS)	< 0.400	< 0.400	< 0.400	< 0.400
Endrin	< 0.00580	< 0.00580	0.00743	< 0.00580
Endrin (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500
Hexachlorocyclopentadiene	< 0.00180	< 0.00180	< 0.00180	< 0.00180
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Isodrin	< 0.00110	< 0.00110	< 0.00110	< 0.00110
Isodrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Malathion	NA	NA	NA	NA
Malathion (GCMS)	< 0.700	< 0.700	< 0.700	< 0.700
Parathion	NA	NA	NA	NA
Parathion (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
Supona	NA	NA	NA	NA
Supona (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA0972SE	NA0974SE	NA0975SE	NA0976SE
Depth	5 cm	15 cm	15 cm	15 cm
Date	11/11/88	11/14/88	11/14/88	11/14/88
Analytes				

Semivolatiles				
Vapona	NA	NA	NA	NA
Vapona (GCMS)	< 3.00	< 3.00	< 3.00	< 3.00
Volatiles				
1,1,1-Trichloroethane	< 0.0880	< 0.0880	< 0.0880	< 0.0880
1,1,1-Trichloroethane (GCMS)	< 0.430	NA	NA	NA
1,1,2-Trichloroethane	< 0.260	< 0.260	< 0.260	< 0.260
1,1,2-Trichloroethane (GCMS)	< 0.390	NA	NA	NA
1,1-Dichloroethane	< 0.0740	< 0.0740	< 0.0740	< 0.0740
1,1-Dichloroethane (GCMS)	< 1.70	NA	NA	NA
1,1-Dichloroethene	< 0.240	< 0.240	< 0.240	< 0.240
1,2-Dichloroethane	< 0.0850	< 0.0850	< 0.0850	< 0.0850
1,2-Dichloroethane (GCMS)	< 0.560	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	< 0.260	< 0.260	< 0.260	< 0.260
1,2-Dichloroethenes (cis & trans) (GCMS)	< 1.70	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	< 0.250	NA	NA	NA
Carbon Tetrachloride	< 0.120	< 0.120	< 0.120	< 0.120
Carbon Tetrachloride (GCMS)	< 0.250	NA	NA	NA

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA0972SE	HA0974SE	HA0975SE	HA0976SE
Depth	5 cm	15 cm	15 cm	15 cm
Date	11/11/88	11/14/88	11/14/88	11/14/88
Analytes				
Volatiles				
Chlorobenzene	< 0.200	< 0.200	< 0.200	< 0.200
Chlorobenzene (GCMS)	< 1.50	NA	NA	NA
Chloroform	< 0.0680	< 0.0680	< 0.0680	< 0.0680
Chloroform (GCMS)	< 0.290	NA	NA	NA
Dibromochloropropene	< 0.00500	< 0.00500	< 0.00500	< 0.00500
Dibromochloropropene (GCMS)				
Dimethyl Disulfide	< 2.40	< 0.300	< 0.300	< 0.300
Dimethyl Disulfide (GCMS)	< 3.12	< 3.12	< 3.12	< 3.12
Ethyl Benzene	< 20.0	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
	< 0.380	NA	NA	NA
M-Xylene	NA	NA	NA	NA
M-Xylene (GCMS)	< 0.740	NA	NA	NA
Methylene Chloride	< 3.70	< 3.70	< 3.70	< 3.70
Methylene Chloride (GCMS)	< 1.50	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	< 0.730	NA	NA	NA
O,P-Xylene	NA	NA	NA	NA

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA0972SE	NA0974SE	NA0975SE	NA0976SE
Depth	5 cm	15 cm	15 cm	15 cm
Date	11/11/88	11/14/88	11/14/88	11/14/88
Analytes				
Volatiles				
O,p-Xylene (GCMS)	< 4.90	NA	NA	NA
Tetrachloroethene	< 0.270	< 0.270	< 0.270	< 0.270
Tetrachloroethene (GCMS)	< 0.250	NA	NA	NA
Toluene	NA	NA	NA	NA
Toluene (GCMS)	< 0.250	NA	NA	NA
Trichloroethene	< 0.140	< 0.140	< 0.140	< 0.140
Trichloroethene (GCMS)	< 0.540	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA0981SE	NA1152SE	NA1153SE	NA1153SE
Depth	0 cm	60 cm	15 cm	50 cm
Date	11/18/88	05/11/90	05/11/90	05/14/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.50	6.59	< 2.50	< 2.50
Cadmium	< 0.740	4.35	< 1.20	< 1.20
Chromium	15.5	30.0	11.7	61.1
Copper	7.90	62.7	6.96	39.7
Cyanide	NA	R	R	R
Lead	16.1	131	< 7.44	117
Mercury	< 0.0500	1.01	< 0.0500	0.243
Total Organic Carbon	NA	13000	1010	7180
Zinc	43.6	414	30.7	245
Semivolatiles				
1,4-Oxathiane	< 1.74	< 1.74	< 1.74	< 1.74
1,4-Oxathiane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethene (DOT)	< 0.0100	< 0.00277	< 0.00277	0.00672
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethene (DOT) (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DOE)	< 0.0120	< 0.00466	< 0.00466	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DOE) (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
4-Chlorophenylmethyl Sulfide	< 4.40	< 4.40	< 4.40	< 4.40
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA0981SE	NA1152SE	NA1153SE	NA1155SE
Depth	0 cm	60 cm	15 cm	50 cm
Date	11/18/88	05/11/90	05/11/90	05/14/90
Analytes				
Semivolatiles				
4-Chlorophenylmethyl Sulfone	< 9.01	< 9.01	< 9.01	< 9.01
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
4-Chlorophenylmethyl Sulfoxide	< 4.81	< 4.81	< 4.81	< 4.81
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Aldrin	0.0140	< 0.00211	< 0.00211	< 0.00211
Aldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Atrazine	MA	R	R	R
Atrazine (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Benzothiazole	< 2.04	< 2.04	< 2.04	< 2.04
Bicyclo [2,2,1] hepta-2,5-diene	MA	< 1.10	< 1.10	< 1.10
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	MA	MA	MA	MA
Chlordane	< 0.115	< 0.0230	< 0.0230	0.0374
Chlordane (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00
Dicyclopentadiene	MA	< 0.450	< 0.450	< 0.450
Dicyclopentadiene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dieldrin	0.0250	0.0126	< 0.00181	< 0.00181
Dieldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were

reji

Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA0901SE	NA1152SE	NA1153SE	NA1155SE
Depth	0 cm	60 cm	15 cm	50 cm
Date	11/18/88	05/11/90	05/11/90	05/14/90
Analytes				

Semivolatiles				
Diisopropyl Methylphosphonate	MA	MA	MA	MA
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dimethylmethyl Phosphonate	MA	MA	MA	MA
Dithiane	< 1.45	< 1.45	< 1.45	< 1.45
Dithiane (GCMS)	< 0.400	< 0.400	< 0.400	< 0.400
Endrin	< 0.0290	< 0.00471	< 0.00471	< 0.00471
Endrin (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500
Hexachlorocyclopentadiene	< 0.00900	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Isodrin	< 0.00550	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Malathion	MA	R	R	R
Malathion (GCMS)	< 0.700	< 0.700	< 0.700	< 0.700
Parathion	MA	R	R	R
Parathion (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
Supona	MA	R	R	R
Supona (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600

Notes: Values are reported in micrograms per gram.

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA0981SE	NA1152SE	NA1153SE	NA1155SE
Depth	0 cm	60 cm	15 cm	50 cm
Date	11/18/88	05/11/90	05/11/90	05/14/90
Analytes				

Semivolatiles				
Vapors	NA	R	R	R
Vapors (GCMS)	< 3.00	< 3.00	< 3.00	< 3.00
Volatiles				
1,1,1-Trichloroethane	< 0.0880	< 0.200	< 0.200	< 0.200
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	< 0.260	< 0.330	< 0.330	< 0.330
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	< 0.0740	< 0.490	< 0.490	< 0.490
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	< 0.240	< 0.270	< 0.270	< 0.270
1,2-Dichloroethane	< 0.0850	< 0.320	< 0.320	< 0.320
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethanes (cis & trans)	< 0.260	< 0.320	< 0.320	< 0.320
1,2-Dichloroethanes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	< 0.0850	< 0.100	< 0.100	< 0.100
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	< 0.120	< 0.310	< 0.310	< 0.310
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA

Notes: Values are reported in micrograms per gram.

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA0981SE	NA1152SE	NA1153SE	NA1155SE
Depth	0 cm	60 cm	15 cm	50 cm
Date	11/18/88	05/11/90	05/11/90	05/14/90
Analytes				
Volatiles				
Chlorobenzene	< 0.200	< 0.100	< 0.100	< 0.100
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	< 0.0680	< 0.240	< 0.240	< 0.240
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	0.240	< 0.00500	0.00802	< 0.00500
Dibromochloropropane (GCMS)				
Dimethyl Disulfide	< 0.300	< 0.300	< 0.300	< 0.300
Dimethyl Disulfide (GCMS)	< 3.12	< 3.12	< 3.12	< 3.12
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	< 0.160	< 0.190	< 0.190	< 0.190
	NA	NA	NA	NA
M-Xylene	< 0.260	< 0.230	< 0.230	< 0.230
M-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	< 3.70	< 4.40	< 4.40	< 4.40
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	< 0.640	< 0.640	< 0.640
Methylisobutyl Ketone (GCMS)				
O,P-Xylene	NA	NA	NA	NA
	< 0.390	< 0.780	< 0.780	< 0.780

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA0981SE	NA1152SE	NA1153SE	NA1155SE
Depth	0 cm	60 cm	15 cm	50 cm
Date	11/18/88	05/11/90	05/11/90	05/14/90
Analytes				
Volatiles				
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	< 0.270	< 0.160	< 0.160	< 0.160
Tetrachloroethene (GCMS)	NA	NA	NA	NA
Toluene	< 0.190	< 0.100	< 0.100	< 0.100
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	< 0.140	< 0.250	< 0.250	< 0.250
Trichloroethene (GCMS)	NA	NA	NA	NA
Vinyl Chloride	NA	< 1.80	< 1.80	< 1.80

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA1157SE	NA1157SE	NA1159SE	NA1159SE
Depth	30 cm	4 cm	15 cm	4 cm
Date	05/16/90	06/14/90	05/16/90	06/14/90
Analytes				

Metals/Anions/General Chem				
Arsenic	< 2.50	NA	3.26	NA
Cadmium	< 1.20	NA	< 1.20	NA
Chromium	77.8	NA	40.9	NA
Copper	14.4	NA	14.2	NA
Cyanide	R	NA	R	NA
Lead	25.2	NA	44.5	NA
Mercury	0.138	NA	0.0661	NA
Total Organic Carbon	4150	NA	2270	NA
Zinc	69.1	NA	123	NA
Semivolatiles				
1,4-Oxathiane	< 1.74	NA	< 1.74	NA
1,4-Oxathiane (GCMS)	< 0.300	NA	< 0.300	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	< 0.00277	NA	0.00500	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCMS)	< 0.500	NA	< 0.500	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE)	< 0.00466	NA	< 0.00466	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE) (GCMS)	< 0.600	NA	< 0.600	NA
4-Chlorophenylmethyl Sulfide	< 4.40	NA	< 4.40	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	NA	< 0.900	NA

Notes: Values are reported in micrograms per gram.

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA1157SE	NA1157SE	NA1159SE	NA1159SE
Depth	30 cm	4 cm	15 cm	4 cm
Date	05/16/90	06/14/90	05/16/90	06/14/90
Analytes				

Semivolatiles				
4-Chlorophenylmethyl Sulfone	< 9.01	NA	< 9.01	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	NA	< 0.300	NA
4-Chlorophenylmethyl Sulfoxide	< 4.81	NA	< 4.81	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	NA	< 0.300	NA
Aldrin	< 0.00211	NA	< 0.00211	NA
Aldrin (GCMS)	< 0.300	NA	< 0.300	NA
Atrazine	R	NA	R	NA
Atrazine (GCMS)	< 0.300	NA	< 0.300	NA
Benothiazole	< 2.04	NA	< 2.04	NA
Bicyclo [2,2,1] hepta-2,5-diene	< 1.10	NA	< 1.10	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA	NA	NA
Chlordane	< 0.0230	NA	0.0733	NA
Chlordane (GCMS)	< 2.00	NA	< 2.00	NA
Dicyclopentadiene	< 0.450	NA	< 0.450	NA
Dicyclopentadiene (GCMS)	< 1.00	NA	< 1.00	NA
Dieldrin	< 0.00181	NA	0.00624	NA
Dieldrin (GCMS)	< 0.300	NA	< 0.300	NA

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1157SE	HA1157SE	HA1159SE	HA1159SE
Depth	30 cm	4 cm	15 cm	4 cm
Date	05/16/90	06/14/90	05/16/90	06/14/90
Analytes				
SemiVolatiles				
Diisopropyl Methylphosphonate	NA	NA	NA	NA
Diisopropyl Methylphosphonate (GCMS)	< 1.00	NA	< 1.00	NA
Dimethylmethyl Phosphonate	NA	NA	NA	NA
Dithiane	< 1.45	NA	< 1.45	NA
Dithiane (GCMS)	< 0.400	NA	< 0.400	NA
Endrin	< 0.00471	NA	< 0.00471	NA
Endrin (GCMS)	< 0.500	NA	< 0.500	NA
Hexachlorocyclopentadiene	< 0.00137	NA	< 0.00137	NA
Hexachlorocyclopentadiene (GCMS)	< 0.600	NA	< 0.600	NA
Isodrin	< 0.00188	NA	< 0.00188	NA
Isodrin (GCMS)	< 0.300	NA	< 0.300	NA
Malathion	R	NA	R	NA
Malathion (GCMS)	< 0.700	NA	< 0.700	NA
Parathion	R	NA	R	NA
Parathion (GCMS)	< 0.900	NA	< 0.900	NA
Supona	R	NA	R	NA
Supona (GCMS)	< 0.600	NA	< 0.600	NA

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1157SE	HA1157SE	HA1159SE	HA1159SE
Depth	30 cm	4 cm	15 cm	4 cm
Date	05/16/90	06/14/90	05/16/90	06/14/90
Analytes				
Semivolatiles				
Vapors	R	NA	R	NA
Vapors (GCMS)	< 3.00	NA	< 3.00	NA
Volatiles				
1,1,1-Trichloroethane	< 0.200	< 0.200	< 0.200	< 0.200
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	< 0.330	< 0.330	< 0.330	< 0.330
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	< 0.490	< 0.490	< 0.490	< 0.490
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	< 0.270	< 0.270	< 0.270	< 0.270
1,2-Dichloroethane	< 0.320	< 0.320	< 0.320	< 0.320
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	< 0.320	< 0.320	< 0.320	< 0.320
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	< 0.100	< 0.100	< 0.100	< 0.100
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	< 0.310	< 0.310	< 0.310	< 0.310
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1157SE	HA1157SE	HA1159SE	HA1159SE
Depth	30 cm	4 cm	15 cm	4 cm
Date	05/16/90	06/14/90	05/16/90	06/14/90
Analytes				
Volatiles				
Chlorobenzene	< 0.100	< 0.100	< 0.100	< 0.100
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	< 0.240	< 0.240	< 0.240	< 0.240
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	< 0.00500	NA	< 0.00500	NA
Dibromochloropropane (GCMS)				
Dimethyl Disulfide	< 0.300	NA	< 0.300	NA
Dimethyl Disulfide (GCMS)	< 3.12	NA	< 3.12	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	< 0.190	< 0.190	< 0.190	< 0.190
	NA	NA	NA	NA
m-Xylene	< 0.230	< 0.230	< 0.230	< 0.230
m-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	< 4.40	< 4.40	< 4.40	< 4.40
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	< 0.640	< 0.630	< 0.640	< 0.630
Methylisobutyl Ketone (GCMS)				
O,p-Xylene	NA	NA	NA	NA
	< 0.780	< 0.780	< 0.780	< 0.780

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1157SE	HA1157SE	HA1159SE	HA1159SE
Depth	30 cm	4 cm	15 cm	4 cm
Date	05/16/90	06/14/90	05/16/90	06/14/90
Analytes				
Volatiles				
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	< 0.160	< 0.160	< 0.160	< 0.160
Tetrachloroethene (GCMS)	NA	NA	NA	NA
Toluene	< 0.100	< 0.100	< 0.100	< 0.100
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	< 0.250	< 0.250	< 0.250	< 0.250
Trichloroethene (GCMS)	NA	NA	NA	NA
Vinyl Chloride	< 1.80	< 1.80	< 1.80	< 1.80

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1180SE	HA1181SE	HA1182SE	HA1182SE
Depth	60 cm	60 cm	60 cm	4 cm
Date	05/11/90	05/14/90	05/16/90	06/14/90
Analytes				

Metals/Anions/General Chem				
Arsenic	< 2.50	< 2.50	< 2.50	NA
Cadmium	< 1.20	1.73	< 1.20	NA
Chromium	47.5	80.3	26.1	NA
Copper	44.8	53.5	13.3	NA
Cyanide	R	R	R	NA
Lead	81.9	90.0	32.5	NA
Mercury	0.217	0.305	0.188	NA
Total Organic Carbon	14200	5070	4940	NA
Zinc	275	283	126	NA
Semivolatiles				
1,4-Oxathiane	NA	< 1.74	< 1.74	NA
1,4-Oxathiane (GCMS)	< 0.300	< 0.300	< 0.300	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	< 0.00277	0.0148	< 0.00277	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCMS)	< 0.500	< 0.500	< 0.500	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE)	< 0.00466	0.00901	< 0.00466	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE) (GCMS)	< 0.600	< 0.600	< 0.600	NA
4-Chlorophenylmethyl Sulfide	< 4.40	< 4.40	< 4.40	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	< 0.900	< 0.900	NA

Notes: Values are reported in micrograms per gram.

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1180SE	HA1181SE	HA1182SE	HA1182SE
Depth	60 cm	60 cm	60 cm	4 cm
Date	05/11/90	05/14/90	05/16/90	06/14/90
Analytes				

SemiVolatiles				
4-Chlorophenylmethyl Sulfone	< 9.01	< 9.01	< 9.01	MA
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300	< 0.300	MA
4-Chlorophenylmethyl Sulfoxide	< 4.81	< 4.81	< 4.81	MA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300	< 0.300	MA
Aldrin	< 0.00211	< 0.00211	< 0.00211	MA
Aldrin (GCMS)	< 0.300	< 0.300	< 0.300	MA
Atrazine	R	R	R	MA
Atrazine (GCMS)	< 0.300	< 0.300	< 0.300	MA
Benzothiazole	< 2.04	< 2.04	< 2.04	MA
Bicyclo [2,2,1] hepta-2,5-diene	< 1.10	< 1.10	< 1.10	MA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	MA	MA	MA	MA
Chlordane	< 0.0230	0.0775	< 0.0230	MA
Chlordane (GCMS)	< 2.00	< 2.00	< 2.00	MA
Dicyclopentadiene	< 0.450	< 0.450	< 0.450	MA
Dicyclopentadiene (GCMS)	< 1.00	< 1.00	< 1.00	MA
Dieldrin	< 0.00181	0.00685	< 0.00181	MA
Dieldrin (GCMS)	< 0.300	< 0.300	< 0.300	MA

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1180SE	HA1181SE	HA1182SE	HA1182SE
Depth	60 cm	60 cm	60 cm	4 cm
Date	05/11/90	05/14/90	05/16/90	06/16/90
Analytes				

Semivolatiles				
Diisopropyl Methylphosphonate	NA	NA	NA	NA
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00	< 1.00	NA
Dimethylmethyl Phosphonate	NA	NA	NA	NA
Dichlene	< 1.45	< 1.45	< 1.45	NA
Dichlene (GCMS)	< 0.400	< 0.400	< 0.400	NA
Endrin	< 0.00471	0.00925	< 0.00471	NA
Endrin (GCMS)	< 0.500	< 0.500	< 0.500	NA
Hexachlorocyclopentadiene	< 0.00137	< 0.00137	< 0.00137	NA
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600	< 0.600	NA
Isodrin	< 0.00188	< 0.00188	< 0.00188	NA
Isodrin (GCMS)	< 0.300	< 0.300	< 0.300	NA
Malathion	R	R	R	NA
Malathion (GCMS)	< 0.700	< 0.700	< 0.700	NA
Parathion	R	R	R	NA
Parathion (GCMS)	< 0.900	< 0.900	< 0.900	NA
Supone	R	R	R	NA
Supone (GCMS)	< 0.600	< 0.600	< 0.600	NA

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA1180SE	NA1181SE	NA1182SE	NA1182SE
Depth	60 cm	60 cm	60 cm	4 cm
Date	05/11/90	05/16/90	05/16/90	06/14/90
Analytes				
Semivolatiles				
Vapors	R	R	R	MA
Vapors (GCMS)	< 3.00	< 3.00	< 3.00	MA
Volatiles				
1,1,1-Trichloroethane	< 0.200	< 0.200	< 0.200	< 0.200
1,1,1-Trichloroethane (GCMS)	MA	MA	MA	MA
1,1,2-Trichloroethane	< 0.330	< 0.330	< 0.330	< 0.330
1,1,2-Trichloroethane (GCMS)	MA	MA	MA	MA
1,1-Dichloroethane	< 0.490	< 0.490	< 0.490	< 0.490
1,1-Dichloroethane (GCMS)	MA	MA	MA	MA
1,1-Dichloroethane	< 0.270	< 0.270	< 0.270	< 0.270
1,2-Dichloroethane	< 0.320	< 0.320	< 0.320	< 0.320
1,2-Dichloroethane (GCMS)	MA	MA	MA	MA
1,2-Dichloroethanes (cis & trans)	< 0.320	< 0.320	< 0.320	< 0.320
1,2-Dichloroethenes (cis & trans) (GCMS)	MA	MA	MA	MA
Benzene	< 0.100	< 0.100	< 0.100	< 0.100
Benzene (GCMS)	MA	MA	MA	MA
Carbon Tetrachloride	< 0.310	< 0.310	< 0.310	< 0.310
Carbon Tetrachloride (GCMS)	MA	MA	MA	MA

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

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MA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

reji.

Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1180SE	HA1181SE	HA1182SE	HA1182SE
Depth	60 cm	60 cm	60 cm	4 cm
Date	05/11/90	05/14/90	05/16/90	06/14/90
Analytes				

Volatiles				
Chlorobenzene	< 0.100	< 0.100	< 0.100	< 0.100
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	< 0.240	< 0.240	< 0.240	< 0.240
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropene	< 0.00500	< 0.00500	< 0.00500	NA
Dibromochloropropene (GCMS)				
Dimethyl Disulfide	< 0.300	< 0.300	< 0.300	NA
Dimethyl Disulfide (GCMS)	< 3.12	< 3.12	< 3.12	NA
Ethyl Benzene	< 0.190	< 0.190	< 0.190	< 0.190
Ethyl Benzene (GCMS)	NA	NA	NA	NA
m-Xylene	< 0.230	< 0.230	< 0.230	< 0.230
m-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	< 4.40	< 4.40	< 4.40	< 4.40
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	< 0.640	< 0.640	< 0.640	< 0.630
Methylisobutyl Ketone (GCMS)				
O,p-Xylene	< 0.780	< 0.780	< 0.780	< 0.780

Notes: Values are reported in micrograms per gram.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1180SE	HA1181SE	HA1182SE	HA1182SE
Depth	60 cm	60 cm	60 cm	4 cm
Date	05/11/90	05/14/90	05/16/90	06/14/90
Analytes				
Volatiles				
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	< 0.160	< 0.160	< 0.160	< 0.160
Tetrachloroethene (GCMS)	NA	NA	NA	NA
Toluene	< 0.100	< 0.100	< 0.100	< 0.100
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	< 0.250	< 0.250	< 0.250	< 0.250
Trichloroethene (GCMS)	NA	NA	NA	NA
Vinyl Chloride	< 1.80	< 1.80	< 1.80	< 1.80

Notes: Values are reported in micrograms per gram.

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rej . . .

Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1183SE	HA1184SE	HA1187SE
Depth	60 cm	120 cm	244 cm
Date	05/14/90	05/14/90	05/10/90
Analytes			

Metals/Anions/General Chem			
Arsenic	< 2.50	< 2.50	< 2.50
Cadmium	< 1.20	3.33	< 1.20
Chromium	68.6	59.7	62.5
Copper	41.2	51.4	54.1
Cyanide	R	R	R
Lead	94.1	109	90.6
Mercury	0.297	0.416	0.196
Total Organic Carbon	5800	5070	16600
Zinc	267	337	242
Semi-volatiles			
1,4-Oxathiane	< 1.74	< 1.74	< 1.74
1,4-Oxathiane (GCHS)	< 0.300	< 0.300	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	< 0.00277	0.0215	0.0118
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCHS)	< 0.500	< 0.500	< 0.500
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE)	< 0.00466	0.00679	0.00669
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DOE) (GCHS)	< 0.600	< 0.600	< 0.600
4-Chlorophenylmethyl Sulfide	< 4.40	< 4.40	< 4.40
4-Chlorophenylmethyl Sulfide (GCHS)	< 0.900	< 0.900	< 0.900

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1183SE	HA1184SE	HA1187SE
Depth	60 cm	120 cm	244 cm
Date	05/14/90	05/14/90	05/10/90
Analytes			
Semivolatiles			
4-Chlorophenylmethyl Sulfone	< 9.01	< 9.01	< 9.01
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300	< 0.300
4-Chlorophenylmethyl Sulfoxide	< 4.81	< 4.81	< 4.81
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300	< 0.300
Aldrin	< 0.00211	0.0102	< 0.00211
Aldrin (GCMS)	< 0.300	< 0.300	< 0.300
Atrazine	R	R	R
Atrazine (GCMS)	< 0.300	< 0.300	< 0.300
Benzothiazole	< 2.04	< 2.04	< 2.04
Bicyclo [2,2,1] hepta-2,5-diene	< 1.10	< 1.10	< 1.10
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)			
Chlordane	MA	MA	MA
Chlordane (GCMS)	< 0.0230	0.0376	0.0445
Dicyclopentadiene	< 2.00	< 2.00	< 2.00
Dicyclopentadiene (GCMS)	< 0.450	< 0.450	< 0.450
Dieldrin	< 1.00	< 1.00	< 1.00
Dieldrin (GCMS)	< 0.00181	0.00515	0.0102
	< 0.300	< 0.300	< 0.300

Notes: Values are reported in micrograms per gram.

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1183SE	HA1184SE	HA1187SE
Depth	60 cm	120 cm	244 cm
Date	05/14/90	05/14/90	05/10/90
Analytes			

Semivolatiles			
Diisopropyl Methylphosphonate	NA	NA	NA
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00	< 1.00
Dimethylmethyl Phosphonate	NA	NA	NA
Dithiane	< 1.45	< 1.45	< 1.45
Dithiane (GCMS)	< 0.400	< 0.400	< 0.400
Endrin	< 0.00471	< 0.00471	< 0.00471
Endrin (GCMS)	< 0.500	< 0.500	< 0.500
Hexachlorocyclopentadiene	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600	< 0.600
Isodrin	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	< 0.300	< 0.300	< 0.300
Malathion	R	R	R
Malathion (GCMS)	< 0.700	< 0.700	< 0.700
Parathion	R	R	R
Parathion (GCMS)	< 0.900	< 0.900	< 0.900
Supona	R	R	R
Supona (GCMS)	< 0.600	< 0.600	< 0.600

Notes: Values are reported in micrograms per gram.

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above the Maximum Reporting Limit.

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	NA1183SE	NA1184SE	NA1187SE
Depth	60 cm	120 cm	244 cm
Date	05/14/90	05/14/90	05/10/90
Analytes			
Semivolatiles			
Vapors	R	R	R
Vapors (GCMS)	< 3.00	< 3.00	< 3.00
Volatiles			
1,1,1-Trichloroethane	< 0.200	< 0.200	< 0.200
1,1,1-Trichloroethane (GCMS)	NA	NA	NA
1,1,2-Trichloroethane	< 0.330	< 0.330	< 0.330
1,1,2-Trichloroethane (GCMS)	NA	NA	NA
1,1-Dichloroethane	< 0.490	< 0.490	< 0.490
1,1-Dichloroethane (GCMS)	NA	NA	NA
1,1-Dichloroethane	< 0.270	< 0.270	< 0.270
1,2-Dichloroethane	< 0.320	< 0.320	< 0.320
1,2-Dichloroethane (GCMS)	NA	NA	NA
1,2-Dichloroethanes (cis & trans)	< 0.320	< 0.320	< 0.320
1,2-Dichloroethanes (cis & trans) (GCMS)	NA	NA	NA
Benzene	< 0.100	< 0.100	< 0.100
Benzene (GCMS)	NA	NA	NA
Carbon Tetrachloride	< 0.310	< 0.310	< 0.310
Carbon Tetrachloride (GCMS)	NA	NA	NA

Notes: Values are reported in micrograms per gram.

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1183SE	HA1184SE	HA1187SE
Depth	60 cm	120 cm	244 cm
Date	05/14/90	05/14/90	05/10/90
Analytes			

Volatiles			
Chlorobenzene	< 0.100	< 0.100	< 0.100
Chlorobenzene (GCMS)	NA	NA	NA
Chloroform	< 0.240	< 0.240	< 0.240
Chloroform (GCMS)	NA	NA	NA
Dibromochloropropane	< 0.00500	< 0.00500	< 0.00500
Dibromochloropropane (GCMS)			
Dimethyl Disulfide	< 0.300	< 0.300	< 0.300
Dimethyl Disulfide (GCMS)	< 3.12	< 3.12	< 3.12
Ethyl Benzene	NA	NA	NA
Ethyl Benzene (GCMS)	< 0.190	< 0.190	< 0.190
	NA	NA	NA
M-Xylene	< 0.230	< 0.230	< 0.230
M-Xylene (GCMS)	NA	NA	NA
Methylene Chloride	< 4.40	< 4.40	< 4.40
Methylene Chloride (GCMS)	NA	NA	NA
Methylisobutyl Ketone	< 0.640	< 0.640	< 0.640
Methylisobutyl Ketone (GCMS)			
O,P-Xylene	NA	NA	NA
	< 0.780	< 0.780	< 0.780

Notes: Values are reported in micrograms per gram.

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Table D1 Stream-Bottom Sediment
Investigative Analytical Data

Sample ID	HA1183SE	HA1184SE	HA1187SE
Depth	60 cm	120 cm	244 cm
Date	05/14/90	05/14/90	05/10/90
Analytes			
Volatiles			
O,P-Xylene (GCMS)	NA	NA	NA
Tetrachloroethene	< 0.160	< 0.160	< 0.160
Tetrachloroethene (GCMS)	NA	NA	NA
Toluene	< 0.100	< 0.100	< 0.100
Toluene (GCMS)	NA	NA	NA
Trichloroethene	< 0.250	< 0.250	< 0.250
Trichloroethene (GCMS)	NA	NA	NA
Vinyl Chloride	< 1.80	< 1.80	< 1.80

Notes: Values are reported in micrograms per gram.

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above the Maximum Reporting Limit.

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re j l.

Table D2 Stream-Bottom Sediment
GC/MS Analytical Data

Sample ID	HA1194SE	HA1195SE	HA1195SE
Depth	15 cm	30 cm	4 cm
Date	05/11/90	05/16/90	06/14/90
	GC/MS of	GC/MS of	GC/MS of
	HA1153SE	HA1157SE	HA1157SE
Analytes			
Semivolatiles			
1,4-Oxathiane (GCMS)	< 0.300	< 0.300	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 0.500	< 0.500	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	< 0.600	< 0.600	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	< 0.900	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300	NA
Aldrin (GCMS)	< 0.300	< 0.300	NA
Atrazine (GCMS)	< 0.300	< 0.300	NA
Chlordane (GCMS)	< 2.00	< 2.00	NA
Dicyclopentadiene (GCMS)	< 1.00	< 1.00	NA
Dieldrin (GCMS)	< 0.300	< 0.300	NA
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00	NA
Dithiane (GCMS)	< 0.400	< 0.400	NA
Endrin (GCMS)	< 0.500	< 0.500	NA
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600	NA
Isodrin (GCMS)	< 0.300	< 0.300	NA
Malathion (GCMS)	< 0.700	< 0.700	NA

Notes: Values are reported in micrograms per gram.

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or above the Certified Reporting Limit.> -- Indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

Table D2 Stream-Bottom Sediment
GC/MS Analytical Data

Sample ID	HA1194SE	HA1195SE	HA1195SE
Depth	15 cm	30 cm	4 cm
Date	05/11/90	05/16/90	06/14/90
	GC/MS of	GC/MS of	GC/MS of
	HA1153SE	HA1157SE	HA1157SE
Analytes			
Semivolatiles			
Parathion (GCMS)	< 0.900	< 0.900	NA
Supona (GCMS)	< 0.600	< 0.600	NA
Vapona (GCMS)	< 3.00	< 3.00	NA
Volatiles			
1,1,1-Trichloroethane	< 0.200	< 0.200	< 0.200
1,1,2-Trichloroethane	< 0.330	< 0.330	< 0.330
1,1-Dichloroethane	< 0.490	< 0.490	< 0.490
1,1-Dichloroethene	< 0.270	< 0.270	< 0.270
1,2-Dichloroethane	< 0.320	< 0.320	< 0.320
1,2-Dichloroethenes (cis & trans)	< 0.320	< 0.320	< 0.320
Benzene	< 0.100	< 0.100	< 0.100
Carbon Tetrachloride	< 0.310	< 0.310	< 0.310
Chlorobenzene	< 0.100	< 0.100	< 0.100
Chloroform	< 0.240	< 0.240	< 0.240
Dibromochloropropane (GCMS)	< 0.300	< 0.300	NA
Ethyl Benzene	< 0.190	< 0.190	< 0.190
M-Xylene	< 0.230	< 0.230	< 0.230
Methylene Chloride	< 4.40	< 4.40	< 4.40

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

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Not
rized.

Table D2 Stream-Bottom Sediment
GC/MS Analytical Data

Sample ID	HA1194SE	HA1195SE	HA1195SE
Depth	15 cm	30 cm	4 cm
Date	05/11/90	05/16/90	06/14/90
	GC/MS of	GC/MS of	GC/MS of
	HA1153SE	HA1157SE	HA1157SE
Analytes			
Volatiles			
Methylisobutyl Ketone	< 0.630	< 0.630	< 0.630
O,P-Xylene	< 0.780	< 0.780	< 0.780
Tetrachloroethene	< 0.160	< 0.160	< 0.160
Toluene	< 0.100	< 0.100	< 0.100
Trichloroethene	< 0.250	< 0.250	< 0.250
Vinyl Chloride	< 1.80	< 1.80	< 1.80

Notes: Values are reported in micrograms per gram.
Reported values are accurate to three significant figures.
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or above the Certified Reporting Limit.
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above the Maximum Reporting Limit.
NA -- Not Analyzed.

Table D3 Stream-Bottom Sediment
Duplicate Analytical Data

Sample ID	HA1192SE	HA1192SE	HA1193SE
Depth	60 cm	4 cm	244 cm
Date	05/16/90	06/14/90	05/10/90
	Dup of	Dup of	Dup of
	HA1187SE	HA1182SE	HA1187SE
Analytes			

Metals/Anions/General Chem			
Arsenic	< 2.50	NA	< 2.50
Cadmium	< 1.20	NA	1.97
Chromium	30.1	NA	71.2
Copper	16.9	NA	63.5
Cyanide	R	NA	R
Lead	40.9	NA	100
Mercury	0.120	NA	0.240
Total Organic Carbon	6810	NA	18300
Zinc	115	NA	280
Semivolatiles			
1,4-Oxathiane	< 1.74	NA	< 1.74
1,4-Oxathiane (GCMS)	< 0.300	NA	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	< 0.00277	NA	0.00515
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCMS)	< 0.500	NA	< 0.500
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.00466	NA	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	< 0.600	NA	< 0.600

Notes: Values are reported in micrograms per gram.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

Dup -- Duplicate

R -- Data did not meet quality control criteria and were
rejected.

Table D3 Stream-Bottom Sediment
Duplicate Analytical Data

Sample ID	HA1192SE	HA1192SE	HA1193SE
Depth	60 cm	4 cm	244 cm
Date	05/16/90	06/14/90	05/10/90
	Dup of	Dup of	Dup of
Analytes	HA1187SE	HA1182SE	HA1187SE

Semivolatiles			
4-Chlorophenylmethyl Sulfide	< 4.40	NA	< 4.40
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	NA	< 0.900
4-Chlorophenylmethyl Sulfone	< 9.01	NA	< 9.01
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	NA	< 0.300
4-Chlorophenylmethyl Sulfoxide	< 4.81	NA	< 4.81
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	NA	< 0.300
Aldrin	< 0.00211	NA	< 0.00211
Aldrin (GCMS)	< 0.300	NA	< 0.300
Atrazine	R	NA	R
Benothiazole	< 2.04	NA	< 2.04
Bicyclo [2,2,1] hepta-2,5-diene	< 1.10	NA	< 1.10
Chlordane	< 0.0230	NA	< 0.0230
Chlordane (GCMS)	< 2.00	NA	< 2.00
Dicyclopentadiene	< 0.450	NA	< 0.450
Dicyclopentadiene (GCMS)	< 1.00	NA	< 1.00

Notes: Values are reported in micrograms per gram.

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Dup -- Duplicate

R -- Data did not meet quality control criteria and were
rejected.

Table D3 Stream-Bottom Sediment
Duplicate Analytical Data

Sample ID	HA1192SE	HA1192SE	HA1193SE
Depth	60 cm	4 cm	244 cm
Date	05/16/90	06/14/90	05/10/90
	Dup of	Dup of	Dup of
	HA1187SE	HA1182SE	HA1187SE
Analytes			

Semivolatiles			
Dieldrin	0.00501	NA	0.00495
Dieldrin (GCMS)	< 0.300	NA	< 0.300
Disopropyl Methylphosphonate (GCMS)	< 1.00	NA	< 1.00
Dithiane	< 1.45	NA	< 1.45
Dithiane (GCMS)	< 0.400	NA	< 0.400
Endrin	< 0.00471	NA	0.00797
Endrin (GCMS)	< 0.500	NA	< 0.500
Hexachlorocyclopentadiene	0.0528	NA	< 0.00137
Hexachlorocyclopentadiene (GCMS)	< 0.600	NA	< 0.600
Isodrin	< 0.00188	NA	< 0.00188
Isodrin (GCMS)	< 0.300	NA	< 0.300
Malathion	R	NA	R
Parathion	R	NA	R
Supona	R	NA	R
Vapona	R	NA	R

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

Dup -- Duplicate

R -- Data did not meet quality control criteria and were
rejected.

Table D3 Stream-Bottom Sediment
Duplicate Analytical Data

Sample ID	HA1192SE	HA1192SE	HA1193SE
Depth	60 cm	4 cm	244 cm
Date	05/16/90	06/14/90	05/10/90
	Dup of	Dup of	Dup of
	HA1187SE	HA1182SE	HA1187SE
Analytes			
Volatiles			
1,1,1-Trichloroethane	< 0.200	< 0.200	< 0.200
1,1,2-Trichloroethane	< 0.330	< 0.330	< 0.330
1,1-Dichloroethane	< 0.490	< 0.490	< 0.490
1,1-Dichloroethene	< 0.270	< 0.270	< 0.270
1,2-Dichloroethane	< 0.320	< 0.320	< 0.320
1,2-Dichloroethenes (cis & trans)			
Benzene	< 0.320	< 0.320	< 0.320
Carbon Tetrachloride	< 0.100	< 0.100	< 0.100
Chlorobenzene	< 0.310	< 0.310	< 0.310
Chloroform	< 0.100	< 0.100	< 0.100
	< 0.240	< 0.240	< 0.240
Dibromochloropropene	< 0.00500	NA	0.0190
Dibromochloropropene (GCMS)	< 0.300	NA	< 0.300
Dimethyl Disulfide	< 3.12	NA	< 3.12
Ethyl Benzene	< 0.190	< 0.190	< 0.190
m-Xylene	< 0.230	< 0.230	< 0.230

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

Dup -- Duplicate

R -- Data did not meet quality control criteria and were rejected.

Table D3 Stream-Bottom Sediment
Duplicate Analytical Data

Sample ID	HA1192SE	HA1192SE	HA1193SE
Depth	60 cm	4 cm	244 cm
Date	05/16/90	06/16/90	05/10/90
	Dup of	Dup of	Dup of
	HA1187SE	HA1182SE	HA1187SE
Analytes			
Volatiles			
Methylene Chloride	< 4.40	< 4.40	< 4.40
Methylisobutyl Ketone	< 0.640	< 0.630	< 0.640
O,P-Xylene	< 0.780	< 0.780	< 0.780
Tetrachloroethene	< 0.160	< 0.160	< 0.160
Toluene	< 0.100	< 0.100	< 0.100
Trichloroethene	0.383	0.383	< 0.250
Vinyl Chloride	< 1.80	< 1.80	< 1.80

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

Dup -- Duplicate

R -- Data did not meet quality control criteria and were rejected.

Appendix E
SURFICIAL AND SUBSURFACE SOIL ANALYTICAL DATA

LIST OF TABLES

Table No.

E1	Surficial and Subsurface Soil Investigative Analytical Data
E2	Surficial and Subsurface Soil GC/MS Analytical Data
E3	Surficial and Subsurface Soil Duplicate Analytical Data
E4	Surficial and Subsurface Soil Background Analytical Data

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0985SO	HA0985SO45	HA0986SO	HA0987SO
Depth	15 cm	137 cm	15 cm	15 cm
Date	02/23/89	02/23/89	02/23/89	02/23/89
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.50	< 2.50	< 2.50	< 2.50
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Semivolatiles				
1,4-Oxathiane	< 1.74	< 1.74	< 1.74	< 1.74
1,4-Oxathiane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	< 0.00200	< 0.00200	< 0.00200	< 0.00200
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0985S0	HA0985S045	HA0986S0	HA0987S0
Depth	15 cm	137 cm	15 cm	15 cm
Date	02/23/89	02/23/89	02/23/89	02/23/89
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.00240	< 0.00240	< 0.00240	< 0.00240
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
4-Chlorophenylmethyl Sulfide	< 4.40	< 4.40	< 4.40	< 4.40
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
4-Chlorophenylmethyl Sulfone	< 9.01	< 9.01	< 9.01	< 9.01
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
4-Chlorophenylmethyl Sulfoxide	R	R	R	R
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Aldrin	< 0.00190	< 0.00190	< 0.00190	< 0.00190
Aldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Atrazine (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Benzothiazole	< 2.04	< 2.04	< 2.04	< 2.04
Bicyclo [2,2,1] hepta-2,5-diene	NA	R	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	< 0.360	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Chlordane (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00
Dicyclopentadiene	NA	R	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0985SO	HA0985SO45	HA0986SO	HA0987SO
Depth	15 cm	137 cm	15 cm	15 cm
Date	02/23/89	02/23/89	02/23/89	02/23/89
Analytes				
Semivolatiles				
Dicyclopentadiene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dieldrin	0.00704	< 0.00330	< 0.00330	< 0.00330
Dieldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dithiane	< 1.45	< 1.45	< 1.45	< 1.45
Dithiane (GCMS)	< 0.400	< 0.400	< 0.400	< 0.400
Endrin	< 0.00580	< 0.00580	< 0.00580	< 0.00580
Endrin (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500
Hexachlorocyclopentadiene	< 0.00180	< 0.00180	< 0.00180	< 0.00180
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Isodrin	< 0.00110	< 0.00110	< 0.00110	< 0.00110
Isodrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Malathion (GCMS)	< 0.700	< 0.700	< 0.700	< 0.700
Parathion (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
Supona (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Vapona (GCMS)	< 3.00	< 3.00	< 3.00	< 3.00
Volatiles				
1,1,1-Trichloroethane	NA	< 0.0880	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0985SO	HA0985SO45	HA0986SO	HA0987SO
Depth	15 cm	137 cm	15 cm	15 cm
Date	02/23/89	02/23/89	02/23/89	02/23/89
Analytes				

Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	< 0.430	NA	NA
1,1,2-Trichloroethane	NA	< 0.260	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	< 0.390	NA	NA
1,1-Dichloroethane	NA	< 0.0740	NA	NA
1,1-Dichloroethane (GCMS)	NA	< 1.70	NA	NA
1,1-Dichloroethene	NA	< 0.240	NA	NA
1,2-Dichloroethane	NA	< 0.0850	NA	NA
1,2-Dichloroethane (GCMS)	NA	< 0.560	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	< 0.260	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	< 1.70	NA	NA
Benzene	NA	< 0.0850	NA	NA
Benzene (GCMS)	NA	< 0.250	NA	NA
Carbon Tetrachloride	NA	< 0.120	NA	NA
Carbon Tetrachloride (GCMS)	NA	< 0.250	NA	NA
Chlorobenzene	NA	< 0.200	NA	NA
Chlorobenzene (GCMS)	NA	< 1.50	NA	NA
Chloroform	NA	< 0.0680	NA	NA

Notes: Values are reported to microgram per gram.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

rej

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0985SO	HA0985SO45	HA0986SO	HA0987SO
Depth	15 cm	137 cm	15 cm	15 cm
Date	02/23/89	02/23/89	02/23/89	02/23/89
Analytes				
Volatiles				
Chloroform (GCMS)	NA	< 0.290	NA	NA
Dibromochloropropane	R	R	R	R
Dibromochloropropane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Dimethyl Disulfide	< 3.12	< 3.12	< 3.12	< 3.12
Dimethyl Disulfide (GCMS)	NA	< 20.0	NA	NA
Ethyl Benzene	NA	< 0.160	NA	NA
Ethyl Benzene (GCMS)	NA	< 0.380	NA	NA
m-Xylene	NA	< 0.260	NA	NA
m-Xylene (GCMS)	NA	< 0.740	NA	NA
Methylene Chloride	NA	< 3.70	NA	NA
Methylene Chloride (GCMS)	NA	< 1.50	NA	NA
Methylisobutyl Ketone	NA	R	NA	NA
Methylisobutyl Ketone (GCMS)	NA	< 0.730	NA	NA
O,p-Xylene	NA	< 0.390	NA	NA
O,p-Xylene (GCMS)	NA	< 4.90	NA	NA
Tetrachloroethene	NA	< 0.270	NA	NA
Tetrachloroethene (GCMS)	NA	< 0.250	NA	NA

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0985SO	HA0985SO45	HA0986SO	HA0987SO
Depth	15 cm	137 cm	15 cm	15 cm
Date	02/23/89	02/23/89	02/23/89	02/23/89
Analytes				
Volatiles				
Toluene	NA	< 0.190	NA	NA
Toluene (GCMS)	NA	< 0.250	NA	NA
Trichloroethene	NA	< 0.140	NA	NA
Trichloroethene (GCMS)	NA	< 0.540	NA	NA

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0987S050	HA0988S0	HA0989M8	HA0990M8
Depth	152 cm	15 cm	3 cm	3 cm
Date	02/23/89	02/23/89	02/24/89	02/24/89
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.50	3.59	< 2.50	< 2.50
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.0500	< 0.0500	< 0.0500	0.127
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Semivolatiles				
1,4-Oxathiane	< 1.74	< 1.74	< 1.74	< 1.74
1,4-Oxathiane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.00200	< 0.00200	0.0535	0.230
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500

Notes: Values are reported to microgram per gram.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0987S050	HA0988S0	HA0989LB	HA0990LB
Depth	152 cm	15 cm	3 cm	3 cm
Date	02/23/89	02/23/89	02/24/89	02/24/89
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.00240	< 0.00240	0.0363	0.0730
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
4-Chlorophenylmethyl Sulfide	< 4.40	< 4.40	< 4.40	< 4.40
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
4-Chlorophenylmethyl Sulfone	< 9.01	< 9.01	< 9.01	< 9.01
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
4-Chlorophenylmethyl Sulfoxide	R	R	R	R
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Aldrin	< 0.00190	< 0.00190	0.0164	0.0103
Aldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Atrazine (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Benzothiazole	< 2.04	< 2.04	< 2.04	< 2.04
Bicyclo [2,2,1] hepta-2,5-diene	R	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	< 0.360	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	0.151
Chlordane (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00
Dicyclopentadiene	R	NA	NA	NA

Notes: Values are reported to microgram per gram.

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rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0987S050	HA0988S0	HA0989H8	HA0990H8
Depth	152 cm	15 cm	3 cm	3 cm
Date	02/23/89	02/23/89	02/24/89	02/24/89
Analytes				
Semivolatiles				
Dicyclopentadiene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dieldrin	< 0.00330	< 0.00330	0.130	0.120
Dieldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dithiane	< 1.45	< 1.45	< 1.45	< 1.45
Dithiane (GCMS)	< 0.400	< 0.400	< 0.400	< 0.400
Endrin	< 0.00580	< 0.00580	< 0.0290	0.0152
Endrin (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500
Hexachlorocyclopentadiene	< 0.00180	< 0.00180	< 0.00180	< 0.00180
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Isodrin	< 0.00110	< 0.00110	< 0.00110	< 0.00110
Isodrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Malathion (GCMS)	< 0.700	< 0.700	< 0.700	< 0.700
Parathion (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
Supona (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Vapona (GCMS)	< 3.00	< 3.00	< 3.00	< 3.00
Volatiles				
1,1,1-Trichloroethane	< 0.0880	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0987S050	HA0988S0	HA0989U8	HA0990U8
Depth	152 cm	15 cm	3 cm	3 cm
Date	02/23/89	02/23/89	02/24/89	02/24/89
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	< 0.430	NA	NA	NA
1,1,2-Trichloroethane	< 0.260	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	< 0.390	NA	NA	NA
1,1-Dichloroethane	< 0.0740	NA	NA	NA
1,1-Dichloroethane (GCMS)	< 1.70	NA	NA	NA
1,1-Dichloroethene	< 0.240	NA	NA	NA
1,2-Dichloroethane	< 0.0850	NA	NA	NA
1,2-Dichloroethane (GCMS)	< 0.560	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	< 0.260	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	< 1.70	NA	NA	NA
Benzene	< 0.0850	NA	NA	NA
Benzene (GCMS)	< 0.250	NA	NA	NA
Carbon Tetrachloride	< 0.120	NA	NA	NA
Carbon Tetrachloride (GCMS)	< 0.250	NA	NA	NA
Chlorobenzene	< 0.200	NA	NA	NA
Chlorobenzene (GCMS)	< 1.50	NA	NA	NA
Chloroform	< 0.0680	NA	NA	NA

Notes: Values are reported to microgram per gram.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

rej ---.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0987S050	HA0988S0	HA0989J8	HA0990J8
Depth	152 cm	15 cm	3 cm	3 cm
Date	02/23/89	02/23/89	02/24/89	02/24/89
Analytes				
Volatiles				
Chloroform (GCMS)	< 0.290	NA	NA	NA
Dibromochloropropane	R	R	R	R
Dibromochloropropane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Dimethyl Disulfide	< 3.12	< 3.12	< 3.12	< 3.12
Dimethyl Disulfide (GCMS)	< 20.0	NA	NA	NA
Ethyl Benzene	< 0.160	NA	NA	NA
Ethyl Benzene (GCMS)	< 0.380	NA	NA	NA
M-Xylene	< 0.260	NA	NA	NA
M-Xylene (GCMS)	< 0.740	NA	NA	NA
Methylene Chloride	< 3.70	NA	NA	NA
Methylene Chloride (GCMS)	< 1.50	NA	NA	NA
Methylisobutyl Ketone	R	NA	NA	NA
Methylisobutyl Ketone (GCMS)	< 0.730	NA	NA	NA
O,P-Xylene	< 0.390	NA	NA	NA
O,P-Xylene (GCMS)	< 4.90	NA	NA	NA
Tetrachloroethene	< 0.270	NA	NA	NA
Tetrachloroethene (GCMS)	< 0.250	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0987S050	HA0988S0	HA0989M8	HA0990M8
Depth	152 cm	15 cm	3 cm	3 cm
Date	02/23/89	02/23/89	02/24/89	02/24/89
Analytes				
Volatiles				
Toluene	< 0.190	NA	NA	NA
Toluene (GCMS)	< 0.250	NA	NA	NA
Trichloroethene	< 0.140	NA	NA	NA
Trichloroethene (GCMS)	< 0.540	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

rejection.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0991UB	HA0992UB	HA0993UB	HA0994UB
Depth	3 cm	3 cm	3 cm	3 cm
Date	02/24/89	02/24/89	02/24/89	02/24/89
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.50	< 2.50	2.89	< 2.50
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Semivolatiles				
1,4-Oxathiane	< 1.74	< 1.74	< 1.74	< 1.74
1,4-Oxathiane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	0.0370	0.0118	0.0229	0.0175
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA099148	HA099248	HA099348	HA099448
Depth	3 cm	3 cm	3 cm	3 cm
Date	02/24/89	02/24/89	02/24/89	02/24/89
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	0.0198	0.00416	0.0110	< 0.00240
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
4-Chlorophenylmethyl Sulfide	< 4.40	< 4.40	< 4.40	< 4.40
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
4-Chlorophenylmethyl Sulfone	< 9.01	< 9.01	< 9.01	< 9.01
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
4-Chlorophenylmethyl Sulfoxide	R	R	R	R
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Aldrin	0.00727	0.0143	0.00754	0.0337
Aldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Atrazine (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Benzothiazole	< 2.04	< 2.04	< 2.04	< 2.04
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA	NA	NA
Chlordane	0.0458	< 0.0230	0.0997	0.0415
Chlordane (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00
Dicyclopentadiene	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

rejection.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0991UB	HA0992UB	HA0993UB	HA0994UB
Depth	3 cm	3 cm	3 cm	3 cm
Date	02/24/89	02/24/89	02/24/89	02/24/89
Analytes				
Semivolatiles				
Dicyclopentadiene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dieldrin	0.110	0.110	0.0890	0.250
Diieldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dithiane	< 1.45	< 1.45	< 1.45	< 1.45
Dithiane (GCMS)	< 0.400	< 0.400	< 0.400	< 0.400
Endrin	0.0189	0.0233	0.0160	0.0289
Endrin (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500
Hexachlorocyclopentadiene	< 0.00180	< 0.00180	< 0.00180	< 0.00180
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Isodrin	< 0.00110	< 0.00110	< 0.00110	< 0.00110
Isodrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Malathion (GCMS)	< 0.700	< 0.700	< 0.700	< 0.700
Parathion (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
Supona (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Vapona (GCMS)	< 3.00	< 3.00	< 3.00	< 3.00
Volatiles				
1,1,1-Trichloroethane	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0991UB	HA0992UB	HA0993UB	HA0994UB
Depth	3 cm	3 cm	3 cm	3 cm
Date	02/24/89	02/24/89	02/24/89	02/24/89
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

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rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA099148	HA099248	HA099348	HA099448
Depth	3 cm	3 cm	3 cm	3 cm
Date	02/24/89	02/24/89	02/24/89	02/24/89
Analytes				
Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	R	R	R	R
Dibromochloropropane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Dimethyl Disulfide	< 3.12	< 3.12	< 3.12	< 3.12
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
m-Xylene	NA	NA	NA	NA
m-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,p-Xylene	NA	NA	NA	NA
O,p-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0991WB	HA0992WB	HA0993WB	HA0994WB
Depth	3 cm	3 cm	3 cm	3 cm
Date	02/24/89	02/24/89	02/24/89	02/24/89
Analytes				
Volatiles				
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0996WB	HA0997WB	HA0998WB	HA0999WB
Depth	3 cm	3 cm	3 cm	3 cm
Date	02/24/89	02/24/89	02/24/89	02/24/89
Analytes				

Metals/Anions/General Chem				
Arsenic	< 2.50	< 2.50	< 2.50	< 2.50
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
SemiVolatiles				
1,4-Oxathiane	< 1.74	< 1.74	< 1.74	< 1.74
1,4-Oxathiane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	0.00474	0.00441	< 0.00200	0.00734
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

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rejected.

Subsistence and Surface Soil

02/24/89 02/24/89

Analytes	02/24/89	02/24/89
Semivolatiles		
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.00240	< 0.00240
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 0.600	< 0.600
4-Chlorophenylmethyl Sulfide	< 4.40	< 4.40
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	< 0.900
4-Chlorophenylmethyl Sulfone	< 9.01	< 9.01
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300
4-Chlorophenylmethyl Sulfoxide	R	R
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300
Aldrin	0.00713	0.00269
Aldrin (GCMS)	< 0.300	< 0.300
Atrazine (GCMS)	< 0.300	< 0.300
Benzothiazole	< 2.04	< 2.04
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA
Chlordane	< 0.0230	< 0.0230
Chlordane (GCMS)	< 2.00	< 2.00
Dicyclopentadiene	NA	NA

Notes: Values are reported to microgram per gram.
 Reported values are accurate to three significant figures.
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 NA -- Not Analyzed.
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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0996UB	HA0997UB	HA0998UB	HA0999UB
Depth	3 cm	3 cm	3 cm	3 cm
Date	02/24/89	02/24/89	02/24/89	02/24/89
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA0996WB	HA0997WB	HA0998WB	HA0999WB
Depth	3 cm	3 cm	3 cm	3 cm
Date	02/24/89	02/24/89	02/24/89	02/24/89
Analytes				
Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	R	R	R	R
Dibromochloropropane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Dimethyl Disulfide	< 3.12	< 3.12	< 3.12	< 3.12
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
m-Xylene	NA	NA	NA	NA
m-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	NA	NA	NA
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID.	HA0996UB	HA0997UB	HA0998UB	HA0999UB
Depth	3 cm	3 cm	3 cm	3 cm
Date	02/24/89	02/24/89	02/24/89	02/24/89
Analytes				
Volatiles				
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejr --

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1200MB	HA1201MB	HA1202MB	HA1203MB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/14/90	06/18/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.50	4.62	< 2.50	< 2.50
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Semivolatiles				
1,4-Oxathiane	NA	NA	NA	NA
1,4-Oxathiane (GCMS)	NA	NA	NA	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	< 0.00277	0.00631	< 0.00277	0.0443
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1200MB	HA1201MB	HA1202MB	HA1203MB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/14/90	06/18/90
Analytes				

Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.00466	< 0.00466	< 0.00466	0.00844
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	NA	NA	NA
Aldrin	< 0.00211	< 0.00211	< 0.00211	< 0.00211
Aldrin (GCMS)	NA	NA	NA	NA
Atrazine (GCMS)	NA	NA	NA	NA
Benothiazole	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Chlordane (GCMS)	NA	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejection.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1200MB	HA1201MB	HA1202MB	HA1203MB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/14/90	06/18/90
Analytes				

Semivolatiles				
Dicyclopentadiene (GCMS)	NA	NA	NA	NA
Dieldrin	0.00223	< 0.00181	0.00706	0.0187
Dieldrin (GCMS)	NA	NA	NA	NA
Diisopropyl Methylphosphonate (GCMS)	NA	NA	NA	NA
Dithiane	NA	NA	NA	NA
Dithiane (GCMS)	NA	NA	NA	NA
Endrin	< 0.00471	< 0.00471	< 0.00471	0.0394
Endrin (GCMS)	NA	NA	NA	NA
Hexachlorocyclopentadiene	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	NA	NA	NA	NA
Isodrin	< 0.00188	< 0.00188	< 0.00188	0.00339
Isodrin (GCMS)	NA	NA	NA	NA
Malathion (GCMS)	NA	NA	NA	NA
Parathion (GCMS)	NA	NA	NA	NA
Supona (GCMS)	NA	NA	NA	NA
Vapona (GCMS)	NA	NA	NA	NA
Volatiles	NA	NA	NA	NA
1,1,1-Trichloroethane				

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1200WB	HA1201WB	HA1202WB	HA1203WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/14/90	06/18/90
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

P -- Data failed to meet quality control criteria and were

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1200WB	HA1201WB	HA1202WB	HA1203WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/14/90	06/18/90
Analytes				
Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)	NA	NA	NA	NA
Dimethyl Disulfide	NA	NA	NA	NA
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
M-Xylene	NA	NA	NA	NA
M-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	NA	NA	NA
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1204WB	HA1205WB	HA1206WB	HA1207WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/13/90	06/13/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.50	3.24	< 2.50	< 2.50
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Semivolatiles				
1,4-Oxathiane	NA	NA	NA	NA
1,4-Oxathiane (GCMS)	NA	NA	NA	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	0.00654	0.00561	0.00579	0.0419
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1204WB	HA1205WB	HA1206WB	HA1207WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/13/90	06/13/90
Analytes				
Semivolatiles				
Dicyclopentadiene (GCMS)	NA	NA	NA	NA
Dieldrin	0.0225	0.0167	0.0250	0.00451
Dieldrin (GCMS)	NA	NA	NA	NA
Diisopropyl Methylphosphonate (GCMS)	NA	NA	NA	NA
Dithiane	NA	NA	NA	NA
Dithiane (GCMS)	NA	NA	NA	NA
Endrin	< 0.00471	< 0.00471	< 0.00471	< 0.00471
Endrin (GCMS)	NA	NA	NA	NA
Hexachlorocyclopentadiene	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	NA	NA	NA	NA
Isodrin	< 0.00188	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	NA	NA	NA	NA
Malathion (GCMS)	NA	NA	NA	NA
Parathion (GCMS)	NA	NA	NA	NA
Supona (GCMS)	NA	NA	NA	NA
Vapona (GCMS)	NA	NA	NA	NA
Volatiles				
1,1,1-Trichloroethane	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1204WB	HA1205WB	HA1206WB	HA1207WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/13/90	06/13/90
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1204WB	HA1205WB	HA1206WB	HA1207WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/13/90	06/13/90
Analytes				
Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)	NA	NA	NA	NA
Dimethyl Disulfide	NA	NA	NA	NA
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
M-Xylene	NA	NA	NA	NA
M-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	NA	NA	NA
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1204WB	HA1205WB	HA1206WB	HA1207WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/13/90	06/13/90
Analytes				
Volatiles	NA	NA	NA	NA
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rej.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1208UB	HA1209UB	HA1210UB	HA1211UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/13/90	06/18/90	06/18/90	06/13/90
Analytes				
Metals/Anions/General Chem				
Arsenic	2.84	< 2.50	< 2.50	< 2.50
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Semivolatiles				
1,4-Oxathiane	NA	NA	NA	NA
1,4-Oxathiane (GCMS)	NA	NA	NA	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	0.00376	0.00743	0.0106	0.00349
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1208MB	HA1209MB	HA1210MB	HA1211MB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/13/90	06/18/90	06/18/90	06/13/90
Analytes				
Semivolatiles	< 0.00466	< 0.00466	< 0.00466	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	NA	NA	NA	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	NA	NA	NA
Aldrin	< 0.00211	< 0.00211	0.00571	< 0.00211
Aldrin (GCMS)	NA	NA	NA	NA
Atrazine (GCMS)	NA	NA	NA	NA
Benzothiazole	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Chlordane (GCMS)	NA	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

rejr----

Sample ID	HA1208WB	HA1209WB	HA1210WB	HA1211WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/13/90	06/18/90	06/18/90	06/13/90
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.
 Reported values are accurate to three significant figures.
 < -- indicates that the target analyte was not detected at
 or above the Certified Reporting Limit.
 > -- indicates that the target analyte was detected at or
 above the Maximum Reporting Limit.
 NA -- Not Analyzed.
 R -- Data did not meet quality control criteria and were
 rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA12084B	HA12094B	HA12104B	HA12114B
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/13/90	06/18/90	06/18/90	06/13/90
Analytes				

Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)	NA	NA	NA	NA
Dimethyl Disulfide	NA	NA	NA	NA
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
M-Xylene	NA	NA	NA	NA
M-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	NA	NA	NA
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1208JB	HA1209JB	HA1210JB	HA1211JB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/13/90	06/18/90	06/18/90	06/13/90
Analytes				
Volatiles				
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.
 Reported values are accurate to three significant figures.
 < -- indicates that the target analyte was not detected at
 or above the Certified Reporting Limit.
 > -- indicates that the target analyte was detected at or
 above the Maximum Reporting Limit.
 NA -- Not Analyzed.
 R -- Data did not meet quality control criteria and were
 rejected.

Iron	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA
Nickel	0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Potassium	NA	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA	NA
Titanium	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA

Notes: 1. All values are reported to microgram per gram.
 2. Reported values are accurate to three significant figures.
 3. NA indicates that the target analyte was not detected at or above the Certified Reporting Limit.
 4. > -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.
 5. NA -- Not Analyzed.
 6. Data did not meet quality control criteria and were

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1212UB	HA1213UB	HA1214UB	HA1215UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/13/90	06/14/90	06/18/90
Analytes				

Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.00466	< 0.00466	0.00628	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	NA	NA	NA
Aldrin	< 0.00211	< 0.00211	< 0.00211	< 0.00211
Aldrin (GCMS)	NA	NA	NA	NA
Atrazine (GCMS)	NA	NA	NA	NA
Benzothiazole	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Chlordane (GCMS)	NA	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected

**Table E1 Surficial and Subsurface Soil
Investigative Analytical Data**

[illegible]

the large number of control and positive samples.

in the total study population, and that of the non-respondent group.

— 100 —

Patients did not meet quality control criteria and were repeated.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1212UB	HA1213UB	HA1214UB	HA1215UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/13/90	06/14/90	06/18/90
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejc

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1212UB	HA1213UB	HA1214UB	HA1215UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/13/90	06/14/90	06/18/90
Analytes				
Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)	NA	NA	NA	NA
Dimethyl Disulfide	NA	NA	NA	NA
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
m-Xylene	NA	NA	NA	NA
m-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	NA	NA	NA
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1212WB	HA1213WB	HA1214WB	HA1215WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/13/90	06/14/90	06/18/90
Analytes				
Volatiles	NA	NA	NA	NA
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.
 Reported values are accurate to three significant figures.
 < -- indicates that the target analyte was not detected at
 or above the Certified Reporting Limit.
 > -- indicates that the target analyte was detected at or
 above the Maximum Reporting Limit.
 NA -- Not Analyzed.
 R -- Data did not meet quality control criteria and were
 rejc

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA121648	HA121748	HA121848	HA121948
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/18/90	06/15/90	06/15/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.50	< 2.50	< 2.50	3.30
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Semivolatiles				
1,4-Oxathiane	NA	NA	NA	NA
1,4-Oxathiane (GCMS)	NA	NA	NA	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.00277	< 0.00277	< 0.00277	< 0.00277
2,2-bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1216UB	HA1217UB	HA1218UB	HA1219UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/18/90	06/15/90	06/15/90
Analytes				

Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.00466	< 0.00466	< 0.00466	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	NA	NA	NA
Aldrin	< 0.00211	< 0.00211	< 0.00211	< 0.00211
Aldrin (GCMS)	NA	NA	NA	NA
Atrazine (GCMS)	NA	NA	NA	NA
Benzothiazole	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Chlordane (GCMS)	NA	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were

reje-

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1216AB	HA1217AB	HA1218AB	HA1219AB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/18/90	06/15/90	06/15/90
Analytes				
Semivolatiles				
Dicyclopentadiene (GCMS)	NA	NA	NA	NA
Dieldrin	0.00232	< 0.00181	< 0.00181	0.00315
Dieldrin (GCMS)	NA	NA	NA	NA
Diisopropyl Methylphosphonate (GCMS)	NA	NA	NA	NA
Dithiane	NA	NA	NA	NA
Dithiane (GCMS)	NA	NA	NA	NA
Endrin	< 0.00471	< 0.00471	< 0.00471	< 0.00471
Endrin (GCMS)	NA	NA	NA	NA
Hexachlorocyclopentadiene	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	NA	NA	NA	NA
Isodrin	< 0.00188	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	NA	NA	NA	NA
Malathion (GCMS)	NA	NA	NA	NA
Parathion (GCMS)	NA	NA	NA	NA
Supona (GCMS)	NA	NA	NA	NA
Vapona (GCMS)	NA	NA	NA	NA
Volatiles				
1,1,1-Trichloroethane	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1216UB	HA1217UB	HA1218UB	HA1219UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/18/90	06/15/90	06/15/90
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
reji.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1216UB	HA1217UB	HA1218UB	HA1219UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/18/90	06/15/90	06/15/90
Analytes				
Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)	NA	NA	NA	NA
Dimethyl Disulfide	NA	NA	NA	NA
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
m-Xylene	NA	NA	NA	NA
m-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	NA	NA	NA
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were
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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1216UB	HA1217UB	HA1218UB	HA1219UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/18/90	06/15/90	06/15/90
Analytes				
Volatiles	NA	NA	NA	NA
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.
 Reported values are accurate to three significant figures.
 <-- indicates that the target analyte was not detected at
 or above the Certified Reporting Limit.
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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1220MB	HA1221MB	HA1222MB	HA1223MB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/15/90	06/15/90	06/14/90	06/14/90
Analytes				
Metals/Anions/General Chem				
Arsenic	2.84	< 2.50	2.61	< 2.50
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.0500	< 0.0500	0.142	0.0719
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Semivolatiles				
1,4-Oxathiane	NA	NA	NA	NA
1,4-Oxathiane (GCMS)	NA	NA	NA	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	< 0.00277	0.0103	0.0221	0.00514
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1220WB	HA1221WB	HA1222WB	HA1223WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/15/90	06/15/90	06/14/90	06/14/90
Analytes				

Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.00466	< 0.00466	< 0.00466	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	NA	NA	NA
Aldrin	< 0.00211	< 0.00211	< 0.00211	< 0.00211
Aldrin (GCMS)	NA	NA	NA	NA
Atrazine (GCMS)	NA	NA	NA	NA
Benothiazole	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Chlordane (GCMS)	NA	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1220MB	HA1221MB	HA1222MB	HA1223MB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/15/90	06/15/90	06/14/90	06/14/90
Analytes				

Semivolatiles				
Dicyclopentadiene (GCMS)	NA	NA	NA	NA
Dieldrin	< 0.00181	0.00361	0.0131	0.00749
Dieldrin (GCMS)	NA	NA	NA	NA
Diisopropyl Methylphosphonate (GCMS)	NA	NA	NA	NA
Dithiane	NA	NA	NA	NA
Dithiane (GCMS)	NA	NA	NA	NA
Endrin	< 0.00471	< 0.00471	< 0.00471	< 0.00471
Endrin (GCMS)	NA	NA	NA	NA
Hexachlorocyclopentadiene	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	NA	NA	NA	NA
Isodrin	< 0.00188	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	NA	NA	NA	NA
Malathion (GCMS)	NA	NA	NA	NA
Parathion (GCMS)	NA	NA	NA	NA
Supona (GCMS)	NA	NA	NA	NA
Vapona (GCMS)	NA	NA	NA	NA
Volatiles				
1,1,1-Trichloroethane	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1220UB	HA1221UB	HA1222UB	HA1223UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/15/90	06/15/90	06/14/90	06/14/90
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1220WB	HA1221WB	HA1222WB	HA1223WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/15/90	06/15/90	06/14/90	06/14/90
Analytes				
Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)	NA	NA	NA	NA
Dimethyl Disulfide	NA	NA	NA	NA
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
M-Xylene	NA	NA	NA	NA
M-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	NA	NA	NA
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1220WB	HA1221WB	HA1222WB	HA1223WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/15/90	06/15/90	06/14/90	06/14/90
Analytes				
Volatiles	NA	NA	NA	NA
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1224WB	HA1225WB	HA1226WB	HA1227WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/14/90	07/02/90	07/03/90
Analytes				

Metals/Anions/General Chem				
Arsenic	4.41	3.51	< 2.50	< 2.50
Cadmium	NA	NA	< 1.20	< 1.20
Calcium	NA	NA	NA	NA
Chromium	NA	NA	15.5	13.1
Copper	NA	NA	10.1	11.1
Iron	NA	NA	NA	NA
Lead	NA	NA	40.6	27.0
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	0.142	0.325	< 0.0500	< 0.0500
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	NA	NA	89.3	61.2
Semivolatiles				
1,4-Oxathiane	NA	NA	NA	NA
1,4-Oxathiane (GCHS)	NA	NA	< 0.300	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	0.00507	0.00865	0.0192	0.00704
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCHS)	NA	NA	< 0.500	< 0.500

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1224WB	HA1225WB	HA1226WB	HA1227WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/14/90	07/02/90	07/03/90
Analytes				
Semi-volatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.00466	< 0.00466	0.0561	0.00478
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	NA	NA	< 0.600	< 0.600
4-Chlorophenylmethyl Sulfide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	NA	NA	< 0.900	< 0.900
4-Chlorophenylmethyl Sulfone	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	NA	NA	< 0.300	< 0.300
4-Chlorophenylmethyl Sulfoxide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	NA	< 0.300	< 0.300
Aldrin	< 0.00211	< 0.00211	< 0.00211	0.00533
Aldrin (GCMS)	NA	NA	< 0.300	< 0.300
Atrazine (GCMS)	NA	NA	< 0.300	< 0.300
Benzothiazole	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	0.520	< 0.0230
Chlordane (GCMS)	NA	NA	7.71	< 2.00
Dicyclopentadiene	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1224UB	HA1225UB	HA1226UB	HA1227UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/14/90	07/02/90	07/03/90
Analytes				
Semivolatiles				
Dicyclopentadiene (GCMS)	NA	NA	< 1.00	< 1.00
Dieldrin	0.00775	0.00440	0.0930	0.0160
Dieldrin (GCMS)	NA	NA	< 0.300	< 0.300
Diisopropyl Methylphosphonate (GCMS)	NA	NA	< 1.00	< 1.00
Dithiane	NA	NA	NA	NA
Dithiane (GCMS)	NA	NA	< 0.400	< 0.400
Endrin	< 0.00471	< 0.00471	0.390	0.00659
Endrin (GCMS)	NA	NA	< 0.500	< 0.500
Hexachlorocyclopentadiene	< 0.00137	0.0203	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	NA	NA	< 0.600	< 0.600
Isodrin	< 0.00188	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	NA	NA	< 0.300	< 0.300
Malathion (GCMS)	NA	NA	< 0.700	< 0.700
Parathion (GCMS)	NA	NA	< 0.900	< 0.900
Supona (GCMS)	NA	NA	< 0.600	< 0.600
Vapona (GCMS)	NA	NA	< 3.00	< 3.00
Volatiles				
1,1,1-Trichloroethane	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	NA1224UB	NA1225UB	NA1226UB	NA1227UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/14/90	07/02/90	07/03/90
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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NA -- Not Analyzed.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1224WB	HA1225WB	HA1226WB	HA1227WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/14/90	07/02/90	07/03/90
Analytes				

Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)	NA	NA	< 0.300	< 0.300
Dimethyl Disulfide	NA	NA	NA	NA
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
m-Xylene	NA	NA	NA	NA
m-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	NA	NA	NA
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1224UB	HA1225UB	HA1226UB	HA1227UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/14/90	07/02/90	07/03/90
Analytes				
Volatiles	NA	NA	NA	NA
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.
 Reported values are accurate to three significant figures.
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 or above the Certified Reporting Limit.
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 above the Maximum Reporting Limit.
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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1228MB	HA1229MB	HA1230MB	HA1231MB
Depth	5 cm	5 cm	5 cm	5 cm
Date	07/03/90	07/03/90	06/14/90	06/13/90
Analytes				

Metals/Anions/General Chem				
Arsenic	< 2.50	< 2.50	< 2.50	3.26
Cadmium	< 1.20	< 1.20	< 1.20	< 1.20
Calcium	NA	NA	12600	4760
Chromium	12.3	17.3	17.6	23.2
Copper	12.0	12.9	11.5	20.9
Iron	NA	NA	19600	25600
Lead	35.2	18.9	14.4	29.5
Magnesium	NA	NA	4100	5010
Manganese	NA	NA	278	530
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Potassium	NA	NA	4190	6400
Sodium	NA	NA	142	118
Zinc	82.1	53.2	47.8	87.1
Semivolatiles				
1,4-Oxathiane	NA	NA	NA	NA
1,4-Oxathiane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	0.0260	0.00472	< 0.00277	0.790
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500

Notes: Values are reported to microgram per gram.

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above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1228MB	HA1229MB	HA1230MB	HA1231MB
Depth	5 cm	5 cm	5 cm	5 cm
Date	07/03/90	07/03/90	06/14/90	06/13/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	0.00675	< 0.00466	< 0.00466	0.170
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
4-Chlorophenylmethyl Sulfide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
4-Chlorophenylmethyl Sulfone	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
4-Chlorophenylmethyl Sulfoxide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Aldrin	< 0.00211	< 0.00211	0.00719	< 0.00211
Aldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Atrazine (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Benzothiazole	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Chlordane (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00
Dicyclopentadiene	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1228WB	HA1229WB	HA1230WB	HA1231WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	07/03/90	07/03/90	06/14/90	06/13/90
Analytes				
Semivolatiles				
Dicyclopentadiene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dieldrin	0.0184	0.0128	< 0.00181	0.130
Dieldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dithiane	NA	NA	NA	NA
Dithiane (GCMS)	< 0.400	< 0.400	< 0.400	< 0.400
Endrin	0.00511	< 0.00471	< 0.00471	< 0.00471
Endrin (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500
Hexachlorocyclopentadiene	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Isodrin	< 0.00188	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Malathion (GCMS)	< 0.700	< 0.700	< 0.700	< 0.700
Parathion (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
Supona (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Vapona (GCMS)	< 3.00	< 3.00	< 3.00	< 3.00
Volatiles				
1,1,1-Trichloroethane	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1229AB	HA1229AB	HA1230AB	HA1231AB
Depth	5 cm	5 cm	5 cm	5 cm
Date	07/03/90	07/03/90	06/14/90	06/13/90
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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R -- Data did not meet quality control criteria and were

rej

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA122848	HA122948	HA123048	HA123148
Depth	5 cm	5 cm	5 cm	5 cm
Date	07/03/90	07/03/90	06/14/90	06/13/90
Analytes				
Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Dimethyl Disulfide	NA	NA	NA	NA
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
m-Xylene	NA	NA	NA	NA
m-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,p-Xylene	NA	NA	NA	NA
O,p-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1228WB	HA1229WB	HA1230WB	HA1231WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	07/03/90	07/03/90	06/14/90	06/13/90
Analytes				
Volatiles	NA	NA	NA	NA
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1232UB	HA1233UB	HA1234UB	HA1235UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/15/90	07/03/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.50	< 2.50	2.76	< 2.50
Cadmium	< 1.20	< 1.20	< 1.20	< 1.20
Calcium	2200	2260	14600	NA
Chromium	8.37	15.7	15.4	11.2
Copper	6.09	12.0	13.5	8.95
Iron	13100	16800	20300	NA
Lead	14.7	20.6	19.1	16.4
Magnesium	2600	2650	4070	NA
Manganese	240	351	298	NA
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Potassium	1570	3860	4260	NA
Sodium	65.4	68.2	116	NA
Zinc	45.4	47.2	53.7	36.6
SemiVolatiles				
1,4-Oxathiane	NA	NA	NA	NA
1,4-Oxathiane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.00277	< 0.00277	< 0.00277	0.00657
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1232WB	HA1233WB	HA1234WB	HA1235WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/15/90	07/03/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.00466	< 0.00466	< 0.00466	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
4-Chlorophenyl(methyl) Sulfide	NA	NA	NA	NA
4-Chlorophenyl(methyl) Sulfide (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
4-Chlorophenyl(methyl) Sulfone	NA	NA	NA	NA
4-Chlorophenyl(methyl) Sulfone (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
4-Chlorophenyl(methyl) Sulfoxide	NA	NA	NA	NA
4-Chlorophenyl(methyl) Sulfoxide (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Aldrin	< 0.00211	< 0.00211	0.00590	0.00480
Aldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Atrazine (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Benzothiazole	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Chlordane (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00
Dicyclopentadiene	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1232WB	HA1233WB	HA1234WB	HA1235WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/15/90	07/03/90
Analytes				
Semivolatiles				
Dicyclopentadiene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dieldrin	< 0.00181	0.00545	0.00992	0.0332
Dieldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dithiane	NA	NA	NA	NA
Dithiane (GCMS)	< 0.400	< 0.400	< 0.400	< 0.400
Endrin	< 0.00471	< 0.00471	< 0.00471	0.00993
Endrin (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500
Hexachlorocyclopentadiene	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Isodrin	< 0.00188	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Malathion (GCMS)	< 0.700	< 0.700	< 0.700	< 0.700
Parathion (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
Supona (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Vapona (GCMS)	< 3.00	< 3.00	< 3.00	< 3.00
Volatiles				
1,1,1-Trichloroethane	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1232MB	HA1233MB	HA1234MB	HA1235MB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/15/90	07/03/90
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1233UB	HA1233UB	HA1234UB	HA1235UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/15/90	07/03/90
Analytes				

Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Dimethyl Disulfide	NA	NA	NA	NA
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
M-Xylene	NA	NA	NA	NA
M-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	NA	NA	NA
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1232WB	HA1233WB	HA1234WB	HA1235WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/14/90	06/18/90	06/15/90	07/03/90
Analytes				
Volatiles				
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.
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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1261S	HA1263WB	HA1264WB	HA1265WB
Depth	30 cm	5 cm	5 cm	5 cm
Date	07/03/90	07/02/90	07/02/90	07/02/90
Analytes				
Metals/Anions/General Chem				
Arsenic	3.79	< 2.50	< 2.50	2.89
Cadmium	< 1.20	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	31.3	NA	NA	NA
Copper	21.7	NA	NA	NA
Iron	NA	NA	NA	NA
Lead	32.4	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	98.9	NA	NA	NA
Semivolatiles				
1,4-Oxathiane	NA	NA	NA	NA
1,4-Oxathiane (GCMS)	< 0.300	NA	NA	NA
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT)	0.00364	< 0.00277	< 0.00277	< 0.00277
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DOT) (GCMS)	< 0.500	NA	NA	NA

Notes: Values are reported to microgram per gram.

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rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1261S	HA1263MB	HA1264MB	HA1265MB
Depth	30 cm	5 cm	5 cm	5 cm
Date	07/03/90	07/02/90	07/02/90	07/02/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DOE)	< 0.00466	< 0.00466	< 0.00466	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DOE) (GCMS)	< 0.600	NA	NA	NA
4-Chlorophenylmethyl Sulfide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	NA	NA	NA
4-Chlorophenylmethyl Sulfone	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	NA	NA	NA
Aldrin	< 0.00211	0.00414	0.00623	0.00320
Aldrin (GCMS)	< 0.300	NA	NA	NA
Atrazine (GCMS)	< 0.300	NA	NA	NA
Benothiazole	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Chlordane (GCMS)	< 2.00	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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rejk

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1261S	HA1263UB	HA1264UB	HA1265UB
Depth	30 cm	5 cm	5 cm	5 cm
Date	07/03/90	07/02/90	07/02/90	07/02/90
Analytes				

Semivolatiles				
Dicyclopentadiene (GCMS)	< 1.00	NA	NA	NA
Dieldrin	0.0461	0.0106	0.0245	< 0.00181
Diieldrin (GCMS)	< 0.300	NA	NA	NA
Diisopropyl Methylphosphonate (GCMS)	< 1.00	NA	NA	NA
Dithiane	NA	NA	NA	NA
Dithiane (GCMS)	< 0.400	NA	NA	NA
Endrin	< 0.00471	< 0.00471	< 0.00471	< 0.00471
Endrin (GCMS)	< 0.500	NA	NA	NA
Hexachlorocyclopentadiene	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	< 0.600	NA	NA	NA
Isodrin	< 0.00188	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	< 0.300	NA	NA	NA
Malathion (GCMS)	< 0.700	NA	NA	NA
Parathion (GCMS)	< 0.900	NA	NA	NA
Supona (GCMS)	< 0.600	NA	NA	NA
Vapona (GCMS)	< 3.00	NA	NA	NA
Volatiles				
1,1,1-Trichloroethane	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1261S	HA1263UB	HA1264UB	HA1265UB
Depth	30 cm	5 cm	5 cm	5 cm
Date	07/03/90	07/02/90	07/02/90	07/02/90
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1261S	HA1263UB	HA1264UB	HA1265UB
Depth	30 cm	5 cm	5 cm	5 cm
Date	07/03/90	07/02/90	07/02/90	07/02/90
Analytes				
Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)	< 0.300	NA	NA	NA
Dimethyl Disulfide	NA	NA	NA	NA
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
m-Xylene	NA	NA	NA	NA
m-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,P-Xylene	NA	NA	NA	NA
O,P-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1261S	HA1263WB	HA1264WB	HA1265WB
Depth	30 cm	5 cm	5 cm	5 cm
Date	07/03/90	07/02/90	07/02/90	07/02/90
Analytes				
Volatiles				
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.
 Reported values are accurate to three significant figures.
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 or above the Certified Reporting Limit.
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 above the Maximum Reporting Limit.
 NA -- Not Analyzed.
 R -- Data did not meet quality control criteria and were
 rejr

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1266WB	HA1267WB	HA1269WB	HA1270WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	07/02/90	07/02/90	07/02/90	07/03/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.50	< 2.50	< 2.50	< 2.50
Cadmium	NA	NA	NA	< 1.20
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	14.5
Copper	NA	NA	NA	10.4
Iron	NA	NA	NA	NA
Lead	NA	NA	NA	39.0
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.0500	0.0896	< 0.0500	< 0.0500
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	NA	NA	NA	55.6
Semivolatiles				
1,4-Oxathiane	NA	NA	NA	NA
1,4-Oxathiane (GCMS)	NA	NA	NA	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.00277	< 0.00277	0.00280	< 0.00277
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	NA	NA	NA	< 0.500

Notes: Values are reported to microgram per gram.

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Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1266MB	HA1267MB	HA1269MB	HA1270MB
Depth	5 cm	5 cm	5 cm	5 cm
Date	07/02/90	07/02/90	07/02/90	07/03/90
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.00466	< 0.00466	0.00452	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	NA	NA	NA	< 0.600
4-Chlorophenylmethyl Sulfide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	NA	NA	NA	< 0.900
4-Chlorophenylmethyl Sulfone	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	NA	NA	NA	< 0.300
4-Chlorophenylmethyl Sulfoxide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	NA	NA	< 0.300
Aldrin	< 0.00211	< 0.00211	< 0.00211	0.00534
Aldrin (GCMS)	NA	NA	NA	< 0.300
Atrazine (GCMS)	NA	NA	NA	< 0.300
Benothiazole	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene	NA	NA	NA	NA
Bicyclo [2,2,1] hepta-2,5-diene (GCMS)	NA	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Chlordane (GCMS)	NA	NA	NA	< 2.00
Dicyclopentadiene	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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reje

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1266W8	HA1267W8	HA1269W8	HA1270W8
Depth	5 cm	5 cm	5 cm	5 cm
Date	07/02/90	07/02/90	07/02/90	07/03/90
Analytes				
Semivolatiles				
Dicyclopentadiene (GCMS)	NA	NA	NA	< 1.00
Dieldrin	0.00741	0.00629	0.0124	0.00536
Dieldrin (GCMS)	NA	NA	NA	< 0.300
Diisopropyl Methylphosphonate (GCMS)	NA	NA	NA	< 1.00
Dithiane	NA	NA	NA	NA
Dithiane (GCMS)	NA	NA	NA	< 0.400
Endrin	< 0.00471	< 0.00471	0.00509	< 0.00471
Endrin (GCMS)	NA	NA	NA	< 0.500
Hexachlorocyclopentadiene	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	NA	NA	NA	< 0.600
Isodrin	< 0.00188	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	NA	NA	NA	< 0.300
Malathion (GCMS)	NA	NA	NA	< 0.700
Parathion (GCMS)	NA	NA	NA	< 0.900
Supona (GCMS)	NA	NA	NA	< 0.600
Vapona (GCMS)	NA	NA	NA	< 3.00
Volatiles				
1,1,1-Trichloroethane	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1266UB	HA1267UB	HA1269UB	HA1270UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	07/02/90	07/02/90	07/02/90	07/03/90
Analytes				
Volatiles				
1,1,1-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA
1,1-Dichloroethane (GCMS)	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA
1,2-Dichloroethane (GCMS)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans)	NA	NA	NA	NA
1,2-Dichloroethenes (cis & trans) (GCMS)	NA	NA	NA	NA
Benzene	NA	NA	NA	NA
Benzene (GCMS)	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA
Carbon Tetrachloride (GCMS)	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA
Chlorobenzene (GCMS)	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

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rejection.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA12664B	HA12674B	HA12694B	HA12704B
Depth	5 cm	5 cm	5 cm	5 cm
Date	07/02/90	07/02/90	07/02/90	07/03/90
Analytes				
Volatiles				
Chloroform (GCMS)	NA	NA	NA	NA
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)	NA	NA	NA	< 0.300
Dimethyl Disulfide	NA	NA	NA	NA
Dimethyl Disulfide (GCMS)	NA	NA	NA	NA
Ethyl Benzene	NA	NA	NA	NA
Ethyl Benzene (GCMS)	NA	NA	NA	NA
m-Xylene	NA	NA	NA	NA
m-Xylene (GCMS)	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA
Methylene Chloride (GCMS)	NA	NA	NA	NA
Methylisobutyl Ketone	NA	NA	NA	NA
Methylisobutyl Ketone (GCMS)	NA	NA	NA	NA
O,p-Xylene	NA	NA	NA	NA
O,p-Xylene (GCMS)	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA
Tetrachloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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rejected.

Table E1 Surficial and Subsurface Soil
Investigative Analytical Data

Sample ID	HA1266UB	HA1267UB	HA1269UB	HA1270UB
Depth	5 cm	5 cm	5 cm	5 cm
Date	07/02/90	07/02/90	07/02/90	07/03/90
Analytes				
Volatiles				
Toluene	NA	NA	NA	NA
Toluene (GCMS)	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA
Trichloroethene (GCMS)	NA	NA	NA	NA

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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Table E2 Surficial and Subsurface Soil
GC/MS Analytical Data

Sample ID	HA1237MB	HA1260MB
Depth	5 cm	5 cm
Date	06/18/90	07/03/90
	GC/MS of	GC/MS of
	HA1233MB	HA1244MB
Analytes		
Metals/Anions/General Chem		
Arsenic	< 2.50	< 2.50
Cadmium	< 1.20	< 1.20
Calcium	2250	NA
Chromium	15.7	15.9
Copper	11.8	9.02
Iron	17000	NA
Lead	19.9	19.6
Magnesium	2690	NA
Manganese	356	NA
Mercury	< 0.0500	< 0.0500
Potassium	3870	NA
Sodium	66.8	NA
Zinc	47.7	57.2
Semivolatiles		
1,4-Oxathiane (GCMS)	< 0.300	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.00277	0.00718

Notes: Values are reported in micrograms per gram.

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NA -- Not Analyzed.

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rejected

Table E2 Surficial and Subsurface Soil
GC/MS Analytical Data

Sample ID	NA1237MB	NA1260MB
Depth	5 cm	5 cm
Date	06/18/90	07/03/90
	GC/MS of	GC/MS of
	NA1233MB	NA1244MB

Analytes

Semivolatiles

2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDE) (GCMS)	< 0.500	< 0.500
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.00466	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	< 0.600	< 0.600
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	< 0.900
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300
Aldrin (GCMS)	< 0.00211	0.00361
Atrazine (GCMS)	< 0.300	< 0.300
Chlordane	< 0.300	< 0.300
	< 0.0230	< 0.0230
Chlordane (GCMS)	< 2.00	< 2.00
Dicyclopentadiene (GCMS)	< 1.00	< 1.00
Dieldrin	0.00443	0.0108
Dieldrin (GCMS)	< 0.300	< 0.300
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00

Notes: Values are reported in micrograms per gram.

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rej

Table E2 Surficial and Subsurface Soil
GC/MS Analytical Data

Sample ID	HA1237MB	HA1260MB
Depth	5 cm	5 cm
Date	06/18/90	07/03/90
	GC/MS of	GC/MS of
	HA1233MB	HA1244MB
Analytes		
Semivolatiles		
Dithiane (GCMS)	< 0.400	< 0.400
Endrin	< 0.00471	0.00646
Endrin (GCMS)	< 0.500	< 0.500
Hexachlorocyclopentadiene	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600
Isodrin	< 0.00188	< 0.00188
Isodrin (GCMS)	< 0.300	< 0.300
Malathion (GCMS)	< 0.700	< 0.700
Parathion (GCMS)	< 0.900	< 0.900
Supona (GCMS)	< 0.600	< 0.600
Vapona (GCMS)	< 3.00	< 3.00
Volatiles		
Dibromochloropropane (GCMS)	< 0.300	< 0.300

Notes: Values are reported in micrograms per gram.
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Table E3 Surficial and Subsurface Soil
Duplicate Analytical Data

Sample ID	HA0995WB	HA1237WB	HA1238WB	HA1240WB
Depth	3 cm	5 cm	5 cm	5 cm
Date	02/24/89	06/18/90	06/18/90	06/18/90
	Dup of	Dup of	Dup of	Dup of
	HA0994WB	HA1233WB	HA1201WB	HA1209WB
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.50	< 2.50	4.34	< 2.50
Cadmium	NA	< 1.20	NA	NA
Calcium	NA	2250	NA	NA
Chromium	NA	15.7	NA	NA
Copper	NA	11.8	NA	NA
Iron	NA	17000	NA	NA
Lead	NA	19.9	NA	NA
Magnesium	NA	2690	NA	NA
Manganese	NA	356	NA	NA
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Potassium	NA	3670	NA	NA
Sodium	NA	66.8	NA	NA
Zinc	NA	47.7	NA	NA
Semivolatiles				
1,4-Oxathiane	< 1.74	NA	NA	NA
1,4-Oxathiane (GCMS)	< 0.300	< 0.300	NA	NA

Notes: Values are reported in micrograms per gram.

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NA -- Not Analyzed.

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Dup -- Duplicate

Table E3 Surficial and Subsurface Soil
Duplicate Analytical Data

Sample ID	HA0995UB	HA1237UB	HA1238UB	HA1240UB
Depth	3 cm	5 cm	5 cm	5 cm
Date	02/24/89	06/18/90	06/18/90	06/18/90
	Dup of	Dup of	Dup of	Dup of
	HA0994UB	HA1233UB	HA1201UB	HA1209UB
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DGT)	0.0198	< 0.00277	0.00911	0.0103
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DGT) (GCMS)	< 0.500	< 0.500	NA	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DOE)	0.00367	< 0.00466	< 0.00466	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DOE) (GCMS)	< 0.600	< 0.600	NA	NA
4-Chlorophenylmethyl Sulfide	< 4.40	NA	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	< 0.900	NA	NA
4-Chlorophenylmethyl Sulfone	< 9.01	NA	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300	NA	NA
4-Chlorophenylmethyl Sulfoxide	R	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300	NA	NA
Aldrin	0.0202	< 0.00211	< 0.00211	< 0.00211
Aldrin (GCMS)	< 0.300	< 0.300	NA	NA
Atrazine (GCMS)	< 0.300	< 0.300	NA	NA
Benzothiazole	< 2.04	NA	NA	NA
Chlordane	0.0515	< 0.0230	< 0.0230	< 0.0230

Notes: Values are reported in micrograms per gram.

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Table E3 Surficial and Subsurface Soil
Duplicate Analytical Data

Sample ID	HA0995WB	HA1237WB	HA1238WB	HA1240WB
Depth	3 cm	5 cm	5 cm	5 cm
Date	02/24/89	06/18/90	06/18/90	06/18/90
Analytes	Dup of HA0994WB	Dup of HA1233WB	Dup of HA1201WB	Dup of HA1209WB

Semivolatiles				
Chlordane (GCMS)	< 2.00	< 2.00	NA	NA
Dicyclopentadiene (GCMS)	< 1.00	< 1.00	NA	NA
Dieldrin	0.210	0.00443	0.00896	0.00529
Dieldrin (GCMS)	< 0.300	< 0.300	NA	NA
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00	NA	NA
Dithiane	< 1.45	NA	NA	NA
Dithiane (GCMS)	< 0.400	< 0.400	NA	NA
Endrin	0.0187	< 0.00471	< 0.00471	< 0.00471
Endrin (GCMS)	< 0.500	< 0.500	NA	NA
Hexachlorocyclopentadiene	< 0.00180	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600	NA	NA
Isodrin	< 0.00110	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	< 0.300	< 0.300	NA	NA
Malathion (GCMS)	< 0.700	< 0.700	NA	NA
Parathion (GCMS)	< 0.900	< 0.900	NA	NA

Notes: Values are reported in micrograms per gram.

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Dup -- Duplicate

Table E3 Surficial and Subsurface Soil
Duplicate Analytical Data

Sample ID	HA0995WB	HA1237WB	HA1238WB	HA1240WB
Depth	3 cm	5 cm	5 cm	5 cm
Date	02/24/89	06/18/90	06/18/90	06/18/90
	Dup of	Dup of	Dup of	Dup of
	HA0994WB	HA1233WB	HA1201WB	HA1209WB
Analytes				
Semivolatiles				
Supona (GCMS)	< 0.600	< 0.600	NA	NA
Vapona (GCMS)	< 3.00	< 3.00	NA	NA
Volatiles				
Dibromochloropropane	R	NA	NA	NA
Dibromochloropropane (GCMS)	< 0.300	< 0.300	NA	NA
Dimethyl Disulfide	< 3.12	NA	NA	NA

Notes: Values are reported in micrograms per gram.

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NA -- Not Analyzed.

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Table E3 Surficial and Subsurface Soil
Duplicate Analytical Data

Sample ID	HA1241WB	HA1242WB	HA1260WB	HA1268WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/15/90	07/03/90	07/02/90
	Dup of	Dup of	Dup of	Dup of
	HA1217WB	HA1220WB	HA1244WB	HA1267WB
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.50	3.74	< 2.50	< 2.50
Cadmium	NA	NA	< 1:20	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	15.9	NA
Copper	NA	NA	9.02	NA
Iron	NA	NA	NA	NA
Lead	NA	NA	19.6	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Mercury	< 0.0500	< 0.0500	< 0.0500	0.111
Potassium	NA	NA	NA	NA
Sodium	NA	NA	NA	NA
Zinc	NA	NA	57.2	NA
Semivolatiles				
1,4-Oxathiane	NA	NA	NA	NA
1,4-Oxathiane (GCMS)	NA	NA	< 0.300	NA

Notes: Values are reported in micrograms per gram.

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NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Dup -- Duplicate

Table E3 Surficial and Subsurface Soil
Duplicate Analytical Data

Sample ID Depth Date	HA1241WB 5 cm 06/18/90 Dup of HA1217WB	HA1242WB 5 cm 06/15/90 Dup of HA1220WB	HA1260WB 5 cm 07/03/90 Dup of HA1244WB	HA1268WB 5 cm 07/02/90 Dup of HA1267WB
Analytes				
Semivolatiles				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.00277	< 0.00277	0.00718	< 0.00277
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	NA	NA	< 0.500	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.00466	< 0.00466	< 0.00466	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	NA	NA	< 0.600	NA
4-Chlorophenylmethyl Sulfide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfide (GCMS)	NA	NA	< 0.900	NA
4-Chlorophenylmethyl Sulfone	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfone (GCMS)	NA	NA	< 0.300	NA
4-Chlorophenylmethyl Sulfoxide	NA	NA	NA	NA
4-Chlorophenylmethyl Sulfoxide (GCMS)	NA	NA	< 0.300	NA
Aldrin	< 0.00211	< 0.00211	0.00361	< 0.00211
Aldrin (GCMS)	NA	NA	< 0.300	NA
Atrazine (GCMS)	NA	NA	< 0.300	NA
Benzothiazole	NA	NA	NA	NA
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

-- Di -- ite

Table E3 Surficial and Subsurface Soil
Duplicate Analytical Data

Sample ID	HA1241WB	HA1242WB	HA1260WB	HA1268WB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/15/90	07/03/90	07/02/90
	Dup of	Dup of	Dup of	Dup of
	HA1217WB	HA1220WB	HA1244WB	HA1267WB
Analytes				
Semivolatiles				
Chlordane (GCMS)	NA	NA	< 2.00	NA
Dicyclopentadiene (GCMS)	NA	NA	< 1.00	NA
Dieldrin	< 0.00181	< 0.00181	0.0108	0.00629
Dieldrin (GCMS)	NA	NA	< 0.300	NA
Diisopropyl Methylphosphonate (GCMS)	NA	NA	< 1.00	NA
Dithiane	NA	NA	NA	NA
Dithiane (GCMS)	NA	NA	< 0.400	NA
Endrin	< 0.00471	< 0.00471	0.00646	< 0.00471
Endrin (GCMS)	NA	NA	< 0.500	NA
Hexachlorocyclopentadiene	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	NA	NA	< 0.600	NA
Isodrin	< 0.00188	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	NA	NA	< 0.300	NA
Malathion (GCMS)	NA	NA	< 0.700	NA
Parathion (GCMS)	NA	NA	< 0.900	NA

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Dup -- Duplicate

Table E3 Surficial and Subsurface Soil
Duplicate Analytical Data

Sample ID	HA1241MB	HA1242MB	HA1260MB	HA1266MB
Depth	5 cm	5 cm	5 cm	5 cm
Date	06/18/90	06/15/90	07/03/90	07/02/90
	Dup of	Dup of	Dup of	Dup of
	HA1217MB	HA1220MB	HA1244MB	HA1267MB
Analytes				
Semivolatiles				
Supona (GCMS)	NA	NA	< 0.600	NA
Vapona (GCMS)	NA	NA	< 3.00	NA
Volatiles				
Dibromochloropropane	NA	NA	NA	NA
Dibromochloropropane (GCMS)	NA	NA	< 0.300	NA
Dimethyl Disulfide	NA	NA	NA	NA

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

-- n ate

Table E4. Surficial and Subsurface Soil
Background Analytical Data

Sample ID	HA12364B	HA12434B	HA12444B	HA12624B
Depth	0 cm	6 cm	6 cm	6 cm
Date	07/03/90	07/03/90	07/03/90	07/03/90
Analytes				
Metals/Anions/General Chem				
Arsenic	< 2.50	< 2.50	< 2.50	< 2.50
Cadmium	< 1.20	< 1.20	< 1.20	< 1.20
Chromium	14.9	11.4	14.1	17.1
Copper	8.14	6.61	7.95	9.35
Lead	13.0	10.6	18.2	19.3
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Zinc	37.4	30.7	47.9	52.9
Semivolatiles				
1,4-Oxathiane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.00277	< 0.00277	< 0.00277	0.00578
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 0.500	< 0.500	< 0.500	< 7.500
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE)	< 0.00466	< 0.00466	< 0.00466	< 0.00466
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
4-Chlorophenylmethyl Sulfide (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
4-Chlorophenylmethyl Sulfone (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
4-Chlorophenylmethyl Sulfoxide (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Aldrin	0.00328	< 0.00211	< 0.00211	< 0.00211
Aldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
rejected.

Table E4 Surficial and Subsurface Soil
Background Analytical Data

Sample ID	HA12364B	HA12434B	HA12444B	HA12624B
Depth	0 cm	6 cm	6 cm	6 cm
Date	07/03/90	07/03/90	07/03/90	07/03/90
Analytes				
Semivolatiles				
Atrazine (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Chlordane	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Chlordane (GCMS)	< 2.00	< 2.00	< 2.00	< 2.00
Dicyclopentadiene (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dieldrin	< 0.00181	< 0.00181	< 0.00181	0.00294
Dieldrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Diisopropyl Methylphosphonate (GCMS)	< 1.00	< 1.00	< 1.00	< 1.00
Dichlorane (GCMS)	< 0.400	< 0.400	< 0.400	< 0.400
Endrin	< 0.00471	< 0.00471	< 0.00471	< 0.00471
Endrin (GCMS)	< 0.500	< 0.500	< 0.500	< 0.500
Hexachlorocyclopentadiene	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Hexachlorocyclopentadiene (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600
Isodrin	< 0.00188	< 0.00188	< 0.00188	< 0.00188
Isodrin (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300
Malathion (GCMS)	< 0.700	< 0.700	< 0.700	< 0.700
Parathion (GCMS)	< 0.900	< 0.900	< 0.900	< 0.900
Supona (GCMS)	< 0.600	< 0.600	< 0.600	< 0.600

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at
or above the Certified Reporting Limit.> -- indicates that the target analyte was detected at or
above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were
reje

Table E4. Surficial and Subsurface Soil
Background Analytical Data

Sample ID	HA123648	HA124348	HA124448	HA126248
Depth	0 cm	6 cm	6 cm	6 cm
Date	07/03/90	07/03/90	07/03/90	07/03/90
Analytes				

Semivolatiles				
Vapors (GCMS)	< 3.00	< 3.00	< 3.00	< 3.00
Volatiles				
Dibromochloropropane (GCMS)	< 0.300	< 0.300	< 0.300	< 0.300

Notes: Values are reported to microgram per gram.

Reported values are accurate to three significant figures.

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> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Appendix F
BIOTA ANALYTICAL DATA

LIST OF TABLES

Table No.

F1	Biota Investigative Analytical Data
F2	Biota QA/QC Analytical Data
F3	Biota Duplicate Analytical Data
F4	Species of Possible Occurrence in Offpost Study Area

Table F1 Biota Investigative Analytical Data

Sample ID Date	HA09828A 11/18/88	HA09838A 11/18/88	HA09848A 11/18/88	HA10068E 04/20/89	HA10098H 08/07/89	HA10108H 08/07/89
Analytes						

Metals/Anions/General Chem						
Arsenic	< 0.250	< 0.250	< 0.250	< 0.2500	NA	NA
Mercury	< 0.0500	0.0518	0.155	< 0.0500	NA	NA
Semivolatiles						
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.132	< 0.132	< 0.132	< 0.1320	NA	NA
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0630	< 0.0630	< 0.0630	< 0.0630	NA	NA
Aldrin	< 0.0130	< 0.0130	< 0.0130	< 0.0130	NA	NA
Dieldrin	0.251	0.0264	0.235	0.0179	NA	NA
Endrin	< 0.0360	< 0.0360	< 0.0360	< 0.0360	NA	NA
Volatiles						
Dibromochloropropane	NA	NA	NA	NA	< 0.195	< 0.195

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

Sample ID suffixes: BA - fish, BB - bovine, BE - egg,

BF - fat, BW - milk, BP - poultry.

Table F1 Biota Investigative Analytical Data

Sample ID	HA10128F	HA10138F	HA10178P	HA103688	HA103788	HA103888
Date	08/07/89	08/07/89	09/07/89	10/19/89	10/19/89	10/19/89

Analytes						

Metals/Anions/General Chem						
Arsenic	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500

Semivolatiles						
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.132	< 0.132	< 0.132	< 0.132	< 0.132	< 0.132
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0630	< 0.0630	< 0.0630	< 0.0630	< 0.0630	< 0.0630
Aldrin	< 0.0130	< 0.0130	< 0.0130	< 0.0130	< 0.0130	< 0.0130
Dieldrin	0.0533	0.0784	0.0230	< 0.0180	< 0.0180	< 0.0180
Endrin	< 0.0360	< 0.0360	< 0.0360	< 0.0360	< 0.0360	< 0.0360

Volatiles	NA	NA	NA	NA	NA	NA
Dibromochloropropene						

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

Sample ID suffixes: BA - fish, BB - bovine, BE - egg,

fat, ml' - pc

Table 1-1 Biota Investigative Analytical Data

Sample ID Date	HA10398B 10/19/89	HA104088 10/19/89	HA10428P 09/07/89	HA10438P 09/07/89	HA10498 09/25/89	HA10508 09/07/89

Analytes						

Metals/Anions/General Chem						
Arsenic	< 0.250	< 0.250	< 0.250	< 0.250	0.771	< 0.250
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500

Semivolatiles						
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.132	< 0.132	< 0.132	< 0.132	< 0.132	< 0.132
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0630	< 0.0630	0.106	< 0.0630	< 0.0630	< 0.0630
Aldrin	< 0.0130	< 0.0130	< 0.0130	< 0.0130	< 0.0130	< 0.0130
Dieldrin	< 0.0180	< 0.0180	0.230	< 0.0180	< 0.0180	< 0.0180
Endrin	< 0.0360	< 0.0360	< 0.0360	< 0.0360	< 0.0360	< 0.0360

Volatiles						
Dibromochloropropane	NA	NA	NA	NA	NA	NA

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

Sample ID suffixes: BA - fish, BS - bovine, BE - egg,

BF - fat, BM - milk, BP - poultry.

Table F1 Biota Investigative Analytical Data

Sample ID Date	HA10518 09/23/89	HA10528 09/13/89	HA10538 09/12/89	HA10548 09/13/89	HA10558 10/24/89	HA10568 09/12/89
Analytes						
Metals/Anions/General Chem						
Arsenic	< 0.250	NA	1.36	< 0.250	< 0.250	< 0.250
Mercury	< 0.0500	NA	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Semivolatiles						
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDE)	< 0.132	< 0.132	< 0.132	< 0.132	< 0.132	< 0.132
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0630	< 0.0630	< 0.0630	< 0.0630	< 0.0630	< 0.0630
Aldrin	< 0.0130	< 0.0130	< 0.0130	< 0.0130	< 0.0130	< 0.0130
Dieldrin	0.571	< 0.0180	0.0230	< 0.0180	0.0327	< 0.0180
Endrin	< 0.0360	< 0.0360	< 0.0360	< 0.0360	< 0.0360	< 0.0360
Volatiles						
Dibromochloropropane	NA	NA	NA	NA	NA	NA

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

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> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

Sample ID suffixes: BA - fish, BB - bovine, BE - egg,

fat, mlb po

Table F1 Biota Investigative Analytical Data

Sample ID Date	HA10578 09/13/89	HA10588 09/13/89	HA10598 09/23/89	HA10608 10/27/89	HA10618 09/22/89	HA10628 09/22/89
Analytes						

Metals/Anions/General Chem						
Arsenic	1.33	< 0.250	< 0.250	< 0.250	< 0.250	0.573
Mercury	0.0612	< 0.0500	< 0.0500	< 0.0500	0.0897	< 0.0500
Semivolatiles						
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.132	< 0.132	< 0.132	< 0.132	< 0.132	< 0.132
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0630	< 0.0630	< 0.0630	< 0.0630	< 0.0630	< 0.0630
Aldrin	< 0.0130	< 0.0130	< 0.0130	< 0.0130	< 0.0130	< 0.0130
Dieldrin	0.0211	< 0.0180	0.140	< 0.0180	< 0.0180	< 0.0180
Endrin	< 0.0360	< 0.0360	< 0.0360	< 0.0360	< 0.0360	< 0.0360
Volatiles						
Dibromochloropropane	NA	NA	NA	NA	NA	NA

Notes: Values are reported in micrograms per gram.
 Reported values are accurate to three significant figures.
 < -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.
 > -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.
 NA -- Not Analyzed.
 Sample ID suffixes: BA - fish, BB - bovine, BE - egg, BF - fat, BM - milk, BP - poultry.

Table F1 Biota Investigative Analytical Data

Sample ID Date	HA10638 09/13/89	HA10648 09/14/89	HA10658 09/23/89	HA12468 09/11/89	HA12478 09/11/89	HA12488 10/26/89
Analytes						
Metals/Anions/General Chem						
Arsenic	1.69	< 0.250	< 0.250	NA	NA	< 0.250
Mercury	0.0612	< 0.0500	< 0.0500	NA	NA	< 0.0500
Semivolatiles						
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.132	< 0.132	< 0.132	< 0.171	< 0.132	< 0.132
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0630	< 0.0630	< 0.0630	< 0.0819	< 0.0630	< 0.0630
Aldrin	< 0.0130	< 0.0130	< 0.0130	< 0.0169	< 0.0130	< 0.0130
Dieldrin	< 0.0180	< 0.0180	< 0.0180	< 0.0234	0.0282	< 0.0180
Endrin	< 0.0360	< 0.0360	< 0.0360	< 0.0468	< 0.0360	< 0.0360
Volatiles						
Dibromochloropropane	NA	NA	NA	NA	NA	NA

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

Sample ID suffixes: BA - fish, BS - bovine, BE - egg,

-- fat, -- milk, -- pork, --

Table F1 Biota Investigative Analytical Data

Sample ID Date	HA12498 09/12/89	HA12498 10/24/89	HA12508 09/12/89	HA12518 09/23/89	HA12528 10/27/89	HA12538 09/22/89
Analytes						
Metals/Anions/General Chem						
Arsenic	NA	< 0.250	1.85	< 0.250	< 0.250	1.02
Mercury	NA	< 0.0500	0.0767	< 0.0500	< 0.0500	< 0.0500
Semivolatiles						
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.132	NA	< 0.132	< 0.132	< 0.132	< 0.155
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	NA	< 0.0630	< 0.0630	< 0.0630	< 0.0630	< 0.0420
Aldrin	NA	< 0.0130	< 0.0130	< 0.0130	< 0.0130	< 0.0210
Dieldrin	NA	< 0.0180	< 0.0180	0.0267	< 0.0180	< 0.0260
Endrin	NA	< 0.0360	< 0.0360	< 0.0360	< 0.0360	< 0.0450
Volatiles						
Dibromochloropropane	NA	NA	NA	NA	NA	NA

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

Sample ID suffixes: BA - fish, BS - bovine, BE - egg,

BF - fat, BM - milk, BP - poultry.

Table F1 Biota Investigative Analytical Data

Sample ID	HA12548	HA12558F	HA12558L	HA12568F	HA12568L	HA12578F
Date	09/13/89	01/02/90	01/02/90	01/21/90	01/21/90	01/23/90

Analytes						

Metals/Anions/General Chem						
Arsenic	0.965	< 0.250	< 0.250	< 0.250	< 0.250	< 0.250
Mercury	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500
Semi-volatiles						
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.132	< 0.132	< 0.132	< 0.132	< 0.132	< 0.132
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0630	< 0.0630	< 0.0630	< 0.0630	< 0.0630	< 0.0630
Aldrin	< 0.0130	< 0.0130	< 0.0130	< 0.0130	< 0.0130	< 0.0130
Dieldrin	0.0221	< 0.0180	< 0.0180	< 0.0180	< 0.0180	< 0.0180
Endrin	< 0.0360	< 0.0360	< 0.0360	< 0.0360	< 0.0360	< 0.0360
Volatiles						
Dibromochloropropane	NA	NA	NA	NA	NA	NA

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

Sample ID suffixes: BA - fish, BB - bovine, BE - egg,

-- fat, -- milk, -- pr.

Table F1 Biota Investigative Analytical Data

Sample ID
Date

HA1257BL
01/23/90

Analytes

Metals/Anions/General Chem

Arsenic

NA

Mercury

NA

SemiVolatiles

2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)

< 0.132

2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)

< 0.0630

Aldrin

< 0.0130

Dieldrin

0.380

Endrin

< 0.0360

Volatiles

Dibromochloropropane

NA

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

Sample ID suffixes: BA - fish, BB - bovine, BE - egg,

BF - fat, BM - milk, BP - poultry.

Table F2 Biota QA/QC Analytical Data

Sample ID	HA10118M	HA10148M	HA10158M	HA10168M
Date	08/07/89	08/07/89	08/07/89	08/07/89
	FB of	LS of	HS of	HS of
	HA10098M	HA10098M	HA10098M	HA10098M

Analytes

Volatiles

Dibromochloropropane

< 0.195

0.396

2.95

2.53

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

FB -- Field Blank

LS -- Low Spike

HS -- High Spike

Table F3 Biota Duplicate Analytical Data

Sample ID	HA0982BAD	HA1255BFD
Date	11/18/88	01/02/90
Analytes	Dup of	Dup of
	HA0982BA	HA1255BF

Metals/Anions/General Chem		
Arsenic	< 0.250	< 0.250
Mercury	< 0.0500	< 0.0500
Semivolatiles		
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT)	< 0.132	< 0.132
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE)	< 0.0630	< 0.0630
Aldrin	< 0.0130	< 0.0130
Dieldrin	0.153	< 0.0180
Endrin	< 0.0360	< 0.0360

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- Indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- Indicates that the target analyte was detected at or above the Maximum Reporting Limit.

NA -- Not Analyzed.

R -- Data did not meet quality control criteria and were rejected.

Sample ID suffixes: BA - fish, BF - fat.

Table F4: Species of Possible Occurrence in the Offpost Study Area
(Page 1 of 8)

Family	Genus	Species	Common Name	Status	Habitat	Observed Offpost
Reptiles						
Chelydridae	<u>Chelydra</u>	<u>serpentina</u>	Snapping turtle	b	RpL, Ms, OW-St/Ri, OW-L/R	
Colubridae	<u>Coluber</u>	<u>constrictor flaviventris</u>	Eastern yellowbelly racer	B	SgP, MXP, TgP, RpL, Ag, U	
Colubridae	<u>Lamprodon</u>	<u>nasalis</u>	Western hognose snake	B	SgP, TgP, RpL, Ag, ad	
Colubridae	<u>Lampropeltis</u>	<u>triangulum</u>	Milk snake	B	SgP, TgP, RpL, Ag, ad	
Colubridae	<u>Masticophis</u>	<u>flagellum</u>	Coachwhip	B	SgP, TgP, RpL, cl	
Colubridae	<u>Nerodia</u>	<u>spedon</u>	Northern water snake	B	RpL, Ms, OW-St/Ri, OW-L/R	x
Colubridae	<u>Pituophis</u>	<u>melanoleucus</u>	Bullsnake	B	SgP, MXP, TgP, RpL, Ag, U, Sd	
Colubridae	<u>Thamnophis</u>	<u>elegans</u>	Western Terrestrial garter	B	RpL, Ms, In	
Colubridae	<u>Thamnophis</u>	<u>radix</u>	Plains garter snake	B	RpL, Ms, In, SgP, TgP, U	
Colubridae	<u>Thamnophis</u>	<u>sirtalis</u>	Red-sided garter snake	B	RpL, Ms, In	
Colubridae	<u>Tropidoclonion</u>	<u>lineatum</u>	Lined snake	B	SgP, U, RpL	
Emydidae	<u>Chrysemys</u>	<u>picta</u>	Western Painted turtle	B	RpL, Ms, OW-St/Ri, OW-L/R	
Emydidae	<u>Terrapene</u>	<u>ornata</u>	Western box turtle	B	SgP, ad, TgP, RpL	
Iguanidae	<u>Holbrookia</u>	<u>maculata maculata</u>	Northern earless lizard	B	SgP, MXP, TgP, Ag, ad	
Iguanidae	<u>Phrynosoma</u>	<u>douglasi</u>	Short-horned lizard	B	SgP, TgP, SgSD, cl	
Iguanidae	<u>Sceloporus</u>	<u>undulatus erythrochilus</u>	Eastern fence lizard	B	SgP, RpL, cl	
Iguanidae	<u>Sceloporus</u>	<u>undulatus garmani</u>	Northern fence lizard	B	SgP, TgP, ad	
Scincidae	<u>Eumeces</u>	<u>multivirgatus</u>	Many-lined skink	B	SgP, TgP, Ag, U, ad	
Scincidae	<u>Eumeces</u>	<u>obsoletus</u>	Great Plains skink	b	SgP, TgP, Ag, RpL	
Teiidae	<u>Chemidophorus</u>	<u>sexlineatus</u>	Six-lined racerunner	B	SgP, ad, TgP, RpL	x
Trionychidae	<u>Trionyx</u>	<u>spiniferus</u>	Spiny soft-shelled turtle	b	RpL, OW-St/Ri, OW-L/R, Ms, In	
Viperidae	<u>Crotalus</u>	<u>viridis</u>	Prairie rattlesnake	B	SgP, TgP, cl	
Amphibians						
Amphystomatidae	<u>Amphystoma</u>	<u>tigrinum</u>	Tiger salamander	B	Ms, In; All other types	
Bufo	<u>Bufo</u>	<u>cognatus</u>	Great Plains toad	B	In, SgP, MXP, TgP, RpL, Ag, U	
Bufo	<u>Bufo</u>	<u>woodhousei</u>	Woodhouse's toad	B	SgP, SgSD, MXP, TgP, RpL, Ag	
Pseudacris	<u>Pseudacris</u>	<u>triseriata</u>	Chorus frog	B	Ms, In, RpL, Ag	
Pelobatidae	<u>Scaphiopus</u>	<u>bombifrons</u>	Plains spadefoot	B	In, SgP, ad, TgP	
Ranidae	<u>Rana</u>	<u>atesbiana</u>	Bullfrog	B	Ms, In, RpL	
Ranidae	<u>Rana</u>	<u>pipiens</u>	Northern leopard frog	B	Ms, In, RpL	
Antilocapridae	<u>Antilocapra</u>	<u>americana</u>	Pronghorn	B	SgP, MXP	x
Canidae	<u>Canis</u>	<u>latrans</u>	Coyote	B	All types	
Canidae	<u>Urocyon</u>	<u>velox</u>	Gray fox	B	SgP, TgP, RpL	
Canidae	<u>Vulpes</u>	<u>velox</u>	Swift fox	B	SgP, Ag	
Canidae	<u>Vulpes</u>	<u>vulpes</u>	Red fox	B	Ms, Ag	x
Cervidae	<u>Odocoileus</u>	<u>hemionus</u>	Mule deer	B	RpL, SgP, TgP	x
Cervidae	<u>Odocoileus</u>	<u>virginianus</u>	White-tailed deer	B	RpL	
Cricetidae	<u>Microtus</u>	<u>ochrogaster</u>	Prairie vole	B	SgP, TgP, RpL, Ms	
Cricetidae	<u>Microtus</u>	<u>pennsylvanicus</u>	Meadow vole	B	RpL, Ms	x

Table F4: (Page 2 of 8)

Family	Genus	Species	Common Name	Status	Habitat	Observed Offpost
Cricetidae	<i>Ondatra</i>	<i>zibethicus</i>	Muskrat	B	Ms, OW-Ri/St	
Cricetidae	<i>Onychomys</i>	<i>leucogaster</i>	Northern grasshopper mouse	B	SgP, MXP, TgP	x
Cricetidae	<i>Peromyscus</i>	<i>maniculatus</i>	Deer mouse	B	All types (esp. MXP)	x
Cricetidae	<i>Reithrodontomys</i>	<i>megalotis</i>	Western harvest mouse	B	SgP, MXP, Rpl, Ms, Ag	
Cricetidae	<i>Reithrodontomys</i>	<i>montanus</i>	Plains harvest mouse	B	SgP, Rpl	
Didelphida	<i>Didelphis</i>	<i>virginiana</i>	Opossum	B	Rpl, Ag, U	
Erethizontidae	<i>Erethizon</i>	<i>donatum</i>	Porcupine	B	Rpl	
Felidae	<i>Lynx</i>	<i>rufus</i>	Bobcat	B	Rpl, Ms	
Geomyidae	<i>Geomys</i>	<i>burnsius</i>	Plains pocket gopher	B	SgP, MXP, TgP, Ag	
Geomyidae	<i>Thomomys</i>	<i>talpoides</i>	Northern pocket gopher	B	SgP, Ag	
Heteromyidae	<i>Dipodomys</i>	<i>ordii</i>	Ord's kangaroo rat	B	SgP, MXP, TgP, Rpl	x
Heteromyidae	<i>Peromathus</i>	<i>fasciatus</i>	Olive-backed pocket mouse	B	SgP	
Heteromyidae	<i>Peromathus</i>	<i>flavescens</i>	Plains pocket mouse	B	SgP, TgP	
Heteromyidae	<i>Peromathus</i>	<i>flavus</i>	Silky pocket mouse	B	SgP, MXP, TgP	
Heteromyidae	<i>Peromathus</i>	<i>hispidus</i>	Hispid pocket mouse	B	SgP, MXP, SS, Rpl	
Leporidae	<i>Lepus</i>	<i>californicus</i>	Black-tailed jackrabbit	B	SgP, MXP, TgP	x
Leporidae	<i>Lepus</i>	<i>townsendii</i>	White-tailed jackrabbit	B	SgP, MXP	
Leporidae	<i>Sylvilagus</i>	<i>audubonii</i>	Desert cottontail	B	SgP, Rpl	x
Leporidae	<i>Sylvilagus</i>	<i>floridanus</i>	Eastern cottontail	B	Rpl	
Muridae	<i>Mus</i>	<i>musculus</i>	House mouse	B	Rpl, Ms, Cr, U	x
Muridae	<i>Rattus</i>	<i>norvegicus</i>	Norway rat	B, I	Rpl, Cr, U	
Mustelidae	<i>Meleagris</i>	<i>gallopavo</i>	Striped skunk	B, I	All types	x
Mustelidae	<i>Mustela</i>	<i>frenata</i>	Long-tailed weasel	B	All types	
Mustelidae	<i>Mustela</i>	<i>nigripes</i>	Black-footed ferret	E	SgP, MXP	
Mustelidae	<i>Mustela</i>	<i>vison</i>	Mink	b	Rpl	
Mustelidae	<i>Sorex</i>	<i>lutorius</i>	Spotted skunk	B	Rpl	
Mustelidae	<i>Taxidea</i>	<i>taxus</i>	Badger	B	SgP, SgSD, TgP	x
Procyonidae	<i>Procyon</i>	<i>lotor</i>	Raccoon	B	Rpl, Ms, Ag	x
Procyonidae	<i>Cynomys</i>	<i>ludovicianus</i>	Black-tailed prairie dog	B	SgP, MXP, U	x
Procyonidae	<i>Sclerurus</i>	<i>niger</i>	Fox squirrel	B	Rpl, U	
Sciuridae	<i>Spermophilus</i>	<i>spilonoma</i>	Spotted ground squirrel	B	SgP, TgP	
Sciuridae	<i>Spermophilus</i>	<i>tridecemlineatus</i>	13-lined ground squirrel	B	MXP, TgP	
Sciuridae	<i>Spermophilus</i>	<i>variegatus</i>	Rock squirrel	B	MXP, Rpl	
Soricidae	<i>Cryptotis</i>	<i>parva</i>	Least shrew	B	Rpl, Ms, Roadside	
Soricidae	<i>Sorex</i>	<i>cinereus</i>	Masked shrew	B	Ms, Rpl	
Soricidae	<i>Sorex</i>	<i>merriami</i>	Merriam's shrew	B	SgP	
Soricidae	<i>Eptesicus</i>	<i>fuscus</i>	Big brown bat	B	Rpl, U	
Vespertilionidae	<i>Laionycteris</i>	<i>noctivagans</i>	Silver-haired bat	M	Rpl	
Vespertilionidae	<i>Myotis</i>	<i>lucifugus</i>	Little brown myotis	b	U	
Vespertilionidae	<i>Myotis</i>	<i>subulatus</i>	Small-footed myotis	b	U, SgP, MXP, TgP	
Vespertilionidae	<i>Nyctalis</i>	<i>cinerea</i>	Hoary bat	M	Rpl	
Zapodidae	<i>Zapus</i>	<i>hudsonius</i>	Meadow jumping mouse	B	Ms	

Table F4: (Page 3 of 8)

Family	Genus	Species	Common Name	Status	Habitat	Observed Offpost
Birds						
Accipitridae	<u>Aquila</u>	<u>chrysaetos</u>	Golden eagle	R	Ag, SgP	x
Accipitridae	<u>Buteo</u>	<u>jamaicensis</u>	Red-tailed hawk	R	Ag, all types	
Accipitridae	<u>Buteo</u>	<u>lagopus</u>	Rough-legged hawk	W	Ag, SgP	
Accipitridae	<u>Buteo</u>	<u>regalis</u>	Ferruginous hawk	R	SgP, Ag, RPL	x
Accipitridae	<u>Buteo</u>	<u>swainsoni</u>	hawk	B	Ag, RPL	x
Accipitridae	<u>Circus</u>	<u>cyaneus</u>	Northern Harrier	R	Ms, Cr, Ag, Aq	x
Accipitridae	<u>Haliaeetus</u>	<u>leucocephalus</u>	Bald eagle	W,E	U, Ag, SgP, MXP	x
Alaudidae	<u>Ermonophila</u>	<u>alpestris</u>	Horned lark	R	GL, U	x
Alcedinidae	<u>Ceryle</u>	<u>alcyon</u>	Belted kingfisher	R	RPL, Ri, L	
Anatidae	<u>Anas</u>	<u>acuta</u>	Northern Pintail	R	Aq, L	
Anatidae	<u>Anas</u>	<u>americana</u>	American wigeon	R	Aq, L	
Anatidae	<u>Anas</u>	<u>clypeata</u>	Northern shoveler	R	Aq, L	
Anatidae	<u>Anas</u>	<u>crecca</u>	Green-winged teal	R	Aq, L	x
Anatidae	<u>Anas</u>	<u>cyanoptera</u>	Cinnamon teal	B	Aq, L	
Anatidae	<u>Anas</u>	<u>discors</u>	Blue-winged teal	B	Aq, L	
Anatidae	<u>Anas</u>	<u>platyrhynchos</u>	Mallard	R	Aq, Cr	x
Anatidae	<u>Anas</u>	<u>strepera</u>	Gadwall	R	Aq	
Anatidae	<u>Branta</u>	<u>canadensis</u>	Canada goose	R	Aq, Cr	
Anatidae	<u>Chen</u>	<u>caerulescens</u>	Snow goose	M	L, Ms, Cr	
Anatidae	<u>Lophodytes</u>	<u>cucullatus</u>	Hooded merganser	W	Ms, RPL, Ri	
Anatidae	<u>Mergus</u>	<u>merganser</u>	Common merganser	W	Aq, RPL	
Anatidae	<u>Mergus</u>	<u>serrator</u>	Red-breasted merganser	M	Aq	
Ardeidae	<u>Ardea</u>	<u>herodias</u>	Great blue heron	R	Aq, RPL	x
Ardeidae	<u>Botaurus</u>	<u>lentiginosus</u>	American bittern	b	Ms	
Ardeidae	<u>Bubulcus</u>	<u>ibis</u>	Cattle egret	n	Ms, RPL, Ri, L, Cr	
Ardeidae	<u>Egretta</u>	<u>striatus</u>	Green-backed heron	M	RPL, Ms, L, Ri	
Ardeidae	<u>Nycticorax</u>	<u>thula</u>	Snowy egret	B	Ms, RPL, Aq	
Ardeidae	<u>Nycticorax</u>	<u>nycticorax</u>	Black crowned night heron	B	Aq, RPL	
Bombycillidae	<u>Bombycilla</u>	<u>cedrorum</u>	Cedar waxwing	W	Ag, U	
Bombycillidae	<u>Bombycilla</u>	<u>garrulus</u>	Bohemian waxwing	W	RPL, Ag, U	
Caprimulgidae	<u>Chordeiles</u>	<u>minor</u>	Common nighthawk	B	GL, U	
Caprimulgidae	<u>Phalaenoptilus</u>	<u>nuttalli</u>	Common poorwill	B	RPL	
Cathartidae	<u>Cathartes</u>	<u>aura</u>	Turkey vulture	B	RPL, GL	
Charadriidae	<u>Charadrius</u>	<u>montanus</u>	Mountain plover	b	SgP, Cr, W/OG, L	
Charadriidae	<u>Charadrius</u>	<u>semipalmatus</u>	Semipalmated plover	M	W/OG, L	
Charadriidae	<u>Charadrius</u>	<u>vociferus</u>	Killdeer	R	GL, Cr, Ag, U	
Columbidae	<u>Columba</u>	<u>fasciata</u>	Band-tailed pigeon	B	Cr, Ag	
Columbidae	<u>Columba</u>	<u>livia</u>	Rock dove	R	U, Ag	x
Columbidae	<u>Zenaidura</u>	<u>macroura</u>	Mourning dove	R	GL, Ag, RPL, U	
Corvidae	<u>Corvus</u>	<u>brachyrhynchos</u>	Common crow	R	Ag, U, RPL; All types	

Table F4: (Page 4 of 8)

Family	Genus	Species	Common Name	Status	Habitat	Observed Offpost
Corvidae	<u>Corvus</u>	<u>corax</u>	Common raven	W	GL, Ag	
Corvidae	<u>Cyanocitta</u>	<u>cristata</u>	Blue jay	R	RpL, U, Ag	
Corvidae	<u>Pica</u>	<u>pica</u>	Black-billed magpie	R	Ag, U	x
Emberizidae	<u>Areolus</u>	<u>phoeniceus</u>	Red-winged blackbird	R	Ms, Ag, GL	
Emberizidae	<u>Aimophila</u>	<u>cassinii</u>	Cassin's sparrow	b	SgP	
Emberizidae	<u>Ammodramus</u>	<u>savannarum</u>	Grasshopper sparrow	GL		
Emberizidae	<u>Calamospiza</u>	<u>melanocorys</u>	Lark bunting	B	GL, Ag	
Emberizidae	<u>Calcarius</u>	<u>lapponicus</u>	Lapland longspur	W	GL, Cr	
Emberizidae	<u>Calcarius</u>	<u>mcgowani</u>	McCown's longspur	M	SgP	
Emberizidae	<u>Calcarius</u>	<u>ornatus</u>	Chestnut-collared longspur	M	SgP, MXP	
Emberizidae	<u>Chondestes</u>	<u>grammacus</u>	Lark sparrow	B	GL, RpL	
Emberizidae	<u>Dendroica</u>	<u>coronata</u>	Yellow warbler	M	U, Ag, RpL	
Emberizidae	<u>Dendroica</u>	<u>peninsylvanica</u>	Chestnut-sided warbler	M	RpL, Ag, U	
Emberizidae	<u>Dendroica</u>	<u>petchnia</u>	Yellow warbler	B	RpL, U, Ag	
Emberizidae	<u>Dendroica</u>	<u>striata</u>	Blackpoll warbler	B	RpL, Ag, U	
Emberizidae	<u>Dolichonyx</u>	<u>oryzivorus</u>	Bobolink	M	GL, Cr	
Emberizidae	<u>Euphagus</u>	<u>carolinus</u>	Rusty blackbird	W	RpL, Ag	
Emberizidae	<u>Euphagus</u>	<u>cyanoccephalus</u>	Brewer's blackbird	R	Ag, RpL, U	
Emberizidae	<u>Geothlypis</u>	<u>trichas</u>	Common yellowthroat	B	Ms, Ag	
Emberizidae	<u>Icteria</u>	<u>virens</u>	Yellow-breasted chat	B	Ag, U	
Emberizidae	<u>Icterus</u>	<u>galbula</u>	Northern oriole	B	RpL, Ag, U	
Emberizidae	<u>Icterus</u>	<u>spurius</u>	Orchard oriole	B	RpL, Ag, U	
Emberizidae	<u>Junco</u>	<u>hyemalis</u>	Dark-eyed junco	W	U	
Emberizidae	<u>Melospiza</u>	<u>georgiana</u>	Swamp sparrow	W	Ms, RpL	
Emberizidae	<u>Melospiza</u>	<u>lincolni</u>	Lincoln's sparrow	M	U, Ms	
Emberizidae	<u>Melospiza</u>	<u>melodia</u>	Song sparrow	R	Ms, U	
Emberizidae	<u>Minioilta</u>	<u>varia</u>	Black & white warbler	M	RpL, U	
Emberizidae	<u>Molothrus</u>	<u>atar</u>	Brown-headed cowbird	B	Ag, U, Ms	
Emberizidae	<u>Oporornis</u>	<u>tolmiei</u>	MacGillivray warbler	M	U, Ag	
Emberizidae	<u>Parula</u>	<u>americana</u>	Northern parula	M	RpL	
Emberizidae	<u>Passerculus</u>	<u>sandwichensis</u>	Savannah Sparrow	B	GL, Ms	
Emberizidae	<u>Passerculus</u>	<u>iliaca</u>	Fox sparrow	W	RpL	
Emberizidae	<u>Pheucticus</u>	<u>ludovicianus</u>	Rose-breasted grosbeak	M	RpL, Ag, U	
Emberizidae	<u>Pipilo</u>	<u>erythrophthalmus</u>	Rufous-sided towhee	B	RpL, U	
Emberizidae	<u>Peoecetes</u>	<u>gramineus</u>	Vesper sparrow	B	GL	
Emberizidae	<u>Quiscalus</u>	<u>quiscula</u>	Common grackle	B	RpL, Ag, U	
Emberizidae	<u>Seturus</u>	<u>aurocapillus</u>	Ovenbird	B	RpL, Ag, U	
Emberizidae	<u>Seturus</u>	<u>noveboracensis</u>	Northern waterthrush	M	RpL, Ag, U, Ms	
Emberizidae	<u>Setophaga</u>	<u>ruticilla</u>	American redstart	B	RpL	
Emberizidae	<u>Spizella</u>	<u>americana</u>	Dickcissel	B	GL	
Emberizidae	<u>Spizella</u>	<u>arbores</u>	American tree sparrow	W	RpL, GL, Ag, U	
Emberizidae	<u>Spizella</u>	<u>breweri</u>	Brewer's sparrow	M	GL	

Table F4: (Page 5 of 8)

Family	Genus	Species	Common Name	Status	Habitat	Observed Offpost
Emberizidae	<u>Spizella</u>	<u>pallida</u>	Clay-colored sparrow	M	GL, Ag, U	
Emberizidae	<u>Spizella</u>	<u>passerina</u>	Chipping sparrow	B	GL, U, Ag	
Emberizidae	<u>Sturnella</u>	<u>neglecta</u>	Western meadowlark	R	Ag, Cr, GL	x
Emberizidae	<u>Vermivora</u>	<u>celata</u>	Orange-crown warbler	M	Ag	
Emberizidae	<u>Vermivora</u>	<u>peregrina</u>	Tennessee warbler	M	U, Ag	
Emberizidae	<u>Wilsonia</u>	<u>pyrrhula</u>	Wilson's warbler	M	Ag, U	
Emberizidae	<u>Xanthocephalus</u>	<u>xanthocephalus</u>	White-headed blackbird	B	Ms, Ag, Rpl, U	
Emberizidae	<u>Zonotrichia</u>	<u>leucophrys</u>	White-crowned sparrow	W	U, Ag	
Falconidae	<u>Falco</u>	<u>columbarius</u>	Merlin	W	GL, Rpl, Ms, Ag, U	
Falconidae	<u>Falco</u>	<u>mexicanus</u>	Prairie falcon	R	GL, Ag, Cr, SgP	
Falconidae	<u>Falco</u>	<u>peregrinus</u>	Peregrine falcon	M	GL, Ms	
Falconidae	<u>Falco</u>	<u>sparverius</u>	American kestrel	R	Ag, Rpl, SgP, U, GL	x
Fringillidae	<u>Carduelis</u>	<u>flammea</u>	Common redpoll	W	GL	
Fringillidae	<u>Carduelis</u>	<u>pinus</u>	Pine siskin	W	Rpl, U	
Fringillidae	<u>Carduelis</u>	<u>psaltria</u>	Lesser goldfinch	B	Rpl	
Fringillidae	<u>Carduelis</u>	<u>tristis</u>	American goldfinch	R	Rpl, Ag, U	
Fringillidae	<u>Carduelis</u>	<u>mexicanus</u>	House finch	R	U, Rpl, Ag	
Fringillidae	<u>Carpodacus</u>	<u>arctos</u>	Rose finch	W	U, SgP	
Fringillidae	<u>Leucosticte</u>	<u>pyrrhonota</u>	Cliff swallow	B	Ag, Aq	
Hirundinidae	<u>Hirundo</u>	<u>rustica</u>	Barn swallow	B	Ag, Aq	
Hirundinidae	<u>Hirundo</u>	<u>riparia</u>	Bank swallow	B	Ag, Aq	
Hirundinidae	<u>Stelidopteryx</u>	<u>serripennis</u>	North. Rough-winged swallow	B	Ag, Aq	
Hirundinidae	<u>Tachycineta</u>	<u>bicolor</u>	Tree swallow	B	Aq	
Hirundinidae	<u>Tachycineta</u>	<u>thalassina</u>	Violet-green swallow	M	Rpl, Aq	
Laniidae	<u>Lanius</u>	<u>excubitor</u>	Northern shrike	W	Ag, Rpl, U, GL	
Laniidae	<u>Lanius</u>	<u>ludovicianus</u>	Loggerhead shrike	B	SgP, Rpl, GL, Ag	
Laniidae	<u>Chlidonias</u>	<u>niger</u>	Black tern	B	Ms, L	
Laridae	<u>Larus</u>	<u>argentatus</u>	Herring gull	W	L, U (dumps)	
Laridae	<u>Larus</u>	<u>californicus</u>	California gull	N	L, Ri, Cr, U (dumps)	
Laridae	<u>Larus</u>	<u>delawarensis</u>	Ring-billed gull	N	L, Ri, Cr, U (dumps)	
Laridae	<u>Larus</u>	<u>philadelphia</u>	Bonaparte's gull	M	L, Ms	
Laridae	<u>Larus</u>	<u>pipixcan</u>	Franklin's gull	M	Cr, Ag, GL	
Laridae	<u>Sterna</u>	<u>forsteri</u>	Forster's tern	B	L, Ms	
Laridae	<u>Sterna</u>	<u>hirundo</u>	Common tern	M	L, Ms	
Mimidae	<u>Dumetella</u>	<u>carolinensis</u>	Gray catbird	B	Rpl	
Mimidae	<u>Mimus</u>	<u>polyglottos</u>	Northern mockingbird	R	Ag, Rpl	
Motacillidae	<u>Toxostoma</u>	<u>rufum</u>	Brown thrasher	B	Rpl, Ag, U	
Motacillidae	<u>Anthus</u>	<u>spinoletta</u>	Water pipit	M	Aq, SgP, Ag	
Muscicapidae	<u>Catharus</u>	<u>ustulatus</u>	Swinson's thrush	B	Rpl, U, Ag	
Muscicapidae	<u>Myadestes</u>	<u>townsendii</u>	Townsend's solitaire	W	Rpl, U, Ag	
Muscicapidae	<u>Sialia</u>	<u>currucoides</u>	Mountain bluebird	M	Ag, U, GL	
Muscicapidae	<u>Sialia</u>	<u>mexicana</u>	Western bluebird	B	GL, U, Ag, Rpl	

Table F4: (Page 6 of 8)

Family	Genus	Species	Common Name	Status	Habitat	Observed Offspring
Muscicapidae	<u>Sialia</u>	<u>sialis</u>	Eastern bluebird	M	RpL, Ag	
Muscicapidae	<u>Turdus</u>	<u> migratorius</u>	American robin	R	Ag, U, RpL	x
Paridae	<u>Parus</u>	<u> atricapillus</u>	Black-capped chickadee	R	RpL, U, Ag	
Paridae	<u>Parus</u>	<u> gambeli</u>	Mountain chickadee	W	U, RpL	
Passeridae	<u>Passer</u>	<u> domesticus</u>	House sparrow	R,I	Ag, U	x
Pelecanidae	<u>Pelecanus</u>	<u> erythrorhynchos</u>	American White pelican	n	Ms, L	x
Phalaropodidae	<u>Phalaropus</u>	<u> lobatus</u>	Northern phalarope	M	W/OG, Ms, L, U	
Phalaropodidae	<u>Phalaropus</u>	<u> tricolor</u>	Wilson's phalarope	B	W/OG, Ms, Cr	
Phasianidae	<u>Alectoris</u>	<u> chukar</u>	Chukar	N,I	Cr, Ag	
Phasianidae	<u>Callinissa</u>	<u> squamata</u>	Scaled quail	b	Ag, RpL	
Phasianidae	<u>Colinus</u>	<u> virginianus</u>	Northern bobwhite	R	Ag, RpL	
Phasianidae	<u>Phasianus</u>	<u> colchicus</u>	Ring-necked pheasant	R,I	Ag, Cr, RpL	
Picidae	<u>Colaptes</u>	<u> auratus</u>	Northern flicker	R	U	x
Picidae	<u>Melanerpes</u>	<u> erythrocephalus</u>	Red-headed woodpecker	B	Ag, RpL, U	
Picidae	<u>Picoides</u>	<u> pubescens</u>	Downy woodpecker	R	U, RpL	
Picidae	<u>Picoides</u>	<u> villosus</u>	Hairy woodpecker	R	U	
Podicipedidae	<u>Aechmophorus</u>	<u> occidentalis</u>	Western grebe	B	L, Ri, Ms	
Podicipedidae	<u>Podiceps</u>	<u> auritus</u>	Horned grebe	M	Ms, L	
Podicipedidae	<u>Podiceps</u>	<u> nigricollis</u>	Eared grebe	b	Ms, L	
Podicipedidae	<u>Podilymbus</u>	<u> podiceps</u>	Pied-billed grebe	R	Ms, L	
Rallidae	<u>Fulica</u>	<u> americana</u>	American coot	R	Ms, L	
Rallidae	<u>Porzana</u>	<u> carolina</u>	Sora	B	Ms	
Rallidae	<u>Rallus</u>	<u> limicola</u>	Virginia rail	R	Ms	
Recurvirostridae	<u>Himantopus</u>	<u> mexicanus</u>	Black-necked stilt	M	L, Ms, W/OG	
Recurvirostridae	<u>Recurvirostra</u>	<u> americana</u>	American avocet	B	L, Ms, W/OG	
Scolopacidae	<u>Bartramia</u>	<u> longicauda</u>	Upland sandpiper	b	TgP, SpP, Cr	
Scolopacidae	<u>Calidris</u>	<u> alba</u>	Sanderling	M	W/OG, L, S	
Scolopacidae	<u>Calidris</u>	<u> himantopus</u>	Stilt sandpiper	M	L, Ms, W/OG	
Scolopacidae	<u>Calidris</u>	<u> mauri</u>	Western sandpiper	M	L, Ms, Cr, W/OG	
Scolopacidae	<u>Calidris</u>	<u> melanotos</u>	Pectoral sandpiper	M	L, W/OG	
Scolopacidae	<u>Calidris</u>	<u> minutilla</u>	Least sandpiper	M	L, Ms, W/OG	
Scolopacidae	<u>Calidris</u>	<u> pusilla</u>	Semipalmated sandpiper	M	L, Ms, W/OG	
Scolopacidae	<u>Catoptrophorus</u>	<u> semipalmatus</u>	Willet	M	Ms, L, W/OG	
Scolopacidae	<u>Gallinago</u>	<u> gallinago</u>	Common snipe	R	GL, Ms, W/OG, Ag	
Scolopacidae	<u>Limnodromus</u>	<u> scolopaceus</u>	Long-billed dowitcher	M	L, Ms, W/OG, Cr	
Scolopacidae	<u>Limosa</u>	<u> fedoa</u>	Marbled godwit	M	L, W/OG, Ms	
Scolopacidae	<u>Numenius</u>	<u> americanus</u>	Long-billed curlew	M	SpP, Cr, Wheat, Ms, L, W/OG	
Scolopacidae	<u>Tringa</u>	<u> flavipes</u>	Lesser yellowlegs	M	L, Ri, Ms, W/OG	
Scolopacidae	<u>Tringa</u>	<u> melanoleuca</u>	Greater yellowlegs	M	Ms, L, Ri, W/OG	
Scolopacidae	<u>Tringa</u>	<u> solitaria</u>	Solitary sandpiper	M	Aq	
Sittidae	<u>Certhia</u>	<u> americana</u>	Brown creeper	R	U, RpL	
Solopacidae	<u>Actitis</u>	<u> macularia</u>	Spotted sandpiper	B	Aq	

Table F4: (Page 7 of 8)

Family	Genus	Species	Common Name	Status	Habitat	Observed Offpost
Strigidae	<u>Asio</u>	<u>flammeus</u>	Short-eared owl	R	GL, Ms, Ag	
Strigidae	<u>Asio</u>	<u>otus</u>	Long-eared owl	R	RpL, Ag	
Strigidae	<u>Athene</u>	<u>cunicularia</u>	Burrowing owl	B	GL, Rodent burrows	
Strigidae	<u>Bubo</u>	<u>virginianus</u>	Great horned owl	R	Ag, RpL	x
Strigidae	<u>Otus</u>	<u>asio</u>	Eastern screech owl	R	RpL, Ag, U	
Strigidae	<u>Otus</u>	<u>kennicottii</u>	Western screech owl	R	RpL, Ag, U	
Sturnidae	<u>Sturnus</u>	<u>vulgaris</u>	Starling	R, I	Ag, RpL, U	x
Threptornithidae	<u>Plegadis</u>	<u>chilhi</u>	White-faced ibis	M	Ms, Ag, Ag	
Troglodytidae	<u>Cistothorus</u>	<u>palustris</u>	Long-bill marsh wren	R	Ms	
Tyrannidae	<u>Contopus</u>	<u>borealis</u>	Olive-sided flycatcher	M	Ag	
Tyrannidae	<u>Empidonax</u>	<u>trillii</u>	Willow flycatcher	M	RpL	
Tyrannidae	<u>Sayornis</u>	<u>sayi</u>	Say's phoebe	B	Ag, GL, U, RpL	
Tyrannidae	<u>Tyrannus</u>	<u>tyrannus</u>	Eastern kingbird	B	Ag, RpL, U	
Tyrannidae	<u>Tyrannus</u>	<u>verticalis</u>	Western kingbird	B	Ag, RpL, U	
Tyrannidae	<u>Tyrannus</u>	<u>vociferans</u>	Cassin's kingbird	b	Ag, RpL	
Tytonidae	<u>Tyto</u>	<u>alba</u>	Common barn owl	R	Ag, RpL, U, Buildings	
Vireonidae	<u>Vireo</u>	<u>gilvus</u>	Warbling vireo	B	U	
Vireonidae	<u>Vireo</u>	<u>olivaceus</u>	Red-eyed vireo	B	RpL, Ag, U	
Vireonidae	<u>Vireo</u>	<u>solitarius</u>	Solitary vireo	B	Ag, U	

Status:

- B = definite breeder
 b = likely breeder
 E = endangered
 G = game
 I = introduced
 M = migrant
 n = non-breeder
 R = resident
 W = winter visitor

Habitat Type:

- GL = grassland
 SgP = short-grass prairie
 CG = cactus/grassland
 Sg/SD = shortgrass/semi-desert
 MXP = mixed grass prairie

Table F4: (Page 8 of 8)

TgP = tallgrass plains
 Ms = marshes, bogs
 W/OG = wet open ground
 OW-St/Ri, Ri = open water (rivers/streams)
 OW-L/R, L = lakes/reservoirs
 Ag = agricultural areas
 Cr = croplands
 U = urban
 RpL = riparian lowland
 In = Intermittent ponds/lakes/streams
 sd = sand dunes
 cl = cliff/dirt bank/exposed bedrock

References: Environmental Science and Engineering, Inc. (ESE). 1989. Biota Remedial Investigation Final Report.
 Colorado Division of Wildlife (CDOW). 1982. Colorado Reptile and Amphibian Distribution Latilong Study. G. Hammeson and D. Langlois, Eds. CDOW
 Nongame Section.

Appendix G

**COLORADO DEPARTMENT OF HEALTH
SURFICIAL SOIL ANALYTICAL DATA**

Letter dated June 2, 1989, from Mr. Jeff Edson of CDH to Mr. Connally Mears of EPA Region VIII, transmitting analytical results for offpost surficial soils collected immediately north of RMA.

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STATE OF COLORADO

COLORADO DEPARTMENT OF HEALTH

4210 East 11th Avenue
Denver, Colorado 80220
Phone (303) 320-8333



Roy Romer
Governor

Thomas M. Vernon, M.D.
Executive Director

Rec. 3/13/90

June 2, 1989

Mr. Connally Mears. 8HWM-SR
U. S. EPA, Region VIII
One Denver Place
999 18th Street, Suite #500
Denver, CO 80202-2413

Re: Offpost Surficial Soil Sampling North of RMA

Dear Mr. Mears:

Attached are the data for the CDH surficial soil samples collected earlier this year north of RMA at various residences in the vicinity of 96th Avenue and Peoria Street. Also enclosed is a copy of the Chain of Custody Record, a narrative describing sample locations, and a sample location map.

Two errors have been noted on the lab results from Hagar Laboratories (Report on Service Number 40289EN, March 20, 1989). After a cross-check with the field notes and chain of custody records, it was discovered that the lab misread two sample numbers. The first correction changes sample number SMAL5WB-CDH (Table 4) to SMAL4WB-CDH. The second correction changes sample number LAMB1WB-CDH (Table 8) to LAMB4WB-CDH. In addition, note that samples WERT2WB-CDH and WERT3WB-CDH are colocated duplicates and WERT-TB is a field blank.

CDH is currently calculating risks to the offpost residents exposed to contaminants identified in this sampling. Accordingly, CDH requests that before any agency of the United States or Shell Oil releases calculated risk determinations to the public, a meeting be held to discuss this issue.

Sincerely,

Jeff Edson
RMA Coordinator
Hazardous Materials and
Waste Management Division

/cf

SN 40289EN
March 20, 1989

TABLE 1

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
SMAL1WB HA0989WB	AA-58148	arsenic	7	
		cadmium	1.0	
		copper	20	
		chromium	14	
		lead	60	
		mercury	ND	0.02
		selenium	ND	8
		zinc	140	
		Concentration (ug/kg)	Detection Limit (ug/kg)	
		alpha-BHC	ND	10
		beta-BHC	ND	10
		delta-BHC	ND	10
		gamma-BHC (Lindane)	ND	10
		heptachlor	ND	10
		aldrin	LT(10)	
		isodrin	ND	10
		heptachlor epoxide	ND	10
		a-endosulfan	ND	10
		dieldrin	90	
		4,4'-DDE	ND	10
		endrin	ND	10
		b-endosulfan	ND	10
		4,4'-DDD	ND	10
		endosulfan sulfate	ND	100
		4,4'-DDT	ND	10
		methoxychlor	ND	1000
		alpha-chlordane	ND	10
		gamma-chlordane	ND	10
		toxaphene	ND	1000
		endrin aldehyde	ND	100
		aroclor-1016	ND	500
		aroclor-1221	ND	500
		aroclor-1232	ND	500
		aroclor-1242	ND	500
		aroclor-1248	ND	500
		aroclor-1254	ND	500
		aroclor-1260	ND	500

Note: ND - not detected at the specified detection limits.

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arch 20, 1989

TABLE 2

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
MAL2WB H0990WB	AA-58149	arsenic	7	
		cadmium	LT(1.0)	
		copper	20	
		chromium	12	
		lead	50	
		mercury	ND	0.02
		selenium	LT(8)	
		zinc	120	
			Concentration (ug/kg)	Detection Limit (ug/kg)
		alpha-BHC	ND	10
		beta-BHC	ND	10
		delta-BHC	ND	10
		gamma-BHC (Lindane)	ND	10
		heptachlor	ND	10
		aldrin	ND	10
		isodrin	ND	10
		heptachlor epoxide	ND	10
		a-endosulfan	ND	10
		dieldrin	40	
		4,4'-DDE	ND	10
		endrin	ND	10
		b-endosulfan	ND	10
		4,4'-DDD	ND	10
		endosulfan sulfate	ND	100
		4,4'-DDT	120	
		methoxychlor	ND	1000
		alpha-chlordane	ND	10
		gamma-chlordane	ND	10
		toxaphene	ND	1000
		endrin aldehyde	ND	100
		aroclor-1016	ND	500
		aroclor-1221	ND	500
		aroclor-1232	ND	500
		aroclor-1242	ND	500
		aroclor-1248	ND	500
		aroclor-1254	ND	500
		aroclor-1260	ND	500

Note: ND - not detected at the specified detection limits.

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March 20, 1989

TABLE 3

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
SMAL3WB-CDH	AA-58150	arsenic	5	
		cadmium	LT(1.1)	
		copper	10	
		chromium	10	
		lead	50	
		mercury	ND	0.02
		selenium	ND	8
		zinc	80	
			Concentration (ug/kg)	Detection Limit (ug/kg)
		alpha-BHC	ND	10
		beta-BHC	ND	10
		delta-BHC	ND	10
		gamma-BHC (Lindane)	ND	10
		heptachlor	ND	10
		aldrin	LT(10)	
		isodrin	ND	10
		heptachlor epoxide	ND	10
		a-endosulfan	ND	10
		dieldrin	50	
		4,4'-DDE	ND	10
		endrin	ND	10
		b-endosulfan	ND	10
		4,4'-DDD	ND	10
		endosulfan sulfate	ND	100
		4,4'-DDT	ND	10
		methoxychlor	ND	1000
		alpha-chlordane	ND	10
		gamma-chlordane	ND	10
		toxaphene	ND	1000
		endrin aldehyde	ND	100
		aroclor-1016	ND	500
		aroclor-1221	ND	500
		aroclor-1232	ND	500
		aroclor-1242	ND	500
		aroclor-1248	ND	500
		aroclor-1254	ND	500
		aroclor-1260	ND	500

Note: ND - not detected at the specified detection limits.

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March 20, 1989

TABLE 4

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)

SMAL4WB-CDH
SMAL5WB-CDH

AA-58151

CD
3/22

arsenic	4	
cadmium	LT(1.0)	
copper	10	
chromium	11	
lead	30	
mercury	ND	0.02
selenium	LT(8)	
zinc	50	

CDH only

	Concentration (ug/kg)	Detection Limit (ug/kg)

alpha-BHC	ND	10
beta-BHC	ND	10
delta-BHC	ND	10
gamma-BHC (Lindane)	ND	10
heptachlor	ND	10
aldrin	LT(10)	
isodrin	ND	10
heptachlor epoxide	ND	10
alpha-endosulfan	ND	10
dieldrin	70	
4,4'-DDE	ND	10
endrin	LT(10)	
b-endosulfan	ND	10
4,4'-DDD	ND	10
endosulfan sulfate	ND	100
4,4'-DDT	ND	10
methoxychlor	ND	1000
alpha-chlordane	ND	10
gamma-chlordane	ND	10
toxaphene	ND	1000
endrin aldehyde	ND	100
aroclor-1016	ND	500
aroclor-1221	ND	500
aroclor-1232	ND	500
aroclor-1242	ND	500
aroclor-1248	ND	500
aroclor-1254	ND	500
aroclor-1260	ND	500

Note: ND - not detected at the specified detection limits..

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TABLE 5

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
OHLE3WB-CDH CDH Only	AA-58152	arsenic	10	
		cadmium	LT(1.1)	
		copper	10	
		chromium	17	
		lead	20	
		mercury	ND	0.02
		selenium	ND	4
		zinc	50	
			Concentration (ug/kg)	Detection Limit (ug/kg)
		alpha-BHC	ND	10
		beta-BHC	ND	10
		delta-BHC	ND	10
		gamma-BHC (Lindane)	ND	10
		heptachlor	ND	10
		aldrin	LT(10)	
		isodrin	ND	10
		heptachlor epoxide	ND	10
		a-endosulfan	ND	10
		dieldrin	10	
		4,4'-DDE	ND	10
		endrin	ND	10
		b-endosulfan	ND	10
		4,4'-DDD	ND	10
		endosulfan sulfate	ND	100
		4,4'-DDT	ND	10
		methoxychlor	ND	1000
		alpha-chlordane	ND	10
		gamma-chlordane	ND	10
		toxaphene	ND	1000
		endrin aldehyde	ND	100
		aroclor-1016	ND	500
		aroclor-1221	ND	500
		aroclor-1232	ND	500
		aroclor-1242	ND	500
		aroclor-1248	ND	500
		aroclor-1254	ND	500
		aroclor-1260	ND	500

Note: ND - not detected at the specified detection limits.

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TABLE 6

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
OHLE4WB-CDH CDH only	AA-58153	arsenic	7	
		cadmium	LT(1)	
		copper	10	
		chromium	13	
		lead	20	
		mercury	ND	0.02
		selenium	ND	15
		zinc	40	
			Concentration (ug/kg)	Detection Limit (ug/kg)
		alpha-BHC	ND	10
		beta-BHC	ND	10
		delta-BHC	ND	10
		gamma-BHC (Lindane)	ND	10
		heptachlor	ND	10
		aldrin	LT(10)	
		isodrin	ND	10
		heptachlor epoxide	ND	10
		a-endosulfan	ND	10
		dieldrin	20	
		4,4'-DDE	ND	10
		endrin	ND	10
		b-endosulfan	ND	10
		4,4'-DDD	ND	10
		endosulfan sulfate	ND	100
		4,4'-DDT	ND	10
		methoxychlor	ND	1000
		alpha-chlordane	ND	10
		gamma-chlordane	ND	10
		toxaphene	ND	1000
		endrin aldehyde	ND	100
		aroclor-1016	ND	500
		aroclor-1221	ND	500
		aroclor-1232	ND	500
		aroclor-1242	ND	500
		aroclor-1248	ND	500
		aroclor-1254	ND	500
		aroclor-1260	ND	500

Note: ND - not detected at the specified detection limits.

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TABLE 7

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
LAMB1WB HAD 993WB	AA-58154	arsenic	9	
		cadmium	1.1	
		copper	20	
		chromium	15	
		lead	70	
		mercury	ND	0.02
		selenium	ND	8
		zinc	110	
			Concentration (ug/kg)	Detection Limit (ug/kg)
		alpha-BHC	ND	10
		beta-BHC	ND	10
		delta-BHC	ND	10
		gamma-BHC (Lindane)	ND	10
		heptachlor	ND	10
		aldrin	ND	10
		isodrin	ND	10
		heptachlor epoxide	LT(10)	
		a-endosulfan	ND	10
		dieldrin	40	
		4,4'-DDE	ND	10
		endrin	ND	10
		b-endosulfan	ND	10
		4,4'-DDD	ND	10
		endosulfan sulfate	ND	100
		4,4'-DDT	ND	10
		methoxychlor	ND	1000
		alpha-chlordane	40	
		gamma-chlordane	20	
		toxaphene	ND	1000
		endrin aldehyde	ND	100
		aroclor-1016	ND	500
		aroclor-1221	ND	500
		aroclor-1232	ND	500
		aroclor-1242	ND	500
		aroclor-1248	ND	500
		aroclor-1254	ND	500
		aroclor-1260	ND	500

Note: ND - not detected at the specified detection limits.

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TABLE 8

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
→ LAMB4WB-CDH LAMB1WB-CDH CAD 3/22 CDH only	AA-58155	arsenic	9	
		cadmium	1.0	
		copper	10	
		chromium	LT(30)	
		lead	20	
		mercury	ND	0.02
		selenium	ND	8
		zinc	90	
			Concentration (ug/kg)	Detection Limit (ug/kg)
		alpha-BHC	ND	10
		beta-BHC	ND	10
		delta-BHC	ND	10
		gamma-BHC (Lindane)	ND	10
		heptachlor	ND	10
		aldrin	LT(10)	
		isodrin	ND	10
		heptachlor epoxide	ND	10
		a-endosulfan	ND	10
		dieldrin	10	
		4,4'-DDE	20	
		endrin	LT(10)	
		b-endosulfan	ND	10
		4,4'-DDD	ND	10
		endosulfan sulfate	ND	100
		4,4'-DDT	140	
		methoxychlor	ND	1000
		alpha-chlordane	ND	10
		gamma-chlordane	ND	10
		toxaphene	ND	1000
		endrin aldehyde	ND	100
		aroclor-1016	ND	500
		aroclor-1221	ND	500
		aroclor-1232	ND	500
		aroclor-1242	ND	500
		aroclor-1248	ND	500
		aroclor-1254	ND	500
		aroclor-1260	ND	500

Note: ND - not detected at the specified detection limits.

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March 20, 1989

TABLE 9

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
LAMB5WB-CDH CDH only	AA-58156	arsenic	6	
		cadmium	ND	0.9
		copper	10	
		chromium	9	
		lead	10	
		mercury	ND	0.02
		selenium	ND	14
		zinc	30	
		Concentration (ug/kg)	Detection Limit (ug/kg)	
	alpha-BHC	ND	10	
	beta-BHC	ND	10	
	delta-BHC	ND	10	
	gamma-BHC (Lindane)	ND	10	
	heptachlor	ND	10	
	aldrin	LT(10)		
	isodrin	ND	10	
	heptachlor epoxide	ND	10	
	a-endosulfan	ND	10	
	dieldrin	LT(10)		
	4,4'-DDE	ND	10	
	endrin	LT(10)		
	b-endosulfan	ND	10	
	4,4'-DDD	ND	10	
	endosulfan sulfate	ND	100	
	4,4'-DDT	ND	10	
	methoxychlor	ND	1000	
	alpha-chlordane	ND	10	
	gamma-chlordane	ND	10	
	toxaphene	ND	1000	
	endrin aldehyde	ND	100	
	aroclor-1016	ND	500	
	aroclor-1221	ND	500	
	aroclor-1232	ND	500	
	aroclor-1242	ND	500	
	aroclor-1248	ND	500	
	aroclor-1254	ND	500	
	aroclor-1260	ND	500	

Note: ND - not detected at the specified detection limits.

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March 20, 1989

TABLE 10

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
WERT2WB-CDH CDH only	AA-58157	arsenic	LT(5)	
		cadmium	ND	1
		copper	7	
		chromium	7	
		lead	10	
		mercury	ND	0.02
		selenium	ND	14
		zinc	30	
		Concentration (ug/kg)	Detection Limit (ug/kg)	
	alpha-BHC	ND	10	
	beta-BHC	ND	10	
	delta-BHC	ND	10	
	gamma-BHC (Lindane)	ND	10	
	heptachlor	ND	10	
	aldrin	LT(10)		
	isodrin	ND	10	
	heptachlor epoxide	ND	10	
	a-endosulfan	ND	10	
	dieldrin	10		
	4,4'-DDE	ND	10	
	endrin	LT(10)		
	b-endosulfan	ND	10	
	4,4'-DDD	ND	10	
	endosulfan sulfate	ND	100	
	4,4'-DDT	LT(10)		
	methoxychlor	ND	1000	
	alpha-chlordane	ND	10	
	gamma-chlordane	ND	10	
	toxaphene	ND	1000	
	endrin aldehyde	ND	100	
	aroclor-1016	ND	500	
	aroclor-1221	ND	500	
	aroclor-1232	ND	500	
	aroclor-1242	ND	500	
	aroclor-1248	ND	500	
	aroclor-1254	ND	500	
	aroclor-1260	ND	500	

Note: ND - not detected at the specified detection limits.

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 March 20, 1989

TABLE 11

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
ERT3WB-CDH duplicate of Jert2WB-CDH co-located duplicate)	AA-58158	arsenic	LT(5)	
		cadmium	ND	1
		copper	6	
		chromium	6	
		lead	10	
		mercury	ND	0.02
		selenium	ND	15
		zinc	20	
			Concentration (ug/kg)	Detection Limit (ug/kg)
		alpha-BHC	ND	10
		beta-BHC	ND	10
		delta-BHC	ND	10
		gamma-BHC (Lindane)	ND	10
		heptachlor	ND	10
		aldrin	LT(10)	
		isodrin	ND	10
		heptachlor epoxide	ND	10
		a-endosulfan	ND	10
		dieldrin	LT(10)	
		4,4'-DDE	ND	10
		endrin	LT(10)	
		b-endosulfan	ND	10
		4,4'-DDD	ND	10
		endosulfan sulfate	ND	100
		4,4'-DDT	LT(10)	
		methoxychlor	ND	1000
		alpha-chlordane	ND	10
		gamma-chlordane	ND	10
		toxaphene	ND	1000
		endrin aldehyde	ND	100
		aroclor-1016	ND	500
		aroclor-1221	ND	500
		aroclor-1232	ND	500
		aroclor-1242	ND	500
		aroclor-1248	ND	500
		aroclor-1254	ND	500
		aroclor-1260	ND	500

note: ND - not detected at the specified detection limits.

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TABLE 12

Sample Number	Hager Reference #	Analysis	Concentration (ug/kg)	Detection Limit (ug/kg)
WERT-TB	AA-58159	alpha-BHC	ND	10
		beta-BHC	ND	10
		delta-BHC	ND	10
		gamma-BHC (Lindane)	ND	10
		heptachlor	ND	10
		aldrin	ND	10
		isodrin	ND	10
		heptachlor epoxide	ND	10
		a-endosulfan	ND	10
		dieldrin	ND	10
		4,4'-DDE	ND	10
		endrin	ND	10
		b-endosulfan	ND	10
		4,4'-DDD	ND	10
		endosulfan sulfate	ND	100
		4,4'-DDT	ND	10
		methoxychlor	ND	1000
		alpha-chlordane	ND	10
		gamma-chlordane	ND	10
		toxaphene	ND	1000
		endrin aldehyde	ND	100
		aroclor-1016	ND	500
		aroclor-1221	ND	500
		aroclor-1232	ND	500
		aroclor-1242	ND	500
		aroclor-1248	ND	500
		aroclor-1254	ND	500
		aroclor-1260	ND	500

Note: ND - not detected at the specified detection limits.

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TABLE 13

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
COLL1WB	AA-58160	arsenic	10	
		cadmium	LT(1)	
		copper	10	
		chromium	LT(15)	
		lead	20	
		mercury	ND	0.02
		selenium	ND	14
		zinc	40	
			Concentration (ug/kg)	Detection Limit (ug/kg)
		alpha-BHC	ND	10
		beta-BHC	ND	10
		delta-BHC	ND	10
		gamma-BHC (Lindane)	ND	10
		heptachlor	ND	10
		aldrin	LT(10)	
		isodrin	ND	10
		heptachlor epoxide	ND	10
		a-endosulfan	ND	10
		dieldrin	20	
		4,4'-DDE	ND	10
		endrin	ND	10
		b-endosulfan	ND	10
		4,4'-DDD	ND	10
		endosulfan sulfate	ND	100
		4,4'-DDT	ND	10
		methoxychlor	ND	1000
		alpha-chlordane	ND	10
		gamma-chlordane	ND	10
		toxaphene	ND	1000
		endrin aldehyde	ND	100
		aroclor-1016	ND	500
		aroclor-1221	ND	500
		aroclor-1232	ND	500
		aroclor-1242	ND	500
		aroclor-1248	ND	500
		aroclor-1254	ND	500
		aroclor-1260	ND	500

Note: ND - not detected at the specified detection limits.

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March 20, 1989

TABLE 14

Sample Number	Hager Reference #	Analysis	Concentration (mg/kg)	Detection Limit (mg/kg)
COLL2WB-CDH	AA-58161	arsenic	12	
		cadmium	LT(1)	
		copper	10	
		chromium	16	
		lead	20	
		mercury	ND	0.02
		selenium	ND	30
		zinc	50	
			Concentration (ug/kg)	Detection Limit (ug/kg)
		alpha-BHC	ND	10
		beta-BHC	ND	10
		delta-BHC	ND	10
		gamma-BHC (Lindane)	ND	10
		heptachlor	ND	10
		aldrin	LT(10)	
		isodrin	ND	10
		heptachlor epoxide	ND	10
		a-endosulfan	ND	10
		dieldrin	LT(10)	
		4,4'-DDE	ND	10
		endrin	LT(10)	
		b-endosulfan	ND	10
		4,4'-DDD	ND	10
		endosulfan sulfate	ND	100
		4,4'-DDT	ND	10
		methoxychlor	ND	1000
		alpha-chlordane	ND	10
		gamma-chlordane	ND	10
		toxaphene	ND	1000
		endrin aldehyde	ND	100
		aroclor-1016	ND	500
		aroclor-1221	ND	500
		aroclor-1232	ND	500
		aroclor-1242	ND	500
		aroclor-1248	ND	500
		aroclor-1254	ND	500
		aroclor-1260	ND	500

Note: ND - not detected at the specified detection limits.

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TABLE 15

Non-Aqueous Surrogate Percent Recovery Summary

Surrogate Name:	DBC
Sample Numbers:	
AA-58148	104%
AA-58148 Dup.	73%
AA-58149	89%
AA-58150	70%
AA-58151	80%
AA-58152	73%
AA-58153	85%
AA-58154	75%
AA-58155	74%
AA-58156	72%
AA-58157	84%
AA-58158	62%
AA-58158 Dup	80%
AA-58159	100%
AA-58160	76%
AA-58161	44%
AA-58161 MS	33%
AA-58161 MSD	9%

OFFPOST CDH SURFICIAL SOIL SAMPLING
NORTH OF RMA
February 24, 1989

Description of sample locations:

Smalldone Residence

1. Smal 1wb (co-located) south side of house, 18" from foundation, below window.
2. Smal 2wb (co-located) 10 ft. from east side of house, 3 ft. south of patio in flowerbed area.
3. Smal 3wb (CDH) backyard, 8 ft. east of tree, 20 ft. south of barn.
4. Smal 4wb (CDH) southeast area of yard, 20 ft. north of front (south) fence, 25 ft. west of east fence.

Ohle Residence

1. Ohle 1wb (Army), backyard, in corner, on southwest side of workshed.
2. Ohle 2wb (Army), backyard, west side of property, 250 ft. northwest of house, on west side of dog pens.
3. Ohle 3wb (CDH), southwest corner of front yard approximately 16 ft. north of 96th Avenue, 20 ft. east of west property line.
4. Ohle 4wb (CDH), front yard, 12' east of driveway entrance, 20 ft. north of 96th Avenue.

Lambert Residence

1. Lamb 1wb (co-located) near southwest corner of house.
2. Lamb 2wb (Army) near west boundary property line, approximately 60 ft. north of 96th Avenue.
3. Lamb 3wb, same locality as #2 - duplicate.
4. Lamb 4wb (CDH) near center of backyard garden.
5. Lamb 5wb (CDH), northeastern area of backyard, near flood plain boundary.
6. Lamb 6wb, ^(Army) between Lambert and Smalldone residence, in field.

Werth Residence

1. Wert 1wb (Army), backyard between work sheds.
2. Wert 2wb (CDH), front yard, approximately 50 ft. east of driveway, 10 ft. south of pine tree.
3. Wert 3wb (CDH), same location as #2 - duplicate.

Collins Residence

1. Coll 1wb (co-located), 25 ft. west of front yard.
2. Coll 2wb (CDH), approximately 100 ft. north of house, in grassy area of field.

Spencer Property

1. Spen 1wb (Army), even with Collins' house, midway between Collins and Ohle residences (in open field).



HAGER

LABORATORIES, INC.

REPORT ON SERVICE NUMBER 40289EN
March 20, 1989

Customer Project Code:

To: Mr. Chris Dacey
GeoTrans
3300 Mitchell, Suite 250
Boulder, CO 80301

Analysis: The following samples were submitted for analysis:
Thirteen soil samples for arsenic, cadmium, copper, chromium, lead, mercury, selenium, zinc, and EPA Method 8080.
One water sample for arsenic, cadmium, copper, chromium, lead, mercury, selenium, zinc, and EPA Method 8080.

Method: METALS
A measured aliquot of the sample material was acid-ashed and diluted to a known volume. The quantity of the metal of interest was determined by atomic absorption spectroscopy. The absorbance readings for each sample were compared to a calibration curve obtained from standard metal solutions.

MERCURY
A measured aliquot of sample was digested with acid, potassium permanganate and potassium persulfate solutions in a hot water bath. The dissolved mercury was reduced to the vapor state and analyzed with flameless atomic absorption spectroscopy. Mercury concentration was determined by comparison to standard mercury solutions.

EPA Method 8080: Organochlorine Pesticides and/or PCB's
30 grams of soil is extracted with a solvent using a soxhlet extractor for 24 hours. The extract is dried, concentrated and exchanged for hexane. The pesticides and PCB's of interest are then determined by gas chromatography employing an electron capture detector by comparison to known concentrations of pesticides and PCB's.

Results: The results are found on Tables 1 through 16.

Discussion: The water sample was analyzed as if it was a soil per clients request.

LT() indicates "less than" with the lower limit of quantification shown in parentheses.

All samples for metal analysis have been corrected for the blank values found in sample WERT-TB (AA-58159).

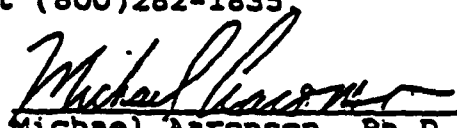
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GeoTrans
March 20, 1989

Discussion Hager Laboratories, Inc., has been AIHA accredited since
(cont.) 1977.

Laboratory data are filed and available upon request.

If you have any questions, please contact Harry Borg, of our
Technical Services Department, at (303)790-2727 or toll free
at (800)282-1835.

Submitted by:


Michael Aaronson, Ph.D.
Environmental Chemistry Manager

MA/sn

SN 40289EN
March 20, 1989

TABLE 16

Non-Aqueous Matrix Spike/Duplicate Matrix Spike Recovery

Compound	Spiked Sample Result (SSR) (ug)	Duplicate Spiked Sample Result (ug)	Sample Result (SR) (ug/g)	Spike Amount Added (SA) (ug)	Spiked Sample % Recovery	Duplicate Spiked Sample % Recovery
g-BHC	0.18	off scale	ND	0.2	90	peak off scale
heptachlor	0.16	0.14	ND	0.2	80	70
aldrin	0.18	off scale	0.001	0.2	90	peak off scale
dieldrin	0.21	0.02	0.005	0.5	41	3
endrin	0.33	0.60	0.001	0.5	86	113
DDT	0.138	0.154	ND	0.5	277	154

Service Number

40289E

Client Name

Geotronics Inc

Client Address

Boulder, CO

Client Sample Number	Laboratory Sample Number	Number of Containers	Size & Type of Container	Sample Preservative	Sample Matrix Description	Seals Intact?	Condition of Sample	Transfer Number (check items transferred)	Transfer Number
Small 120B	58151-15	1	2.0L 4/435	4°C	Soil	✓	OK	✓	1
Small 120B	58151-19	1	2.0L 4/435	4°C	Soil	✓	✓	✓	2
Small 120B-C01	58150	1	1.0L 4/435	4°C	Soil	✓	✓	✓	3
Small 120B-C01	58151	1	"	4°C	Soil	✓	✓	✓	4
Small 120B-C01	58152	1	"	4°C	Soil	✓	✓	✓	5
Small 120B-C01	58153	1	"	4°C	Soil	✓	✓	✓	6
Small 120B	58154	1	"	4°C	Soil	✓	✓	✓	7
Small 120B-C01	58155	1	"	4°C	Soil	✓	✓	✓	8
Small 120B-C01	58156	1	"	4°C	Soil	✓	✓	✓	9
Small 120B-C01	58157	1	"	4°C	Soil	✓	✓	✓	10
Small 120B-C01	58158	1	"	4°C	Soil	✓	✓	✓	11
Small 120B	58159	1	"	4°C	Water	✓	✓	✓	12
Small 120B	58160	1	"	4°C	Soil	✓	✓	✓	13
Small 120B-C01	58161	1	"	4°C	Soil	✓	✓	✓	14

Signature of Sampler Chad H. Sager Print Last Name DACER

Date of Sampling 2/24/89 Samples Shipped to Lab By C.H.S. Date Shipped 2/24/89

Samples Relinquished to Lab By C. Dacer Date 3/24/89

Samples Received at Lab By A.P. Sager Date 2/24 2:00

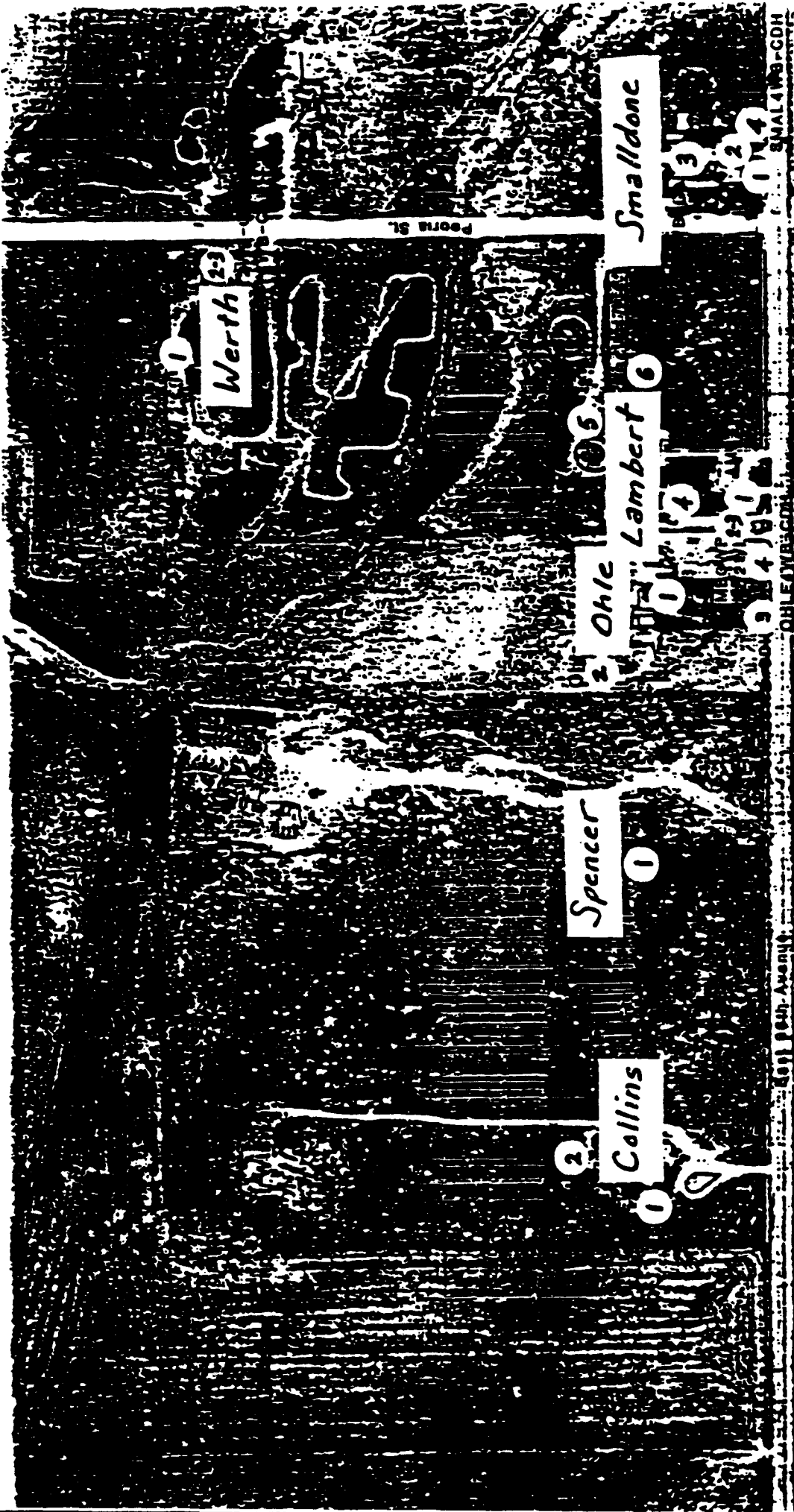
Transfer Number

Received By

Date

Time

Form Log-1



OHLE DYEING CO. 101 14th Avenue
SMAL 4 WS-CDH

Figure 1. Location of CRI

February 1988 Surfield

Soil Sampling Program

Lot Number _____

Client Name _____

Client Address _____

Boulder, CO

200 Trans Inc

Client Sample Number	Laboratory Sample Number	Number of Containers	Size & Type of Containers	Sample Preservative	Sample Matrix Description	Seals Intact?	Condition of Sample	Transfer Number (check items transferred)	Received By	Date	Time
MA11WB		1	250 mL	4°C	Soil			1			
MA12WB		1	250 mL	4°C	Soil			1			
MA13WB-COI		1	1.5L	4°C	Soil			1			
MA14WB-COI		1	"	4°C	Soil			1			
MA15WB-COI		1	"	4°C	Soil			1			
MA16WB-COI		1	"	4°C	Soil			1			
MA17WB-COI		1	"	4°C	Soil			1			
MA18WB-COI		1	"	4°C	Soil			1			
MA19WB-COI		1	"	4°C	Soil			1			
MA20WB-COI		1	"	4°C	Soil			1			
MA21WB-COI		1	"	4°C	Soil			1			
MA22WB-COI		1	"	4°C	Soil			1			
MA23WB-COI		1	"	4°C	Soil			1			
MA24WB-COI		1	"	4°C	Soil			1			
MA25WB-COI		1	"	4°C	Soil			1			
MA26WB-COI		1	"	4°C	Soil			1			
MA27WB-COI		1	"	4°C	Soil			1			
MA28WB-COI		1	"	4°C	Soil			1			
MA29WB-COI		1	"	4°C	Soil			1			
MA30WB-COI		1	"	4°C	Soil			1			
MA31WB-COI		1	"	4°C	Soil			1			
MA32WB-COI		1	"	4°C	Soil			1			
MA33WB-COI		1	"	4°C	Soil			1			
MA34WB-COI		1	"	4°C	Soil			1			
MA35WB-COI		1	"	4°C	Soil			1			
MA36WB-COI		1	"	4°C	Soil			1			
MA37WB-COI		1	"	4°C	Soil			1			
MA38WB-COI		1	"	4°C	Soil			1			
MA39WB-COI		1	"	4°C	Soil			1			
MA40WB-COI		1	"	4°C	Soil			1			
MA41WB-COI		1	"	4°C	Soil			1			
MA42WB-COI		1	"	4°C	Soil			1			
MA43WB-COI		1	"	4°C	Soil			1			
MA44WB-COI		1	"	4°C	Soil			1			
MA45WB-COI		1	"	4°C	Soil			1			
MA46WB-COI		1	"	4°C	Soil			1			
MA47WB-COI		1	"	4°C	Soil			1			
MA48WB-COI		1	"	4°C	Soil			1			
MA49WB-COI		1	"	4°C	Soil			1			
MA50WB-COI		1	"	4°C	Soil			1			
MA51WB-COI		1	"	4°C	Soil			1			
MA52WB-COI		1	"	4°C	Soil			1			
MA53WB-COI		1	"	4°C	Soil			1			
MA54WB-COI		1	"	4°C	Soil			1			
MA55WB-COI		1	"	4°C	Soil			1			
MA56WB-COI		1	"	4°C	Soil			1			
MA57WB-COI		1	"	4°C	Soil			1			
MA58WB-COI		1	"	4°C	Soil			1			
MA59WB-COI		1	"	4°C	Soil			1			
MA60WB-COI		1	"	4°C	Soil			1			
MA61WB-COI		1	"	4°C	Soil			1			
MA62WB-COI		1	"	4°C	Soil			1			
MA63WB-COI		1	"	4°C	Soil			1			
MA64WB-COI		1	"	4°C	Soil			1			
MA65WB-COI		1	"	4°C	Soil			1			
MA66WB-COI		1	"	4°C	Soil			1			
MA67WB-COI		1	"	4°C	Soil			1			
MA68WB-COI		1	"	4°C	Soil			1			
MA69WB-COI		1	"	4°C	Soil			1			
MA70WB-COI		1	"	4°C	Soil			1			
MA71WB-COI		1	"	4°C	Soil			1			
MA72WB-COI		1	"	4°C	Soil			1			
MA73WB-COI		1	"	4°C	Soil			1			
MA74WB-COI		1	"	4°C	Soil			1			
MA75WB-COI		1	"	4°C	Soil			1			
MA76WB-COI		1	"	4°C	Soil			1			
MA77WB-COI		1	"	4°C	Soil			1			
MA78WB-COI		1	"	4°C	Soil			1			
MA79WB-COI		1	"	4°C	Soil			1			
MA80WB-COI		1	"	4°C	Soil			1			
MA81WB-COI		1	"	4°C	Soil			1			
MA82WB-COI		1	"	4°C	Soil			1			
MA83WB-COI		1	"	4°C	Soil			1			
MA84WB-COI		1	"	4°C	Soil			1			
MA85WB-COI		1	"	4°C	Soil			1			
MA86WB-COI		1	"	4°C	Soil			1			
MA87WB-COI		1	"	4°C	Soil			1			
MA88WB-COI		1	"	4°C	Soil			1			
MA89WB-COI		1	"	4°C	Soil			1			
MA90WB-COI		1	"	4°C	Soil			1			
MA91WB-COI		1	"	4°C	Soil			1			
MA92WB-COI		1	"	4°C	Soil			1			
MA93WB-COI		1	"	4°C	Soil			1			
MA94WB-COI		1	"	4°C	Soil			1			
MA95WB-COI		1	"	4°C	Soil			1			
MA96WB-COI		1	"	4°C	Soil			1			
MA97WB-COI		1	"	4°C	Soil			1			
MA98WB-COI		1	"	4°C	Soil			1			
MA99WB-COI		1	"	4°C	Soil			1			
MA100WB-COI		1	"	4°C	Soil			1			

Signature of Sampler Chad S. S. S. Print Last Name DACEY

Date of Sampling 2/24/89 Samples Shipped to Lab by CAR Date Shipped 2/24/89

Samples Relinquished to Lab by C. DACEY Date 2/24/89

Samples Received at Lab by A. C. S. Date 2/24 2:00

Appendix H

**ANALYTICAL RESULTS FOR ADDITIONAL OFFPOST SURFICIAL SOIL SAMPLES
COLLECTED BY WOODWARD-CLYDE FEDERAL SERVICES (WCFS), MAY 1991**

Table H1 Analytical Results for Surficial Soils Samples *

Sample ID	010F01	020F01	030F01	100F01
Date	05/21/91	05/21/91	05/20/91	05/20/91
Analytes				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	0.00418	0.0247	0.00986	0.180
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 0.00466	0.0144	< 0.00466	0.260
Aldrin (GCMS)	< 0.00211	< 0.00211	< 0.00211	< 0.00211
Chlordane (GCMS)	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Dieldrin (GCMS)	< 0.00181	0.0236	0.00205	0.00358
Endrin (GCMS)	< 0.00471	0.00919	< 0.00471	0.00980
Hexachlorocyclopentadiene (GCMS)	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Isodrin (GCMS)	< 0.00188	< 0.00188	< 0.00188	< 0.00188

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that target analyte was detected at or above the Maximum Reporting Limit.

* -- Analytical results for Offpost Surficial Soil Samples collected by Woodward Clyde - Federal Services.

NA -- Not Analyzed.

Table H1 Analytical Results for Surficial Soils Samples *

Sample ID	100F02	100F03	100F04	110F01
Date	05/21/91	05/21/91	05/21/91	05/21/91
Analytes				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	0.0395	0.0695	0.00547	0.0589
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	0.130	0.0167	< 0.00466	0.0640
Aldrin (GCMS)	< 0.00211	< 0.00211	< 0.00211	< 0.00211
Chlordane (GCMS)	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Dieldrin (GCMS)	0.00399	0.0135	0.00215	0.0027
Endrin (GCMS)	0.00621	0.0402	0.0135	0.0147
Hexachlorocyclopentadiene (GCMS)	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Isodrin (GCMS)	< 0.00188	< 0.00188	< 0.00188	0.00220

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> - indicates that target analyte was detected at or above the Maximum Reporting Limit.

* -- Analytical results for Offpost Surficial Soil Samples collected by Woodward Clyde - Federal Services.

Not Analyzed

Table H1 Analytical Results for Surficial Soils Samples *

Sample ID Date	110F02 05/21/91	120F01 05/20/91	130F01 05/20/91	140F01 05/20/91
Analytes				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	0.00937	< 0.00277	< 0.00277	0.00700
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 0.00466	< 0.00466	< 0.00466	< 0.00466
Aldrin (GCMS)	< 0.00211	< 0.00211	< 0.00211	0.00407
Chlordane (GCMS)	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Dieldrin (GCMS)	0.00451	0.00260	0.00744	0.0582
Endrin (GCMS)	< 0.00471	< 0.00471	< 0.00471	0.00946
Hexachlorocyclopentadiene (GCMS)	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Isodrin (GCMS)	< 0.00188	< 0.00188	< 0.00188	< 0.00188

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that target analyte was detected at or above the Maximum Reporting Limit.

* -- Analytical results for Offpost Surficial Soil Samples collected by Woodward Clyde - Federal Services.

NA -- Not Analyzed.

Table #1 Analytical Results for Surficial Soils Samples *

Sample ID	140F02	150F01	150F02	160F01
Date	05/20/91	05/20/91	05/20/91	05/20/91
Analytes				
2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	< 0.00277	< 0.00277	0.0589	0.0388
2,2-Bis(parachlorophenyl)-1,1-Dichloroethene (DDE) (GCMS)	< 0.00466	< 0.00466	< 0.00466	0.0857
Aldrin (GCMS)	< 0.00211	< 0.00211	< 0.00211	< 0.00211
Chlordane (GCMS)	< 0.0230	< 0.0230	< 0.0230	< 0.0230
Dieldrin (GCMS)	0.0155	0.00877	0.0320	0.00431
Endrin (GCMS)	0.00564	< 0.00471	0.0107	0.00667
Hexachlorocyclopentadiene (GCMS)	< 0.00137	< 0.00137	< 0.00137	< 0.00137
Isodrin (GCMS)	< 0.00188	< 0.00188	< 0.00188	< 0.00188

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that target analyte was detected at or above the Maximum Reporting Limit.

* -- Analytical results for Offpost Surficial Soil Samples collected by Woodward Clyde - Federal Services.

Not analyzed

Table H1 Analytical Results for Surficial Soils Samples *

Sample ID
Date

220F01
05/20/91

Analytes

2,2-Bis(parachlorophenyl)-1,1,1-Trichloroethane (DDT) (GCMS)	0.00825
2,2-Bis(parachlorophenyl)-1,1-Dichloroethane (DDE) (GCMS)	< 0.00466
Aldrin (GCMS)	< 0.00211
Chlordane (GCMS)	< 0.0230
Dieldrin (GCMS)	0.0109
Endrin (GCMS)	< 0.00471
Hexachlorocyclopentadiene (GCMS)	< 0.00137
Isodrin (GCMS)	< 0.00188

Notes: Values are reported in micrograms per gram.

Reported values are accurate to three significant figures.

< -- indicates that the target analyte was not detected at or above the Certified Reporting Limit.

> -- indicates that target analyte was detected at or above the Maximum Reporting Limit.

* -- Analytical results for Offpost Surficial Soil Samples collected by Woodward Clyde - Federal Services.

NA -- Not Analyzed.

Appendix I

**COMMENTS AND RESPONSES TO THE OFFPOST OPERABLE UNIT REMEDIAL
INVESTIGATION, DRAFT FINAL ADDENDUM, NOVEMBER 1991**

**RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY COMMENTS
REGARDING THE OFFPOST OPERABLE UNIT DRAFT FINAL REMEDIAL
INVESTIGATION ADDENDUM**

GENERAL COMMENTS

Comment No. 1

EPA is concerned that the CRLs for two compounds, atrazine and vinyl chloride, exceed the MCLs. Appropriate CRLs must be utilized in the FS to avoid the preparation of an incomplete FS.

Response

The certified reporting limits (CRLs) for atrazine and vinyl chloride are based on analytical protocols established in the Program Manager for Rocky Mountain Arsenal (PMRMA) Chemical Quality Assurance Plan (CQAP) (PMRMA, 1989). The CRLs for these two compounds are the best achievable levels based on the quality assurance/quality control (QA/QC) requirements specified in the CQAP. However, the U.S. Department of the Army (Army) conducted an additional sampling episode in conjunction with the Comprehensive Monitoring Program (CMP) to specifically assess the distribution of vinyl chloride in Unconfined Flow System (UFS) groundwater in the Offpost Operable Unit (OU) at levels below the EPA maximum contaminant level (MCL). The CRL for that episode was 0.46 µg/l. All results for that sampling round, which was conducted in November 1989, were below detection. Because of a minor laboratory reporting problem, these data were erroneously omitted from the Draft Final Remedial Investigation (RI) Addendum report issued in November 1991. The report has been revised, and these vinyl chloride results have been included Appendix B. The FS will consider this issue and other technical limitations, consistent with guidance.

Comment No. 2

EPA does not agree that the deeper aquifers (Denver and Arapahoe) are adequately characterized. Characterization of the Arapahoe is not possible based on three wells covering a ten square mile area. This points out a significant gap in the data for the Arapahoe Aquifer which needs to be addressed in order to adequately evaluate the hydrogeology of this important deeper aquifer. In addition, there are instances where the CRLs exceed the MCLs in the Denver aquifer.

Response

The Army strongly disagrees with the comment. Characterization of the Denver and Arapahoe formations has been conducted over the past several years. Monitoring wells have been installed in both formations, and groundwater samples have been collected from domestic and monitoring wells.

The Army presented its conceptual model for interaction between the Denver Formation and the UFS in the Final RI and at a feasibility study (FS) technical meeting on October 16, 1991. Based on the discussion in that meeting, consensus was reached that Denver Formation contamination occurs primarily as local effects of interaction between the UFS and the weathered upper portion of the Denver Formation. Additional data regarding contaminant distribution in the Denver Formation are not necessary for conducting the EA and FS for the Offpost OU.

The monitoring network for the Arapahoe Formation is not limited to three wells as suggested by EPA. The Army has collected over 90 groundwater samples from Arapahoe Formation wells in the Offpost OU, including eight locations depicted in Figure 2.2 of the Draft Final RI Addendum. The data from these wells permit a sufficient understanding of the nature and extent of contamination in the Arapahoe Formation for conducting the EA and FS for the Offpost OU.

Comment No. 3

EPA has also noted that there were historic DIMP detections in the alluvium that are outside the DIMP plume as currently portrayed in this document. Since there has not been any recent sampling in this area, the extent of the DIMP plume remains in question.

Response

The Army strongly disagrees with this comment. The extent of DIMP was adequately portrayed in the Draft Final RI Addendum for the purposes of conducting the EA and FS for the Offpost OU. The extent of DIMP depicted in this report is consistent with previous interpretations presented in the Final RI and annually in the Groundwater CMP report. The

infrequent, isolated occurrence of low levels of DIMP does not suggest the need for additional sampling to support the EA/FS. No changes to the report are necessary.

Comment No. 4

Please describe in the text what criteria were used to select soil sampling sites.

Response

The text has been revised to include additional information regarding the basis for selecting soil sampling sites.

Comment No. 5

Please include the 12 additional soil samples that were taken, in the methodology section of the document. Please present these data in a corresponding appendix. If the samples are already included in an appendix, please clearly flag the appropriate 12 samples.

Response

The 12 samples collected by CDH in 1989 are discussed in Section 2.4.1 and shown in Figure 2.5. Revisions to the text have been made to clarify that the 12 CDH samples are included in the report. The analytical results for these samples are discussed in Section 6.0 and are presented in Appendix G of the report. Appendix G is labeled as containing the CDH surficial soil analytical results.

The letter from CDH dated June 2, 1989, which contains the analytical results for the CDH surficial soil sampling program, does not report the sampling methodology used by CDH for sample collection. However, review of the CDH's Proposed Soil Sampling Plan Offpost, North and Northwest of the Rocky Mountain Arsenal (RMA), dated April 9, 1990, suggests that sampling protocols used by CDH were similar to Army procedures. Section 2.4.2 has been revised to indicate this similarity in sampling methodology.

SPECIFIC COMMENTS

Comment No. 1, page 6, paragraph 1, third sentence

EPA does not agree that ground water in the Denver formation has been adequately characterized. As we stated in our review of the original EA/FS, comment number 12, Page 3-11, P.1., "The text states that, regarding Denver Fmn. contamination and remediation, more data collection is recommended prior to any remedial alternatives assessments for the Denver Fmn. This seems to imply that the present FS document is only a partial and/or interim FS, pending assessment of Denver Fmn. remedial action assessments. To which the Army response was, "If additional data indicates that an alternative analysis for the Denver Formation is required, this alternative analysis will be provided in the revised EA/FS report. What was the justification for not collecting additional data? In addition, there are several instances where contaminants have CRLs that are greater than MCLs.

Response

The Army strongly disagrees with this comment. The nature and extent of contamination in the Denver Formation in the Offpost OU has been adequately characterized for conducting the EA and FS of the Offpost OU. Nature and extent of contamination in the Denver Formation was discussed in the Final RI and subsequent CMP reports. In the Final RI, the Army presented its conceptual model for interaction between the UFS and Denver Formation. Additionally, the Army restated this conceptual model in an FS technical review meeting on October 16, 1991.

The comment also states that EPA considers the FS currently under preparation as "...a partial and/or interim FS..." The FS currently under preparation is not a partial or interim FS. The Army firmly believes that the analytical data for all media in the Offpost OU have been adequately characterized for conducting the EA and FS.

The RI Addendum presents additional data and interpretations for samples collected under the RI Addendum programs. Additional data for the Denver Formation were not considered necessary for the RI Addendum programs, but have been collected under the Groundwater CMP. These data are discussed in the revised Draft Final EA/FS. Those data are evaluated in the FS with respect to the need for a separate alternatives analysis for the Denver Formation. As stated in the Introduction to the revised Draft Final EA/FS, Nature and Extent of Contamination, additional data for 14 Denver Formation monitoring wells are discussed in that report. These data indicate

that an alternatives analysis for the Denver Formation separate from the UFS is not necessary. Additionally, as the Army has stated on many occasions, because of localized hydraulic communication between the Denver Formation and the UFS and the limited extent of contaminants in the Denver Formation, the effective remediation of the UFS will have a beneficial impact on contaminant distribution in the Denver Formation.

The Army recognizes that CRLs exceed MCLs for a few contaminants. The Army has made attempts to reduce CRLs for a number of compounds. However, the NCP provides appropriate procedures for situations when technical limitations, including those associated with analytical procedures, are encountered in the RI/FS process. The development of Preliminary Remediation Goals (PRGs) in the FS will consider the relationships between CRLs and MCLs, consistent with guidance.

No changes to the report are necessary.

Comment No. 2, page 6, paragraph 1

EPA agrees that the contamination in the Denver aquifer may have entered the system locally. However, a review of hydrographs for wells near the NBS clearly show an almost immediate response in the Denver Fm. correlating to changes in the alluvial water levels indicating that there is good communication between the alluvium and the Denver aquifer in this area. This pathway needs to be clearly investigated for completion of the FS.

Response

The FS will consider interaction between the UFS and Denver Formation in developing groundwater alternatives for the Offpost OU. Also, the hydraulic response noted in the comment applies to Denver wells in the UFS. The statement is not generally true for confined Denver Formation wells. No revisions to the report are necessary.

Comment No. 3, page 15, paragraph 1

The CDH sampling locations are not shown on Figure 2.5.

Response

All CDH sampling locations are shown on Figure 2.5. In the CDH letter to Mr. Connally Mears of EPA dated June 2, 1989, CDH reported collecting a total of 12 investigative samples, one duplicate sample, and a field blank on February 24, 1989. These samples, excluding the field blank, are identified in the explanation contained in the upper right corner of the figure.

Comment No. 4, page 15, paragraph 2

How was the approximate distance and direction of the windblown dust estimated? Where are these estimations presented?

Response

The prevailing wind directions were estimated on the basis of information obtained from several sources, including the U.S. Weather Service and the RMA Comprehensive Monitoring Program Air Quality Data Assessment Report dated June 1990. These sources indicate that the prevailing wind direction is from the south. The estimated distance from RMA for which surficial soil samples were collected was based on two principal factors. First, the Army considered CDH's Proposed Soil Sampling Plan Offpost, North and Northwest of the RMA, dated April 9, 1990. The Army's proposed sampling program was designed to encompass the locations proposed by CDH. Second, the Army conducted a preliminary evaluation of surficial soil data from onpost and offpost areas within approximately one-half mile of the northern RMA boundary. This evaluation suggested approximately an order of magnitude decrease in concentration of selected target analytes over approximately 5000 feet of distance from the suspected sources near former Basin F. This information was used to estimate the maximum extent of OCPs in surface soil caused by windblown transport from onpost RMA sources. The Army's proposed sampling plan, which was presented to the Organizations and State (OAS) on June 26, 1990, identified sampling locations up to 12,000 feet from the northern RMA boundary. These locations were selected to

encompass the area within which wind-transported soils were anticipated, assuming that the offpost distribution of contaminants followed a pattern similar to that observed for the onpost and near offpost samples. The report has been revised accordingly to include this discussion.

Comment No. 5, page 25, paragraph 1

When was the assessment of the boundary systems effects on the rate of contaminants migration performed? Where are the results of this assessment presented?

Response

The assessments referred to in this paragraph were conducted in conjunction with and reported in the Final RI. This paragraph has been modified to clarify that the Final RI is the source of the information.

Comment No. 6, Figure 2.5

CDH sampling locations are not shown on this figure as indicated in the text.

Response

See the response to EPA Specific Comment No. 3.

Comment No. 7, Figure 3.1

Why are all of the contours inferred? Is the Army that uncertain of this interpretation or are the data insufficient to allow for a more definitive interpretation.

Response

The contours on Figure 3.1 are inferred to reflect some degree of uncertainty in the shape of the potentiometric surface for the UFS. However, the potentiometric surface of the UFS is sufficiently understood for use in conducting an EA/FS for the Offpost OU. No revisions to the report are necessary.

Comment No. 8, page 28, paragraph 1

EPA agrees with the Army's conclusion that the data from three wells do not permit a definitive assessment of the flow directions in the Arapahoe. It is possible that local flow patterns do not coincide with the regional pattern. Such cases are not unusual in the onpost, i.e., southerly flow south of South Plants, a more westerly flow in the Basin A neck area, etc.

Response

The Army has not concluded that the data do not permit a definitive assessment of flow directions in the Arapahoe Formation. As stated in the referenced paragraph, "...data from these wells are consistent with the northerly to northwesterly regional groundwater flow direction..." in the Arapahoe Formation. Additionally, as discussed in the RI Addendum in Section 3.1.3.2 and the Final RI, groundwater pumping from numerous wells in the Arapahoe Formation has resulted in local variations in the flow directions in the Arapahoe Formation. However, basin-wide flow in the Arapahoe Formation flows north to northwest. The data from the newly installed Arapahoe wells identified at the top of page 28 are consistent with regional flow directions.

Comment No. 9, page 28, paragraph 3

Were any data used from any domestic well samplings?

Response

As stated on page 29, paragraph 5, "Analytical data considered in generation plume maps of the UFS include...domestic wells sampled under the RI Addendum and IRA A programs".

Comment No. 10, page 29, paragraph 3

EPA agrees that distribution maps for the Arapahoe are not possible based on three wells covering a ten square mile area. This points out a significant gap in the data for the Arapahoe Aquifer which needs to be addressed in order to adequately evaluate the hydrogeology of this important deeper aquifer.

Also the references here to sporadic detections, false positives, and localized effects is inappropriate without a discussion of the sampling of the domestic wells. Much of the sporadic detections, false positives, and localized effects may be due to the fact that these data were collected from domestic wells rather than monitor wells. The domestic wells introduce a large number of variables into the sampling program which may effect the results. Such things as the amount of water that was pumped from the well by the residents prior to the arrival of the sampling team varies from

well to well and sample to sample. The rate at which the pump runs during sampling and the amount and type of piping that the water traverses during sampling also differs from well to well. The type and construction of the pump may also effect the sample. It is also unknown which portion or zone of the Arapahoe these domestic wells are completed in, therefore the results from one well may not be comparable to another nearby well. Therefore, while the data collected from these wells is still useful, it has several limitations imposed upon it of which the reader needs to be aware. These limitations make it very difficult to adequately characterize the Arapahoe formation.

Response

The EPA has misstated the Army's position regarding preparation of distribution maps for the Arapahoe Formation. The Army has stated in the referenced paragraph that distribution maps are not necessary for adequately assessing the extent of contamination in the Arapahoe Formation for the purposes of conducting an EA and FS for the Arapahoe Formation. Data for the Arapahoe Formation clearly show that only low levels of a limited number of contaminants have been detected in the Arapahoe Formation and that concentrations are well below levels that are considered safe for protection of human health and the environment.

The Army has frequently stated its position on possible migration routes from the UFS to the Arapahoe Formation. It is highly unlikely that contaminants observed in Arapahoe Formation domestic wells are the result of migration from the UFS or Denver Formation through overlying geologic formations. Additionally, organic contaminants detected in samples from the Arapahoe Formation appear to be associated with older domestic wells, which may have construction problems. As described in the Final RI, the geology of the Arapahoe Formation consists of an upper clay/shale unit up to 100 feet thick that generally directly underlies the Denver Formation. At the northern RMA boundary, the top of Arapahoe Formation lies at a depth of 250 to 300 feet below ground surface. The lower portion of the Arapahoe Formation consists of a thick conglomerate and sandstone sequence up to 270 feet thick. These sandstone units are typically the aquifers used for production of domestic-use groundwater. Considering this geologic setting and the travel times that would be necessary for contaminants to migrate through the upper shale sequence, the contaminants observed in the Arapahoe Formation are localized and the result of

contaminant migration through preferred pathways, such as poorly constructed wells that penetrate the UFS and Denver Formation.

Comment No. 11, page 29, paragraph 4

The phrase "Analytical data considered" implies that not all analytical data was used or was used in a limited or qualified context. Please explain what is meant by this phrase and what the criteria are for selecting the data considered.

Response

The Army assumes that EPA is actually referencing paragraph 5 of this page, not paragraph 4 as indicated in the comment. Paragraph 5 has been modified to clarify that data from (1) monitoring wells and domestic wells sampled under the RI Addendum and IRA A programs and (2) CMP data collected during the Fall of 1989 and Winter of 1990-1991 sampling rounds were used to generate plume maps.

Comment No. 12, page 29, paragraph 5

Please explain the meaning of that statement, "More recent data collected during the winter of 1990-1991 CMP Sampling Round was . . . used in a qualitative manner..." What is a "qualitative manner" and specifically how were the data used.

Response

The Army assumes that EPA is actually referencing paragraph 6 of this page, not paragraph 5 as indicated in the comment. The Army conducted an assessment of the Winter of 1990-1991 data to provide a qualitative evaluation of more recent data being collected under the RMA Groundwater CMP. These data, except for selected analytes as discussed in Section 3.2.1.1.6, were not used for contouring, but only to confirm contours generated with the data referenced on the contour maps. The text has been modified to clarify the qualitative use of more recent data.

Comment No. 13, page 32, Diisopropylmethylphosphonate

EPA is concerned that the map showing the DIMP distribution may be incomplete. The RMA database clearly shows that there have been historic DIMP detections outside of the area currently

delineated as the DIMP plume. This well is located in the extreme eastern portion of Section 12, which is outside the currently plotted DIMP plume. Well 37340 had the following DIMP detections.

<u>DATE</u>	<u>CONCUOM (SIC)</u>
85323	17.1 ug/l
86085	29.2 ug/l
86156	36.9 ug/l
86231	28.2 ug/l
87083	39.1 ug/l
87267	35.3 ug/l

There are not records of this having been sampled since 1987. Please explain why there has not been any further sampling of this well and subsequently how the eastern edge of the plume was established. EPA is concerned that there may be another unidentified pathway to the east of the current DIMP plume.

Response

The Army used data collected under the RI Addendum to construct the diisopropylmethyl phosphonate (DIMP) distribution map as discussed in the report. The eastern edge of the DIMP distribution was assessed considering the data for wells shown in Figure 3.2. Historical data for well 37340 were not considered because the data were several years old at the time the figure was prepared. This distribution is consistent with historical DIMP distribution maps prepared under the RMA Groundwater CMP. Sampling of well 37340 has been attempted by the Army on several occasions. However, the well produces little, if any, water during purging and, as a result, a representative groundwater sample cannot be collected for well 37340.

Comment No. 14, page 38, Section 3.2.1.1.4

The CRLs for atrazine and vinyl chloride are greater than the MCLs for these compounds. For atrazine the CRL is 4.03 ug/l and the MCL is 3 ug/l. Vinyl chloride has a CRL of 12.0 ug/l when the MCL is 2.0 ug/l. This complicates the determination of the amount of contamination, and the effectiveness of any remediation alternatives selected in the FS based on this data.

Response

See response to General Comment No. 1 and Specific Comment No. 1.

Comment No. 15, page 70, Section 4.2

The data for atrazine indicates a CRL of 4.13 ug/l. This CRL exceeds the MCL for atrazine which is 3 ug/l. See comment for Page 38, Section 3.2.1.1.4.

Response

See response to General Comment No. 1 and Specific Comment No. 1.

Comment No. 16, page 92, Section 6.1.3

EPA has several comments, which are detailed below, related to the statistical evaluation that was performed to assess background concentrations.

- (a) *EPA does not believe that four samples are adequate to characterize the background levels of an area covering several square miles. A minimum of 10 samples would be more representative of an area of that size of this site.*

Response

The Army shared EPA's concern that the four originally designated background sites were too few to adequately characterize background levels. Consequently, other sampling sites were evaluated to see whether additional samples were representative of background conditions, and a statistical evaluation demonstrated that 12 other sites not directly downwind under prevailing wind conditions were also representative of background. Thus, the Army has shown that 16 sites can be and were used to characterize background soil levels.

- (b) *Chlordane is listed as a chemical of concern for soils in the Offpost EA/FS. Why was chlordane not included in the analyte list in Table 6.1.*

Response

Chlordane was detected less frequently than the other OCPs and was not detected in the comparison data set. In addition, Table 6.1 was not developed for chemicals of concern for the Revised Draft Final EA/FS.

- (c) *The first paragraph indicates that, "A variety of RMA indicator contaminants, including dieldrin, was not detected in offpost surficial soil near RMA's northeast boundary." This*

statement is ambiguous. Please specifically enumerate which RMA contaminants were not detected.

Response

The text has been revised to indicate that samples collected near RMA's northeastern boundary generally have lower concentrations and lower frequency of detection than other samples near the northwestern and northern RMA boundaries. Figure 2.6 has been revised to identify those sites used to assess background concentrations. Analytical results for these sites are presented in Appendix E.

- (d) *How were the data from the 13 samples handled; individually, or was the mean and 95th percentile of all the data for all the samples computed for comparison with background.*

Response

The data sets, represented by individual values, were compared following guidance cited in the text. Although nonparametric tests were used in most comparisons, the hypothesis test is whether the means of the compared data sets are significantly different.

- (e) *The Wilcoxon rank sum test appears to be recognized in the literature as an appropriate method for paired data such as these. The method of proportion used by the Army, however, seems to be a bit more esoteric. Please provide an explanation of the applicability of this method to these circumstances, as well as a description of the parameters.*

Response

The Army method and its limitations are fully described in the cited reference (EPA, 1989), which is a publicly available document. A complete recitation of this information is not warranted.

Comment No. 17. Figure 2.1 through 2.6

Please superimpose zone boundaries on these figures.

Response

Zones were developed during the EA/FS process by considering technical issues that are not part of this report. It is not appropriate to present them in this document. No revisions to the report are necessary.

Comment No. 18, Figure 7.1, 7.2, and 7.2

All data used in these figures are reported in obscure units of parts per thousand. Suggest that more conventional units of parts per million or parts per billion be used.

Response

The comment refers to Figure 7.2 twice. The Army assumes that the comment actually refers to Figures 7.1, 7.2, and 7.3. However, the concentrations shown in the figures are in micrograms per gram, or parts per million, not parts per thousand as indicated in the comment. These units are consistent with those presented in Table 2.5 and Appendix F. No revision to the report is necessary.

RESPONSES TO DRAFT SHELL OIL COMPANY COMMENTS REGARDING THE OFFPOST
OPERABLE UNIT DRAFT FINAL REMEDIAL INVESTIGATION ADDENDUM

GENERAL COMMENTS

Comment No. 1

Groundwater quality data sets from 1989, 1990, and 1991 were used in the RI Addendum evaluation. During those years, modifications to both the NBCS and NWBCS have been made which have significantly reduced groundwater contaminant concentrations downgradient from these systems. Of the three data sets, the 1991 CMP data present the most accurate picture of the rapidly changing offpost contaminant distributions. Combining data sets to prepare distribution maps as performed in this report does not give the reader a sense of the declining contaminant concentrations or the actual current contaminant distributions.

The entire EA/FS is potentially affected and will not be accurate or realistic if the current offpost contamination distribution is not shown accurately. Furthermore, since the decrease in plume concentrations appear to be relatively rapid, the discrepancies between the 1989 and 1990 data sets and future distributions will be even greater. If the preferred alternatives selected in the EA/FS are to be accepted by EPA for the Final Remedy, the strongest supporting evidence must be presented. Therefore, Shell strongly believes that the 1991 CMP data should be used preferentially over the 1989 and 1990 data sets to depict offpost contaminant distributions in the RI Addendum.

Response

The data sets used to construct the contaminant distribution maps for unconfined flow system (UFS) groundwater were the most comprehensive data sets available at the time the Remedial Investigation (RI) Addendum report was being prepared. This required the use of data from several Rocky Mountain Arsenal (RMA) programs, including the Groundwater Comprehensive Monitoring Program (CMP). The U.S. Department of the Army (Army) made every effort to use the most recent data sets and to correctly reflect the extent of contamination in the UFS. However, because of the time required to collect samples, receive analytical data from the laboratories, conduct preliminary data management activities, perform data validation and correct errors or problems, and finalize the data management activities and elevate data to final, it was not possible to use all early-1991 CMP data for the RI Addendum. Additionally, it appears that some early-1991 CMP data have not yet been elevated to final, making it impossible to use at this time. No changes to the report are necessary.

Comment No. 2

Portions of the 1989 and 1990 groundwater quality data sets are considered to be anomalous or erroneous by the Army but have in some cases been used in the assessment. For example, erroneous 1990 RI Addendum volatile organic compound (VOC) data are cited in the text without qualification. Also, we believe that the interpretation of the DBCP plume is incorrect because of the use of anomalous 1989 RI addendum data. This is further justification for basing the analysis on 1991 CMP data.

The anomalous groundwater data sets discussed both in the text and in the attached specific comments include the 1989 CMP, 1990 RI Addendum, and possible components of the 1989 RI Addendum groundwater data.

Response

The Army has reevaluated the anomalous groundwater data cited in the report and has made several clarifications in the text regarding the anomalous data. However, the Army disagrees with Shell Oil Company's (Shell's) conclusion that early-1991 CMP data should be used exclusively in the report. Additionally, Shell indicates that "erroneous...data are cited in the text without qualification." However, Shell does not provide any specifics or examples and the Army has not been able to locate any citations of anomalous data in the text. No other changes to the report are necessary.

Comment No. 3

The presence of the erroneous 1990 RI Addendum VOC groundwater data in the RMA database has created confusion and wasted time and resources for Shell and the Army (in this report) in interpreting offpost groundwater contaminant distributions and will continue to do so. Some of these erroneous 1990 data were mistakenly used in this assessment. Therefore, we request that the 1990 RI Addendum VOC data be removed from the RMA database.

Response

The Army has initiated additional changes to the RMA database intended to flag any anomalous data in the database.

Comment No. 4

The distribution of offpost surficial soil contamination is likely the result of multiple and complex transport processes from RMA and offpost sources. The highest levels of offpost surficial contamination correspond well with the areal distribution of alluvial aquifer contaminant plumes. Since the area downgradient of the irrigation canals has been heavily irrigated alluvial groundwater during the past 30 years, it is worth quantitatively evaluating how much of the surficial soil contamination may be from this transport mechanism. As is typical of similar agricultural areas, the use of pesticides in these areas is also likely to be a substantial source of the observed contamination.

The following observations lend credence to these hypotheses. First, many of the elevated soil detections of dieldrin downgradient of the canals lie along extensions of the two prominent ground water pathways emanating from the RMA and are generally in areas that have historically been heavily irrigated. These areas, like other similar agricultural areas in Colorado, are likely to have used pesticides extensively. Secondly, with the exception of a couple relatively high detections along the eastern boundary, there is a general pattern of much lower surficial contaminant levels outside of the other RMA boundaries. Although wind patterns are likely to be partially responsible for this, the higher contaminant levels downgradient of the canals are not fully explained by this wind blown transport alone.

The importance of emphasizing multiple potential pathways for the offpost surficial soil contamination lies in its potential impact on the final onpost remedy. If the ground water irrigation pathway has been a significant source of the offpost surficial soil contamination, then placing complete emphasis on controlling windblown dust from onpost to the offpost area may be inappropriate. This is important particularly because the source of the offpost groundwater contaminants is being controlled by the North Boundary System and will be further abated by the offpost IRA.

Response

The Army agrees with Shell's comment that "The distribution of offpost surficial soil contamination is likely the result of multiple and complex transport processes from RMA and offpost sources." However, the Army does not believe that a quantitative evaluation of the contribution of the surficial soil contamination from irrigation over the past 30 years is warranted or even possible. The numerous factors that will affect any conclusions regarding the contribution from historical irrigation with contaminated groundwater are impossible to quantify with any reasonable degree of certainty. No changes to the report are necessary.

Comment No. 5

The argument that offpost surface water contaminants are the result of ground water exfiltration offpost can be strengthened by also including water quality data from First Creek where it exits the RMA. An evaluation of seasonal and onpost data to back up the hypothesis should be included in this document.

Response

The report includes information regarding surface-water sampling conducted under the surface-water element of the CMP. Analytical results for surface-water samples collected along First Creek, are presented to support the conclusion that most of the contaminants observed in First Creek surface water between the northern RMA boundary and Highway 2 result from ground-water discharge to First Creek along this reach. No revisions to the report are necessary.

Comment No. 6

Shell does not believe that presenting water quality data from wells of questionable construction together with newly installed monitoring wells will provide reliable information on the question of impact to the Arapahoe. The available data for the three "impacted" Arapahoe wells indicates they were installed in the 1960s and early 1970s. Nearly all of the available data for these wells (inorganic water chemistry, specific conductivity, proximity to DIMP plumes in the alluvium and time frame of installation) suggest that the observed DIMP is a result of cross-contamination from poor well construction. A more direct position stating that these wells are not reliable water quality wells would prevent having to address their inadequacies every time an anomalous detection is observed.

It is also unclear from reading this document why no further examination of the Denver Formation has been proposed. Shell believes that the existing data from the Denver Formation is sufficient for purposes of conducting the FS. Since this historically been the Army's position as well, we believe it should be clearly stated in this report. Also, the logic of evaluating a deeper formation while completely excluding discussion of an intermediate formation needs clarification in this document.

Response

Sufficient discussion of the integrity of domestic wells in the Arapahoe Formation and the usefulness of data from those wells in assessing the distribution of contaminants in the Arapahoe Formation has been provided in the Draft Final RI Addendum report. However, additional discussion that more clearly states the limitations of data from those wells has been added to the Proposed Final RI Addendum report.

The Army's position regarding the Denver Formation was stated in the Final RI and is summarized in Section 2.1.1 of the Draft Final RI Addendum report. The RI Addendum was prepared to eliminate data gaps for the Offpost OU. Because sufficient data for the Denver Formation were

presented in the Final RI for conducting an endangerment assessment (EA)/FS, additional discussion of the Denver Formation is not necessary in this report. However, a brief statement regarding the adequacy regarding the Denver Formation data for conducting an EA/FS has been added to the text in Section 2.1.1 of the report. Additionally, the introduction section of the revised Draft Final EA/FS presents the nature and extent of contamination in the Denver Formation and restates the adequacy of the Denver Formation data for conducting an EA/FS for the Offpost OU.

SPECIFIC COMMENTS

Comment No. 1, page 9, Section 2.1.2

In various parts of Section 3, it is stated that Winter 1990-1991 groundwater CMP sampling results were used to assess plume boundaries. This fact should also be mentioned here.

Response

The text has been revised in accordance with the comment.

Comment No. 2, page 26, last paragraph; page 27, first paragraph

Higher water levels at the NWBCS in February 1990 relative to the 1987 water levels in the Final RI Report were, in fact, due to a change in operation of the NWBCS. At the end of 1988, recharge-well flowrates at the northeastern end of the system were increased to improve the reverse hydraulic gradient along the slurry wall. This created higher water levels both in the recharge wells and offpost and helped to prevent bypass on the northeastern end of the NWBCS that, unknown to the Army at that time, had been occurring. The recent lowering of groundwater contaminant concentrations offpost near the NWBCS indicted in the RI Addendum Report was caused primarily by this operational change. The NWBCS IRA modifications will further improve the system's performance.

Response

The text has been revised to indicate that changes in the operation of the Northwest Boundary Containment System (NWBCS) contributed to the observed increases in water levels downgradient of the NWBCS.

Comment No. 3, page 28, first paragraph, first sentence

Water level data in three wells does not demonstrate that the Arapahoe aquifers are confined in all areas of the offpost OU. Perhaps this sentence should be appended with the phrase, "in these areas."

Response

The text has been revised in accordance with the comment.

Comment No. 4, page 29, third paragraph

Data from the Arapahoe Formation which is of poor quality and is not representative of the formation is misleading and should not be included in the document.

Response

The Army disagrees with the comment. The data to which Shell is referring are not considered of "poor quality." In fact, the isolated, sporadic occurrence of contaminants in Arapahoe Formation wells substantiates the interpretation of only localized, low-level contamination in the Arapahoe Formation that is largely the result of migration through poorly constructed domestic wells. No changes to the report are necessary.

Comment No. 5, paragraph 29, fourth paragraph

This paragraph states that CMP, RI Addendum, and IRA A water quality data have passed QA/QC review and have been accepted into the RMA database. This statement implies that all of these data were accepted, which is untrue and should be revised since some of the RI Addendum VOC data did not pass QA/QC review and were flagged as being anomalous.

It is stated that if data did not pass QA/QC review, they were either flagged in the appendices or eliminated from the database. The 1990 RI Addendum VOC data that were flagged as being anomalous due to inadequate decontamination of sampling equipment and subsequent cross-contamination of samples have not been eliminated from the RMA database as of January 31, 1992. In fact, DP Associates (Jim Clark) was not aware that a problem with these data existed. These data were not used in the RI Addendum assessment and plume interpretations for which they were collected. Therefore, these data are of no further use and are a potential source of serious misinterpretations of offpost groundwater contaminant distributions. Although with the DP Associates "RKPMCGW" table, the flagcode field could be used to indicate that they are erroneous, it would be preferable to remove this data set from the database since every potential user will not know of the faulty nature of the VOC data and may not check the flagcodes.

Because the above data were obviously erroneous, flagged as such in this report and unusable for the purpose for which they were collected, these data should not have been accepted into the RMA database. Are rinse blank results not considered in the QA/QC review? If not, the PMRMA procedures should be revised to account for such a situation.

Response

The text has been revised in accordance with the first paragraph of the comment. Additional discussions have been recently initiated with D.P. Associates to evaluate procedures for flagging anomalous data.

Comment No. 6, page 29, last paragraph

The 1990-1991 CMP data should have been used as the primary data set for plume map generation, because these data reflect the most recent contaminant distribution and the influence of recent boundary system modifications and operational changes.

Response

See response to General Comment No. 1.

Comment No. 7, page 30, second paragraph, first sentence

Some of the fall 1989 CMP data seem to be questionable for OCPs and DBCP. For which compounds and wells were the fall 1989 CMP results "highly anomalous?" If the anomalous 1990 RI Addendum VOC data were not used in mapping, why were the anomalous 1989 data averaged with other data sets and used for mapping? In the discussion of the distribution of compounds that were not mapped, the anomalous 1989 data should be qualified if they are retained.

Response

The Army is not aware of any anomalous data from Fall 1989 for OCPs or DBCP. The wells and analytes for which VOC data are considered anomalous and are identified as such in Appendix B. Because no anomalous data for OCPs or DBCP are recognized, the remaining portions of the comment do not require a response.

Comment No. 8, page 30, second paragraph, second sentence

This sentence appears to indicate that the anomalous data were used to develop the approximate averages for plume mapping. The last sentence in the third paragraph on page 58 indicates that these data were not used. Please clarify.

Response

The distribution of groundwater contaminants did not include data recognized as anomalous. The text has been revised in accordance with the comment.

Comment No. 9, page 32, last paragraph

A detection of DIMP 2 miles northwest of RMA could also be indicative of migration along one of the pathways from the RMA North Boundary.

Response

Based on available data regarding the interpreted distribution of dispropylmethyl phosphonate (DIMP), as depicted in Figure 3.2 and historically presented in groundwater element CMP reports, it appears that the occurrence of DIMP in well 10720TWBRI is most likely attributable to historical flows from the vicinity of the NWBCS. No changes to the report are necessary.

Comment No. 10, page 35, third paragraph, second sentence

Does this sentence refer to data collected in the RI Addendum?

Response

The specific data cited in this paragraph were collected under the groundwater element of the CMP. Groundwater-quality data generated under the RI Addendum are presented in Appendix B. No changes to the report are necessary.

Comment No. 11, page 37, Section 3.2.1.1.3

See the Specific Comment regarding page 30, second paragraph, first sentence.

Response

See response to Specific Comment No. 7.

Comment No. 12, page 37, second paragraph

The 1991 CMP aldrin sample result for well 37419 was < 0.05 ug/l. Was the 1989 concentration of 0.354 ug/l for well 37419 considered to be one of the "highly anomalous" CMP detections mentioned on page 30, second paragraph? If so, this sentence should be qualified.

The 1989 aldrin detection in well 37345 also appears to be anomalous as it is the only detection out of 11 analyses since 1987 and, as stated, it is an exception to the lack of aldrin detections downgradient of the canals. Please add qualification.

Response

The sample collected from well 37419, which had a reported aldrin concentration of 0.354 micrograms per liter ($\mu\text{g/l}$), was sampled under the RI Addendum program, not under the CMP. The result is not considered anomalous and does not require qualification. The text has been revised to indicate that aldrin has not been previously detected in samples from well 37345.

Comment No. 13, page 38, first full paragraph

The consistent chlordane detections of approximately 1 $\mu\text{g/l}$ in the fall 1989 CMP sampling round seem questionable. See the Specific Comment regarding page 30, second paragraph, first sentence.

Response

The text has been revised to indicate that a review of historical data and more recent data for the offpost wells in which chlordane was detected shows that chlordane is generally not detected in offpost wells.

Comment No. 14, page 40, Section 3.2.1.1.6

Refer to Comment No. 3.

Response

See response to General Comment No. 3.

Comment No. 15, page 44, second paragraph

On Figure 3.8, detections of DBCP in the eastern extension of the Northern Paleochannel plume in Section 12 appear anomalous compared to the 1991 CMP data, which were below CRL for all three RI Addendum Wells (37402, 37403, and 37404). All three of these detections were from the fall 1989 RI Addendum sampling round and samples from these three wells were not analyzed by GC methods in 1990, so comparison of results is not possible until 1991. Since DBCP was included in

the list of VOCs that were affected by inadequate decontamination of sampling equipment between wells in the 1990 RI Addendum sampling round, might the 1989 RI Addendum data for these three wells also have been affected by the same problem? If so, Figure 3.8 should be modified.

Response

There is no evidence that dibromochloropropane (DBCP) data from the Fall 1989 RI Addendum sampling round were affected by the cross-contamination problem identified for other volatile organic compounds in later sampling rounds. However, the text has been revised to note that DBCP was not detected in groundwater samples collected from wells 37402, 37403, or 37404 during the early-1991 CMP sampling event. Because no additional data are available for these wells, no changes to Figure 3.8 have been made.

Comment No. 16, page 47, first paragraph

The reported carbon tetrachloride detection of 6.98 ug/l in well 37407 was from the January through March 1990 RI Addendum sampling round that was problematic and should not have been cited in the text without qualification, if at all. Duplicate 1990 data and 1991 CMP sample data confirm that this reported concentration was false. In addition, all of the erroneous carbon tetrachloride analyses are not flagged with an "A" in Appendix B Table B1. Also, the ID numbers for duplicate samples HA1166 and HA1165 are reversed for wells 37407 and 37404 in Table 3.3. These discrepancies affect the QA evaluation for these wells and cause one to question whether the erroneous 1990 RI Addendum VOC data set has been used by mistake elsewhere in this report.

Response

Appendix B has been revised to show that the result for carbon tetrachloride is anomalous. Additional review has been performed to verify (1) the proper flagging of anomalous data in Appendix B and (2) that the anomalous data has not been used to interpret the extent of contamination in the Offpost OU. The ID numbers for duplicate samples HA1166 and HA1165 are correct as shown in Table 3.3. However, they were reversed in Appendix B. Table B4 has been corrected.

Comment No. 17, page 52, fourth paragraph, last sentence

Please rephrase the sentence to read "...and assessment of possible contamination in the Arapahoe Formation."

Response

The text has been revised in accordance with the comment.

Comment No. 18, page 53, second paragraph, fourth sentence

This sentence is confusing. DIMP was not found in January 1990.

Response

DIMP was found in the sample collected from well 11841TW096 in January 1990 at a concentration of 0.521 µg/l, as shown in the text and Appendix B. However, the text has been revised to clarify in which wells DIMP and chloroform were detected.

Comment No. 19, page 53, Section 3.2.2.1

The sample results from the three new Arapahoe Formation monitoring wells are probably more indicative of Arapahoe water quality than are the sampling results from the existing domestic wells. This is because well drilling and construction practices were probably much superior for the monitoring wells than for the domestic wells, preventing mixing of water from different aquifers. The fact that no organic compounds were detected in the monitoring wells is significant and should be emphasized in the text.

Response

The Army agrees with Shell's comment. The text has been revised to indicate that groundwater-quality data from the newly installed Arapahoe Formation wells strongly support the Army's conclusion that contamination observed in the Arapahoe Formation is sporadic and localized, possibly as a result of well construction problems.

Comment No. 20, page 55, first paragraph, second sentence

We do not believe that the values of hardness and conductivity reported by the Tri-County Health Department (TCHD) in their 1989 private well inventory report are based upon an independent review of actual data in the offpost area by TCHD. These values are probably based upon ranges reported in other documents.

Response

The text has been revised to clarify that these ranges were reported by the Tri-County Health Department (TCHD) in their private well inventory report.

Comment No. 21, page 56, last paragraph

As stated in Section 3.2.1.1.6, the RI Addendum samples collected from January through March 1990 were anonymously high for volatiles because of inadequate decontamination of sampling equipment, not because of analytical problems. Both the GC and GC/MS results would be affected and the GC/MS results should not have been used as a guide for contour mapping. This report is inconsistent in its use of this erroneous data set and should be revised.

Response

The text has been revised to indicate that the anomalous volatile organic compound data are also reflected in the gas chromatography/mass spectrometry (GC/MS) results. The statement that the GC/MS results were used in contour mapping is not correct and has been deleted from the report. None of the anomalous data identified in Appendix B were used for contouring, averaging, or assessing the distribution of contamination in the UFS.

Comment No. 22, page 57, last paragraph

The DSA values exceeded 1.0 for several volatiles because HA1165 is actually the duplicate for well 37407, not for well 37404 as shown in Table 3.3, and not because of analytical problems. Table B4 in Appendix B contains the correct ID numbers. If the correct duplicate is used for well 37407, the DSA values for those volatiles should be much less than 1.0. Furthermore, a DSA analysis on the erroneous 1990 RI Addendum VOC data is unnecessary.

Response

The Army has reviewed chains of custody and information in the RMA database and compared analytical results for the samples in question. The correct investigative/duplicate sample pairs

have been compared in Table 3.3. That is, sample HA1165 is a duplicate of sample 37404 and sample HA1165 is a duplicate of sample 37407. Table B4 in Appendix B, Groundwater Duplicate Analytical Data, incorrectly identified the investigate/duplicate sample pairs. Table B4 has been revised accordingly.

Comment No. 23, page 58, second paragraph

Not only is rinse blank HA1175 a true rinse blank, it is a telling rinse blank. Please review Section 3.2.1.1.6. Five rinse blanks were collected during RI Addendum activities, yet only one (HA1175) is identified and discussed. Please provide the ID numbers and results for the other four.

Response

Table B3 in Appendix B has been revised to identify the types of quality assurance/quality control (QA/QC) samples represented by the analytical results presented in Table B3, including all trip, rinse, and field blanks. The text on page 58, second paragraph, has also been revised to indicate that the analytical results for sample HA1175 are thought to represent field decontamination problems as discussed in Section 3.2.1.1.6.

Comment No. 24, page 58, second paragraph

The Offpost OU RI reported sporadic and unexplainable detections of volatile compounds such as chlorobenzene and chloroform in Denver Formation wells. Is it possible that inadequate decontamination procedures were also responsible for these anomalous results?

Response

The evaluation of QA/QC analytical results were presented, discussed, and interpreted in the Final RI.

Comment No. 25, page 58, third paragraph

Please revise this paragraph to reflect the above comments.

Response

The text has been revised in accordance with the comment.

Comment No. 26, page 59, first full paragraph

The groundwater flow velocity and volume in the minor paleochannel located south of the First Creek Paleochannel is much less than in the First Creek Paleochannel and the analytes detected in this area may be relic contaminants and do not reflect the present effectiveness of the NBCS.

The plume maps do not indicate that trichloroethene or chlorobenzene are present in the eastern arm of the Northern Paleochannel in Section 12. Also, the DBCP detections in this area were questionable. See the Specific Comment regarding page 44, second paragraph.

Response

The text has been revised to indicate that only chloroform, DBCP, and DIMP were identified in the eastern arm of the Northern Paleochannel. Reference to chlorobenzene and trichloroethene have been removed from this sentence.

Comment No. 27, page 60, first paragraph

Historically, a diluting effect has also been noted downgradient of the NWBCS as a result of canal leakage. Although not as significant as downgradient of the NBCS, historical data indicate it is present. A probable reason for it not being apparent lately is the decreasing concentrations immediately downgradient of the NWBCS as a result of increased efficiency of this system.

Response

The Army agrees with Shell's comment. The text has been revised to indicate that the dilution effect downgradient of the NWBCS is less obvious in that area.

Comment No. 28, page 60, second paragraph

There is no doubt that the increased water table elevations immediately downgradient of the NBCS are due to the operation of the recharge trenches.

Response

The Army agrees with Shell's comment. The text has been revised in accordance with the comment.

Comment No. 29, page 65, second paragraph

Was the siphon which routes First Creek water directly to Burlington Ditch open when the samples which exhibited DIMP were collected? If not, what is the explanation of the detections in Burlington Ditch? An explanation of the mechanism for directly routing water to Burlington Ditch and the frequency with which it is used would be helpful to the reader.

Response

The siphon was not in use during surface-water sampling events conducted during the RI Addendum program. The occurrence of DIMP in Burlington Ditch is considered the result of groundwater/surface-water interaction along the reach of Burlington Ditch in the northwest corner of Section 14. Additional discussion of the surface-water system has been added to Section 4.1 of the report.

Comment No. 30, page 74, first paragraph

Section 4.1.1 states that "DIMP was the organic compound most frequently detected in offpost surface water" thus, DIMP should be mentioned in Section 4.5.

Response

The text has been revised in accordance with the comment.

Comment No. 31, page 77, third paragraph, first sentence

DBCP is written twice in the listing in this sentence.

Response

The text has been revised in accordance with the comment.

Comment No. 32, page 78, first paragraph

DBCP and hexachlorocyclopentadiene have moderate and high affinity for organic matter, respectively. Organic matter is commonly present in stream and lake-bottom sediment; therefore, these compounds may have affinity for sediments as is indicated by their detections.

Two acronyms for hexachlorocyclopentadiene are used in this report (CL6CP and HCCPD), which may lead to confusion.

Response

The text has been revised to indicate that DBCP and CL6CP tend to sorb to sediments. The text has also been revised by removing the HCCPD acronym for hexachlorocyclopentadiene.

Comment No. 33, page 84, last paragraph

As stated on page 79, second paragraph, other sources of dieldrin are indicated to be present in the Offpost OU; therefore, dieldrin should be added to the list of compounds with additional sources in this paragraph.

The previous discussion of contaminant distributions in the text did not establish that RMA was a source of endrin and DDE in sediments. Therefore, the last sentence should be revised to be more accurate.

Response

The text has been revised to include dieldrin as a compound for which additional sources exist in the Offpost OU. The last paragraph on page 84 has been revised to clarify the source of endrin and DDE.

Comment No. 34, page 88, third full paragraph

The surficial soil data presented in the report do not display any clear distribution pattern which would support a single source or a dominant mechanism of transport. Instead, the data suggest multiple sources and perhaps numerous transport mechanisms. To state that windblown contamination from Onpost to Offpost is the primary cause of the observed contamination with only sporadic influences from other sources or transport routes is inconsistent with the data.

Response

The Army disagrees with the comment. The Army has repeatedly stated that multiple sources of organochlorine pesticides (OCPs) exist in the Offpost OU. However, the distribution of the OCPs near the northern RMA boundary appears to follow a pattern that is consistent with windblown transport. No changes to the report are necessary.

Comment No. 35, page 89, last paragraph

The wind-transport mechanism for OCPs in offpost surficial soils is most plausible for dieldrin within a mile of the north boundary of RMA in Sections 13 and 14. In other offpost areas this mechanism is less plausible for dieldrin and other OCPs and their distribution is better explained by other offpost sources. The conclusions reached for the distribution of OCPs in surface soil are based on an overly qualitative and generalized analysis.

Response

The text has been revised to clarify that (1) windblown transport is most plausible for areas immediately north of RMA and (2) other sources, including irrigation northwest of the canals, are likely mechanisms in the other areas.

Comment No. 36, page 97, second paragraph

Please add that the mercury detections exceeding background concentrations north of the canals are from sources other than RMA.

Response

The text has been revised in accordance with the comment.

Comment No. 37, page 108, second paragraph

It is unfortunate that the review process for the R1 Addendum Report was not completed prior to issuing the Offpost EA/FS Draft Report. Anomalous and erroneous groundwater quality data sets have been used in the R1 Addendum that may have resulted in misinterpretations of plumes in the EA/FS.

Response

Comment noted. See also the response to Shell General Comment Nos. 2 and 3.

Comment No. 38, page 109, fourth paragraph

Modifications to the NWBCS include physical changes as well as operational ones. In addition to reducing chloroform offpost, these modifications will reduce concentrations of all RMA-related compounds offpost including dieldrin, DIMP, chloride, and fluoride.

Response

The text has been revised to note that reductions in other contaminants offpost are expected to occur as a result of modifications to the NWBCS.

Comment No. 39, page 110, second full paragraph, third sentence

Please add that the detection of mercury and arsenic in surface water upstream of First Creek indicates offpost sources of these compounds.

Response

The text has been revised in accordance with the comment.

Comment No. 40, page 112, second paragraph, second and third sentence

The highest concentrations of arsenic and mercury in surface soil were detected northwest of Burlington Ditch, not "northeast" of the ditch as stated. It should be added that these detections were from sources other than RMA.

Response

The text has been revised in accordance with the comment.

Comment No. 41, page 113, only paragraph

Section 7.2.4 of this report indicates that contaminants attributed to RMA sources were not detected in an egg from an abandoned bald eagle nest at Barr Lake. This fact should be added to the paragraph.

Response

The comment does not accurately reflect the statement made in the text. The correct interpretation, as presented in the referenced section, is that the contaminants could not be clearly associated with releases from RMA. No revisions to the report are necessary.

Comment No. 42, Figure 3.2, Distribution of DIMP in the Offpost UFS; and Figure 3.6, Distribution of Chloroform in the Offpost UFS

It would be helpful to illustrate the similarities and/or differences between the Final RI and RI Addendum data sets for these two maps by using the same isoconcentration values as were used for contouring in the Final RI Report or the CMP Reports. Similar isoconcentration values were used in the plume maps for the other analytes.

Response

The Army believes that the isoconcentration lines used for these figures best depict the distribution of DIMP and chloroform in the UFS. For DIMP, the minimum isoconcentration contour represented in the Final RI was 11 $\mu\text{g/l}$, which is considered too high for the current database. Additionally, the contour intervals for DIMP and chloroform used in the CMP report for 1989 (RSLA, 1990a) are not the same as those in the Final RI, as suggested by the comment. No changes to the report are necessary.

Comment No. 43, Figure 3.4, Distribution of Dieldrin in the Offpost UFS; and Figure 3.5, Distribution of Endrin in the Offpost UFS

At well 37307, the dieldrin and endrin plumes are drawn as part of the plumes located in the First Creek Paleochannel. Figure 3.1 shows an area of unsaturated alluvium separating Well 37307 and the First Creek Paleochannel. Therefore, isolated detections should be drawn for Well 37307 and based upon onpost data, the western margins of the First Creek dieldrin and endrin plumes should be moved east to Peoria Street.

Response

The extent and variability in the shape of the unsaturated zones is uncertain. The purpose of depicting these zones is to give a general indication of the major groundwater flow pathways in the UFS. However, because water levels rise and fall over time, the extent of dieldrin and endrin cannot be tied directly to any particular depiction of these zones. The dieldrin and endrin plumes are consistent with their distributions shown in the Final RI and Groundwater CMP report for FY90 (RLSA, 1991a). No changes to the report are necessary.

RESPONSES TO COLORADO DEPARTMENT OF HEALTH COMMENTS REGARDING
THE OFFPOST OPERABLE UNIT DRAFT FINAL REMEDIAL
INVESTIGATION ADDENDUM

GENERAL COMMENTS

Comment No. 1

The Army has asserted that "[g]roundwater monitoring in the Denver Formation was not necessary for this addendum report because the Final RI adequately characterized the extent of contamination in the Denver Formation" and that "...mechanisms of contamination migration through the Denver Formation" were adequately identified in the Final Off-post RI (page 6). While several mechanisms of contaminant migration were presented in the document, historical operation of the North Boundary Containment System (NBCS) and resultant contamination of Denver Formation (Fm) sands was not included in the discussion. The State presented a conceptual model for Denver Fm-alluvial aquifer interaction at the October 16, 1991, Technical Subcommittee Meeting at which our representatives identified historical operation of the NBCS as the predominant mechanism for contamination of Denver Fm sands in the vicinity and downgradient of the NBCS. In a report distributed to the organizations at the meeting, the State also proposed a monitoring program to determine the current impact of the system on lateral and vertical contaminant migration within the Denver Fm and the alluvial aquifer. The Army promised to review the report and respond to the State's proposal.

Additionally, at Feasibility Study data needs meetings being conducted during the same time period, the Army stated that NBCS Operations personnel had been evaluating detailed data on vertical and lateral gradients in the vicinity of the system. Without a summary of this evaluation, and without an Army review of the State's proposed NBCS monitoring program, we are not able to agree that Denver Fm contamination has been properly characterized. If the studies indicate a reversed gradient across the slurry wall and upward gradients between Denver Fm sands and the alluvial aquifer, the proposed program will not be necessary. We request a response to the State proposal, and will comment on the need for additional Denver Fm characterization in the vicinity of the NBCS after reviewing the response.

Response

The U.S. Department of the Army (Army) disagrees with the Colorado Department of Health (CDH) claim that the Denver Formation has not been adequately characterized for the purposes of conducting an Endangerment Assessment/Feasibility Study (EA/FS) for the Offpost Operable Unit (OU). The Final Remedial Investigation (RI) provided a description of the geology and hydrogeology of the Denver Formation and interactions between the Denver Formation and the Unconfined Flow System (UFS). In the FS technical meeting held on October 16, 1991, the Army restated its conceptual model for the interaction between the Denver Formation and UFS and migration routes for contaminants from the UFS. Based on the discussion and statements by the CDH representatives at that meeting, consensus was reached in that meeting that Denver

Formation contamination occurs primarily as local effects of interaction between the UFS and the weathered upper portion of the Denver Formation. Additionally, the focus of the CDH comments is on the nature of contamination in the vicinity of the North Boundary Containment System (NBCS). The Army will respond to the CDH proposal under a separate cover following complete review of the CDH document. However, based on the nature of the CDH comments and the response to the Army's presentation in the October 16, 1991, meeting, the only remaining issues associated with the Denver Formation contamination is assessment of the migration of contaminants to the Denver Formation in the vicinity of the NBCS, particularly in the immediate proximity of the pilot portion of the NBCS.

Comment No. 2

The State remains concerned that the nature and extent of groundwater contamination has not been sufficiently characterized for the Arapahoe Formation. In addition, the geology and hydrology have not been studied in sufficient detail to understand the relationship between the confined flow system, the confined Denver and the Arapahoe Formation. The State requests a response to the results of our Arapahoe sampling program which indicated Arapahoe F₂ contamination, and a follow-up technical meeting to discuss Arapahoe contamination and future investigations of the Arapahoe Formation.

Response

The Army strongly disagrees with the comment. The Army has collected over 90 groundwater samples from monitoring or domestic wells in the Arapahoe Formation. These data indicate that where contamination occurs, it is at low concentrations and appears to be highly localized. On the basis of these data, contamination in the Arapahoe Formation is likely the result of vertical migration of contamination from the UFS through poorly constructed domestic wells. The Army will respond to the CDH proposed Arapahoe Formation sampling program under separate cover. No revisions to the report are necessary.

Comment No. 3

In numerous instances soil and sediment contamination detected in the off-post OU is being attributed to sources other than RMA (e.g., mercury in Burlington Ditch sediments is attributed to the wastewater treatment facility and pesticide contamination is attributed to personal application). These conclusions are arbitrary and should be purely tentative in nature. Additional soil sampling will be needed to substantiate.

Response

The Army has presented a voluminous amount of analytical data for soil and sediment in the Offpost OU. The data were presented in the Final RI and RI Addendum reports. The data show that some of the contaminants detected in soil and sediment likely the result of past releases from RMA, and the reports have provided such interpretations. However, other data and interpretations suggest that other sources of some of the contaminants may also be present in the Offpost OU or in other areas that impact the Offpost OU. The data for these media presented in the Final RI and RI Addendum reports are sufficient for the purposes of conducting an EA/FS for the Offpost OU. No additional sampling for these media are necessary to allow the completion of the RMA Offpost OU RI and EA/FS programs. The Army has repeatedly and consistently stated its commitment to continue monitoring programs for the Offpost OU. No revisions to the report are necessary.

Comment No. 4

The Off-post Operable Unit should be expanded or additional operable units created to adequately characterize the nature and extent of surficial soil contamination that has been detected outside of the boundaries of the existing Off-post OU. High concentrations of dieldrin have been detected in surficial soils at localities east of RMA and the area south of RMA has yet to be investigated.

Response

The boundaries of the Offpost OU were identified in the Federal Facility Agreement (FFA) for Rocky Mountain Arsenal (RMA). In the FFA, the Army committed to a number of programs and activities, including conducting an RI/FS for the Offpost OU. The Army intends to complete those programs in a timely fashion. No compelling reasons to change the boundaries or definition

of the Offpost OU have been presented. The nature and extent of contamination in the Offpost OU has been adequately characterized for conducting and EA and FS.

Comment No. 5

Colorado Department of Health surficial soil sampling data should be incorporated into this report. These data would augment existing Army data and would provide a better understanding of the nature and extent of off-post surficial soils contamination. If the Army is unwilling to use the data from CDH surficial soil sampling efforts due to concerns pertaining to State QA/QC analytical/sampling protocol, locations identified by CDH to have significant concentrations of RMA contaminants should be resampled by the Army to confirm contaminant presence. The State will transmit all existing surficial soils data under separate cover and assist in whatever manner desired to facilitate this effort.

Response

The Army has included the data provided by CDH for the 12 surficial soil samples collected in February 1989. The CDH sampling locations are shown in Figure 2.5, and data are discussed in Section 6.0 and presented in Figure 6.1. The Army elected to use these data at the encouragement of CDH, although CDH repeatedly denied requests for the quality assurance/quality control (QA/QC) information for these data. Thus, although the data are included in the report, the reliability of the data cannot be verified. No revisions to the report are necessary.

Comment No. 6

The State does not concur with the choice of the 12 additional soil sample locations to represent background contamination values. Eleven of these locations are within the off-post OU, down-wind from RMA, and a majority showed detections of dieldrin. Different locations more distant from RMA, or limitation of representative background samples to the 4 locations east of Brighton (minus the duplicate sample in Section 34, see Comment #15) is warranted.

Response

The statistical comparison of the four Brighton samples with the 12 additional soil samples, using EPA-recommended statistical procedures (EPA, 1989), demonstrated that the additional 12 sites are not statistically different from the four Brighton sites. This analysis strongly supports the conclusion that the 12 additional sites are representative of background conditions. Wind

sometimes blows from all points downwind of RMA (R.L. Stollar and Associates, Inc., and others, 1990 and ESE, 1988); however, previous investigations show that the prevailing wind direction is from the south not the southwest, while the strongest winds are from the northwestern quadrant, indicating that the additional 12 sites are not "downwind". Additional references have been added to the report to clarify the sources of information supporting the prevailing wind directions and the EPA reference for performing the statistical analyses. No additional revisions to the report are necessary.

Comment No. 7

The seven off-post biota target analytes were not chosen as the product of an independent review but rather as part of the On-post Biota Remedial Investigation. This was inappropriate since the on-post selection process was itself flawed. For example, historical studies (see Table 4.1-5 of the On-post Biota RI) detected contaminants in on-post wildlife in addition to the seven selected to be present. These contaminants should at least have been treated as candidates for off-post biota sampling. Furthermore, the on-post selection process is not applicable to off-post. Among the critical listed on page 3-32 of the Biota RI is that the compound "Occurred in high volumes and/or with an areal extent of >5 acres." The relevance of this criterion off-post is unclear.

Response

The Army disagrees with the CDH comment. The biota target analytes were selected on the basis of an evaluation of the types and nature of contaminants detected in onpost and offpost media. These compounds were selected because they were considered the most likely contaminants to be detected in biota samples collected in the Offpost OU. These data are adequate for conducting an EA/FS for the Offpost OU. No revisions to the report are necessary.

Comment No. 8

The requirements of statistical significance do not appear to have been considered when choosing the sample sizes to be taken for the off-post biota program. Sample sizes given in Table 2.6 are not adequate to draw more than anecdotal conclusions regarding off-post biota contamination.

Response

The biota sampling and analytical program conducted in the Offpost OU was adequate for conducting an EA/FS for the Offpost OU. In many instances, the adequacy of the sample size was limited by the availability of the specific biotic community in the area from which samples were being collected. For example, many limitations were encountered in collecting fish samples from the First Creek Impoundment and in collecting pheasants in the Offpost OU making it impossible to obtain a statistically based sample size. No revisions to the report are necessary.

Comment No. 9

Throughout the Draft Implementation Document for the Ground Water Intercept and Treatment System North of RMA, the Army states that the distribution of contaminants above Remedial Action Objectives (RAOs) extend beyond the off-post study area A boundary (e.g., Part II, pages 2, 5, and 12). In the Results of Pilot-Scale Hydraulic and Treatment Testing North of Rocky Mountain Arsenal Interim Response Action A Draft Final Report, June 1990, the Army states (pages ES-2):

"Because contaminants are present in excess of remediation goals at the down-gradient study area boundary in First Creek, remediation through ground water flow extraction using wells placed transverse to ground water flow direction is not preferred in this area (emphasis added)."

In other words, the Army decided that because they could not capture all off-post contaminant concentrations exceeding RAOs with an extraction system located within the study area boundaries defined in the Final Decision Document, it would instead optimize contaminant removal within those boundaries using an axial extraction well design. This action indicates, and data in Plates 11 and 12 of the Pilot-Scale Report support, that at least two contaminants of concern (dieldrin and diisopropylmethylphosphonate, DIMP), have and currently continue to migrate downgradient of the proposed First Creek pathway extraction system at concentrations exceeding ARARs.

Because the proposed system will fail to capture all contaminants exceed health-based limits, it is probable that modifications to the extraction system will be necessary to extract and treat ground-water downgradient of the O'Brian Canal. Therefore, hydrogeologic and geophysical investigations (similar to those conducted in Study Area A) must be conducted in this area, and the distribution of contaminants characterized.

The State previously submitted this comment on the Army's Draft Implementation Document for the off-post IRA; the Army responded as follows:

"The Army disagrees with the State's contention that selection of a new study area and preparation of a work plan are warranted at this time. As stated in Draft Implementation Document, the IRA, as designed, will meet the goals specified in the Final Decision Document for the Off-post IRA (HLA, 1989). The results of the off-post Remedial Investigation/Feasibility Study (RI/FS) will be used to assess the need for remediation downgradient of the IRA A

study area. If deemed necessary, remediation downgradient of the study area will be addressed either during operation of the IRA or as part of the final remedy selected for the off-post area."

Unfortunately, the Army has neglected to gather any additional data which would determine the leading edge of the First Creek plume exceeding health-based limits. The data which are available for DIMP indicate that approximately one order of magnitude of dilution may be taking place; this same amount of dilution would not reduce dieldrin to below the health-based standard of .002 ug/l. This problem, of course, is compounded by the fact that the Army's detection limit, to our knowledge, remains greater than one order of magnitude above the health-based limit. The Army must characterize the extent of this contamination. The State and EPA have previously requested that efforts be made to lower this detection limit. In the alternative, samples should be sent to other certified labs with lower detection limits.

Response

The Army disagrees with the CDH contention that additional site characterization downgradient of the IRA A study area is needed to complete the Offpost RI/FS program. Analytical results from the offpost groundwater programs conducted in support of IRA A, the Offpost Final RI and the RI Addendum, and Comprehensive Monitoring Program (CMP), indicate that diisopropylmethyl phosphonate (DIMP) and dieldrin are present within the First Creek pathway at concentrations exceeding remedial action objectives (RAOs) near the downgradient boundary of the IRA A study area. However, DIMP and dieldrin have not been detected in excess of RAOs downgradient of the IRA A study area within the First Creek pathway.

The CDH comment states that the Army has "...neglected to gather any additional data which would determine the leading edge of the First Creek plume exceeding health-based limits." However, the Army installed two additional groundwater monitoring wells immediately downgradient of O'Brian Canal and four monitoring wells upgradient of O'Brian Canal to assess contaminant migration in the First Creek pathway in this area. In total there are approximately 15 monitoring wells in the immediate vicinity of O'Brian Canal and Burlington Ditch near the confluence with First Creek. The analytical data from these wells and the previously existing wells is presented in the RI Addendum. The distribution of DIMP in this area is depicted in Figure 3.2. The distribution of dieldrin is similarly shown in Figure 3.4. The figures clearly show that concentrations of these contaminants downgradient of the canals do not exceed health-based

limits. The maximum concentration of DIMP in the area downgradient of the canals was 140 micrograms per liter ($\mu\text{g/l}$) in well 37428. This is significantly lower than the EPA Health Advisory for DIMP of 600 $\mu\text{g/l}$. Dieldrin was not detected in wells immediately downgradient of the canals. The Army has been working with Oak Ridge National Laboratory to develop a new analytical method for dieldrin that has a lower certified reporting limit. Following method certification by the Army, the new analytical method will be used in subsequent programs. The existing data are sufficient to characterize the First Creek plume for conducting the EA/FS for the Offpost OU. No revisions to the report are necessary.

SPECIFIC COMMENTS

Comment No. 1 - Page 40, 3.2.1.1.6, Volatile Organic Compounds, fourth paragraph

The Army states:

"Samples collected between January 25 and March 2, 1990, [from wells installed under the RI Addendum program] exhibited anomalously high concentrations for a number of VOCs... The results reported by the laboratories for these affected samples were considerably higher than historical results and are not considered representative of groundwater conditions off-post... It appears that inadequate decontamination of the tubing [from the particular sampling pump] was the source of contamination observed in the groundwater samples collected during the period..."

To facilitate future reference of questionable data collected between 1/25/90 and 3/02/90, please include well name, dates and analytical results listed in Appendix B, Table B1 in a separate table. Evaluation of the anomalous VOC results are important, since any off-post areas that have true increases in concentration above historical levels would be masked by the inadequate decontamination problem. Wells needing particularly careful QA/QC evaluation include wells 37402, 37403, and 37404, which appear to define a minor paleochannel tributary to the Northern Paleochannel (see Specific Comment 6). The State further requests that those wells exhibiting anomalous VOCs due to poor sampling technique be resampled.

Response

Data considered anomalous because of suspected decontamination problems are identified in the respective table in Appendix B. Moving these data to a separate table is unwarranted and would not substantively change the manner in which these data have been identified in the report. Wells in the Offpost OU will be resampled under the RMA Groundwater CMP. No revisions to the report are necessary.

Comment No. 2 - Page 41, 3.2.1.1.6 Volatile Organic Compounds, second paragraph

The Army states:

"To provide a complete database for assessing groundwater contamination in the UFS, data from a CMP sampling round conducted in the first quarter of 1991 were used to augment the database where anomalous data [discussed in State Specific Comment 1] could not be used... Data used in this assessment are included in Appendix H."

Appendix H only includes analytical results from surficial soil samples, it does not include 1991 CMP groundwater sampling data. Because verification data are needed to support the exclusion of the anomalous data discussed in Specific Comment 1, please include the CMP data in the Final RI Addendum. This is especially important in the case of wells 37402, 37403, and 37404, as discussed in Specific Comment 1.

Response

The reference to Appendix H was erroneous. The text has been revised to indicate that CMP data are available in the Program Manager for Rocky Mountain Arsenal (PMRMA) database.

Comment No. 3 - Page 53, 3.2.2.1 Arapahoe Formation Organics, second paragraph

The Army states:

"The sample from well 13701TW104 contained DIMP at a concentration of 3.87 ug/l. Because only one sample was collected from well 1370TW104, the occurrence of DIMP cannot be verified. Additionally.... this well appears to have structural problems..."

This well needs to be resampled for DIMP. If the well does in fact contain DIMP, it indicates that the contaminant is present in the UFS (at potentially greater concentrations than those found in the Arapahoe Formation due to dilution effects) farther to the east than currently projected by the Army. If the well is determined to be structurally unsound, it should be closed.

Response

This well is scheduled to be sampled by Tri-County Health Department (TCHD) in April 1992. Based on the results of subsequent sampling events for this well, the Army will propose future actions. However, the available analytical results for this well do not indicate additional information is necessary before conducting the EA/FS for the Offpost OU.

Comment No. 4 - Page 53, 3.2.2.1 Arapahoe Formation Organics, third paragraph

It is presumptuous to assume that "organic contamination of the Arapahoe Formation appears to be localized, possibly as a result of well construction problems" on the basis of analytical results from only 10 wells. While the State agrees that well construction problems likely contribute to localized contamination of the Arapahoe Formation, additional data obtained by the State and presented to the parties in November 1991 suggest that the contamination could be more widespread than suggested by the Army (see General Comment 2).

Response

See response to CDH General Comment No. 2.

Comment No. 5 - Page 55, 3.2.2.2 Arapahoe Formation Inorganics, first paragraph

The Army states:

"[t]he conductivity values measured in the field were consistent with the Tri-County ranges, except for well 13701TW104. The conductivity value reported for this well was approximately 850 uhos/cm at 25°C, which is about 50 percent higher than typical values for the Arapahoe Formation..."

The State would suggest that inorganic water chemistry (conductivity and hardness) are good indicators of well integrity. Inasmuch as well 13701TW104 appears to deviate significantly from the typical Arapahoe values, we would suggest replacing well 13701TW104 with another Arapahoe well for future data collection. If, as stated in Specific Comment #3, "this well appears to have structural problems..." (page 53) it is not a good source of reliable Arapahoe Aquifer water quality data and should no longer be incorporated in the off-post monitoring program.

Response

The Army disagrees with the CDH's conclusion that this well should be replaced. There are no compelling reasons to replace this well, particularly considering that only two samples have been collected from this well, and the concentrations of DIMP are far below health-based limits. The well provides a monitoring location for the Arapahoe Formation that is useful in assessing the possible extent of contamination in the Arapahoe Formation and the relationships between the Arapahoe Formation and the UFS.

Comment No. 6 - Page 59, 3.2.5 Comparison of Off-post RI Results and RI Addendum Results, first paragraph

The Army states:

"The third minor paleochannel is an eastern arm or tributary to the Northern Paleochannel in Section 12. This paleochannel was identified by the installation of three new IRA A monitoring wells..."

Separation of the minor pathway from the predominant Northern Paleochannel appears to be evident in Figures 3.6 and 3.8. However, current interpretations of the distribution of unsaturated alluvium do not support this observation (Figure 3.1).

The three wells completed in the Northern Paleochannel as part of the IRA A program are wells 37408, 37409, and 37410 (see Results of Pilot-Scale Hydraulic and Treatment Testing North of the Rocky Mountain Arsenal Interim Response Action A, Draft Final Report, June 1990 [IRA A Pilot Study Document]). An examination of these well locations indicates that the wells are not completed in a minor paleochannel, but actually define the dominant flowpath of the northern pathway. The minor pathway referenced above appears to be identified by wells 37402, 37403, and 37404, which were not installed as part of the IRA A program. Contaminants identified in these

wells include chloroform, DIMP (IRA A Pilot Study Document), and DBCP (Draft Final Off-post RI Addendum).

Response

The Army agrees with the CDH comment. The identification of the minor paleochannel east of the Northern Paleochannel is predominantly based on the observed distribution of selected contaminants in groundwater samples from these and nearby wells. The text has been revised to clarify the basis for the identification of this minor paleochannel. The text has also been revised to correct the list of contaminants used to identify the minor paleochannel and the offpost program under which the wells were installed.

Comment No. 7 - Page 60, 3.2.5 Comparison of Off-post RI Results and RI Addendum Results, first paragraph

The Army states:

"Nearly all the contaminant plumes mapped in this area [between the RMA north boundary and O'Brian Canal] end at approximately O'Brian Canal or Burlington Ditch."

Based on minimal well coverage downgradient of the O'Brian Canal and the Burlington Ditch, the plumes are still present, but are diluted when compared to upgradient concentrations. Please revise the text accordingly.

Response

The text has been revised accordingly .

Comment No. 8 - Page 77, 5.1.1 Organic Compounds, first paragraph

Regarding the April 1986 sediment sampling locations, the text indicates that "(t)he CRLs for the organic analytes were quite high relative to current CRLs and are considered the principal reason that organic compounds were not detected in the samples." It is unclear if the subsequent sampling locations collected in November 1988 and May-June 1990 included the locations sampled in April 1986? If the April 1986 locations have not been resampled using the lower CRLs, they are inadequately characterized and accordingly must be resampled.

Response

It is not necessary that all locations be resampled when technology improvements result in an improved certified reporting limit (CRL). The data collected during the RI Addendum sediment sampling program were developed with consideration of the various limitations imposed on previous sampling and analysis programs. The available database for samples collected by the Army under previous sampling episodes is adequate for conducting an EA/FS for the Offpost OU. No revisions to the report are necessary.

Comment No. 9 - Page 78, 5.1.1 Organic Compounds, first paragraph

Additional sampling must be conducted prior to concluding that the detection of hexachlorocyclopentadiene in duplicate sample HA 1192SE is anomalous and not representative of sediment conditions off-post. The detection of 52.8 ug/kg is significantly greater than the certified reporting limit (CRL) of 1.4 ug/kg, and hence warrants further investigation.

Response

The Army disagrees with the CDH comment. Approximately 16 sediment samples were collected from the Offpost OU during RI Addendum activities. Hexachlorocyclopentadiene was not detected in any of the investigative samples at a CRL of less than 2 micrograms per kilogram ($\mu\text{g/kg}$). However, this analyte was detected in a single duplicate sample at a concentration of 52.8 $\mu\text{g/kg}$. This result is quite anomalous and is not considered representative of site conditions. This single result also does not warrant resampling. No revisions to the report are necessary.

Comment No. 10 - Page 81, 5.1.2 Inorganic Constituents, second paragraph

Additional sediment sampling for mercury must be conducted to determine potential contribution from RMA prior to concluding that the distribution of mercury detected along the O'Brian Canal are not attributable to releases from RMA. In addition, it would appear that RMA is a potential source given that Sample HA11525SE, located downstream of the Off-post Operable Unit, exceeded the values commonly reported for uncontaminated fresh water sediments (Table 5.1).

Response

The Army disagrees with the CDH comment. Additional sampling for mercury along O'Brian Canal is not warranted to verify that RMA is not the source. The data for the samples collected during the Final RI and RI Addendum programs support the conclusion that RMA is not a likely source for mercury in Offpost OU sediment. The location of samples with elevated levels of mercury are located both upstream and downstream of RMA. Mercury was not detected in sediment samples collected along First Creek. These data suggest that mercury is probably not solely attributable to discharges from RMA. No revisions to the report are necessary.

Comment No. 11 - Page 82, 5.1.2 Inorganic Constituents, last paragraph

The text indicates that RMA is probably not the source of inorganic constituents in sediment off-post." Additional sediment sampling must be conducted upstream of the RMA to verify this assumption. Also, Sample HA1152SE, located on Burlington Ditch approximately 1 mile downstream of the Off-post Operable Unit had the highest concentration of copper, lead, and zinc, suggesting that RMA may indeed be the source. Further investigation is warranted.

Response

The Army disagrees with the CDH comment. On the basis of the observed distributions of inorganic constituents in the offpost sediment samples, additional sampling is not necessary. The highest concentrations of all inorganic constituents detected in these samples were detected in samples collected from O'Brian Canal, Burlington Ditch, or Barr Lake, except for arsenic, which was detected in First Creek and O'Brian Canal at similar concentrations. The range of concentrations and the relative concentrations of these metals in sediments suggest that RMA is not a source of the generally higher concentrations of metals in sediments in the Offpost OU. Additionally, sample HA1152SE is 3.5 miles downstream of First Creek, not 1 mile downstream, as indicated in the CDH comment. No revisions to the report are necessary.

Comment No. 12 - Page 83, 5.1.2 Inorganic Constituents, first paragraph

The text indicates that "(a)dditionally, information presented in the Final RI shows that concentrations of several metals in sediment samples collected from the South Platte River outside the Off-post Operable Unit also exceeded the anticipated ranges shown in Table 5.1. These data further support off-post sources of metals other than RMA." The State does not concur with this conclusion. In most instances, concentrations of metals presented in the Final RI for localities outside and downstream of the Off-post Operable Unit were greater than corresponding sampling locations upstream. Accordingly, the text should more accurately read "these data may further support off-post sources of metals in addition to RMA. Future sampling efforts will clarify this issue."

Response

The text has been modified to clarify that these data further support sources of metals in addition to RMA. However, the data presented in the Final RI and RI Addendum reports are sufficient for conducting an RI/EA/FS for the Offpost OU. No additional soil sampling is necessary.

Comment No. 13 - Page 84, 5.5 Conclusions, second paragraph

The last part of the second sentence should read "RMA may not be the only source for these contaminants in the stream-bottom sediments in the Off-post Operable Unit. Future sampling efforts will address this question."

Response

The Army disagrees with the CDH comment. As noted in the responses to CDH Specific Comments Nos. 9 through 12, sufficient analytical data for sediment samples are available for the purposes of conducting the EA/FS for the Offpost OU. No revisions to the report are necessary.

Comment No. 14 - Page 91, 6.1.1.2 Inorganic Constituents, second paragraph

The text indicates that "the majority of the flow in Burlington Ditch, which is used for irrigation, consists of treated sewage wastewater that may contain higher concentrations of metals, including arsenic and mercury, than natural background." To what wastewater treatment facility is the text referring? Please provide additional data and information to substantiate this statement.

Response

The Denver Northside Plant is located about 1000 feet upstream of the headgate of Burlington Ditch. Before to 1966, this plant discharged effluent to the South Platte River following primary

treatment. After 1966, the effluent was piped to the Denver Metropolitan Waste Water Plant for secondary treatment. The Denver Northside Plant became inactive in 1981 or 1982. These suspected historical discharges may be a possible source of some of the metals detected in stream sediment samples collected from Burlington Ditch and O'Brian Canal.

Comment No. 15 - Page 92, 6.1.3.1 Site Specific Data, first paragraph

The text indicates that "four background sample results were compared with 12 sample results located northeast of RMA, and one sample located west of RMA." Figures 2.7 and 6.5 present only the sample locations and data results for the four background samples near Brighton, Colorado. The locations and analytical results for the 12 samples located northeast of RMA and one sample located west of RMA are not contained in this report. It is impossible for the reader to adequately assess the statistical evaluation that was performed without knowing the locations and contaminant concentrations of the additional samples collected.

Using other sources we have identified the location and contaminant concentrations for the 12 additional samples deemed by the Army as representative of background conditions. The State does not concur that these 12 samples represent background because of the repeated detections of dieldrin at most of these sample locations northeast of RMA. In contrast, dieldrin was detected in only one of the four samples collected east of Brighton (the analytical results for duplicate sample HA 1260WB indicate a likely breach in QA/QC protocol and should not be used).

The last sentence of the first paragraph states that "(a) variety of RMA indicator contaminants, including dieldrin, was not detected in off-post surficial soil near RMA's northeast boundary." This statement is incorrect and should be deleted from the text. Dieldrin was detected in off-post surficial soil samples HA1212WB (4.7 ug/kg); HA1213WB (2.9 ug/kg); HA1214WB (4.0 ug/kg); HA1215WB (2.2 ug/kg); HA1215WB (2.3 ug/kg); HA1219WB (3.2 ug/kg); and HA1233WB (5.5 ug/kg), all of which are located near RMA's northeast boundary.

Response

Figure 2.6 has been revised to show the 12 surficial soil sampling locations northeast and west of RMA used to estimate background concentrations. Analytical results for these samples are presented in Appendix E. The Army disagrees with the CDH claim that "...the analytical results for duplicate sample HA1260WB indicate a likely breach [sic] in QA/QC protocol and should not be used...." The collection of duplicate samples for soil samples is inherently difficult because of the heterogeneous nature of soil. Sampling protocols were followed during sample collection, and internal laboratory QA/QC criteria were met for these analyses. No breaches in protocol were

found. The data for both of the samples collected from this location are considered valid for the purposes of assessing the distribution of contaminants in surficial soil.

The last sentence of the first paragraph of Section 6.1.3.1, Site-specific Data, has been revised to indicate that samples collected near RMA's northeast boundary generally have lower concentrations and lower frequency of detection than other samples near the northwest and northern RMA boundaries.

Comment No. 16 - Page 93, 6.1.3.2 Literature Data, third paragraph

Complete references must be cited in the report in addition to the abbreviated references presented in Table 6.2. The reference information, as currently presented, does not allow the parties to verify the applicability of the reference presented.

Because only abbreviated references were presented in Table 6.2, and the standard decay equation was omitted, the validity of the initial concentrations that have been calculated (which represent the range of arithmetic means) remain in question. The State reserves the right to further comment on this section upon provision of the above referenced information.

Response

The reference list for the RI Addendum contained complete references for all citations in Table 6.2, with the exception of Laubscher and others (1971) which was inadvertently omitted. Because a complete reference to Laubscher and others (1971) could not be obtained, Table 6.2 has been modified to remove information obtained from that source. The decay equation has been added to Section 6.1.3.2 of the report.

Comment No. 17 - Page 95, 6.1.3.2 Literature Data, first paragraph

The objective and methodology for determining soil background levels described are unclear. The characterization of off-post soil contamination should be determined from site-specific data in the off-post, not from literature studies updated by degradation calculations. The State requests clarification of how this information will be used and why it is included in the RI report.

Response

Literature data for background levels of pesticides are cited for informational purposes. As these data are all 12 to 20 years old, they are no longer representative of background concentrations unless decay is considered. This section provides updated calculated soil concentrations for aldrin and dieldrin. The text has been rewritten to clarify the decay equation used. The results support the data from Table 6.1 on the estimated mean and upper 95th percentile estimated background concentrations of aldrin and dieldrin in the Offpost OU.

Comment No. 18 - Page 97, 6.5 Conclusions, first paragraph

The text indicates that "several of the compounds detected are or have been commercially available and may have been applied by residents and/or in agricultural practices in the surrounding rural area." The Army must verify the extent of private or agricultural use of the various contaminants detected off-post of RMA if it wishes to avoid liability for cleanup of that contamination. Additional soil sampling around residences or other sampling strategies and surveys may be needed to satisfactorily address this issue.

Response

The statement quoted in CDH's comment is a factual statement. Several of the contaminants detected in the Offpost OU surface soil have been commercially available, and their occurrence in some areas may be related to past applications by current or former residents. Several references are cited in the report that support the commercial availability and persistence of these compounds in the environment. Additional characterization is neither necessary or possible. The approach of comparing sample data to background or ambient levels from literature sources is appropriate for these constituents. No additional soil sampling is necessary for the purposes of conducting an EA/FS for the Offpost OU. No revisions to the report are necessary.

Comment No. 19 - Pages 103 - 105, 7.2.2 Comparison of On-post and Off-post Contaminant Data

The first paragraph states "These comparisons were undertaken to permit general conclusions about the contaminant levels in biota in the Off-post OU." The State questions how a comparison of contaminated wildlife with contaminated wildlife will derive any strong conclusions about the

condition of off-post biota. In addition, the report compares different biota substrate (ie: off-post pheasant liver with on-post pheasant whole carcass), flip-flops between average and maximum concentrations (mercury in fish) or fails to provide an on-post/off-post comparison (DDE in pheasants).

In some instances the section compares off-post contaminant levels to on-post controls identified in the Biota RI. The State objects to considering biota samples captured and sampled from the Arsenal to be considered "controls." These samples were taken in areas that were considered uncontaminated before the results of the surficial soil program was completed. The surficial soil program proved this assumption to be false.

It is reasonable to believe that the biota living off-post of the Arsenal will be less contaminated than on-post as a consequence of their decreased exposure; however, it is not the responsibility of the remedial investigation report to compare contaminant levels, but instead to identify the nature and extent of contamination. It appears this section is presented to give a biased conclusion regarding the contaminant levels in off-post wildlife, and should be deleted from the text.

Response

The Army disagrees with the CDH comment. The RI Addendum report provides necessary information regarding the nature and extent of contamination in biota samples in the Offpost OU. The text does not present a biased conclusion, and no changes to the text are necessary.

Comment No. 20 - Page 105, 7.2.3 Comparison of Biota Contaminant Levels with Concentrations in Surface Soil and Water

Although the text states that the biota and soil samples were collocated, the maps provided to the State indicate that in most instances the two samples are significant distances from each other. For example, on Table 7.2 sampling location HA1057B (earthworms) indicated a dieldrin concentration of 0.0211 ug/g in the composite of worms and a collocated soil sample containing a dieldrin concentration of 0.0128 ug/g. After review of the soil contamination distribution map (Figure 6.2) the soil sample allegedly collocated to HA1057B appears to be hundreds of yards away, a distance that is greater than the migratory distance of an earthworm. In the same general location of the 0.0128 detection is a sample with 0.093 ug/g dieldrin. This result is not included in the report.

The section also unsuccessfully attempts to relate contaminant concentration ranges of biota and soil in the Off-Post OU. The text states "Earthworms contained dieldrin levels just above the CRL, while shallow soil concentrations ranged from 8.0 to 44 ug/g." (this statement should read ug/kg) Since these soil/biota samples were not truly collocated, the ranges of dieldrin soil contamination should from 8.0 ug/kg to 93 ug/kg.

The section is not representative of a true comparison between biota samples and soil/water samples and should be deleted from the text.

Response

The text has been revised in a number of places to address the CDH comment, particularly regarding the distances between soil or surface-water sampling locations and the nearby biota sampling locations. The text has been revised to indicate that biota, surface-soil, and surface-water samples were collected as part of an integrated sampling approach and that the biota sampling locations were collocated with these other media to the maximum extent practicable. Sampling of the various media in the Offpost OU immediately north of RMA had to be performed while considering a number of logistical and physical limitations. However, the Army conducted these sampling programs, including the biota sampling program, to provide sufficient data to perform an EA/FS for the Offpost OU. The data developed for the biota in the Offpost OU are sufficient to conduct an EA/FS, and the discussion in the RI Addendum does not present intentional misstatements or incorrect interpretation of the available data.

The CDH comment indicates that the analytical result for sample HA1227WB (i.e., 93.0 $\mu\text{g}/\text{kg}$ dieldrin) was not included in the report. However, the results for this sample are clearly shown in Figure 6.2. The text has been revised to indicate that the range of dieldrin concentrations in surface soil located near sample HA1057B is 0.008 to 0.093 $\mu\text{g}/\text{g}$.

Comment No. 21 - Page 106, 7.2.4 Threatened and Endangered Species in the Off-post OU

The text states "Residues detected in the egg contents were 0.099 ug/g mercury, 0.808 ug/g dieldrin, and 6.93 ug/g DDE. Preliminary evaluation of sediment and water data from on-post and off-post surveys and existing knowledge on the feeding habits and foraging range of the Barr Lake eagles did not indicate that the contaminant levels were from RMA sources." The State requests all pertinent information used by the Army to make this conclusion.

Response

These data were reported in the Final RI for the Offpost OU, as indicated by the reference. No revisions to the report are necessary.

Comment No. 22 - Pages 106 and 107, 7.3 Quality Assurance and Quality Control for Chemical Analyses

It appears from the report that the biota Quality Assurance/Quality Control (QA/QC) program was nonexistent. Of the 32 biota samples identified on Table 7.2 the Army chose to perform 1 laboratory duplicate and this sample was below detection for all compounds. The State has to question the accuracy and adequacy of the biota analytical program when the Army cannot provide any QA/QC data. The Army should consult the EPA document Guidance for Data Usability in Risk Assessment (1990) for support of their quality assurance program.

Response

Because of a laboratory reporting error, a second laboratory duplicate was not previously reported in the Draft Final RI Addendum. Because biota samples were analyzed in three laboratory lots, the two laboratory duplicates are sufficient to assess laboratory performance. Table F3 has been modified to include the additional laboratory duplicate.

Comment No. 23 - Page 107, 7.4 Summary and Conclusions of Characterization and Contaminant Studies

The summary again attempts to compare contaminated biota with contaminated biota instead of a comparison of the off-post biota to controls or literature values. The text also states without references or justification that "...the areal extent of contaminated biota was less in the Off-post OU compared to RMA." The text should be modified to include support for this statement, or it should be deleted.

The last sentence of the summary, "Contamination of off-post biota appears to come from in-situ environmental sources rather than from migration of on-post RMA wildlife" is without any follow-up discussion as to how this conclusion was derived. It is evident from the text that the contaminants detected in the tissue of the off-post biota result from contamination that has migrated and continues to migrate from the RMA. In addition, we must assume that various species of wildlife (ie; birds) identified in the Off-Post OU spend varying degrees of their life span on the Arsenal where exposure to contaminants may increase significantly. Therefore, the statement must be modified or deleted.

Response

The last paragraph of the text in this section has been modified.

Comment No. 24 - Page 111, 8.3 Stream-Bottom Sediment, first paragraph

The text of the last sentence should be changed to read "(t)his distribution indicates that other sources of these analytes may exist off-post." Additional sampling is needed to verify this

conclusion. CDH welcomes the opportunity to assist the Army in designing future sampling programs to address this issue.

Response

The text has been revised to indicate that additional sources of these constituents are likely to exist in the Offpost OU. However, no additional stream-bottom sediment sampling is necessary for conducting the EA/FS for the Offpost OU.

Comment No. 25 - Page 111, 8.4 Surficial and Subsurface Soils, first paragraph

Additional surficial soil sampling is needed to adequately characterize the extent of aldrin and dieldrin contamination detected in samples east of RMA, including: HA1219WB (dieldrin 3.2 ug/kg); HA1265WB (aldrin 3.2 ug/kg); HA1234WB (aldrin 5.9 ug/kg, dieldrin 99.2 ug/kg); HA1264WB (aldrin 6.2 ug/kg, dieldrin 24.5 ug/kg); HA1263WB (aldrin 4.1 ug/kg, dieldrin 10.6 ug/kg); and HA1221WB (ddt 10.3 ug/kg, dieldrin 3.6 ug/kg). The Off-post OU may need to be expanded or a new OU created to include these localities.

Response

See response to General Comment No. 4.

Comment No. 26 - Page 112, 8.4 Surficial and Subsurface Soils, second paragraph

Additional surficial soil sampling is needed to adequately characterize the nature, extent, and source of arsenic and mercury, contamination detected northeast of Burlington Ditch.

Response

The Army disagrees with the CDH comment. Sufficient data are available for conducting the EA/FS for the Offpost OU.

Comment No. 27 - Page 112, 8.5 Biota

This section again compares off-post and on-post biota instead of a comparison to controls. This section misrepresents actual contamination of off-post wildlife and must be modified or deleted from the text.

Response

The Army disagrees with the CDH comment. Adequate data evaluation has been performed by the Army to conduct an EA/FS for the Offpost OU.

Comment No. 28 - Page 113, 8.5 Biota

The text should also reflect whether migratory birds, protected under the Migratory Bird Act, exist in the off-post OU.

Response

Species that may occur in the Offpost OU are listed in Table F4. The text has been modified to reflect that a number of birds listed in Table F4 are protected under the Migratory Bird Treaty Act.

Comment No. 29 - Table 2.1, Aquifer Designations and Sampling Dates for Wells in Off-post Operable Unit (Page 4 of 4)

The definitions for aquifer designators 3 and 4 reveal a probable migration pathway for contaminants from the alluvial aquifer to the Denver aquifer. The State would therefore recommend closure of wells 37323, 37334, 37336, 37371, 37382, and 37389.

Response

Aquifer designation categories for wells installed onpost and offpost of RMA have been developed and refined by PMRMA over the past several years. The designators for the Offpost OU indicate that several wells, which are partially screened in the alluvium, are representative of groundwater conditions in the UFS. The basis of the CDH comment is not clear and the evidence that the wells in question are "a probable migration pathway for contaminants from the alluvial aquifer to the Denver aquifer" is not presented. The well network has been adequately reviewed and provides potentiometric and water-quality information that accurately reflect conditions in the UFS. No revisions to the report are necessary.

Comment No. 30 - Table 2.2 Technical Justification for Monitoring Wells Installed Under Remedial Investigation Addendum Program

In a letter to CDH dated 10/25/89, the Army proposed a monitoring program for Study Area 1b, which included the completion of wells RI-2, -18, and -19. Although the State initially opposed completion of RI-19, we later agreed to the well and requested that it again be included in the program in a letter to the Army dated 1/26/90. All parties present at Technical Subcommittee Meetings held in November 1989 agreed to the proposed Study Area 1b program, which included completion of the above three wells. However, Table 2.2 indicates that the three wells were not completed as part of the program and does not provide a rationale for the exclusion. Please provide a rationale in the Final RI Addendum. Because the wells were proposed to provide data in areas of limited well control and no chemical data, and because the State requested that all parties be appraised of any changes to the program, we may request completion of the three wells after evaluating the rationale.

Response

The rationale for not installing wells RI-2, RI-18, and RI-19 has been added to Table 2.2. The Army disagrees with the CDH statement suggesting that these wells should now be installed in the Offpost OU. The current monitoring well network, which includes the wells installed under the RI Addendum program, provides an adequate monitoring network for assessing the extent of contamination in the UFS offpost. Also, the original objectives for installing three wells have generally been met by the other wells installed in this area by the Army. The CDH justification for installing these wells (i.e., that they were previously identified in earlier correspondence) is not sufficient justification for their installation at this time. Because data from wells RI-2, RI-18, and RI-19 are not necessary for completing the EA/FS for the Offpost OU, these wells will not be installed.

Comment No. 31 - Table 6.1 Arithmetic Mean and Upper 95th Percentile Concentrations for Selected organic Compounds in Off-post Operable Unit Background Surficial Soil

The State does not concur with the statistical results as presented in this table. Data that appear to be anomalous (see Specific Comment #37) plus the use of 12 additional sample locations, most of which are located in the off-post OU and may not represent background conditions, were utilized as the basis for generating the values presented. This table should be derived from the four Brighton samples (minus the anomalous duplicate) or different, true background samples taken.

Response

The Army disagrees with the CDH comment. The statistical results for the 16 total samples depicted in Table 6.1 are reasonable estimates of the background levels in surficial soil for conducting an EA/FS for the Offpost OU. Table 6.1 has been revised slightly to reflect the actual degree of precision reflected by the results.

Comment No. 32 - Tables F1, F2, and F3, Biota Investigative Analytical Data

Use of these tables would be greatly facilitated by inclusion of descriptive terms in addition to the sample identification numbers, for example, labeling sample HA1010BM as "cow milk".

Response

The tables have been revised according to the comment.

Comment No. 33 - Figure 2.6 Off-post Operable Unit Subsurface and Surficial Soil Sampling Locations, June - July 1990 and May 1991

Colorado Department of Health surficial soil sampling locations should be included. For example, CDH collected and identified contamination in 7 surficial soil samples at the Irondale Trailer Court, 3 samples from the Davis residence (96th Avenue and Highway 2), and in many other localities off-post of RMA. If the Army is unwilling to accept CDH data because of concerns pertaining to State QA/QC sampling protocol, CDH locations should be resampled by the Army to gain a better understanding of the surficial soils contamination existing off-post of RMA.

Response

The Army disagrees with the CDH comment. The Army has included other data for surficial soil samples collected and analyzed by CDH, where laboratory QA/QC information was provided by CDH. The Army will not include any additional data in this report. The database for this report and the conclusions presented are adequate for conducting an EA/FS for the Offpost OU.

Comment No. 34 - Figure 6.2 Distribution of Organochlorine Pesticides Detected in Off-post soil, June - July 1990 and May 1991

Additional soil sampling is needed to adequately characterize the nature and extent of the organochlorine pesticide detections north and east of RMA. In numerous instances outlying sample locations indicate significant detections of various organochlorine pesticides (e.g., samples 020F01, HA1207WB; 100F01; HA1204WB; 160F01; HA1268WB). Also, see Specific Comment #26 for locations east of RMA.

Response

Contaminant distribution in offpost surficial soil, as well as in other media in the Offpost OU, has been sufficiently characterized to permit conducting an EA/FS for the Offpost OU. See also the responses to CDH Specific Comment Nos. 25 and 26.

Comment No. 35 - Figure 6.2, Distribution of Organochlorine Pesticides Detected in Off-post Soil, June-July 1990 and May 1991

Colorado Department of Health off-post surficial soil sampling data should be included to augment Army data.

Response

See response to CDH General Comment No. 3.

Comment No. 36 - Figure 6.4 Distribution of Organochlorine pesticides, Arsenic and Mercury Detected in 96th Avenue Residential Area Off-post Subsurface Soil, February 1989

Figure 6.4 should be expanded to include surface as well as subsurface data to reflect a more accurate picture of soils contamination in this area. Also, CDH soil sampling data for this area, which includes a number of organochlorine pesticides and arsenic detections, should be included.

Response

Figure 6.4 presents only subsurface data. See also the response to CDH General Comment No. 3 regarding surface soil. No revisions to the report are necessary.

Comment No. 37 - Figure 6.5 Distribution of organochlorine pesticides, Arsenic, and Mercury detected in Off-post Background Surficial Soil Near Brighton, Colorado

The contaminant concentrations detected in duplicate sample HA1260WB are anomalous when compared to its mate or other adjacent sample locations. Accordingly, this data cannot be used as the basis for statistical evaluation or for directly establishing background contaminant values. QA/QC protocol appears to have been breached while collecting this sample.

Response

The Army disagrees with the CDH comment. See response to CDH Specific Comment No. 15.

Comment No. 38 - Appendix A

Please include the borelog for well 37431.

Response

The boring log and well completion diagram for well 37431 was included in the Draft Final RI report, as Figure A16. The location of this figure in Appendix A appears out of sequence, but was placed near the back of the appendix because the well is an Arapahoe Formation well. However, to avoid additional confusion, the Army has added a list of figures to Appendix A that provides a list of borings and associated figure numbers.

Comment No. 39 - Appendix B

Please include the analytical results for Arapahoe wells 37446, 11515TW096, and 09610TWPEO. Additionally, monitoring wells completed in the Arapahoe Fm and listed in Table B5 (domestic wells) should instead be included in Table B1. An aquifer designation should be included in the table.

Response

Data for wells 37431 and 37445 have not been moved to Table B1. These data will remain in Table B5. Well 37446 was not sampled under the RI Addendum. This well will be sampled in upcoming groundwater sampling events. Samples were collected from wells 11515TW096 and 096107WPEO during RI Addendum activities, but data were rejected for the RMA database because of laboratory certification problems.

Comment No. 40 - Appendix B, Table B-3, Groundwater OA/OC Analytical Data

In the "Notes" on Table B-3, it indicates that the samples will be designated as RB, TB, or FB. These do not appear in the table as they were in the Final RI. Please include these designators as indicated.

Response

Table B3 of Appendix B has been revised to designate which samples are rinse, trip, or field blanks.

Comment No. 41 - Appendix B, Table B-3, Groundwater OA/OC Analytical Data

Was HA1175 the only rinse blank collected during the 1/25/90-3/2/90 sampling rounds? If other rinse blanks were collected during this period, then HA1175 is the only sample with elevated VOC concentrations. These concentrations are not high enough however to explain elevated VOC levels. Explain what relationship these elevated VOC levels have with the pump problem discussed on page 41.

Response

Sample HA1175 was the only rinse blank collected during the period between January 25 and March 2, 1990. However, the assessment of elevated VOC levels is not based solely on data from this rinse blank. Historical and recent data were also evaluated to verify the VOC concentrations reported for the samples. Based on several factors, including the presence of VOCs in the rinse blank, the highly elevated concentrations in samples and the documented sampling procedures that identified which particular sampling group was used, the elevated VOC levels are considered the result of inadequate field decontamination procedures. Corrective actions have been implemented. No revisions to the report are necessary.

UNITED STATES DEPARTMENT OF THE INTERIOR COMMENTS REGARDING
THE OFFPOST OPERABLE UNIT DRAFT FINAL REMEDIAL
INVESTIGATION ADDENDUM

GENERAL COMMENTS

Comment No. 1, paragraphs 2 and 3

First, it is stated that based on onpost and offpost surveys and existing knowledge of the feeding habits and foraging range of the Barr Lake bald eagles, it does not appear that contaminant levels (0.099 ug/g mercury, 0.808 ug/g dieldrin, and 6.93 ug/g DDE) found in Barr Lake bald eagle egg are from Rocky Mountain Arsenal (Arsenal) sources (page 106, paragraph 1). The Service cannot fully support this statement. On November 17, 1989, the female bald eagle from Barr Lake was trapped on the Arsenal and radiotransmitted. Her mate was perched nearby. While the female was never relocated on the Arsenal by radiotelemetry during the 1989-90 wintering session, her presence on the Arsenal cannot be ruled out. It should also be noted that a nesting female bald eagle is very sedentary compared to the male, who may also provide food for the nesting female and her chicks. However, based on available data, use of the Arsenal by the Barr Lake eagles does appear to be minimal.

Additionally, contaminants (e.g., dieldrin) found in Barr Lake sediments may be from Arsenal sources (page 78, paragraph 4). Therefore, Arsenal contaminant sources cannot be completely ruled out based on the limited information available. The Service requests that this statement be modified to indicate that contaminants found in the bald eagle egg may or may not be from Arsenal sources as per the identified contaminant transport mechanisms.

Response

The text has been revised to indicate that although Rocky Mountain Arsenal (RMA) cannot be completely ruled out as a source of contaminants in the bald eagle egg, existing data regarding the distribution of contaminants and the foraging range of the eagles at Barr Lake did not indicate that the observed contaminants are the result of migration from RMA sources.

Comment No. 2, paragraph 4

Second, it is stated that contamination of offpost biota appears to come from in-situ environmental sources rather than from migration of onpost wildlife. Offpost biota sampling was very limited both in species and number; many species of wildlife, both mammalian and avian, migrate on and off the Arsenal and were not sampled, therefore, the above statement is not justified based on the limited information available. The Service requests that this statement be modified to address offpost biota exposure to Arsenal contaminant sources either directly or indirectly through secondary exposures.

Response

The U.S. Fish and Wildlife Service (USFWS) comment addresses the last paragraph on page 111.

The text has been revised to indicate that although onpost RMA sources may impact some animal species found in the Offpost OU, contamination detected in offpost biota samples collected during Offpost Remedial Investigation (RI) Addendum activities appears to be the result of in situ environmental sources rather than from migration of onpost RMA wildlife.