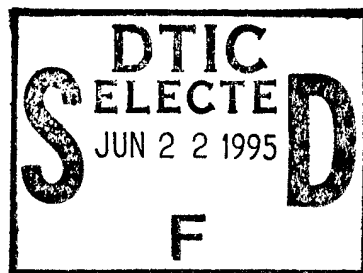


92204R01
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ANNUAL GROUNDWATER QUALITY MONITORING REPORT
OTHER CONTAMINATION SOURCES
INTERIM RESPONSE ACTION
SOUTH TANK FARM PLUME



Prepared by
MK-Environmental Services
Denver, Colorado

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Prepared for
Shell Oil Company/Holme Roberts & Owen
Denver, Colorado

July 1992 DTIC QUALITY INSPECTED 3

Rocky Mountain Arsenal
Information Center
Commerce City, Colorado

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REPORT DOCUMENTATION PAGE

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| 13. ABSTRACT (Maximum 200 words) THE OBJECTIVE OF THE GROUNDWATER QUALITY MONITORING PROGRAM IS TO VERIFY THE LOCATION OF THE LEADING EDGE OF THE BENZENE PLUME. THIS REPORT PROVIDES THE RESULTS OF THE MOST RECENT MONITORING EVENT, COMPLETED APRIL 7, 1992. | | | | |
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parameters were consistent with historical levels except for dissolved oxygen which was lower. This decrease is most likely a result of using a flow-through cell to collect measurements. Previous measurements were collected from a sample bucket that was exposed to ambient air, resulting in a higher dissolved oxygen reading. These parameters were not measured on the bailed wells due to the inability to use the flow-through cell.

Water samples were collected in three 40 ml. VOA vials. Samples were preserved with HCl. An additional vial was collected at each well and measured for pH, which was recorded on the chain of custody. Samples were stored and shipped in coolers packed with bubble pack and blue ice to maintain appropriate sample temperature. Analyte concentrations were measured by an off post contract laboratory using USATHAMA Method UU-8 for volatile compounds.

The number of field QA/QC samples was approximately 10% of the total number of routine groundwater samples collected. These samples included 1 duplicate sample, 1 matrix spike, 1 field blank, and 1 rinse blanks. In addition, a trip blank accompanied each set of samples sent to the laboratory. Field and laboratory QC data were reviewed by MK-Environmental Services to verify the quality of the data.

RESULTS AND INTERPRETATION

The results of groundwater analyses are presented in the Appendix. These include data from a sampling event completed in September 1991, in addition to the Annual Groundwater Monitoring Program completed in April 1992.

The field QC sample analyses indicate the laboratory provided reproducible data, with some minor laboratory cross contamination problems. However, due to the sampling sequence, cross

contamination did not affect the final results.

Analytical results of the trip blanks were below the Certified Reporting Limit (CRL) except for one sample which had a concentration of 4.2 ug/l of benzene. This sample was submitted with the samples containing the highest concentrations of benzene (50000-90000 ug/l), therefore, the amount of contamination in the trip blank is not considered to be significant.

The rinse blank was collected after sampling well 02503. Concentrations of 15.0 ug/l of benzene and 3.4 ug/l CHCL₃ were reported. Correct sampling sequence and the concentration of CHCL₃ being greater in the rinse blank than in the actual sample cause these concentrations to be insignificant. The field blank contained 19.0 ug/l of benzene which could possibly explain the presence of benzene in the rinse blank. The duplicate sample indicated that the laboratory provided reproducible data.

Due to its larger areal distribution, as compared to the other STFP compounds, benzene defines the leading edge of the STFP extending southwest from the South Tank Farm in the direction of Lake Ladora. The leading edge of the benzene plume toward Lake Ladora has historically been located slightly downgradient of Well 02504 (Figure 4). The benzene concentration in Well 02504 has been below the CRL in the two most recent sampling events of September, 1991 (Figure 5) and April, 1992 (Figure 6). The leading edge of the benzene plume is presently located slightly downgradient of Well 02503, between Wells 02503 and 02504. The pattern of steadily decreasing benzene concentrations at the leading edge of the STFP is illustrated in Figure 7. This appears to indicate that biodegradation is controlling the advancement of the STFP along the leading edge of the plume.

REFERENCES

Shell Oil Company, August 1991, Final Implementation Document,
Other Contamination Sources Interim Response Action, South
Tank Farm Plume.

Shell Oil Company, December 1990, Results of the Verification
Monitoring Program, South Tank Farm Plume, RMA.

Table 1

Field Water Quality Measurements - Spring 1992

| <u>Well Number</u> | <u>Temp.</u> | <u>DO</u> | <u>Ec</u> | <u>pH</u> |
|--------------------|--------------|-----------|-----------|-----------|
| 01580 | 12.8 | 6.8 | 860 | 7.67 |
| 01581 | 14.3 | 3.2 | 720 | 7.34 |
| 01049 | 14.6 | 2.0 | 590 | 7.30 |
| 01586 | 13.8 | 1.7 | 670 | 7.39 |
| 01578 | 14.1 | 2.8 | 1100 | 7.34 |
| 01579 | 13.4 | 4.7 | 700 | 6.94 |
| 02585 | 13.7 | 1.6 | 730 | 7.51 |
| 02509 | 12.3 | 5.2 | 500 | 7.22 |
| 02526 | 9.3 | 4.3 | 590 | 7.28 |
| 02525 | 9.4 | 4.6 | 2200 | 6.75 |
| 02524 | 10.7 | 1.6 | 890 | 7.37 |
| 02518 | 11.5 | 3.9 | 1060 | 7.24 |
| 02597 | 11.9 | 5.9 | 2210 | 6.97 |
| 02507 | 12.7 | 1.5 | 3090 | 6.99 |
| 02506 | 14.7 | 2.3 | 2810 | 7.02 |
| 02513 | 13.4 | 4.0 | 3100 | 6.96 |
| 02514 | 13.9 | 2.0 | 1720 | 6.69 |
| 02515 | 12.9 | 7.0 | 1300 | 7.18 |
| 02505 | 14.4 | 2.4 | 2960 | 7.00 |
| 02508 | 10.5 | 4.4 | 3700 | 7.38 |
| 02511 | 14.0 | 0.8 | 3680 | 7.26 |
| 02596 | 14.2 | 3.2 | 3650 | 7.09 |
| 02598 | 13.5 | 0.8 | 2500 | 7.00 |
| 02577 | 13.6 | 0.8 | 2150 | 7.01 |
| 02504 | 13.9 | 0.6 | 3450 | 7.01 |
| 02503 | 13.8 | 2.4 | 3250 | 6.94 |
| 02502 | 13.7 | 0.6 | 1500 | 7.08 |
| 02501 | 13.6 | 0.5 | 1470 | 7.14 |
| 02576 | 13.7 | 1.4 | 1350 | 7.06 |
| 01588 | 13.7 | 2.8 | 990 | 7.23 |

Legend

- Railroad
- - - - - Stream/Drainage
- ▨ Plume
- ▩ Lakes



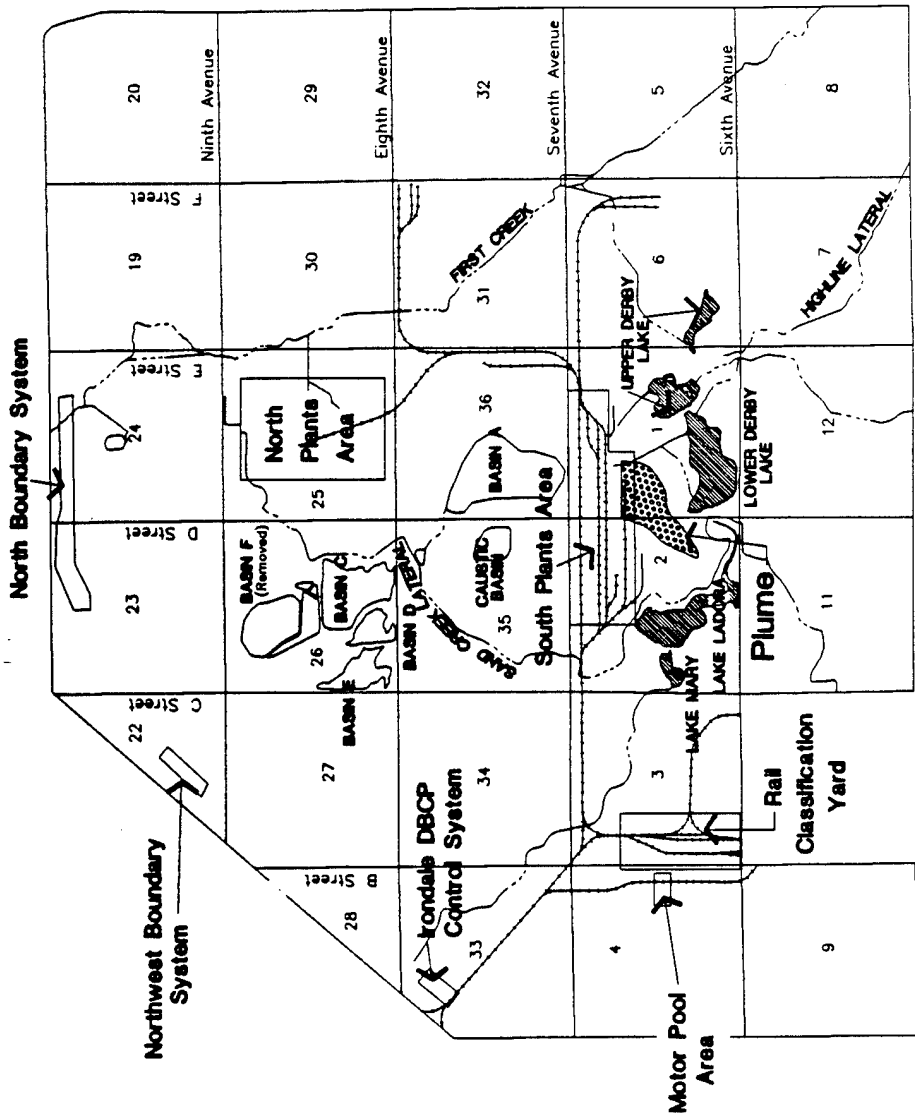
ROCKY MOUNTAIN ARSENAL
South Tank Farm Area

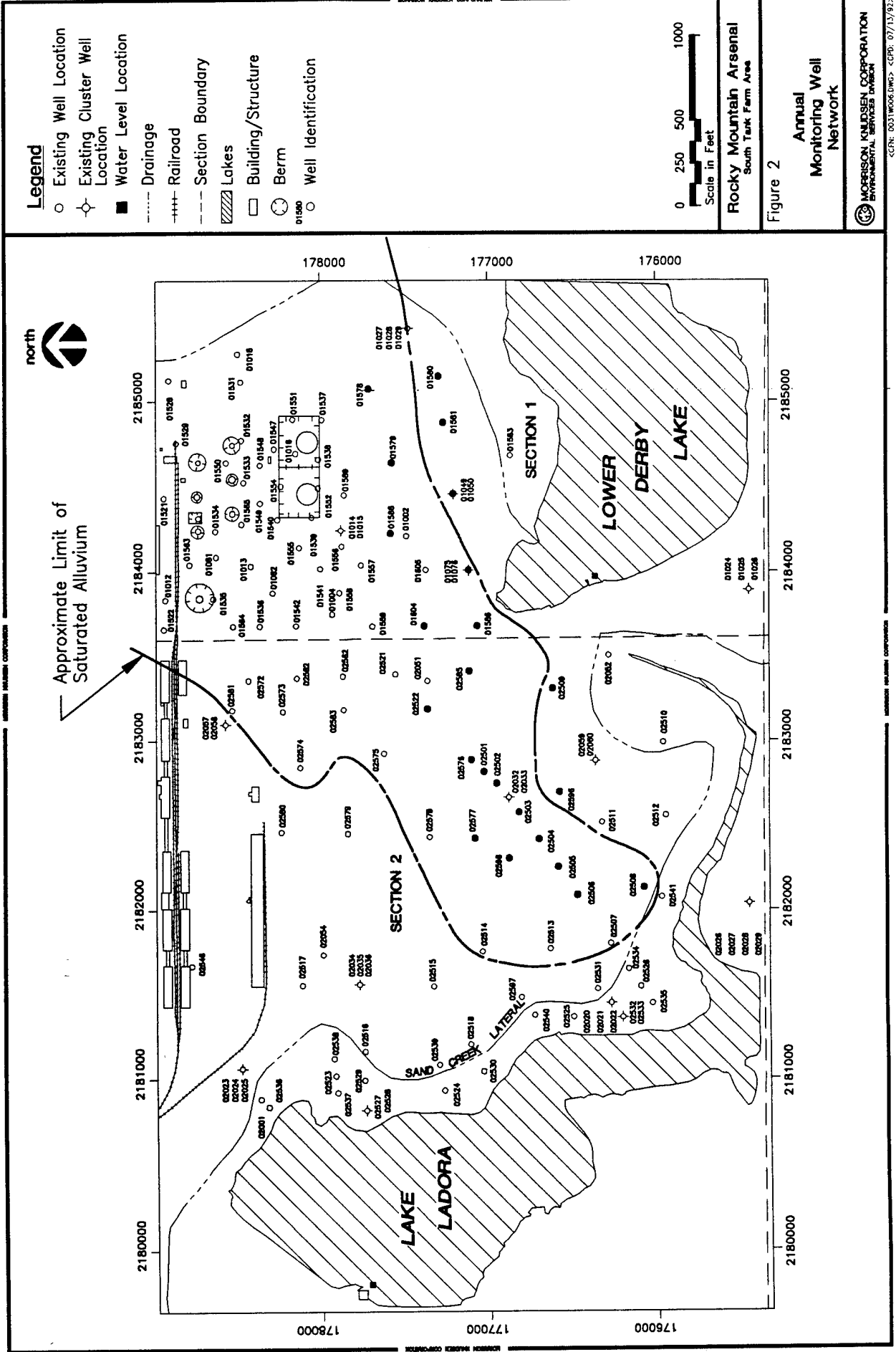
Figure 1

South Tank Farm Plume
Location Map

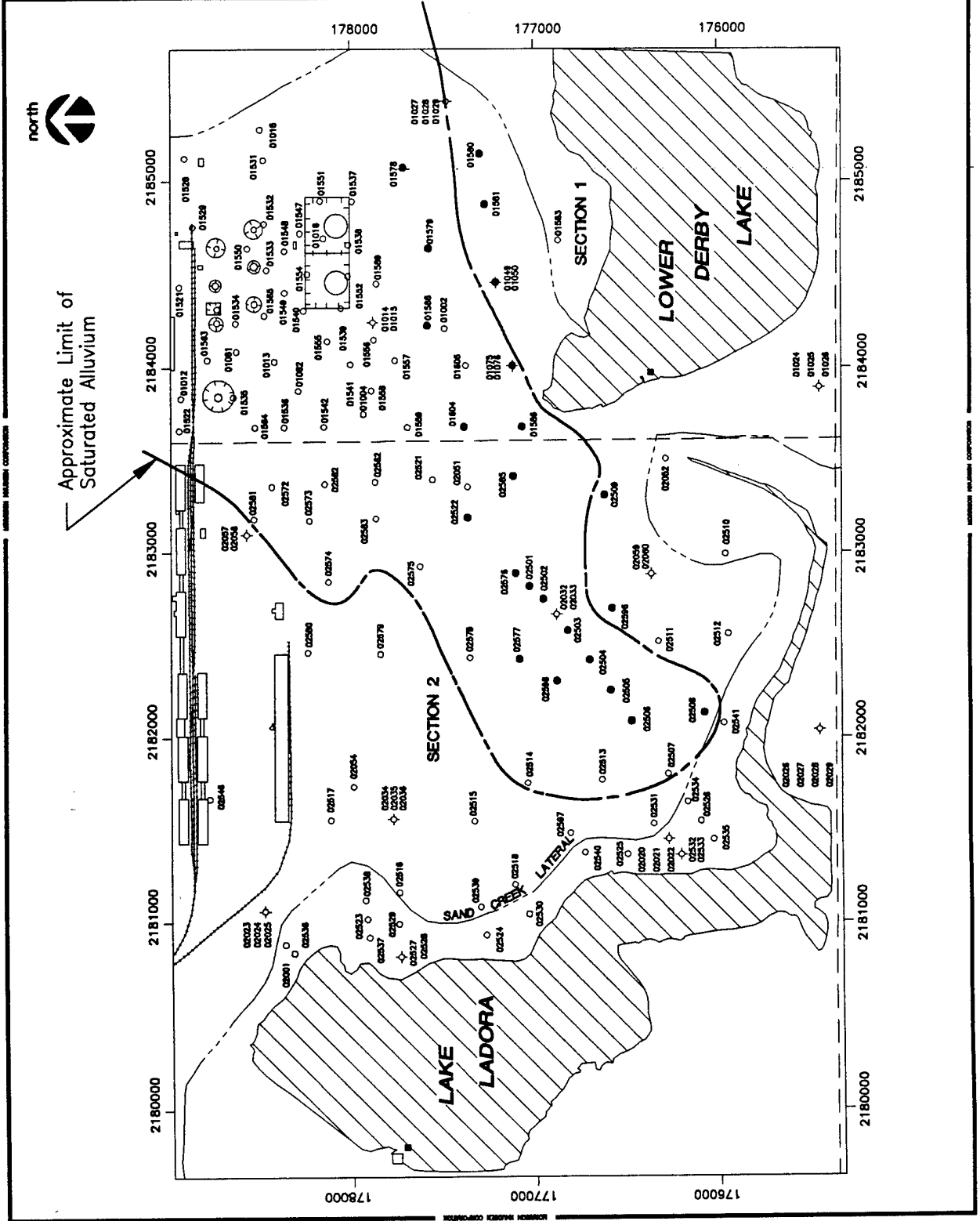
 MORRISON KNUDSEN CORPORATION
ENVIRONMENTAL SERVICES GROUP

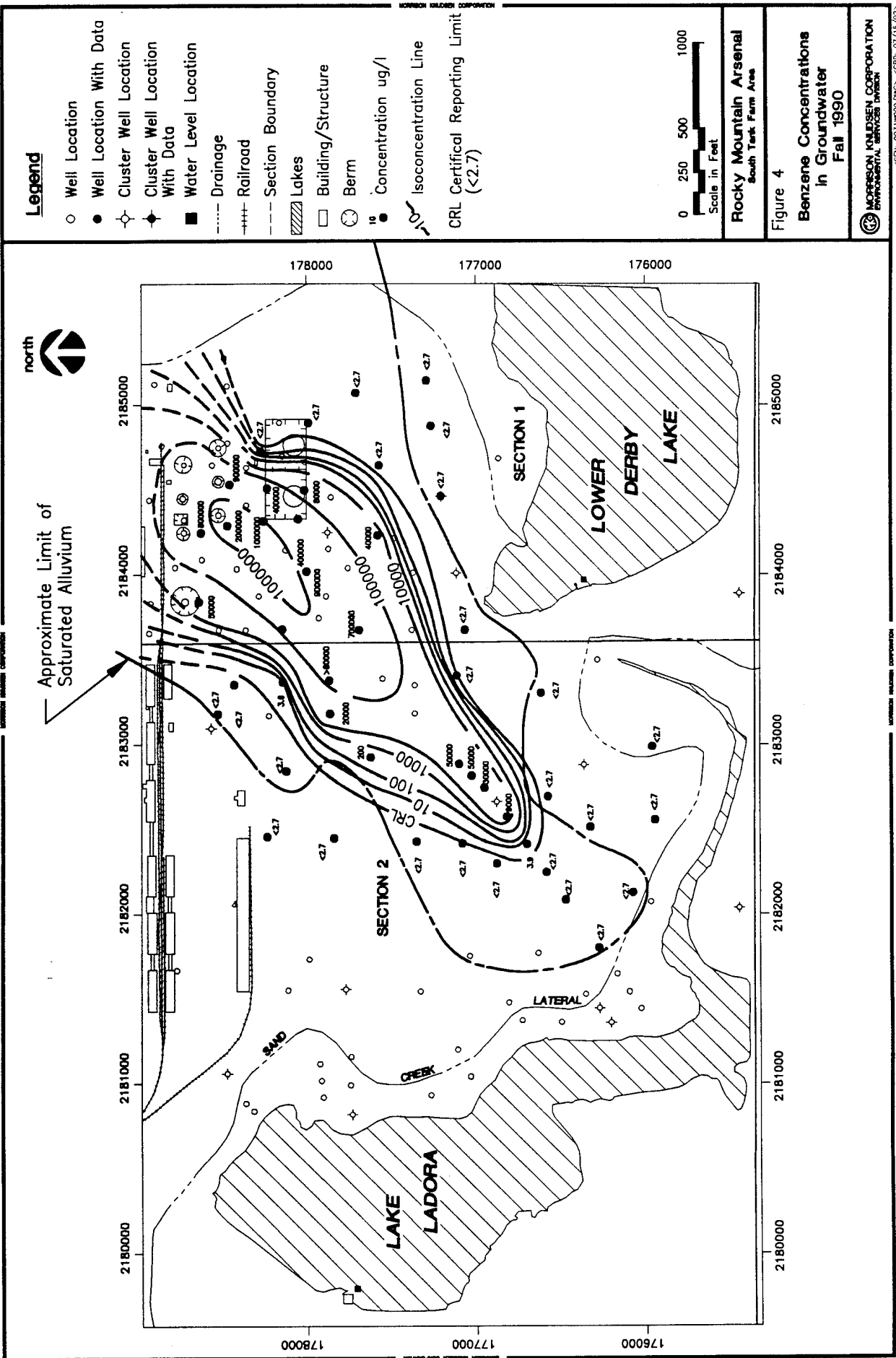
SCFN: 21276050 DWG: 8-06/24/91





Approximate Limit of Saturated Alluvium





Legend

- Well Location
- Well Location With Data
- ⊕ Cluster Well Location
- ⊕ Cluster Well Location With Data
- Water Level Location
- Drainage
- ++++ Railroad
- - - Section Boundary
- ▨ Lakes
- Building/Structure
- Berm
- 18 Concentration ug/l
- Isoconcentration Line

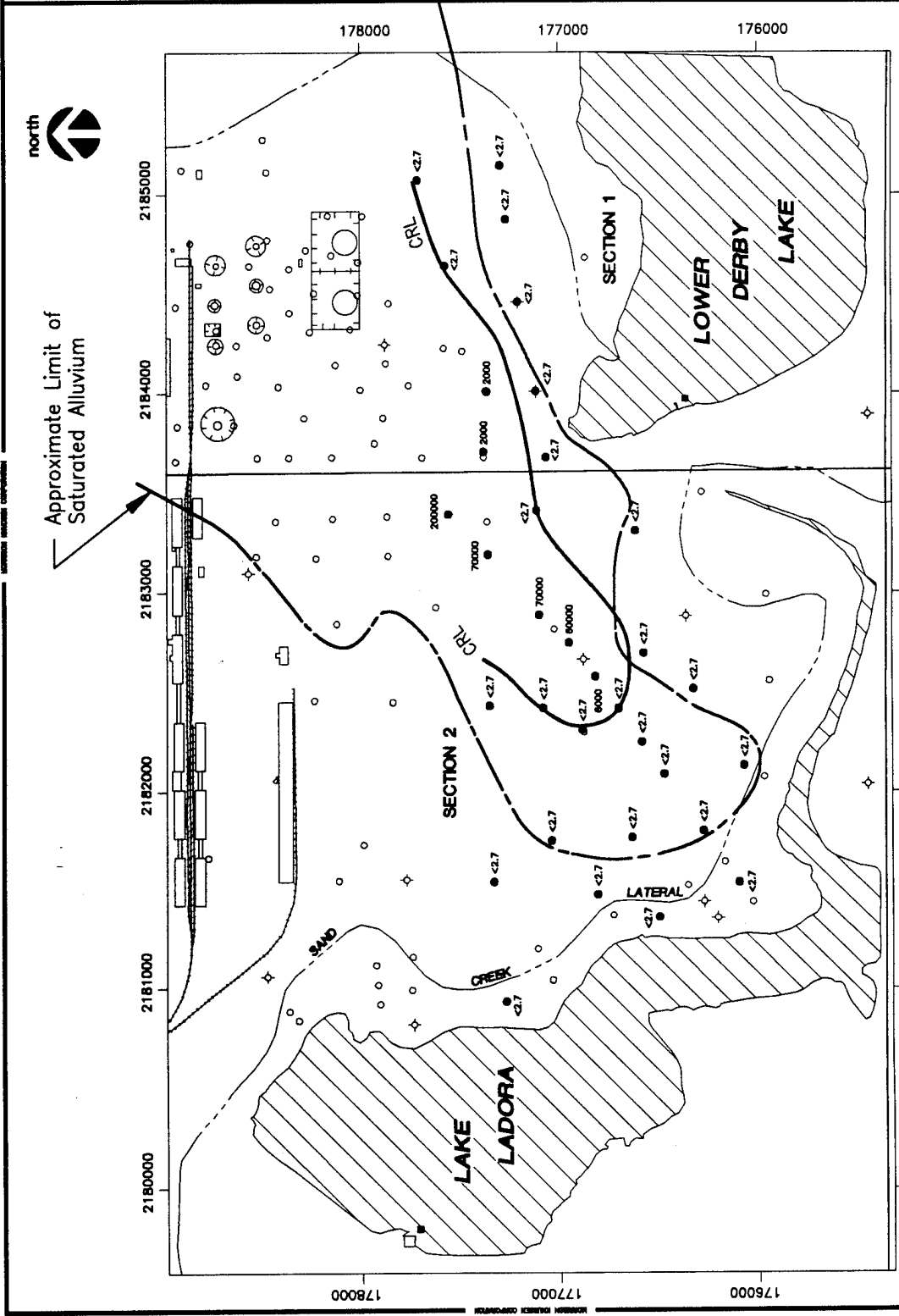
CRL Certified Reporting Limit (<math><2.7</math>)



Rocky Mountain Arsenal
South Tank Farm Area

Figure 4

Benzene Concentrations in Groundwater
Fall 1990



Legend

- Well Location
- Well Location With Data
- ⊕ Cluster Well Location
- ⊕ Cluster Well Location With Data
- Water Level Location
- Drainage
- ++++ Railroad
- - - Section Boundary
- ▨ Lakes
- Building/Structure
- Berm
- Concentration ug/l
- Isoconcentration Line

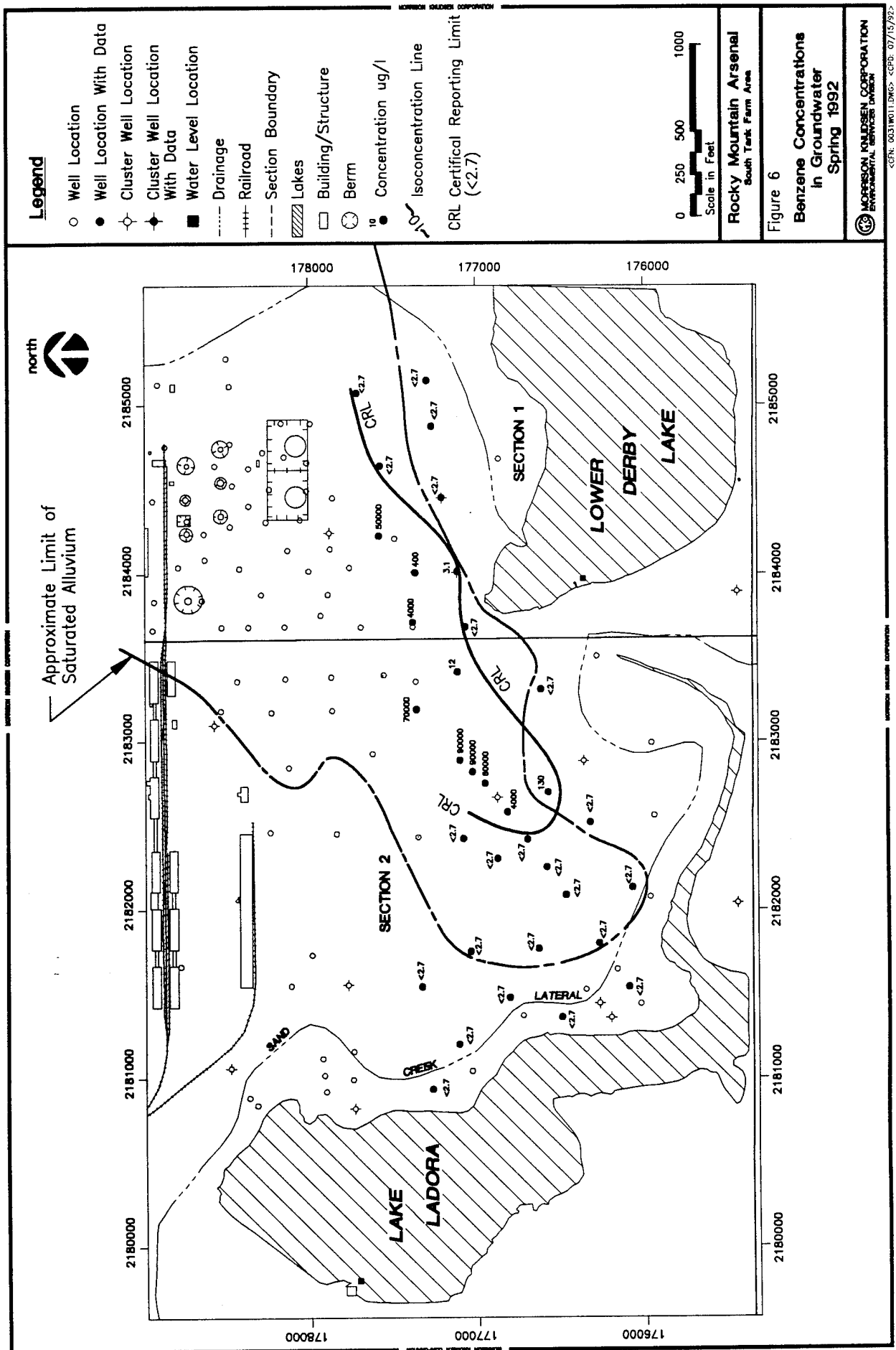
CRL Certified Reporting Limit (<math>< 2.7</math>)



Rocky Mountain Arsenal
South Park Farm Area

Figure 5

Benzene Concentrations in Groundwater in Fall 1991



Legend

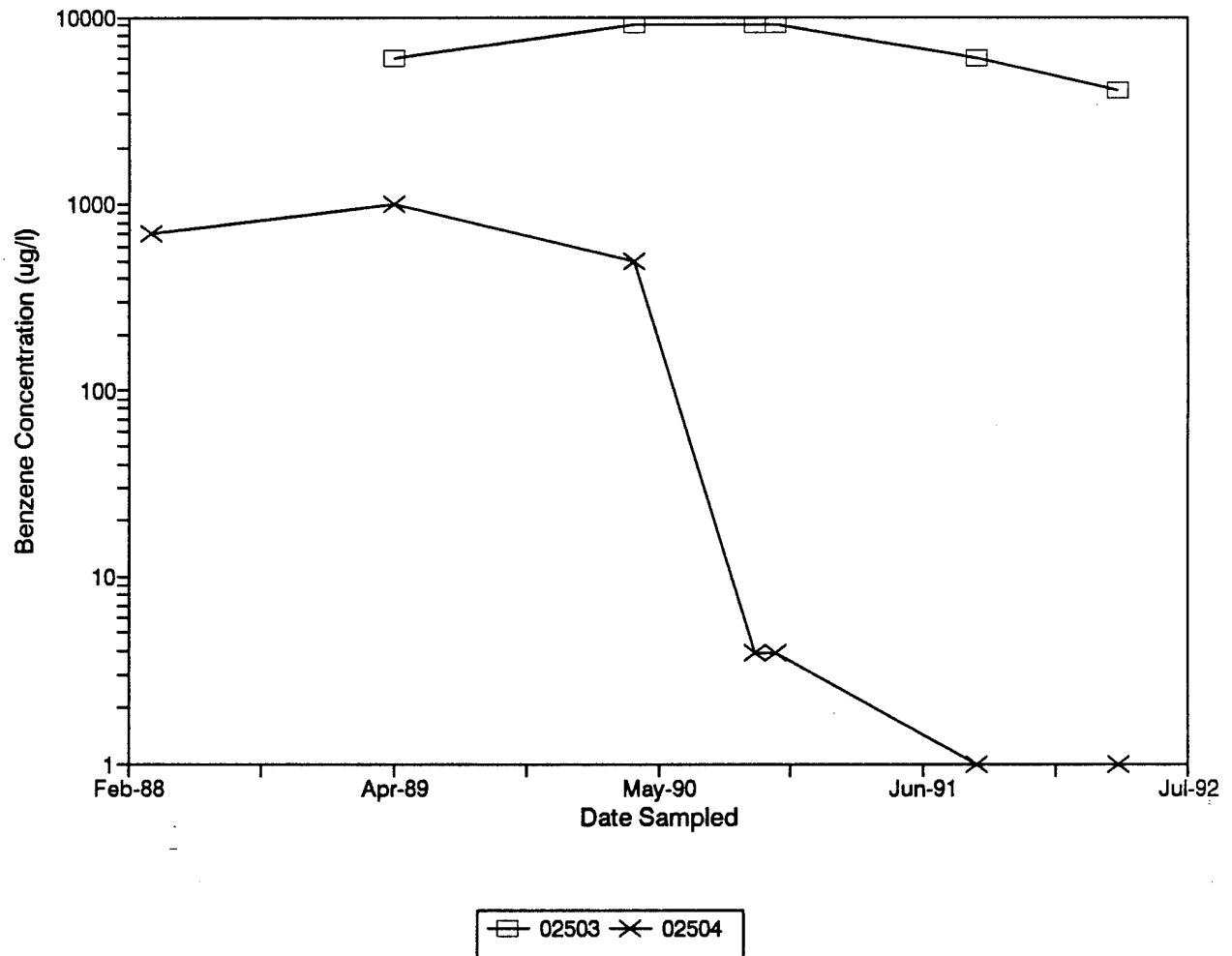
- Well Location
- Well Location With Data
- ⊕ Cluster Well Location
- ⊕ Cluster Well Location With Data
- Water Level Location
- - - Drainage
- + + - + Railroad
- - - Section Boundary
- ▨ Lakes
- Building/Structure
- Berm
- 10 ● Concentration ug/l
- Isoconcentration Line
- CRL Certified Reporting Limit (<math>< 2.7</math>)



Rocky Mountain Arsenal
South Tank Farm Area

Figure 6
Benzene Concentrations
in Groundwater
Spring 1992

FIGURE 7
Benzene Concentrations at the Leading
Edge of the Plume



APPENDIX

Appendix: South Tank Farm Plume IRA Annual Monitoring Rept July 1992

| Site ID: | 01049 | 01578 | 01579 | 01579 | 01580 | 01581 | 01586 | 01588 | 01588 | 01600 | 01604 | 01605 | 02501 |
|--------------|----------|----------|----------|------------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
| Sample Date: | 03/31/92 | 03/31/92 | 03/31/92 | 03/31/92 | 03/31/92 | 03/31/92 | 03/31/92 | 04/06/92 | 04/06/92 | 04/07/92 | 04/07/92 | 04/07/92 | 04/06/92 |
| Lot Number: | RNS003 | RNS004 | RNS005 | RNS006 | RNS007 | RNS008 | RNS010 | RNV002 | RNV009 | RNV010 | RNV011 | RNV002 | RNV003 |
| Sample Type: | Well | Well | Well | Trip Blank | Well | Well | Well | Well | Trip Blank | Well | Well | Well | Well |
| Compound | | | | | | | | | | | | | |
| 111TCE | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 |
| 112TCE | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 |
| 11DCLE | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | 9.6 |
| 12DCE | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 |
| 12DCLE | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 700. |
| 13DMB | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | 36. | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 |
| BCHPD | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | 300. | LT 1.8 | LT 1.8 | LT 1.8 | 5.2 | LT 1.8 |
| C6H6 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | 50000. | 4.2 | 3.1 | 4000. | 400. | 90000. |
| CCL4 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 |
| CH2CL2 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | 23. S | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 |
| CHCL3 | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | 20. |
| CLC6H5 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | 67. |
| DBCP | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 |
| DCPD | LT 3.7 | 20. | 8.8 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | 500. | LT 3.7 | LT 3.7 | LT 3.7 | 29. | LT 3.7 |
| DMDS | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 |
| ETC6H5 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 |
| MEC6H5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | 8.3 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 |
| MIBK | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 |
| TCLEE | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 |
| TRCLE | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | 1.9 |
| XYLEN | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | 72. | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 |

Flagcodes: R = Analyte is not certified; S = Results based on internal standard; D = Sample duplicate

Appendix: South Tank Farm Plume IRA Annual Monitoring Reprt July 1992

| Site ID: | 02502 | 02503 | 02503 | 02503 | 02504 | 02504 | 02504 | 02505 | 02505 | 02506 | 02507 | 02508 | 02509 | 02511 | 02513 |
|--------------|----------|----------|-------------|----------|----------|------------|----------|------------|----------|----------|----------|----------|----------|----------|----------|
| Sample Date: | 04/06/92 | 04/06/92 | 04/06/92 | 04/06/92 | 04/03/92 | 04/03/92 | 04/02/92 | 04/02/92 | 04/02/92 | 04/02/92 | 04/02/92 | 04/03/92 | 04/01/92 | 04/03/92 | 04/02/92 |
| Lot Number: | RNV004 | RNV005 | RNV006 | RNV006 | RNU002 | RNU009 | RNR008 | RNR009 | RNR010 | RNR011 | RNU003 | RNS009 | RNU004 | RNR012 | |
| Sample Type: | Well | Well | Rinse Blank | Well | Well | Trip Blank | Well | Trip Blank | Well | Well | Well | Well | Well | Well | |
| Compound | | | | | | | | | | | | | | | |
| 111TCE | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 |
| 112TCE | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 |
| 11DCLE | 16. | 61. | LT 1.4 | 70. | LT 1.4 | LT 1.4 | 68. | LT 1.4 | 59. | 13. | LT 1.4 | LT 1.4 | LT 1.4 | 35. | |
| 12DCE | LT 3.2 | 16. | LT 3.2 | 23. | LT 3.2 | LT 3.2 | 18. | LT 3.2 | 15. | 5.0 | LT 3.2 | LT 3.2 | LT 3.2 | 9.7 | |
| 12DCLE | LT 700. | LT 70. | LT 0.72 | 1.4 | LT 0.72 | LT 0.72 | 0.98 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 |
| 13DMB | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 |
| BCHPD | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 |
| C6H6 | 60000. | 4000. | 15. | | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 |
| CCL4 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 |
| CH2CL2 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 |
| CHCL3 | 19. | LT 1.7 | 3.4 | LT 1.7 | LT 1.7 | LT 1.7 | 34. | LT 1.7 | 120. | 8.7 | LT 1.7 | LT 1.7 | LT 1.7 | 160. | |
| CLC6H5 | 56. | 45. | LT 1.8 | 13. | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 |
| DBCP | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 |
| DCPD | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 |
| DMDS | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 |
| ETC6H5 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 |
| MEC6H5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 |
| MIBK | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 |
| TCLEE | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 |
| TRCLE | 2.0 | 3.2 | LT 2.0 | 4.9 | LT 2.0 | LT 2.0 | 4.3 | LT 2.0 | 3.8 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | 2.8 |
| XYLEN | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 |

Flagcodes: R = Analyte is not certified; S = Results based on internal standard; D = Sample duplicate

Appendix: South Tank Farm Plume IRA Annual Monitoring Reprt July 1992

| Site ID: | 02514 | 02515 | 02518 | 02522 | 02522 | 02524 | 02525 | 02526 | 02576 | 02576 F | 02577 | 02577 | 02585 |
|--------------|----------|----------|----------|----------|------------|----------|----------|----------|----------|-------------|----------|----------|----------|
| Sample Date: | 04/02/92 | 04/02/92 | 04/01/92 | 04/07/92 | 04/07/92 | 04/01/92 | 04/01/92 | 04/01/92 | 04/06/92 | 04/06/92 | 04/03/92 | 04/03/92 | 04/01/92 |
| Lot Number: | RNT003 | RNT004 | RNR002 | RNX003 | RNX004 | RNR003 | RNR004 | RNR005 | RNV007 | RNV008 | RNU005 | RNU008 | RNR006 |
| Sample Type: | Well | Well | Well | Well | Trip Blank | Well | Well | Well | Well | Field Blank | Well | Well | Well |
| Compound | | | | | | | | | | | | | |
| 111TCE | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | D | LT 2.4 |
| 112TCE | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | D | LT 1.6 |
| 11DCLE | 7.3 | 5.8 | 5.3 | LT 1.4 | LT 1.4 | 1.8 | 32. | LT 1.4 | LT 1.4 | LT 1.4 | 47. | D | 47. |
| 12DCE | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | 12. | LT 3.2 | LT 3.2 | LT 3.2 | 9.7 | D | 9.7 |
| 12DCLE | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 700. | LT 0.72 | LT 0.72 | D | LT 0.72 |
| 13DMB | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | D | LT 2.9 |
| BCHPD | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | D | LT 1.8 |
| C6H6 | LT 2.7 | LT 2.7 | LT 2.7 | 70000. | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | 90000. | 19. | LT 2.7 | D | 12. |
| CCL4 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | D | LT 4.9 |
| CH2CL2 | ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R | ND 5.0 |
| CHCL3 | 3.0 | 40. | 55. | LT 1.7 | LT 1.7 | LT 1.7 | 200. | LT 1.7 | 9.8 | LT 1.7 | 30. | D | LT 1.7 |
| CLC6H5 | LT 1.8 | LT 1.8 | LT 1.8 | 2.5 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | 45. | LT 1.8 | LT 1.8 | D | LT 1.8 |
| DBCP | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | D | LT 5.6 |
| DCPD | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | D | LT 3.7 |
| DMDS | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | D | LT 3.7 |
| ETC6H5 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | D | LT 2.4 |
| MEC6H5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | D | LT 3.5 |
| MIBK | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | D | LT 1.2 |
| TCLEE | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | 2.4 | D | LT 2.9 |
| TRCLE | LT 2.0 | 2.5 | 3.8 | LT 2.0 | LT 2.0 | 2.9 | 4.6 | LT 2.0 | LT 2.0 | LT 2.0 | 3.1 | D | LT 2.0 |
| XYLEN | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | D | LT 2.4 |

Flagcodes: R = Analyte is not certified; S = Results based on internal standard; D = Sample duplicate

Appendix: South Tank Farm Plume IRA Annual Monitoring Reprt July 1992

| Site ID: | 02596 | 02597 | 02597 T | 02598 |
|--------------|----------|----------|------------|----------|
| Sample Date: | 04/03/92 | 04/01/92 | 04/01/92 | 04/03/92 |
| Lot Number: | RNU006 | RNR007 | RNT002 | RNU007 |
| Sample Type: | Well | Well | Trip Blank | Well |
| Compound | | | | |
| 111TCE | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 |
| 112TCE | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 |
| 11DCLE | LT 1.4 | 30. | LT 1.4 | 62. |
| 12DCE | LT 3.2 | 97 | LT 3.2 | 15. |
| 12DCLE | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 |
| 13DMB | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 |
| BCHPD | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 |
| C6H6 | 130. | LT 2.7 | LT 2.7 | LT 2.7 |
| CCL4 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 |
| CH2CL2 | ND 5.0 | ND 5.0 | ND 5.0 | ND 5.0 |
| CHCL3 | LT 1.7 | 200. | LT 1.7 | 110. |
| CLC6H5 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 |
| DBCP | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 |
| DCPD | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 |
| DMDS | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 |
| ETC6H5 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 |
| MEC6H5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 |
| MIBK | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 |
| TCLEE | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 |
| TRCLE | LT 2.0 | 6.5 | LT 2.0 | 4.6 |
| XYLEN | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 |

Flagcodes: R = Analyte is not certified; S = Results based on internal standard; D = Sample duplicate

Appendix: South Tank Farm Plume IRA Annual Monitoring Report July 1992

| Site ID: | 01049 | 01049 | 01049 | 01578 | 01579 | 01580 | 01580 | 01581 | 01586 | 01586 | 01600 | 01604 | 01605 | 01605 | |
|--------------|----------|-----------|----------|----------|-------------|----------|----------|------------|----------|----------|----------|----------|----------|------------|---|
| Sample Date: | 09/16/91 | 09/16/91 | 09/23/91 | 09/23/91 | 09/16/91 | 09/16/91 | 09/16/91 | 09/16/91 | 09/16/91 | 09/16/91 | 09/16/91 | 09/24/91 | 09/23/91 | 09/23/91 | |
| Lot Number: | RNB003 | RNB004 | RNI004 | RNB005 | RNB006 | RNB007 | RNB008 | RNB009 | RNB010 | RNH003 | RNI005 | RNG004 | | | |
| Sample Type: | Well | Well | Well | Well | Rinse Blank | Well | Well | Trip Blank | Well | Well | Well | Well | Well | Trip Blank | |
| Compound | | | | | | | | | | | | | | | |
| 111TCE | LT 2.4 | D LT 2.4 | LT 2.4 | 25. | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 10. | LT 10. | LT 2.4 | |
| 112TCE | LT 1.6 | D LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 8. | LT 8. | LT 1.6 | |
| 11DCLC | LT 1.4 | D LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | LT 7. | LT 7. | LT 1.4 | |
| 12DCE | LT 3.2 | D LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 20. | LT 20. | LT 3.2 | |
| 12DCLC | 1.1 | D LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | LT 0.72 | 0.80 | 0.80 | LT 4. | LT 4. | LT 0.72 | |
| 13DMB | LT 2.9 | D LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 10. | LT 10. | LT 2.9 | |
| BCHPD | LT 1.8 | D LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 9. | 20. | LT 1.8 | |
| C6H6 | LT 2.7 | D LT 2.7 | LT 2.7 | LT 2.7 | 500. | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | 2000. | 2000. | LT 2.7 | |
| CCL4 | LT 4.9 | D LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 20. | LT 20. | LT 4.9 | |
| CH2CL2 | ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R 20. | S 20. | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 30. | R ND 30. | R ND 5.0 | R |
| CHCL3 | LT 1.7 | D LT 1.7 | LT 1.7 | LT 1.7 | 20. | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | LT 9. | LT 9. | LT 1.7 | |
| CLC6H5 | LT 1.8 | D LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 9. | LT 9. | LT 1.8 | |
| DBCP | LT 5.6 | D LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 30. | LT 30. | LT 5.6 | |
| DCPD | LT 3.7 | D 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 20. | 50. | LT 3.7 | |
| DMDS | LT 3.7 | D LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 20. | LT 20. | LT 3.7 | |
| ETC6H5 | LT 2.4 | D LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 10. | LT 10. | LT 2.4 | |
| MEC6H5 | LT 3.5 | D LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 20. | LT 20. | LT 3.5 | |
| MIBK | LT 1.2 | D LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 6. | LT 6. | LT 1.2 | |
| TCLEE | LT 2.9 | D LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 10. | LT 10. | LT 2.9 | |
| TRCLE | LT 2.0 | D LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 10. | LT 10. | LT 2.0 | |
| XYLEN | LT 2.4 | D LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 10. | LT 10. | LT 2.4 | |

Flagcodes: R = Analyte is not certified; S = Results based on internal standard; D = Sample duplicate

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| Site ID: | 02020 | 02502 | 02503 | 02503 | 02504 | 02505 | 02505 | 02506 | 02506 | 02507 | 02507 | 02508 | 02508 |
|--------------|----------|-----------|-------------|----------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
| Sample Date: | 09/17/91 | 09/23/91 | 09/23/91 | 09/23/91 | 09/23/91 | 09/19/91 | 09/18/91 | 09/18/91 | 09/18/91 | 09/18/91 | 09/18/91 | 09/19/91 | 09/19/91 |
| Lot Number: | RNB011 | RNG006 | RNG005 | RNI006 | RNH002 | RND009 | RND002 | RND004 | RNC009 | RND005 | RND006 | RNG002 | RNG003 |
| Sample Type: | Well | Well | Rinse Blank | Well | Well | Well | Well | Well | Trip Blank | Well | Well | Well | Well |
| Compound | | | | | | | | | | | | | |
| 111TCE | LT 2.4 | LT 200. | LT 2.4 | LT 20. | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 |
| 112TCE | LT 1.6 | LT 200. | LT 1.6 | LT 20. | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 |
| 111DCLE | 6.8 | LT 100. | LT 1.4 | 50. | 62. | 57. | D | 57. | LT 1.4 | 19. | 18. | LT 1.4 | LT 1.4 |
| 12DCE | LT 3.2 | LT 300. | LT 3.2 | LT 30. | 47. | 15. | D | 13. | LT 3.2 | 5.4 | 5.1 | LT 3.2 | LT 3.2 |
| 12DCLC | 0.95 | LT 70. | 0.91 | LT 7. | 2.0 | 1.5 | D | 1.4 | 0.87 | 1.1 | 1.2 | LT 0.72 | LT 0.72 |
| 13DMB | LT 2.9 | LT 300. | LT 2.9 | LT 30. | LT 2.9 | LT 2.9 | D | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 |
| BCHPD | LT 1.8 | LT 200. | LT 1.8 | LT 20. | LT 1.8 | LT 1.8 | D | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 |
| C6H6 | LT 2.7 | 60000. | 3.5 | 6000. | LT 2.7 | LT 2.7 | D | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 |
| CCL4 | LT 4.9 | LT 500. | LT 4.9 | LT 50. | LT 4.9 | LT 4.9 | D | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 |
| CH2CL2 | ND 5.0 | R ND 500. | ND 5.0 | R ND 50. | R ND 5.0 | R ND 5.0 | R | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 |
| CHCL3 | LT 1.7 | LT 200. | 3.4 | LT 20. | LT 1.7 | 47. | D | 110. | LT 1.7 | 50. | 47. | LT 1.7 | LT 1.7 |
| CLC6H5 | LT 1.8 | LT 200. | LT 1.8 | 40. | 13. | LT 1.8 | D | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 |
| DBCP | LT 5.6 | LT 600. | LT 5.6 | LT 60. | LT 5.6 | LT 5.6 | D | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 |
| DCPD | LT 3.7 | LT 400. | LT 3.7 | LT 40. | LT 3.7 | LT 3.7 | D | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 |
| DMDS | LT 3.7 | LT 400. | LT 3.7 | LT 40. | LT 3.7 | LT 3.7 | D | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 |
| ETC6H5 | LT 2.4 | LT 200. | LT 2.4 | LT 20. | LT 2.4 | LT 2.4 | D | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 |
| MEC6H5 | LT 3.5 | LT 400. | LT 3.5 | LT 40. | LT 3.5 | LT 3.5 | D | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 |
| MIBK | LT 1.2 | LT 100. | LT 1.2 | LT 10. | LT 1.2 | LT 1.2 | D | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 |
| TCLEE | LT 2.9 | LT 300. | LT 2.9 | LT 30. | LT 2.9 | LT 2.9 | D | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 |
| TRCLE | LT 2.0 | LT 200. | LT 2.0 | LT 20. | LT 2.0 | LT 2.0 | D | 4.5 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 |
| XYLEN | LT 2.4 | LT 200. | LT 2.4 | LT 20. | LT 2.4 | LT 2.4 | D | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 |

Flagcodes: R = Analyte is not certified; S = Results based on internal standard; D = Sample duplicate

Appendix: South Tank Farm Plume IRA Annual Monitoring Report July 1992

| Site ID: | 02508 | 02509 | 02511 | 02512 | 02513 | 02513 | 02513 | 02514 | 02515 | 02515 | 02515 | 02521 | 02521 | 02521 | |
|--------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------|-----------|------------|-------------|----------|
| Sample Date: | 09/19/91 | 09/17/91 | 09/20/91 | 09/17/91 | 09/19/91 | 09/19/91 | 09/19/91 | 09/19/91 | 09/19/91 | 09/19/91 | 09/19/91 | 09/24/91 | 09/24/91 | 09/24/91 | |
| Lot Number: | RND010 | RNB012 | RNF006 | RNB013 | RNF002 | RNF003 | RNF004 | RNF004 | RNF005 | RNF005 | RNE002 | RNF010 | RNJ002 | RNH004 | |
| Sample Type: | Trip Blank | Well | Well | Well | Well | Well | Well | Well | Well | Well | Flinse Blank | Well | Trip Blank | Field Blank | |
| Compound | | | | | | | | | | | | | | | |
| 111TCE | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | D | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 200. | LT 2.4 | LT 2.4 | LT 2.4 |
| 112TCE | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | D | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 200. | LT 1.6 | LT 1.6 | LT 1.6 |
| 11DCLC | LT 1.4 | LT 1.4 | LT 1.4 | LT 1.4 | 35. | 32. | D | 12. | 5.1 | 5.1 | LT 1.4 | LT 100. | LT 1.4 | LT 1.4 | LT 1.4 |
| 12DCE | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | 9.7 | 4.8 | D | LT 3.2 | LT 3.2 | LT 3.2 | LT 3.2 | LT 300. | LT 3.2 | LT 3.2 | LT 3.2 |
| 12DCLC | LT 0.72 | 0.94 | 0.82 | 0.79 | 0.95 | 0.88 | D | 0.76 | 0.87 | 0.87 | 0.96 | LT 70. | LT 0.72 | LT 0.72 | LT 0.72 |
| 13DMB | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | D | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 300. | LT 2.9 | LT 2.9 | LT 2.9 |
| BCHPD | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | D | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 200. | LT 1.8 | LT 1.8 | LT 1.8 |
| C6H6 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | D | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | 200000. | LT 2.7 | LT 2.7 | LT 2.7 |
| CCL4 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | D | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 500. | LT 4.9 | LT 4.9 | LT 4.9 |
| CH2CL2 | ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R | ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 500. | ND 5.0 | R ND 5.0 | R ND 5.0 |
| CHCL3 | LT 1.7 | LT 1.7 | LT 1.7 | LT 1.7 | 200. | 200. | D | 97. | 32. | 32. | LT 1.7 | LT 200. | LT 1.7 | LT 1.7 | LT 1.7 |
| CLC6H5 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | D | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 200. | LT 1.8 | LT 1.8 | LT 1.8 |
| DBCP | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | D | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 600. | LT 5.6 | LT 5.6 | LT 5.6 |
| DCPD | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | D | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 400. | LT 3.7 | LT 3.7 | LT 3.7 |
| DMDS | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | D | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 400. | LT 3.7 | LT 3.7 | LT 3.7 |
| ETC6H5 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | D | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 200. | LT 2.4 | LT 2.4 | LT 2.4 |
| MEC6H5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | D | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 400. | LT 3.5 | LT 3.5 | LT 3.5 |
| MIBK | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | D | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 100. | LT 1.2 | LT 1.2 | LT 1.2 |
| TCLEE | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | D | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 300. | LT 2.9 | LT 2.9 | LT 2.9 |
| TRCLE | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | D | LT 2.0 | LT 2.0 | LT 2.0 | LT 2.0 | LT 200. | LT 2.0 | LT 2.0 | LT 2.0 |
| XYLEN | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | D | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 200. | LT 2.4 | LT 2.4 | LT 2.4 |

Flagcodes: R = Analyte is not certified; S = Results based on internal standard; D = Sample duplicate

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| Site ID: | 02522 | 02522 | 02524 | 02524 | 02524 | 02525 | 02525 | 02525 | 02526 | 02576 | 02577 | 02577 | 02577 | 02578 | 02578 | 02578 | |
|--------------|----------|----------|-----------|----------|------------|----------|-----------|----------|-----------|----------|----------|----------|----------|----------|----------|------------|----------|
| Sample Date: | 09/24/91 | 09/24/91 | 09/17/91 | 09/17/91 | 09/17/91 | 09/17/91 | 09/17/91 | 09/17/91 | 09/17/91 | 09/24/91 | 09/20/91 | 09/18/91 | 09/20/91 | 09/20/91 | 09/20/91 | 09/20/91 | |
| Lot Number: | RNI007 | RNG007 | RNC002 | RNC004 | RNC003 | RNC005 | RNC006 | RNC007 | RNC007 | RNI008 | RNE003 | RND003 | RNF007 | RNE004 | RNF007 | RNE004 | |
| Sample Type: | Well | Well | Well | Well | Trip Blank | Well | Well | Well | Well | Well | Well | Well | Well | Well | Well | Trip Blank | |
| Compound | | | | | | | | | | | | | | | | | |
| 111TCE | LT 200. | D LT 2.4 | D LT 2.4 | LT 2.4 | D LT 2.4 | LT 2.4 | 24. D | D LT 2.4 | LT 200. | LT 2.4 | LT 2.4 | D LT 2.4 | D LT 2.4 | LT 2.4 | D LT 2.4 | LT 2.4 | LT 2.4 |
| 112TCE | LT 200. | D LT 1.6 | D LT 1.6 | LT 1.6 | D LT 1.6 | LT 1.6 | LT 1.6 D | LT 1.6 | LT 200. | LT 1.6 | LT 1.6 | D LT 1.6 | D LT 1.6 | LT 1.6 | D LT 1.6 | LT 1.6 | LT 1.6 |
| 11DCLC | LT 100. | D 1.9 | D 2.0 | D LT 1.4 | D LT 1.4 | 28. | D 27. | D LT 1.4 | LT 100. | 57. | 57. | D 30. | D 30. | LT 1.4 | D 30. | LT 1.4 | LT 1.4 |
| 12DCE | LT 300. | D LT 3.2 | D LT 3.2 | LT 3.2 | D LT 3.2 | 9.7 | D 11. | D LT 3.2 | LT 300. | 12. | 12. | D 4.7 | D 4.7 | LT 3.2 | D 4.7 | LT 3.2 | LT 3.2 |
| 12DCLC | LT 70. | D 0.78 | D LT 0.72 | LT 0.72 | D LT 0.72 | 0.85 | D LT 0.72 | D 0.91 | LT 70. | 1.4 | 1.4 | D 1.1 | D 1.1 | LT 0.72 | D 1.1 | LT 0.72 | LT 0.72 |
| 13DMB | LT 300. | D LT 2.9 | D LT 2.9 | LT 2.9 | D LT 2.9 | LT 2.9 | D LT 2.9 | D LT 2.9 | LT 300. | LT 2.9 | LT 2.9 | D LT 2.9 | D LT 2.9 | LT 2.9 | D LT 2.9 | LT 2.9 | LT 2.9 |
| BCHPD | LT 200. | D LT 1.8 | D LT 1.8 | LT 1.8 | D LT 1.8 | LT 1.8 | D LT 1.8 | D LT 1.8 | LT 200. | LT 1.8 | LT 1.8 | D LT 1.8 | D LT 1.8 | LT 1.8 | D LT 1.8 | LT 1.8 | LT 1.8 |
| C6H6 | 70000. | D LT 2.7 | D LT 2.7 | LT 2.7 | D LT 2.7 | LT 2.7 | D LT 2.7 | D LT 2.7 | 70000. | 70000. | 70000. | D LT 2.7 | D LT 2.7 | LT 2.7 | D LT 2.7 | LT 2.7 | LT 2.7 |
| CCL4 | LT 500. | D LT 4.9 | D LT 4.9 | LT 4.9 | D LT 4.9 | LT 4.9 | D LT 4.9 | D LT 4.9 | LT 500. | LT 4.9 | LT 4.9 | D LT 4.9 | D LT 4.9 | LT 4.9 | D LT 4.9 | LT 4.9 | LT 4.9 |
| CH2CL2 | ND 500. | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 500. | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 |
| CHCL3 | LT 200. | D LT 1.7 | D LT 1.7 | LT 1.7 | D LT 1.7 | 200. | D 200. | D LT 1.7 | LT 200. | LT 1.7 | LT 1.7 | D 2.4 | D 2.4 | LT 1.7 | D 2.4 | LT 1.7 | LT 1.7 |
| CLC6H5 | LT 200. | D LT 1.8 | D LT 1.8 | LT 1.8 | D LT 1.8 | LT 1.8 | D LT 1.8 | D LT 1.8 | LT 200. | LT 1.8 | LT 1.8 | D 24. | D 24. | LT 1.8 | D 24. | LT 1.8 | LT 1.8 |
| DBCP | LT 600. | D LT 5.6 | D LT 5.6 | LT 5.6 | D LT 5.6 | LT 5.6 | D LT 5.6 | D LT 5.6 | LT 600. | LT 5.6 | LT 5.6 | D LT 5.6 | D LT 5.6 | LT 5.6 | D LT 5.6 | LT 5.6 | LT 5.6 |
| DCPD | LT 400. | D LT 3.7 | D LT 3.7 | LT 3.7 | D LT 3.7 | LT 3.7 | D LT 3.7 | D LT 3.7 | LT 400. | LT 3.7 | LT 3.7 | D LT 3.7 | D LT 3.7 | LT 3.7 | D LT 3.7 | LT 3.7 | LT 3.7 |
| DMDS | LT 400. | D LT 3.7 | D LT 3.7 | LT 3.7 | D LT 3.7 | LT 3.7 | D LT 3.7 | D LT 3.7 | LT 400. | LT 3.7 | LT 3.7 | D LT 3.7 | D LT 3.7 | LT 3.7 | D LT 3.7 | LT 3.7 | LT 3.7 |
| ETC6H5 | LT 200. | D LT 2.4 | D LT 2.4 | LT 2.4 | D LT 2.4 | LT 2.4 | D LT 2.4 | D LT 2.4 | LT 200. | LT 2.4 | LT 2.4 | D LT 2.4 | D LT 2.4 | LT 2.4 | D LT 2.4 | LT 2.4 | LT 2.4 |
| MEC6H5 | LT 400. | D LT 3.5 | D LT 3.5 | LT 3.5 | D LT 3.5 | LT 3.5 | D LT 3.5 | D LT 3.5 | LT 400. | LT 3.5 | LT 3.5 | D LT 3.5 | D LT 3.5 | LT 3.5 | D LT 3.5 | LT 3.5 | LT 3.5 |
| MIBK | LT 100. | D LT 1.2 | D LT 1.2 | LT 1.2 | D LT 1.2 | LT 1.2 | D LT 1.2 | D LT 1.2 | LT 100. | LT 1.2 | LT 1.2 | D LT 1.2 | D LT 1.2 | LT 1.2 | D LT 1.2 | LT 1.2 | LT 1.2 |
| TCLEE | LT 300. | D LT 2.9 | D LT 2.9 | LT 2.9 | D LT 2.9 | LT 2.9 | D LT 2.9 | D LT 2.9 | LT 300. | LT 2.9 | LT 2.9 | D 2.4 | D 2.4 | LT 2.9 | D 2.4 | LT 2.9 | LT 2.9 |
| TRCLE | LT 200. | D 3.8 | D LT 2.0 | LT 2.0 | D LT 2.0 | 4.0 | D 3.8 | D LT 2.0 | LT 200. | LT 2.0 | LT 2.0 | D 3.4 | D 3.4 | LT 2.0 | D 3.4 | LT 2.0 | LT 2.0 |
| XYLEN | LT 200. | D LT 2.4 | D LT 2.4 | LT 2.4 | D LT 2.4 | LT 2.4 | D LT 2.4 | D LT 2.4 | LT 200. | LT 2.4 | LT 2.4 | D LT 2.4 | D LT 2.4 | LT 2.4 | D LT 2.4 | LT 2.4 | LT 2.4 |

Flagcodes: R = Analyte is not certified; S = Results based on internal standard; D = Sample duplicate

Appendix: South Tank Farm Plume IRA Annual Monitoring Report July 1992

| Site ID: | 02585 | 02596 | 02597 | 02598 | 02598 |
|--------------|---------------|----------|----------|----------|------------|
| Sample Date: | 09/17/91 | 09/20/91 | 09/18/91 | 09/20/91 | 09/20/91 |
| Lot Number: | RNC008 | RNF008 | RND008 | RNF009 | RNI002 |
| Sample Type: | Well | Well | Well | Well | Well |
| Compound | | | | | |
| 111TCE | 19. LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 D |
| 112TCE | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 | LT 1.6 D |
| 11DCLE | LT 1.4 | LT 1.4 | 25. | 62. | 58. D |
| 12DCE | LT 3.2 | LT 3.2 | 7.4 | 13. | 13. D |
| 12DCLE | 2.0 0.81 | 0.81 | 0.93 | LT 0.72 | LT 0.72 D |
| 13DMB | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 D |
| BCHPD | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 D |
| C6H6 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 | LT 2.7 D |
| CCL4 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 | LT 4.9 D |
| CH2CL2 | ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 | R ND 5.0 R |
| CHCL3 | LT 1.7 | LT 1.7 | 200. | 99. | 91. D |
| CLC6H5 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 | LT 1.8 D |
| DBCP | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 | LT 5.6 D |
| DCPD | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 D |
| DMDS | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 | LT 3.7 D |
| ETC6H5 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 D |
| MEC6H5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 | LT 3.5 D |
| MIBK | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 | LT 1.2 D |
| TCLEE | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 | LT 2.9 D |
| TRCLE | LT 2.0 | LT 2.0 | 5.7 | LT 2.0 | LT 2.0 D |
| XYLEN | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 | LT 2.4 D |

Flagcodes: R = Analyte is not certified; S = Results based on internal standard; D = Sample duplicate