



# **The Savannah River Site's Groundwater Monitoring Program First Quarter 1999 (January through March 1999)**

by

J. B. Hutchison

Westinghouse Savannah River Company

Savannah River Site

Aiken, South Carolina 29808

DOE Contract No. **DE-AC09-96SR18500**

This paper was prepared in connection with work done under the above contract number with the U. S. Department of Energy. By acceptance of this paper, the publisher and/or recipient acknowledges the U. S. Government's right to retain a nonexclusive, royalty-free license in and to any copyright covering this paper, along with the right to reproduce and to authorize others to reproduce all or part of the copyrighted paper.



**THE ENVIRONMENTAL PROTECTION DEPARTMENT  
ENVIRONMENTAL MONITORING SECTION**

**The Savannah River Site's  
Groundwater Monitoring Program**

**FIRST QUARTER 1999 (U)  
(January through March 1999)**

Environmental Protection Department  
Westinghouse Savannah River Company  
Aiken, SC

and

Exploration Resources, Inc.  
Athens, GA

Reviewed and approved by  
Jay Hutchison  
EPD/EMS Groundwater Coordinator

Cover graphics supplied by R.A. Hiergesell  
Savannah River Technology Center  
Environmental Sciences Section

**Publication Date: September 1999**

Westinghouse Savannah River Company  
Savannah River Site  
Aiken, SC 29808



Prepared for the U.S. Department of Energy under Contract No. AB60294N



## This Quarter at a Glance . . .

*Executive Summary*—table of all analytes detected at or above Flag 2 criteria

*Flagging Criteria*—standards for flagging results

*Sample Scheduling*—description of the sampling schedule

*Field Notes*—comments from the field-data books

*Analytical Data Review*—discrepancies in each laboratory's analytical data; laboratory-specific methods and estimated quantitation limits

*Quality Control Samples*—discussion of the quality of the analytical data in terms of precision, accuracy, representativeness, comparability, and completeness

*Site Index*—table of the well series and their site locations; also discusses the history of the sites

*Appendices:*

A. *Water-Level Data*—tables listing field data obtained for hydrogeologic studies

B. *Analytical Results*—tables listing the quarter's analytical results and field data

C. *Sampling Blanks Results*—tables listing all analytical results for sampling blanks for the quarter

...

The following is a key to the numbered areas of the Savannah River Site.

### Site

100 Areas—Reactors

200 Areas—Separations

300 Areas—Reactor Materials

400 Area—Heavy Water

600 Areas—General

700 Area—Administration

### Function

To operate and support the reactors

To separate and purify the product from fuel and target assemblies; to process waste

To fabricate new fuel and target assemblies from raw materials

To produce steam and electrical power; to process heavy water

Other (general)

To provide administrative and support services

### DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

This report has been reproduced directly from the best available copy.

Available for sale to the public, in paper, from: U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, phone: (800) 553-6847  
fax: (703) 605-6900

email: [orders@ntis.fedworld.gov](mailto:orders@ntis.fedworld.gov)

online ordering: <http://www.ntis.gov/ordering.htm>

Available electronically at <http://www.doe.gov/bridge>

Available for a processing fee to U.S. Department of Energy and its contractors, in paper, from: U.S. Department of Energy, Office of Scientific and Technical Information, P.O. Box 62, Oak Ridge, TN 37831-0062, phone: (865) 576-8401  
fax: (865) 576-5728

email: [reports@adonis.osti.gov](mailto:reports@adonis.osti.gov)

T  
C  
e  
n  
p  
F  
u  
r  
v  
l  
7  
/



# Contents

	Page
Executive Summary .....	1
Introduction .....	5
Organization of This Report .....	5
Flagging Criteria .....	9
Sample Scheduling .....	19
Environmental Screening .....	19
GCMS VOA Analyses .....	20
Sampling Requests .....	20
Maintenance or Access Problems .....	21
Other Problems .....	21
Purge-water Containment Program .....	22
Field Notes .....	23
Analytical Data Review .....	33
GIMS Data Review Module .....	33
Review of the Analytical Data .....	33
Analytical Methods .....	35
Quality Control Samples .....	53
Precision .....	53
Accuracy .....	57
Representativeness .....	60
Comparability .....	60
Completeness .....	61
Site Index .....	133
Site History .....	136
Glossary .....	147



<b>References .....</b>	<b>155</b>
<b>Appendix A. Water-Level Data .....</b>	<b>A-1</b>
<b>Appendix B. Analytical Results.....</b>	<b>B-1</b>
<b>Appendix C. Sampling Blanks Results .....</b>	<b>C-1</b>
<b>Appendix D. Addendum .....</b>	<b>D-1</b>



## LIST OF FIGURES

	Page
Figure 1. Areas and Locations Monitored for Groundwater Quality .....	7
Figure 2. Separations and Waste Management Areas Monitored for Groundwater Quality .....	8
Figure 3. Three Types of Groundwater Monitoring Wellheads .....	23
Figure 4. Relative Difference vs. the Mean.....	54
Figure 5. Relationship between $w_i$ and Analyte Concentration .....	55
Figure 6. Effect of a Linear-Weight Function on the MRDadj.....	55



## LIST OF TABLES

	Page
Table 1. Analytes above Flag 2 Criteria .....	1
Table 2. Flagging Criteria .....	10
Table 3. Comments from the Field Data .....	24
Table 4. EX Samples with High Analytical Results as Compared to Historical Data .....	35
Table 5. GE Samples with High Analytical Results as Compared to Historical Data .....	36
Table 6. GE Samples with Low Analytical Results as Compared to Historical Data .....	36
Table 7. GP Samples with High Analytical Results as Compared to Historical Data .....	37
Table 8. WA Samples with High Analytical Results as Compared to Historical Data .....	37
Table 9. TM Samples with High Analytical Results as Compared to Historical Data .....	37
Table 10. Methods and Estimated Quantitation Limits Used by EX .....	37
Table 11. Methods and Estimated Quantitation Limits Used by GE .....	41
Table 12. Methods and Estimated Quantitation Limits Used by WA .....	45
Table 13. Methods and Estimated Quantitation Limits Used by GP .....	50
Table 14. Methods and Estimated Quantitation Limits Used by TM .....	51
Table 15. Wells Providing Blind Replicate Samples and Associated Blanks .....	61
Table 16. Analytes Not Showing Measurable Concentrations above Estimated Quantitation Limits in Any Replicated or Duplicated Samples for GE, WA, and EX .....	62
Table 17. Analytes Not Showing Measurable Concentrations above Estimated Quantitation Limits in Any Replicated or Duplicated Samples for GP and TM .....	65
Table 18. Intralaboratory MRD Indices for EX .....	66
Table 19. Intralaboratory MRD Indices for GE .....	67
Table 20. Intralaboratory MRD Matrix Spike Indices for GE .....	68
Table 21. Intralaboratory MRD Indices for WA .....	68
Table 22. Intralaboratory MRD Indices for GP .....	70
Table 23. Intralaboratory MRD Indices for TM .....	71
Table 24. Interlaboratory MRD and t-test Results for Analytes with at Least One Pair of Results above the RDL for EX and WA .....	72

---

### Contents



Table 25.	Interlaboratory MRD and <i>t</i> -test Results for Analytes with at Least One Pair of Results above the RDL for GE and WA.....	73
Table 26.	Interlaboratory MRD and <i>t</i> -test Results for Analytes with at Least One Pair of Results above the RDL for GP and TM .....	73
Table 27.	EX Samples and Blind Replicates Yielding Results Where One Is More Than Twice Another.....	74
Table 28.	GE Samples and Blind Replicates Yielding Results Where One Is More Than Twice Another.....	74
Table 29.	WA Samples and Blind Replicates Yielding Results Where One Is More Than Twice Another.....	74
Table 30.	WA Samples and Laboratory Duplicates Yielding Results Where One Is More Than Twice Another.....	75
Table 31.	GP Samples and Blind Replicates Yielding Results Where One Is More Than Twice Another.....	75
Table 32.	GP Samples and Laboratory Duplicates Yielding Results Where One Is More Than Twice Another.....	75
Table 33.	TM Samples and Blind Replicates Yielding Results Where One Is More Than Twice Another.....	75
Table 34.	TM Samples and Laboratory Duplicates Yielding Results Where One Is More Than Twice Another.....	75
Table 35.	Analytes with One Laboratory's Result Greater Than Twice the Result from the Other Laboratory between EX and WA .....	76
Table 36.	Analytes with One Laboratory's Result Greater Than Twice the Result from the Other Laboratory between GE and WA.....	76
Table 37.	Analytes with One Laboratory's Result Greater Than Twice the Result from the Other Laboratory between GP and TM .....	76
Table 38.	Quality Control Standards for Selected Analyses for EX .....	76
Table 39.	Quality Control Standards for Selected Analyses for GE.....	79
Table 40.	Quality Control Standards for Selected Analyses for WA .....	82
Table 41.	Laboratory Control Sample Recoveries for EX .....	84
Table 42.	Laboratory Control Sample Recoveries for GE .....	86
Table 43.	Laboratory Control Sample Recoveries for WA.....	88
Table 44.	Laboratory Control Sample Recoveries for GP .....	91
Table 45.	Laboratory Control Sample Recoveries for TM.....	92

---

## **Contents**



Table 46.	Surrogate Recoveries for EX.....	93
Table 47.	Surrogate Recoveries for GE .....	93
Table 48.	Surrogate Recoveries for WA.....	94
Table 49.	Matrix Spike Recoveries for EX.....	95
Table 50.	Matrix Spike Recoveries for GE .....	96
Table 51.	Matrix Spike Recoveries for WA.....	98
Table 52.	Matrix Spike Recoveries for GP .....	100
Table 53.	Analytes Detected in Method Blanks for EX .....	101
Table 54.	Analytes Detected in Method Blanks for GE.....	105
Table 55.	Analytes Detected in Method Blanks for WA .....	110
Table 56.	Analytes Detected in Method Blanks for GP.....	115
Table 57.	Analytes Detected in Method Blanks for TM.....	117
Table 58.	Analytes Detected in Field Blanks for EX.....	118
Table 59.	Analytes Detected in Field Blanks for GE .....	119
Table 60.	Analytes Detected in Field Blanks for WA.....	122
Table 61.	Analytes Detected in Field Blanks for GP .....	123
Table 62.	Analytes Detected in Field Blanks for TM .....	125
Table 63.	Analytes Detected in Trip Blanks for EX .....	125
Table 64.	Analytes Detected in Trip Blanks for GE .....	126
Table 65.	Analytes Detected in Trip Blanks for WA .....	128
Table 66.	Bailed Wells.....	129
Table 67.	Sampled Wells with Metal Casings.....	129
Table 68.	Wells That Had Turbidity Greater Than 15 NTU.....	130
Table 69.	Analyses Not Performed by EX .....	131
Table 70.	Analyses Not Performed by GE.....	131
Table 71.	Analyses Not Performed by WA .....	131
Table 72.	Sites and Locations by Well Series .....	133

---

## Contents



# Executive Summary

The Environmental Protection Department/Environmental Monitoring Section (EPD/EMS) administers the Savannah River Site's (SRS) Groundwater Monitoring Program. During first quarter 1999, EPD/EMS conducted extensive sampling of monitoring wells.

EPD/EMS has established two sets of flagging criteria to assist in managing sample results. The flagging criteria do not define contamination levels; instead, they aid personnel in sample scheduling, data interpretation, and trend identification. Since 1991, the flagging criteria have been based on the U.S. Environmental Protection Agency (EPA) drinking water standards and on method detection limits. A detailed explanation of the flagging criteria is presented in the **Flagging Criteria** section of this document. Analytical results from first quarter 1999 are included in this report, which is distributed to all site custodians.

One or more analytes exceeded Flag 2 criteria during first quarter 1999 in 76 monitoring well series. Analytes exceeded the current Flag 2 criteria for the first time since 1984 in 11 of those 76 monitoring well series.

Table 1, organized alphabetically by well series, lists those well series with analytical results above Flag 2 criteria during first quarter 1999. Results from all laboratory analyses are used to generate this table. Specific conductance and pH data from field measurements also are included in this table.

**Table 1. Analytes above Flag 2 Criteria**

<i>Site</i>	<i>Well Series</i>	<i>Analytes above Flag 2 Criteria</i>
A-Area Metals Burning Pit	ABP	Aluminum, dichloromethane, iron, lead, pH, specific conductance, tetrachloroethylene, trichloroethylene
A-Area Cluster Perimeter Wells and M-Area Plume Definition Wells	AC	Iron
A-Area Coal Pile Runoff Containment Basin	ACB	Aluminum, gross alpha, iron, manganese, trichloroethylene
Metallurgical Laboratory Seepage Basin	AMB	Aluminum, iron, radium, total alpha-emitting, tetrachloroethylene, total organic halogens, trichloroethylene
Motor Shop Oil Basin	AOB	Aluminum, iron, tetrachloroethylene, trichloroethylene
A-Area Burning/Rubble Pits	ARP	Aluminum, iron, trichloroethylene
Savannah River Laboratory (SRL) Seepage Basins	ASB	Aluminum, iron, pH, tetrachloroethylene, trichloroethylene
Mixed Waste Management Facility (Site 643-28E) and Low-Level Radioactive Waste Disposal Facility (643-7E)	BGO	Aluminum, carbon tetrachloride, 1,1-dichloroethane, 1,1-dichloroethylene, iron, pH, specific conductance, tetrachloroethylene, trichloroethylene, tritium
E-Area Vaults	BGX	Aluminum, manganese
Road A Chemical Basin (Baxley Road)	BRD	Aluminum, iron
Burma Road Rubble Pit	BRR	Aluminum, carbon tetrachloride
Old Burial Ground (643-E)	BSE	Total organic halogens, trichloroethylene, tritium
C-Area Disassembly Basin	CDB	Aluminum, iron, lead, specific conductance, tritium

## Executive Summary



<i>Site</i>	<i>Well Series</i>	<i>Analytes above Flag 2 Criteria</i>
Chemical, Metals, and Pesticides Pits	CMP	Aluminum, iron
C-Area Burning/Rubble Pit	CRP	Aluminum, total organic halogens, trichloroethylene
C-Area Reactor Seepage Basins	CSB	Aluminum, iron, lead, manganese, total organic halogens, trichloroethylene, tritium
N-Area (Central Shops) Diesel Spill Characterization and Remediation Wells	CSD	Aluminum
N-Area (Central Shops) Burning/Rubble Pits	CSR	Aluminum, manganese
D-Area Burning/Rubble Pits	DBP	Aluminum, iron
D-Area Coal Pile Runoff Containment Basin and Ash Basin	DCB	Aluminum, gross alpha, iron, lithium, manganese, specific conductance, sulfate, trichloroethylene, tritium
F-Area Coal Pile Runoff Containment Basin	FCB	Aluminum, iron
F-Area Effluent Treatment Cooling Water Basin	FET	Aluminum, iron
F-Area Seepage Basins Remediation Extraction Well	FEX	Specific conductance
F-Area Seepage Basins Remediation Injection Tank	FIN	Aluminum, <b>1,2-dichloroethane</b> , iodine-129, specific conductance
Old F-Area Seepage Basin	FNB	Aluminum, gross alpha, manganese, nonvolatile beta, tritium
F-Area Retention Basin	FRB	Aluminum
F-Area Seepage Basins	FSB	Aluminum, americium-241, beryllium, cadmium, cesium-137, cobalt, curium-243/244, dichloromethane, gross alpha, iodine-129, iron, lead, mercury, nickel, nitrate-nitrite as nitrogen, nonvolatile beta, pH, radium-226, radium-228, specific conductance, strontium-90, thallium, trichloroethylene, tritium, uranium-233/234, uranium-235, uranium-238
F-Area Inactive Process Sewer Line	FSL	Aluminum, cadmium, carbon tetrachloride, gross alpha, iodine-129, iron, mercury, nitrate-nitrite as nitrogen, nonvolatile beta, radium-226, strontium-90, tritium, uranium-233/234, uranium-238
F-Area Tank Farm	FTF	Gross alpha, nonvolatile beta, pH, specific conductance
H-Area Tank Farm Operable Unit	HAA	Aluminum, <b>carbon tetrachloride</b> , <b>1,1-dichloroethylene</b> , iron, lead, nonvolatile beta, pH, specific conductance, <b>1,1,1-trichloroethane</b> , trichloroethylene, tritium
H-Area Coal Pile Runoff Containment Basin	HCB	Aluminum, iron, manganese
H-Area Effluent Treatment Cooling Water Basin	HET	Aluminum, iron
H-Area HP-52 Outfall	HHP	Aluminum, iron, manganese

### **Executive Summary**



<i>Site</i>	<i>Well Series</i>	<i>Analytes above Flag 2 Criteria</i>
H-Area Seepage Basins Remediation Injection Tank	HIN	Iodine-129, <b>radium-226</b> , specific conductance
Old H-Area Retention Basin	HR3	Aluminum, manganese, nitrate-nitrite as nitrogen, tritium
H-Area Seepage Basins	HSB	Aluminum, americium-241, curium-243/244, gross alpha, iodine-129, iron, lead, mercury, nickel-63, nitrate-nitrite as nitrogen, nonvolatile beta, pH, radium-226, radium-228, specific conductance, strontium-90, tetrachloroethylene, tritium, uranium-233/234, uranium-238
H-Area Inactive Process Sewer Line	HSL	Aluminum, gross alpha, iodine-129, iron, nitrate-nitrite as nitrogen, nonvolatile beta, strontium-90, tritium
H-Area Tank Farm	HTF	Aluminum, gross alpha, iron, pH, specific conductance, trichloroethylene, tritium
H-Area Warner's Pond	HWP	Iron, manganese, nonvolatile beta, tritium
Hazardous Waste Storage Facility	HWS	Aluminum, iron
K-Area Ash Basin	KAB	Gross alpha, iron, manganese, specific conductance
K-Area Bingham Pump Outage Pits	KBP	Aluminum, manganese
K-Area Coal Pile Runoff Basin	KCB	Aluminum, iron, lead, manganese
K-Area Disassembly Basin	KDB	Tritium
K-Area Retention Basin	KRB	Tritium
K-Area Burning/Rubble Pit	KRP	Aluminum, manganese
K-Area Reactor Seepage Basin	KSB	Aluminum, iron, trichloroethylene, tritium
K-Area Tritium Sump Monitoring Well	KSM	Tritium
L-Area Acid/Caustic Basin	LAC	Aluminum, iron
L-Area Research Wells	LAW	Tritium
L-Area Bingham Pump Outage Pit	LBP	Aluminum, iron, pH, <b>tritium</b>
L-Area Disassembly Basin	LDB	Tritium
Interim Sanitary Landfill	LFW	Aluminum, benzene, benzoic acid, chloroethene, 1,4-dichlorobenzene, dichlorodifluoromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, dichloromethane, iron, mercury, tetrachloroethylene, trichloroethylene, trichlorofluoromethane, tritium
Miscellaneous Chemical Basin	MCB	Aluminum, iron, pH, specific conductance, tetrachloroethylene, total organic halogens, trichloroethylene
M-Area Hazardous Waste Management Facility (HWMF)	MSB	Aluminum, 1,1-dichloroethylene, dichloromethane, gross alpha, iron, lead, pH, specific conductance, tetrachloroethylene, total organic halogens, trichloroethylene

### **Executive Summary**



<i>Site</i>	<i>Well Series</i>	<i>Analytes above Flag 2 Criteria</i>
B-Area Microbiology Wells	P	Iron, tritium
P-Area Bingham Pump Outage Pit	PBP	Aluminum, iron
P-Area Coal Pile Runoff Containment Basin	PCB	Aluminum, gross alpha, iron, manganese, sulfate
P-Area Disassembly Basin	PDB	Aluminum, iron, tritium
P-Area Reactor Seepage Basins	PSB	Aluminum, iron, <b>strontium-90</b> , tritium
R-Area Bingham Pump Outage Pit	RBP	Aluminum
R-Area Disassembly Basin	RDB	Aluminum, iron, manganese
R-Area Burning/Rubble Pits	RRP	Aluminum, iron
A/M-Area Recovery Well Network	RWM	Dichloromethane, tetrachloroethylene, trichloroethylene
Silverton Road Waste Site	SRW	Aluminum, carbon tetrachloride, pH, trichloroethylene
TNX Burying Ground	TBG	Aluminum, carbon tetrachloride, cis-1,2-dichloroethylene, gross alpha, iron, manganese, mercury, nitrate as nitrogen, tetrachloroethylene, trichloroethylene
TNX-Area Operable Unit	TCM	Aluminum, carbon tetrachloride, <b>gross alpha</b> , iron, manganese, nitrate as nitrogen, trichloroethylene
TNX-Area Operable Unit	TIR	Aluminum, gross alpha, manganese, mercury, nitrate as nitrogen, trichloroethylene
TNX-Area Assessment Wells	TNX	Aluminum, carbon tetrachloride, cis-1,2-dichloroethylene, iron, manganese, tetrachloroethylene, trichloroethylene
TNX-Area Recovery Wells	TRW	Aluminum, carbon tetrachloride, iron, manganese, trichloroethylene
New TNX Seepage Basin	XSB	Aluminum, iron, mercury, nitrate as nitrogen, trichloroethylene
Old TNX Seepage Basin	YSB	Aluminum, iron
Y-Area Waste Solidification and Disposal Facility	YSC	Aluminum, iron
Z-Area Low Point	ZDT	Aluminum, tritium

Note: The groundwater samples are unfiltered. Therefore, the results for metals are for total recoverable metals. Analytes in bold were detected at levels above the current Flag 2 criteria for the first time since 1984.

## **Executive Summary**



# **Introduction**

This report summarizes the Groundwater Monitoring Program conducted by SRS during first quarter 1999. It includes the analytical data, field data, data review, quality control, and other documentation for this program; provides a record of the program's activities; and serves as an official record of the analytical results.

EPD/EMS is responsible for providing drilling, sampling, and analytical and data management support for the SRS Groundwater Monitoring Program at approximately 135 waste sites in 17 areas at SRS (see figures 1 and 2 at the end of this section). The majority of this monitoring is required by U.S. Department of Energy (DOE) orders and by federal and state regulations administered by the USEPA and the South Carolina Department of Health and Environmental Control (SCDHEC). The Groundwater Monitoring Program includes the following activities:

- installation, maintenance, and abandonment of monitoring wells
- environmental soil borings
- development of sampling and analytical schedules
- collection and analysis of groundwater samples
- review of analytical and other data
- maintenance of the databases containing groundwater monitoring data
- quality assurance (QA) evaluations of laboratory performance
- reports of results to waste-site facility custodians and the Environmental Protection Department

The custodian of each waste site is responsible for informing EPD/EMS of sampling and analytical requirements and special requests for the sampling schedule, assisting in review of the data, and making any decisions regarding groundwater monitoring at the waste site.

Each custodian receives a copy of this report. Each custodian also receives site-specific data on request, including the following:

- a computer printout of the analytical data for the current quarter and for the previous seven quarters, designed to assist in identifying trends
- a computer printout of analytical results at or above Flag 1 and Flag 2 criteria for the quarter, designed to assist in identifying elevated constituents

## **ORGANIZATION OF THIS REPORT**

This report is divided into sections that focus on specific aspects of the SRS Groundwater Monitoring Program. The **Executive Summary** section presents a listing by waste site and well series of all analytes detected at or above Flag 2 criteria during the quarter. Analytes detected at or above Flag 2 criteria for the first time since 1984 are indicated in bold type.

The **Flagging Criteria** section lists flagging criteria for analytes and provides a short description of how the criteria were derived. The **Sample Scheduling** section discusses the preparation of the sampling schedule and the criteria for analyte selection.



During sample collection, samplers write comments in the field logbooks that may be pertinent to the analysis of samples. Many of the comments concern wells that went dry during sampling or water that appeared colored, turbid, or aerated. These comments are included in the **Field Notes** section.

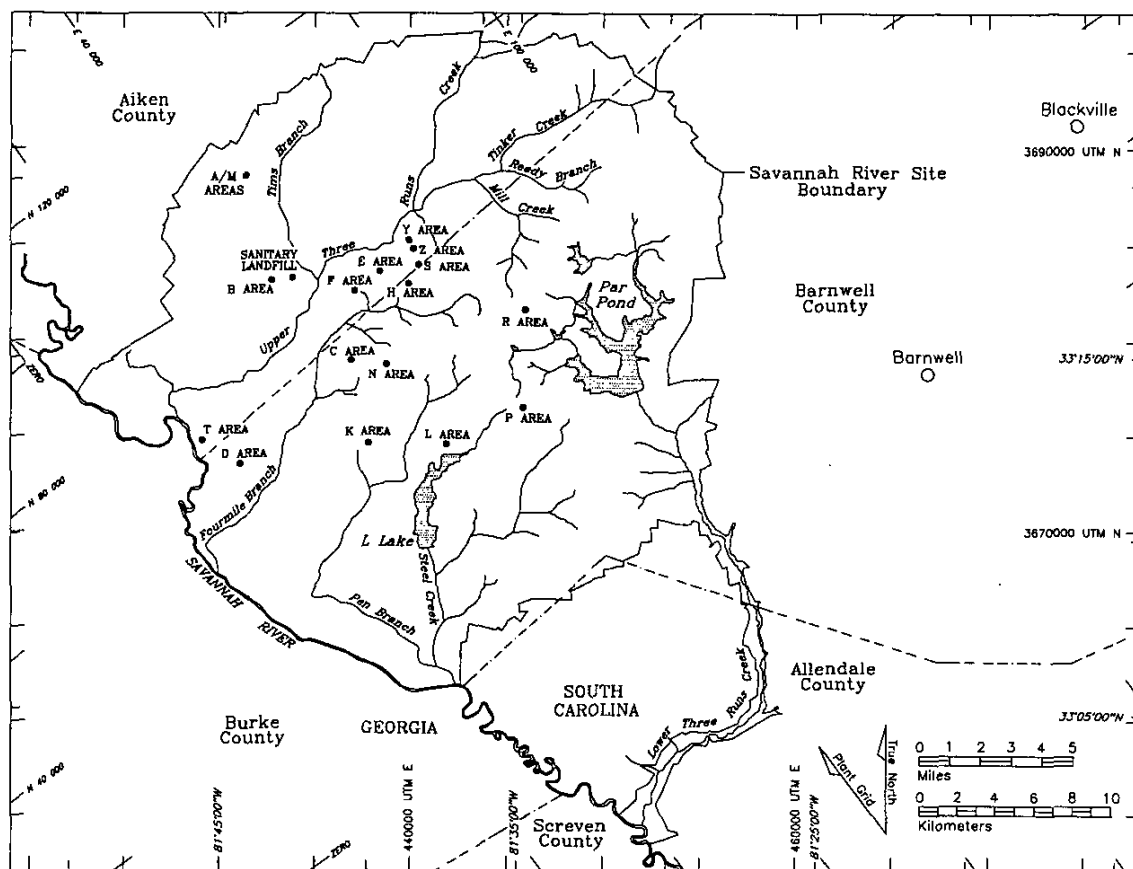
Samples are analyzed by the EPD/EMS (EM Lab or EM) Radiological Laboratory at SRS and by one or more off-site laboratories. During first quarter 1999, EMAX Laboratories, Inc. (EX), of Torrance, CA; General Engineering Laboratories (GE), of Charleston, SC; and Recra LabNet Philadelphia (WA), of Lionville, PA, were the primary off-site laboratories. Radionuclide analyses were conducted by Environmental Physics, Inc. (GP), a subcontractor for GE, and Thermo NUtech (TM), a subcontractor for WA. Analytical data from the EM Lab were not received in time to be included in the report for first quarter 1999. The **Analytical Data Review** section contains three subsections. The **GIMS Data Review Module** subsection discusses automated data management activities at EPD/EMS. The **Review of the Analytical Data** subsection includes a discussion of discrepancies in each laboratory's analytical data, including results that were considerably higher or lower than previous results. This subsection also includes information about the analytical narratives that were used as reference materials throughout the data validation process. The **Analytical Methods** subsection lists the methods the laboratories used for measuring concentrations of each analyte.

The **Quality Control Samples** section contains five subsections and discusses the analytical data in terms of the following indicators of data quality: precision, accuracy, representativeness, comparability, and completeness. The **Precision** subsection explains the replicate analysis program, gives the statistical methods used for comparison, and lists the results of the comparisons between the replicate and duplicate analyses. The **Accuracy** subsection examines the relationship between an observed value and an accepted reference value and/or the measure of the over- or underestimation of reported concentrations. The **Representativeness** subsection describes how ground-water samples can be affected to produce results that may be biased positively or negatively. The **Comparability** subsection discusses whether the laboratories use the same standardized procedures for sample preparation and analysis, whether the reporting units are the same, and whether similar quantitation limits were obtained. The **Completeness** section evaluates the amount of useable data that resulted from the data collection.

The **Site Index** section lists and gives a description of the sites associated with each well series, as well as historical information for the sites. A list of terms, abbreviations, and acronyms used in this report can be found in the **Glossary** section. References cited are included in the **References** section.

The **Water-Level Data** section (**Appendix A**) includes concurrent water elevations obtained in A/M and other areas; these data are used by SRS personnel in hydrogeologic studies. The **Analytical Results** section (**Appendix B**) includes tables listing the analytical results from all laboratories and field data for all wells sampled during the quarter. The tables appear in alphabetical order by well name. The **Sampling Blanks Results** section (**Appendix C**) contains tables listing the analytical results of laboratory tests on sampling blanks.

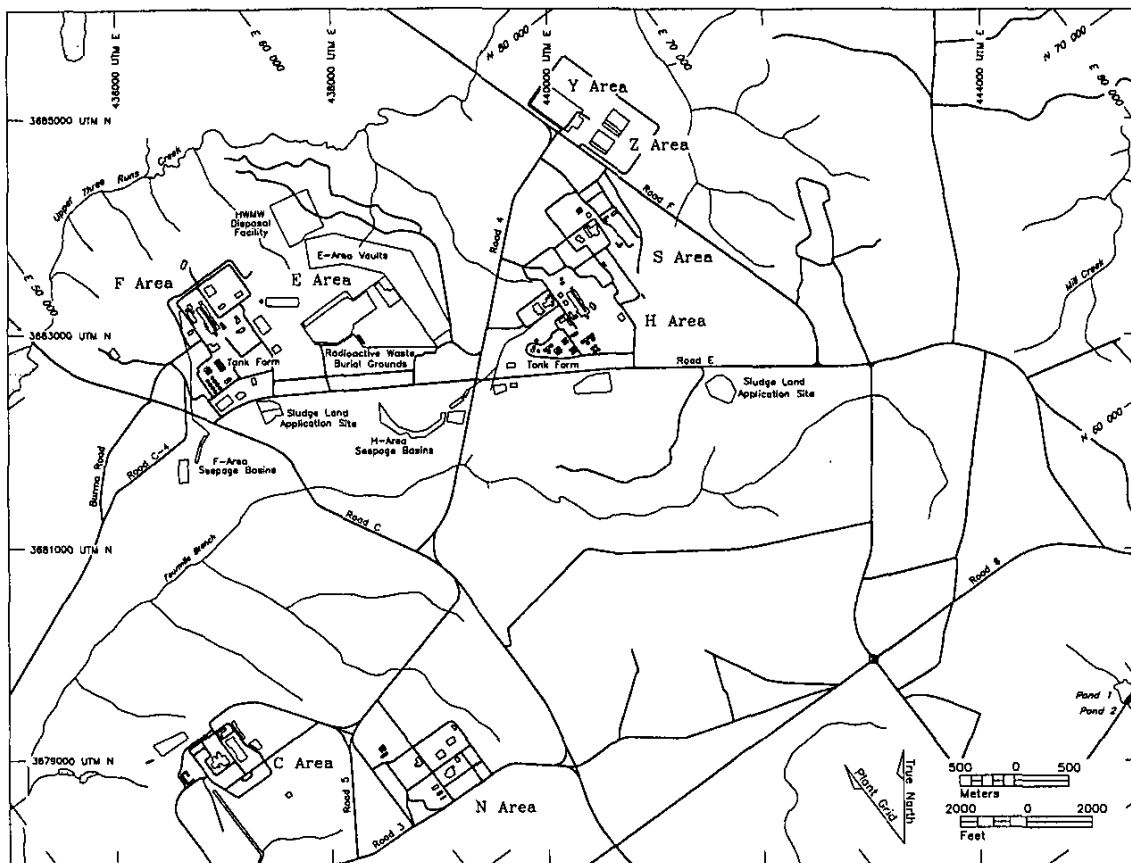




**Figure 1. Areas and Locations Monitored for Groundwater Quality**

## Introduction





**Figure 2. Separations and Waste Management Areas Monitored for Groundwater Quality**



# Flagging Criteria

Analytes in the data tables are assigned flagging levels (0, 1, or 2) depending on their concentrations in a groundwater sample. The flagging levels dictate the scheduling and frequency of groundwater sampling. Beginning first quarter 1992, flagging criteria were established for all of the constituents currently being analyzed as part of the EPD/EMS Groundwater Monitoring Program, except for certain aesthetic constituents, indicator parameters, major cations, and common laboratory contaminants and cleaners, which can be analyzed by special request. The flagging criteria in table 2 were determined as follows:

*Flag 0:* Analytical results below Flag 1 and constituents having no flagging criteria were classified as Flag 0.

*Flag 1:* The Flag 1 criterion for a constituent was set as one-half of the EPA final primary drinking water standard, the EPA proposed primary drinking water standard, or the EPA secondary drinking water standard for that constituent. If a constituent did not have an EPA drinking water standard, the Flag 1 criterion was set as five times a recently published 90th percentile detection limit obtained by one of the primary laboratories.

*Flag 2:* The Flag 2 criterion for a constituent was set as the EPA final primary drinking water standard, the EPA proposed primary drinking water standard, or the EPA secondary drinking water standard for that constituent. If a constituent did not have a drinking water standard, the Flag 2 criterion was set as 10 times a recently published 90th percentile detection limit obtained by one of the primary laboratories.

The following acronyms are used as abbreviated sources in the flagging criteria table. Complete information concerning documents cited can be found in the **References** section of this report.

APHA — American Public Health Association.

APHA Method — A specific analytical method for testing constituent levels in a sample as established by the APHA, American Water Works Association, and Water Pollution Control Federation. See American Public Health Association et al. in **References**.

EPA — U.S. Environmental Protection Agency.

EPA Method — A specific analytical method for testing constituent levels. Descriptions of these methods can be found in the EPA publications *Methods for Chemical Analysis of Water and Wastes* (1983) and *Test Methods for Evaluating Solid Waste* (1986b) and in the 1991 *Code of Federal Regulations*, Title 40, Part 136. See Environmental Protection Agency in **References**.

EPD/EMS — The Environmental Protection Department/Environmental Monitoring Section at the Savannah River Site.

PDWS — Primary Drinking Water Standards.

SCDHEC — South Carolina Department of Health and Environmental Control.

SDWS — Secondary Drinking Water Standards.



**Table 2. Flagging Criteria**

Analyte	Unit	Flag 1	Flag 2	Source†
Acenaphthene	µg/L	5.1	10.2	EPA Method 8270
Acenaphthylene	µg/L	5.1	10.2	EPA Method 8270
Acetone	µg/L	500	1,000	Set by EPD/EMS
Acetonitrile (Methyl cyanide)	µg/L	50	100	EPA Method 8240
Acetophenone	µg/L	85	170	EPA Method 8270
2-Acetylaminofluorene	µg/L	81	162	EPA Method 8270
Acrolein	µg/L	166.5	333	EPA Method 8240
Acrylonitrile	µg/L	250	500	EPA Method 8240
Actinium-228	µCi/mL	1.64E-06	3.27E-06	Proposed PDWS (EPA, 1991c)
Alachlor	µg/L	1.0	2.0	Final PDWS (EPA, 1997a)
Aldicarb	µg/L	1.5	3.0	Final PDWS (EPA, 1997a)
Aldicarb sulfone	µg/L	1.0	2.0	Final PDWS (EPA, 1997a)
Aldicarb sulfoxide	µg/L	2.0	4.0	Final PDWS (EPA, 1997a)
Aldrin	µg/L	0.4	0.8	EPA Method 8080
Alkalinity (as CaCO <sub>3</sub> )		No flag	No flag	Set by EPD/EMS
Allyl chloride	µg/L	416.5	833	EPA Method 8240
Aluminum	µg/L	25	50	SDWS (EPA, 1997b)
Aluminum, dissolved	µg/L	25	50	SDWS (EPA, 1997b)
Aluminum, total recoverable	µg/L	25	50	SDWS (EPA, 1997b)
Americium-241	µCi/mL	3.17E-09	6.34E-09	Proposed PDWS (EPA, 1991c)
Americium-243	µCi/mL	3.19E-09	6.37E-09	Proposed PDWS (EPA, 1991c)
4-Aminobiphenyl	µg/L	81	162	EPA Method 8270
Ammonia	µg/L	250	500	APHA Method 417B
Ammonia nitrogen	µg/L	500	1,000	EPA Method 350.1
Aniline	µg/L	81	162	EPA Method 8270
Anthracene	µg/L	5.1	10.2	EPA Method 8270
Antimony	µg/L	3.0	6.0	Final PDWS (EPA, 1997a)
Antimony, dissolved	µg/L	3.0	6.0	Final PDWS (EPA, 1997a)
Antimony, total recoverable	µg/L	3.0	6.0	Final PDWS (EPA, 1997a)
Antimony-124	µCi/mL	3.0E-08	6.0E-08	Interim Final PDWS (EPA, 1977)
Antimony-125	µCi/mL	1.5E-07	3.0E-07	Interim Final PDWS (EPA, 1977)
Aramite	µg/L	81	162	EPA Method 8270
Arsenic	µg/L	25	50	Final PDWS (EPA, 1997a)
Arsenic, dissolved	µg/L	25	50	Final PDWS (EPA, 1997a)
Arsenic, total recoverable	µg/L	25	50	Final PDWS (EPA, 1997a)
Asbestos	Fibers/L	3,500,000	7,000,000	Final PDWS (EPA, 1997a)
Atrazine	µg/L	1.5	3.0	Final PDWS (EPA, 1997a)
Azobenzene	µg/L	50	100	EPA Method 625
Barium	µg/L	1,000	2,000	Final PDWS (EPA, 1997a)
Barium, dissolved	µg/L	1,000	2,000	Final PDWS (EPA, 1997a)
Barium, total recoverable	µg/L	1,000	2,000	Final PDWS (EPA, 1997a)
Barium-133	µCi/mL	7.60E-07	1.52E-06	Proposed PDWS (EPA, 1991c)
Barium-140◆	µCi/mL	4.5E-08	9.0E-08	Interim Final PDWS (EPA, 1977)
Benzene	µg/L	2.5	5.0	Final PDWS (EPA, 1997a)
alpha-Benzene hexachloride	µg/L	0.15	0.3	EPA Method 8080
beta-Benzene hexachloride	µg/L	0.25	0.5	EPA Method 8080
delta-Benzene hexachloride	µg/L	0.25	0.5	EPA Method 8080
Benzidine	µg/L	83.5	167	EPA Method 8270
Benzo[a]anthracene	µg/L	0.05	0.1	Proposed PDWS (EPA, 1990)
Benzo[b]fluoranthene	µg/L	0.1	0.2	Proposed PDWS (EPA, 1990)
Benzo[k]fluoranthene	µg/L	0.1	0.2	Proposed PDWS (EPA, 1990)
Benzoic acid	µg/L	5.0	10	EPA Method 8270
Benzo[g,h,i]perylene	µg/L	5.1	10.2	EPA Method 8270
Benzo[a]pyrene	µg/L	0.1	0.2	Final PDWS (EPA, 1997a)
1,4-Benzoquinone	µg/L	50	100	EPA Method 8270
Benzyl alcohol	µg/L	5.0	10	EPA Method 8270

**Flagging Criteria**



Analyte	Unit	Flag 1	Flag 2	Source†
Beryllium	µg/L	2.0	4.0	Final PDWS (EPA, 1997a)
Beryllium, dissolved	µg/L	2.0	4.0	Final PDWS (EPA, 1997a)
Beryllium, total recoverable	µg/L	2.0	4.0	Final PDWS (EPA, 1997a)
Beryllium-7	µCi/mL	3.0E-06	6.0E-06	Interim Final PDWS (EPA, 1977)
5-day Biochemical oxygen demand		No flag	No flag	Set by EPD/EMS
Bis(2-chloroethoxy) methane	µg/L	5.1	10.2	EPA Method 8270
Bis(2-chloroethyl) ether	µg/L	5.1	10.2	EPA Method 8270
Bis(2-chloroisopropyl) ether	µg/L	100	200	EPA Method 8270
Bis(chloromethyl) ether	µg/L	50	100	EPA Method 8270
Bis(2-ethylhexyl) phthalate	µg/L	3.0	6.0	Final PDWS (EPA, 1997a)
Bismuth-214	µCi/mL	9.4E-06	1.89E-05	Proposed PDWS (EPA, 1991c)
Boron	µg/L	2,500	5,000	EPA Method 6010
Boron, dissolved	µg/L	2,500	5,000	EPA Method 6010
Boron, total recoverable	µg/L	2,500	5,000	EPA Method 6010
Bromide	µg/L	5,000	10,000	EPA Method 300.0
Bromobenzene	µg/L	25	50	EPA Method 8260
Bromochloromethane	µg/L	5	10	EPA Method 8260
Bromodichloromethane	µg/L	50	100	Final PDWS (EPA, 1997a)
Bromoform	µg/L	50	100	Final PDWS (EPA, 1997a)
Bromomethane	µg/L	10	20	EPA Method 8240
4-Bromophenyl phenyl ether	µg/L	5.1	10.2	EPA Method 8270
2-sec-Butyl-4,6-dinitrophenol	µg/L	3.5	7.0	Final PDWS (EPA, 1997a)
n-Butylbenzene	µg/L	5	10	EPA Method 8260
sec-Butylbenzene	µg/L	5	10	EPA Method 8260
tert-Butylbenzene	µg/L	5	10	EPA Method 8260
Butylbenzyl phthalate		No flag	No flag	Set by EPD/EMS
Cadmium	µg/L	2.5	5.0	Final PDWS (EPA, 1997a)
Cadmium, dissolved	µg/L	2.5	5.0	Final PDWS (EPA, 1997a)
Cadmium, total recoverable	µg/L	2.5	5.0	Final PDWS (EPA, 1997a)
Calcium		No flag	No flag	Set by EPD/EMS
Calcium, dissolved		No flag	No flag	Set by EPD/EMS
Calcium, total recoverable		No flag	No flag	Set by EPD/EMS
Carbofuran	µg/L	20	40	Final PDWS (EPA, 1997a)
Carbon disulfide	µg/L	25	50	EPA Method 8240
Carbon tetrachloride	µg/L	2.5	5.0	Final PDWS (EPA, 1997a)
Carbon-14	µCi/mL	1.0E-06	2.0E-06	Interim Final PDWS (EPA, 1977)
Carbonate		No flag	No flag	Set by EPD/EMS
Cerium-141 ♦	µCi/mL	1.5E-07	3.0E-07	Interim Final PDWS (EPA, 1977)
Cerium-144	µCi/mL	1.31E-07	2.61E-07	Proposed PDWS (EPA, 1991c)
Cesium-134 ♦	µCi/mL	4.07E-08	8.13E-08	Proposed PDWS (EPA, 1991c)
Cesium-137	µCi/mL	1.0E-07	2.0E-07	Interim Final PDWS (EPA, 1977)
Chemical Oxygen Demand		No flag	No flag	Set by EPD/EMS
Chlordane	µg/L	1.0	2.0	Final PDWS (EPA, 1997a)
alpha-Chlordane	µg/L	0.25	0.5	EPA Method 8080
gamma-Chlordane	µg/L	0.25	0.5	EPA Method 8080
Chloride	µg/L	125,000	250,000	SDWS (EPA, 1997b)
4-Chloroaniline	µg/L	5.0	10	EPA Method 8270
Chlorobenzene	µg/L	50	100	Final PDWS (EPA, 1997a)
Chlorobenzilate	µg/L	81	162	EPA Method 8270
Chloroethane	µg/L	10	20	EPA Method 8240
Chloroethene (Vinyl chloride)	µg/L	1.0	2.0	Final PDWS (EPA, 1997a)
Chloroethyl vinyl ether	µg/L	5.0	10	EPA Method 8240
2-Chloroethyl vinyl ether	µg/L	50	100	EPA Method 8240
Chloroform	µg/L	50	100	Final PDWS (EPA, 1997a)
4-Chloro-m-cresol	µg/L	5.1	10.2	EPA Method 8270
Chloromethane	µg/L	10	20	EPA Method 8240
2-Chloronaphthalene	µg/L	5.1	10.2	EPA Method 8240
2-Chlorophenol	µg/L	5.1	10.2	EPA Method 8270

### Flagging Criteria



Analyte	Unit	Flag 1	Flag 2	Source†
4-Chlorophenyl phenyl ether	µg/L	5.1	10.2	EPA Method 8270
Chloroprene	µg/L	1,665	3,330	EPA Method 8240
2-Chlorotoluene	µg/L	25	50	EPA Method 8260
4-Chlorotoluene	µg/L	5	10	EPA Method 8260
Chromium	µg/L	50	100	Final PDWS (EPA, 1997a)
Chromium, dissolved	µg/L	50	100	Final PDWS (EPA, 1997a)
Chromium, total recoverable	µg/L	50	100	Final PDWS (EPA, 1997a)
Chromium-51 ♦	µCi/mL	3.0E-06	6.0E-06	Interim Final PDWS (EPA, 1977)
Chrysene	µg/L	0.1	0.2	Proposed PDWS (EPA, 1990)
Cobalt	µg/L	50	100	EPA Method 6010
Cobalt, dissolved	µg/L	50	100	EPA Method 6010
Cobalt, total recoverable	µg/L	50	100	EPA Method 6010
Cobalt-57	µCi/mL	5.0E-07	1.0E-06	Interim Final PDWS (EPA, 1977)
Cobalt-58	µCi/mL	4.5E-06	9.0E-06	Interim Final PDWS (EPA, 1977)
Cobalt-60	µCi/mL	5.0E-08	1.0E-07	Interim Final PDWS (EPA, 1977)
Color		No flag	No flag	Set by EPD/EMS
Copper	µg/L	500	1,000	Final PDWS (SCDHEC, 1981)
Copper, dissolved	µg/L	500	1,000	Final PDWS (SCDHEC, 1981)
Copper, total recoverable	µg/L	500	1,000	Final PDWS (SCDHEC, 1981)
Corrosivity		No flag	No flag	Set by EPD/EMS
m-Cresol (3-Methylphenol)	µg/L	50	100	EPA Method 8270
o-Cresol (2-Methylphenol)	µg/L	5.0	10	EPA Method 8270
p-Cresol (4-Methylphenol)	µg/L	60	120	EPA Method 8270
Curium-242	µCi/mL	6.65E-08	1.33E-07	Proposed PDWS (EPA, 1991c)
Curium-243	µCi/mL	4.15E-09	8.30E-09	Proposed PDWS (EPA, 1991c)
Curium-243/244	µCi/mL	4.15E-09	8.30E-09	Proposed PDWS (EPA, 1991c)
Curium-244	µCi/mL	4.92E-09	9.84E-09	Proposed PDWS (EPA, 1991c)
Curium-245/246	µCi/mL	3.12E-09	6.23E-09	Proposed PDWS (EPA, 1991c)
Curium-246	µCi/mL	3.14E-09	6.27E-09	Proposed PDWS (EPA, 1991c)
Cyanide	µg/L	100	200	Final PDWS (EPA, 1997a)
Dalapon	µg/L	100	200	Final PDWS (EPA, 1997a)
p,p'-DDD	µg/L	0.55	1.1	EPA Method 8080
p,p'-DDE	µg/L	0.25	0.5	EPA Method 8080
p,p'-DDT	µg/L	0.85	1.7	EPA Method 8080
Diallate	µg/L	81	162	EPA Method 8270
Dibenz[a,h]anthracene	µg/L	0.15	0.3	Proposed PDWS (EPA, 1990)
Dibenzofuran	µg/L	5.0	10	EPA Method 8270
Dibromochloromethane	µg/L	50	100	Final PDWS (EPA, 1997a)
1,2-Dibromo-3-chloropropane	µg/L	0.1	0.2	Final PDWS (EPA, 1997a)
1,2-Dibromoethane	µg/L	0.025	0.05	Final PDWS (EPA, 1997a)
Dibromomethane	µg/L	10	20	EPA Method 8240
Di-n-butyl phthalate		No flag	No flag	Set by EPD/EMS
1,2-Dichlorobenzene	µg/L	300	600	Final PDWS (EPA, 1997a)
1,3-Dichlorobenzene	µg/L	81	162	EPA Method 8270
1,4-Dichlorobenzene	µg/L	37.5	75	Final PDWS (EPA, 1997a)
3,3'-Dichlorobenzidine	µg/L	5.1	10.2	EPA Method 8270
trans-1,4-Dichloro-2-butene	µg/L	250	500	EPA Method 8240
Dichlorodifluoromethane	µg/L	10	20	EPA Method 8240
1,1-Dichloroethane	µg/L	10	20	EPA Method 8240
1,2-Dichloroethane	µg/L	2.5	5.0	Final PDWS (EPA, 1997a)
cis-1,2-Dichloroethylene	µg/L	35	70	Final PDWS (EPA, 1997a)
1,1-Dichloroethylene	µg/L	3.5	7.0	Final PDWS (EPA, 1997a)
1,2-Dichloroethylene	µg/L	25	50	EPA Method 8240
trans-1,2-Dichloroethylene	µg/L	50	100	Final PDWS (EPA, 1997a)
Dichloromethane	µg/L	2.5	5.0	Final PDWS (EPA, 1997a)
2,4-Dichlorophenol	µg/L	5.1	10.2	EPA Method 8270
2,6-Dichlorophenol	µg/L	83.5	167	EPA Method 8270
2,4-Dichlorophenoxyacetic acid	µg/L	35	70	Final PDWS (EPA, 1997a)

### Flagging Criteria



Analyte	Unit	Flag 1	Flag 2	Source†
1,2-Dichloropropane	µg/L	2.5	5.0	Final PDWS (EPA, 1997a)
2,2-Dichloropropane	µg/L	5	10	EPA Method 8260
cis-1,3-Dichloropropene	µg/L	10	20	EPA Method 8240
trans-1,3-Dichloropropene	µg/L	10	20	EPA Method 8240
Dieldrin	µg/L	4.15	8.3	EPA Method 8080
Di(2-ethylhexyl) adipate	µg/L	200	400	Final PDWS (EPA, 1997a)
Diethyl phthalate		No flag	No flag	Set by EPD/EMS
Dimethoate	µg/L	81	162	EPA Method 8270
2,4-Dimethyl phenol	µg/L	5.1	10.2	EPA Method 8270
Dimethyl phthalate		No flag	No flag	Set by EPD/EMS
p-Dimethylaminoazobenzene	µg/L	81	162	EPA Method 8270
p-(Dimethylamino)ethylbenzene	µg/L	50	100	EPA Method 8270
7,12-Dimethylbenz[a]anthracene	µg/L	81	162	EPA Method 8270
3,3'-Dimethylbenzidine	µg/L	81	162	EPA Method 8270
a,a-Dimethylphenethylamine	µg/L	81	162	EPA Method 8270
1,3-Dinitrobenzene	µg/L	81	162	EPA Method 8270
2,4-Dinitrophenol	µg/L	51	102	EPA Method 8270
2,4-Dinitrotoluene	µg/L	0.5	1.0	EPA Method 8270
2,6-Dinitrotoluene	µg/L	0.5	1.0	EPA Method 8270
Di-n-octyl phthalate		No flag	No flag	Set by EPD/EMS
1,4-Dioxane	µg/L	500	1000	EPA Method 8270
Diphenylamine	µg/L	81	162	EPA Method 8270
1,2-Diphenylhydrazine	µg/L	83.5	167	EPA Method 8270
Diquat dibromide	µg/L	10	20	Final PDWS (EPA, 1997a)
Dissolved organic carbon	µg/L	10,500,000	21,000,000	EPA Method 9060
Disulfoton	µg/L	81	162	EPA Method 8270
Endosulfan I	µg/L	0.25	0.5	EPA Method 8080
Endosulfan II	µg/L	0.55	1.1	EPA Method 8080
Endosulfan sulfate	µg/L	0.55	1.1	EPA Method 8080
Endothall	µg/L	50	100	Final PDWS (EPA, 1997a)
Endrin	µg/L	1.0	2.0	Final PDWS (EPA, 1997a)
Endrin aldehyde	µg/L	0.85	1.7	EPA Method 8080
Endrin ketone		No flag	No flag	Set by EPD/EMS
Ethyl ether	µg/L	50	100	EPA Method 8260
Ethyl methacrylate	µg/L	2.5	5.0	EPA Method 8270
Ethyl methanesulfonate	µg/L	81	162	EPA Method 8270
Ethylbenzene	µg/L	350	700	Final PDWS (EPA, 1997a)
Europium-152	µCi/mL	3.0E-08	6.0E-08	Interim Final PDWS (EPA, 1977)
Europium-154	µCi/mL	1.0E-07	2.0E-07	Interim Final PDWS (EPA, 1977)
Europium-155	µCi/mL	3.0E-07	6.0E-07	Interim Final PDWS (EPA, 1977)
Famphur	µg/L	81	162	EPA Method 8270
Fluoranthene	µg/L	5.1	10.2	EPA Method 8270
Fluorene	µg/L	5.1	10.2	EPA Method 8270
Fluoride	µg/L	2,000	4,000	Final PDWS (EPA, 1997a)
Glyphosate	µg/L	350	700	Final PDWS (EPA, 1997a)
Gross alpha	µCi/mL	7.5E-09	1.5E-08	Final PDWS (EPA, 1997a)
Heptachlor	µg/L	0.2	0.4	Final PDWS (EPA, 1997a)
Heptachlor epoxide	µg/L	0.1	0.2	Final PDWS (EPA, 1997a)
Heptachlorodibenzo-p-dioxins	µg/L	0.007	0.014	EPA Method 8280
1,2,3,4,6,7,8-HPCDD	µg/L	0.007	0.014	EPA Method 8280
Heptachlorodibenzo-p-furans	µg/L	0.008	0.016	EPA Method 8280
1,2,3,4,6,7,8-HPCDF	µg/L	0.008	0.016	EPA Method 8280
Hexachlorobenzene	µg/L	0.5	1.0	Final PDWS (EPA, 1997a)
Hexachlorobutadiene	µg/L	5.0	10	EPA Method 8270
Hexachlorocyclopentadiene	µg/L	25	50	Final PDWS (EPA, 1997a)
Hexachlorodibenzo-p-dioxins	µg/L	0.008	0.016	EPA Method 8280
1,2,3,4,7,8-HXCDD	µg/L	0.0105	0.021	EPA Method 8280
Hexachlorodibenzo-p-furans	µg/L	0.006	0.012	EPA Method 8280
1,2,3,4,7,8-HXCDF	µg/L	0.0085	0.017	EPA Method 8280

### Flagging Criteria



Analyte	Unit	Flag 1	Flag 2	Source†
Hexachloroethane	µg/L	0.5	1.0	EPA Method 8270
Hexachlorophene	µg/L	83.5	167	EPA Method 8270
Hexachloropropene	µg/L	81	162	EPA Method 8270
2-Hexanone	µg/L	50	100	EPA Method 8240
Indeno[1,2,3-c,d]pyrene	µg/L	0.5	1.0	EPA Method 8270
Iodine	µg/L	250	500	APHA Method 415A
Iodine-129	µCi/mL	5.0E-10	1.0E-09	Interim Final PDWS (EPA, 1977)
Iodine-131◆	µCi/mL	1.5E-09	3.0E-09	Interim Final PDWS (EPA, 1977)
Iodomethane (Methyl iodide)	µg/L	125	250	EPA Method 8240
Iron	µg/L	150	300	SDWS (EPA, 1997b)
Iron, dissolved	µg/L	150	300	SDWS (EPA, 1997b)
Iron, total recoverable	µg/L	150	300	SDWS (EPA, 1997b)
Iron-55◆	µCi/mL	1.0E-06	2.0E-06	Interim Final PDWS (EPA, 1977)
Iron-59◆	µCi/mL	1.0E-07	2.0E-07	Interim Final PDWS (EPA, 1977)
Isobutyl alcohol	µg/L	834.5	1,669	EPA Method 8240
Isodrin	µg/L	81	162	EPA Method 8270
Isophorone	µg/L	5.1	10.2	EPA Method 8270
Isopropylbenzene	µg/L	5	10	EPA Method 8260
p-Isopropylbenzene	µg/L	5	10	EPA Method 8260
Isosafrole	µg/L	81	162	EPA Method 8270
Kepone	µg/L	81	162	EPA Method 8270
Lanthanum-140◆	µCi/mL	3.0E-08	6.0E-08	Interim Final PDWS (EPA, 1977)
Lead	µg/L	25	50	Final PDWS (SCDHEC, 1981)
Lead, dissolved	µg/L	25	50	Final PDWS (SCDHEC, 1981)
Lead, total recoverable	µg/L	25	50	Final PDWS (SCDHEC, 1981)
Lead-212	µCi/mL	6.20E-08	1.23E-07	Proposed PDWS (EPA, 1991c)
Lindane	µg/L	0.1	0.2	Final PDWS (EPA, 1997a)
Lithium	µg/L	125	250	EPA Method 6010
Lithium, dissolved	µg/L	125	250	EPA Method 6010
Lithium, total recoverable	µg/L	125	250	EPA Method 6010
Magnesium		No flag	No flag	Set by EPD/EMS
Magnesium, dissolved		No flag	No flag	Set by EPD/EMS
Magnesium, total recoverable		No flag	No flag	Set by EPD/EMS
Manganese	µg/L	25	50	SDWS (EPA, 1997b)
Manganese, dissolved	µg/L	25	50	SDWS (EPA, 1997b)
Manganese, total recoverable	µg/L	25	50	SDWS (EPA, 1997b)
Manganese-54	µCi/mL	1.5E-07	3.0E-07	Interim Final PDWS (EPA, 1977)
Mercury	µg/L	1.0	2.0	Final PDWS (EPA, 1997a)
Mercury, dissolved	µg/L	1.0	2.0	Final PDWS (EPA, 1997a)
Mercury, total recoverable	µg/L	1.0	2.0	Final PDWS (EPA, 1997a)
Methacrylonitrile	µg/L	416.5	833	EPA Method 8240
Methapyrilene	µg/L	81	162	EPA Method 8270
Methoxychlor	µg/L	20	40	Final PDWS (EPA, 1997a)
Methyl ethyl ketone		No flag	No flag	Set by EPD/EMS
Methyl isobutyl ketone		No flag	No flag	Set by EPD/EMS
Methyl methacrylate	µg/L	50	100	EPA Method 8270
Methyl methanesulfonate	µg/L	81	162	EPA Method 8270
Methyl tert-butyl ether	µg/L	5.0	10	EPA Method 8260
3-Methylcholanthrene	µg/L	81	162	EPA Method 8270
2-Methyl-4,6-dinitrophenol	µg/L	51	102	EPA Method 8270
2-Methylnaphthalene	µg/L	5.0	10	EPA Method 8270
Molybdenum	µg/L	250	500	EPA Method 6010
Molybdenum, dissolved	µg/L	250	500	EPA Method 6010
Molybdenum, total recoverable	µg/L	250	500	EPA Method 6010
Naphthalene	µg/L	83.5	167	EPA Method 8270
1,4-Naphthoquinone	µg/L	81	162	EPA Method 8270

### Flagging Criteria



Analyte	Unit	Flag 1	Flag 2	Source†
1-Naphthylamine	µg/L	81	162	EPA Method 8270
2-Naphthylamine	µg/L	81	162	EPA Method 8270
Neptunium-237	µCi/mL	3.53E-09	7.06E-09	Proposed PDWS (EPA, 1991c)
Neptunium-239	µCi/mL	8.40E-07	1.68E-06	Proposed PDWS (EPA, 1991c)
Nickel	µg/L	50	100	Final PDWS (EPA, 1997a)
Nickel, dissolved	µg/L	50	100	Final PDWS (EPA, 1997a)
Nickel, total recoverable	µg/L	50	100	Final PDWS (EPA, 1997a)
Nickel-59	µCi/mL	1.5E-07	3.0E-07	Interim Final PDWS (EPA, 1977)
Nickel-63	µCi/mL	2.5E-08	5.0E-08	Interim Final PDWS (EPA, 1977)
Niobium-95◆	µCi/mL	1.5E-07	3.0E-07	Interim Final PDWS (EPA, 1977)
Nitrate as nitrogen	µg/L	5,000	10,000	Final PDWS (EPA, 1997a)
Nitrate-nitrite as nitrogen	µg/L	5,000	10,000	Final PDWS (EPA, 1997a)
Nitrite as nitrogen	µg/L	500	1,000	Final PDWS (EPA, 1997a)
m-Nitroaniline	µg/L	5.0	10	EPA Method 8270
o-Nitroaniline	µg/L	5.0	10	EPA Method 8270
p-Nitroaniline	µg/L	5.0	10	EPA Method 8270
Nitrobenzene	µg/L	5.1	10.2	EPA Method 8270
Nitrogen by Kjeldahl method	µg/L	500	1,000	EPA Method 351.2
2-Nitrophenol	µg/L	5.1	10.2	EPA Method 8270
4-Nitrophenol	µg/L	5.1	10.2	EPA Method 8270
4-Nitroquinoline-1-oxide	µg/L	81	162	EPA Method 8270
N-Nitrosodi-n-butylamine	µg/L	81	162	EPA Method 8270
N-Nitrosodiethylamine	µg/L	81	162	EPA Method 8270
N-Nitrosodimethylamine	µg/L	83.5	167	EPA Method 8270
N-Nitrosodiphenylamine	µg/L	5.1	10.2	EPA Method 8270
N-Nitrosodipropylamine	µg/L	5.1	10.2	EPA Method 8270
N-Nitrosomethylethylamine	µg/L	81	162	EPA Method 8270
N-Nitrosomorpholine	µg/L	81	162	EPA Method 8270
N-Nitrosopiperidine	µg/L	81	162	EPA Method 8270
N-Nitrosopyrrolidine	µg/L	81	162	EPA Method 8270
5-Nitro-o-toluidine	µg/L	81	162	EPA Method 8270
Nonvolatile beta	µCi/mL	2.5E-08	5.0E-08	Interim Final PDWS (EPA, 1977)
Octachlorodibenzo-p-dioxins	µg/L	0.0085	0.017	EPA Method 8280
Octachlorodibenzo-p-furans	µg/L	0.0065	0.013	EPA Method 8280
Odor		No flag	No flag	Set by EPD/EMS
Oil & grease	µg/L	8,350	16,700	EPA Method 413.1
Oxamyl	µg/L	100	200	Final PDWS (EPA, 1997a)
Parathion	µg/L	0.4	0.8	EPA Method 8080
Parathion methyl	µg/L	0.4	0.8	EPA Method 8080
PCB 1016	µg/L	0.25	0.5	Final PDWS (EPA, 1997a)
PCB 1221	µg/L	0.25	0.5	Final PDWS (EPA, 1997a)
PCB 1232	µg/L	0.25	0.5	Final PDWS (EPA, 1997a)
PCB 1242	µg/L	0.25	0.5	Final PDWS (EPA, 1997a)
PCB 1248	µg/L	0.25	0.5	Final PDWS (EPA, 1997a)
PCB 1254	µg/L	0.25	0.5	Final PDWS (EPA, 1997a)
PCB 1260	µg/L	0.25	0.5	Final PDWS (EPA, 1997a)
PCB 1262	µg/L	0.25	0.5	Final PDWS (EPA, 1997a)
Pentachlorobenzene	µg/L	81	162	EPA Method 8270
Pentachlorodibenzo-p-dioxins	µg/L	0.008	0.016	EPA Method 8280
1,2,3,7,8-PCDD	µg/L	0.0075	0.015	EPA Method 8280
Pentachlorodibenzo-p-furans	µg/L	0.0085	0.017	EPA Method 8280
1,2,3,7,8-PCDF	µg/L	0.0085	0.017	EPA Method 8280
Pentachloroethane	µg/L	81	162	EPA Method 8270
Pentachloronitrobenzene	µg/L	81	162	EPA Method 8270
Pentachlorophenol	µg/L	0.5	1.0	Final PDWS (EPA, 1997a)
pH	pH	8.0	10	Set by EPD/EMS
pH	pH	4.0	3.0	Set by EPD/EMS
Phenacetin	µg/L	81	162	EPA Method 8270

### Flagging Criteria



Analyte	Unit	Flag 1	Flag 2	Source†
Phenanthrene	µg/L	5.1	10.2	EPA Method 8270
Phenol	µg/L	83.5	167	EPA Method 8270
Phenols	µg/L	50	100	EPA Method 420.1
p-Phenylenediamine	µg/L	81	162	EPA Method 8270
Phorate	µg/L	0.85	1.7	EPA Method 8080
Picloram	µg/L	250	500	Final PDWS (EPA, 1997a)
2-Picoline	µg/L	81	162	EPA Method 8270
Plutonium-238	µCi/mL	3.51E-09	7.02E-09	Proposed PDWS (EPA, 1991c)
Plutonium-239	µCi/mL	3.11E-08	6.21E-08	Proposed PDWS (EPA, 1991c)
Plutonium-239/240	µCi/mL	3.11E-08	6.21E-08	Proposed PDWS (EPA, 1991c)
Plutonium-240	µCi/mL	3.11E-08	6.22E-08	Proposed PDWS (EPA, 1991c)
Plutonium-241 ♦	µCi/mL	3.13E-08	6.26E-08	Proposed PDWS (EPA, 1991c)
Plutonium-242 ♦	µCi/mL	3.27E-08	6.54E-08	Proposed PDWS (EPA, 1991c)
Potassium		No flag	No flag	Set by EPD/EMS
Potassium, dissolved		No flag	No flag	Set by EPD/EMS
Potassium, total recoverable		No flag	No flag	Set by EPD/EMS
Potassium-40	µCi/mL	1.5E-07	3.0E-07	Proposed PDWS (EPA, 1986a)
Promethium-144	µCi/mL	5.0E-08	1.0E-07	EPA Method 901.1
Promethium-146	µCi/mL	5.0E-08	1.0E-07	EPA Method 901.1
Promethium-147	µCi/mL	2.62E-06	5.24E-06	Proposed PDWS (EPA, 1991c)
Pronamid	µg/L	81	162	EPA Method 8270
Propionitrile	µg/L	1,665	3,330	EPA Method 8240
n-Propylbenzene	µg/L	5	10	EPA Method 8260
Pyrene	µg/L	5.1	10.2	EPA Method 8270
Pyridine	µg/L	81	162	EPA Method 8270
Radium, total alpha-emitting	µCi/mL	2.5E-09	5.0E-09	Interim Final PDWS (EPA, 1977)
Radium-226	µCi/mL	2.5E-09	5.0E-09	Interim Final PDWS (EPA, 1977)
Radium-228	µCi/mL	2.5E-09	5.0E-09	Interim Final PDWS (EPA, 1977)
Radon-222	µCi/mL	1.5E-07	3.0E-07	Proposed PDWS (EPA, 1991c)
Ruthenium-103 ♦	µCi/mL	1.0E-07	2.0E-07	Interim Final PDWS (EPA, 1977)
Ruthenium-106	µCi/mL	1.5E-08	3.0E-08	Interim Final PDWS (EPA, 1977)
Safrole	µg/L	81	162	EPA Method 8270
Selenium	µg/L	25	50	Final PDWS (EPA, 1997a)
Selenium, dissolved	µg/L	25	50	Final PDWS (EPA, 1997a)
Selenium, total recoverable	µg/L	25	50	Final PDWS (EPA, 1997a)
Silica		No flag	No flag	Set by EPD/EMS
Silica, dissolved		No flag	No flag	Set by EPD/EMS
Silica, total recoverable		No flag	No flag	Set by EPD/EMS
Silver	µg/L	50	100	SDWS (EPA, 1997b)
Silver, dissolved	µg/L	50	100	SDWS (EPA, 1997b)
Silver, total recoverable	µg/L	50	100	SDWS (EPA, 1997b)
Simazine	µg/L	2.0	4.0	Final PDWS (EPA, 1997a)
Sodium		No flag	No flag	Set by EPD/EMS
Sodium, dissolved		No flag	No flag	Set by EPD/EMS
Sodium, total recoverable		No flag	No flag	Set by EPD/EMS
Sodium-22	µCi/mL	2.33E-07	4.66E-07	Proposed PDWS (EPA, 1991c)
Specific conductance	µS/cm	250	500	Set by EPD/EMS
Strontium-89	µCi/mL	1.0E-08	2.0E-08	Interim Final PDWS (EPA, 1977)
Strontium-89/90	µCi/mL	4.0E-09	8.0E-09	Final PDWS (EPA, 1997a)
Strontium-90	µCi/mL	4.0E-09	8.0E-09	Final PDWS (EPA, 1997a)
Styrene	µg/L	50	100	Final PDWS (EPA, 1997a)
Sulfate	µg/L	200,000	400,000	Proposed PDWS (EPA, 1990)
Sulfide	µg/L	8,350	16,700	EPA Method 9030
Sulfotep	µg/L	81	162	EPA Method 8270
Surfactants		No flag	No flag	Set by EPD/EMS
2,3,7,8-TCDD	µg/L	0.007	0.014	Final PDWS (EPA, 1997a)

### Flagging Criteria



Analyte	Unit	Flag 1	Flag 2	Source†
2,3,7,8-TCDF	µg/L	0.00425	0.0085	EPA Method 8280
Technetium-99	µCi/mL	4.5E-07	9.0E-07	Interim Final PDWS (EPA, 1977)
1,2,4,5-Tetrachlorobenzene	µg/L	81	162	EPA Method 8270
Tetrachlorodibenzo-p-dioxins	µg/L	0.007	0.014	EPA Method 8280
Tetrachlorodibenzo-p-furans	µg/L	0.0055	0.011	EPA Method 8280
1,1,1,2-Tetrachloroethane	µg/L	10	20	EPA Method 8240
1,1,2,2-Tetrachloroethane	µg/L	50	100	EPA Method 8240
Tetrachloroethylene	µg/L	2.5	5.0	Final PDWS (EPA, 1997a)
2,3,4,6-Tetrachlorophenol	µg/L	83.5	167	EPA Method 8270
Thallium	µg/L	1.0	2.0	Final PDWS (EPA, 1997a)
Thallium, dissolved	µg/L	1.0	2.0	Final PDWS (EPA, 1997a)
Thallium, total recoverable	µg/L	1.0	2.0	Final PDWS (EPA, 1997a)
Thionazin	µg/L	81	162	EPA Method 8270
Thorium-228	µCi/mL	6.25E-08	1.25E-07	Proposed PDWS (EPA, 1991c)
Thorium-230	µCi/mL	3.96E-08	7.92E-08	Proposed PDWS (EPA, 1991c)
Thorium-232	µCi/mL	4.4E-08	8.8E-08	Proposed PDWS (EPA, 1991c)
Thorium-234◆	µCi/mL	2.0E-07	4.01E-07	Proposed PDWS (EPA, 1991c)
Tin	µg/L	250	500	EPA Method 282.2
Tin, dissolved	µg/L	250	500	EPA Method 282.2
Tin, total recoverable	µg/L	250	500	EPA Method 282.2
Tin-113	µCi/mL	1.5E-07	3.0E-07	Interim Final PDWS (EPA, 1977)
Toluene	µg/L	500	1,000	Final PDWS (EPA, 1997a)
o-Toluidine	µg/L	81	162	EPA Method 8270
Total carbon	µg/L	5,000	10,000	EPA Method 9060
Total coliform	N/A	0	0	Final PDWS (EPA, 1997a)
Total dissolved solids		No flag	No flag	Set by EPD/EMS
Total hydrocarbons	µg/L	5,000	10,000	EPA Method 418.1
Total inorganic carbon	µg/L	8,350	16,700	EPA Method 9060
Total organic carbon	µg/L	500,000	1,000,000	EPA Method 9060
Total organic halogens	µg/L	50	100	EPA Method 9020
Total organic nitrogen	µg/L	500	1,000	APHA Method 420
Total petroleum hydrocarbons	µg/L	8,350	16,700	EPA Method 418.1
Total phosphates (as P)		No flag	No flag	Set by EPD/EMS
Total phosphorus		No flag	No flag	Set by EPD/EMS
Toxaphene	µg/L	1.5	3.0	Final PDWS (EPA, 1997a)
2,4,5-TP (Silvex)	µg/L	25	50	Final PDWS (EPA, 1997a)
Tributyl phosphate	µg/L	86	172	EPA Method 8270
1,2,3-Trichlorobenzene	µg/L	5	10	EPA Method 8260
1,2,4-Trichlorobenzene	µg/L	35	70	Final PDWS (EPA, 1997a)
1,1,1-Trichloroethane	µg/L	100	200	Final PDWS (EPA, 1997a)
1,1,2-Trichloroethane	µg/L	2.5	5.0	Final PDWS (EPA, 1997a)
Trichloroethylene	µg/L	2.5	5.0	Final PDWS (EPA, 1997a)
Trichlorofluoromethane	µg/L	10	20	EPA Method 8240
2,4,5-Trichlorophenol	µg/L	5.0	10	EPA Method 8270
2,4,6-Trichlorophenol	µg/L	0.5	1.0	EPA Method 8270
2,4,5-Trichlorophenoxyacetic acid	µg/L	0.25	0.5	EPA Method 8150
1,2,3-Trichloropropane	µg/L	10	20	EPA Method 8240
Trichlorotrifluoroethane	µg/L	50	100	EPA Method 8260
O,O,O-Triethyl phosphorothioate	µg/L	81	162	EPA Method 8270
1,2,4-Trimethylbenzene	µg/L	5	10	EPA Method 8260
1,3,5-Trimethylbenzene	µg/L	5	10	EPA Method 8260
1,3,5-Trinitrobenzene	µg/L	81	162	EPA Method 8270
Tritium	µCi/mL	1.0E-05	2.0E-05	Final PDWS (EPA, 1997a)
Turbidity*		No flag	No flag	Set by EPD/EMS
Uranium	µg/L	10	20	Proposed PDWS (EPA, 1991c)
Uranium alpha activity	µCi/mL	1.5E-08	3.0E-08	Proposed PDWS (EPA, 1991c)
Uranium, dissolved	µg/L	10	20	Proposed PDWS (EPA, 1991c)
Uranium, total recoverable	µg/L	10	20	Proposed PDWS (EPA, 1991c)
Uranium-233/234◆	µCi/mL	6.9E-09	1.38E-08	Proposed PDWS (EPA, 1991c)
Uranium-234	µCi/mL	6.95E-09	1.39E-08	Proposed PDWS (EPA, 1991c)

### Flagging Criteria



<i>Analyte</i>	<i>Unit</i>	<i>Flag 1</i>	<i>Flag 2</i>	<i>Source†</i>
Uranium-235	µCi/mL	7.25E-09	1.45E-08	Proposed PDWS (EPA, 1991c)
Uranium-238	µCi/mL	7.3E-09	1.46E-08	Proposed PDWS (EPA, 1991c)
Vanadium	µg/L	66.5	133	EPA Method 6010
Vanadium, dissolved	µg/L	66.5	133	EPA Method 6010
Vanadium, total recoverable	µg/L	66.5	133	EPA Method 6010
Vinyl acetate	µg/L	50	100	EPA Method 8240
m/p-Xylene	µg/L	81	162	EPA Method 8260
o-Xylene	µg/L	5	10	EPA Method 8260
Xylenes	µg/L	5,000	10,000	Final PDWS (EPA, 1997a)
Yttrium-88	µCi/mL	5.0E-08	1.0E-07	EPA Method 901.1
Zinc	µg/L	2,500	5,000	SDWS (EPA, 1997b)
Zinc, dissolved	µg/L	2,500	5,000	SDWS (EPA, 1997b)
Zinc, total recoverable	µg/L	2,500	5,000	SDWS (EPA, 1997b)
Zinc-65	µCi/mL	1.5E-07	3.0E-07	Interim Final PDWS (EPA, 1977)
Zirconium-95	µCi/mL	1.0E-07	2.0E-07	Interim Final PDWS (EPA, 1977)
Zirconium/Niobium-95◆	µCi/mL	1.0E-07	2.0E-07	Interim Final PDWS (EPA, 1977)

† Analytical methods are discussed in the **Analytical Data Review** section of this document; references for dated sources are in the **References** section.

◆ EMS discontinued monitoring this radionuclide because it is inappropriate for the SRS Groundwater Monitoring Program.

❖ EPD/EMS set this flagging criterion using the 1991 proposed PDWS because the final PDWS in 1977 may have been in error.

⊗ When radionuclide analyses are combined, the lower DWS of the two isotopes is used for flagging.

⊗ The primary maximum contaminant level range for turbidity is 1–5 NTU, which is inappropriate for the SRS Groundwater Monitoring Program.

Note: Beginning fourth quarter 1992, samples were no longer filtered at the wells. Therefore, the methods for analyzing metals now include a digestion step. Beginning fourth quarter 1993, the laboratories were required to report all metals as total recoverable metals. Flagging criteria remain unchanged.

### **Flagging Criteria**



# Sample Scheduling

Scheduling of sampling and analyses for the SRS Groundwater Monitoring Program conducted by EPD/EMS is based on several factors. Environmental screening is scheduled on a regular basis. Additional scheduling is based on previous flagging levels, regulatory requirements, and special requests that fall within the scope of the Groundwater Monitoring Program. This information is used to generate *The Savannah River Site's Groundwater Monitoring Program 1999 Sampling Schedule*.

A breakdown by laboratory of the total number of analyses performed during first quarter 1999 follows:

<b>Laboratory</b>	<b>Number of Analyses</b>
EMAX Laboratories, Inc.	19,222
Environmental Physics	14,498
General Engineering Laboratories	26,036
Recra LabNet Philadelphia	30,709
Thermo NUtech	3,054

## ENVIRONMENTAL SCREENING

New wells designated as screening program wells are scheduled initially for four quarters of environmental screening. Environmental-screening constituents, which include indicator parameters, groundwater quality characteristics, and some drinking water characteristics, are listed below. After the initial four quarters of analyses for new wells, environmental screening is scheduled once every three years for wells identified as environmental-screening program wells. The wells are sampled only for the environmental-screening constituents that have not been analyzed within the past three years.

Beginning in 1996, EPD/EMS changed its policy concerning quarterly field measurements. Only wells scheduled by request or wells identified for environmental screening receive field measurements.

### Environmental-Screening Constituents

Aluminum	pH	Well condition	Mercury
Arsenic	Phenolphthalein alkalinity	Fluoride	Nitrate-nitrite as nitrogen
Barium	Program	Gross alpha	Nonvolatile beta
Boron	Sampling method	Iron	Selenium
Cadmium	Site code	Lead	Silver
Chloride	Specific conductance	Lithium	Sodium
Chromium	Stabilized (Yes or No)	Major ions	Sulfate
Field measurements	Time	Calcium	Total dissolved solids
Air temperature	Total alkalinity	Magnesium	Total organic carbon
Date	Turbidity	Potassium	Total organic halogens
Depth to water	Volume purged	Silica	Total phosphates (as P)
Flow rate	Water temperature	Manganese	Tritium

## Scheduling Based on Flagging Levels

Only the flagging criteria for environmental screening and GC VOA (see **Glossary**) are used to trigger scheduling. Wells are grouped for scheduling by monitoring site or by the investigation for which they are sampled. Specific criteria for Flag 1 and Flag 2 designations are found in the **Flagging Criteria** section of this report.

Beginning in 1996, only wells in the environmental-screening program were scheduled by flagging criteria once a year. Constituents classified as Flag 0 in each well series are scheduled for analyses only by custodian

## Sample Scheduling



request or as part of the triennial environmental-screening program. If an analytical result for an environmental-screening or GC VOA analysis in any well exceeds Flag 2 or Flag 1, the environmental-screening wells in the same monitoring series are sampled and analyzed for that constituent once a year. If a constituent falls below Flag 2 for three consecutive sampling events, the individual well's flag is reduced from Flag 2 status to Flag 1 or Flag 0 status, depending on the results, and the well is scheduled according to the lower flag. If a constituent falls below Flag 1 for three consecutive sampling events, the individual well's flag is reduced from Flag 1 status to Flag 0 status, and the flagging-based sampling ceases.

If an environmental-screening or GC VOA constituent has ever been flagged in a well series, it automatically is flagged for all new wells of that series that are designated as environmental-screening wells. The rules previously referred to also apply to removal of a flag from a new well.

When one or more of the five constituents in the GC VOA suite are flagged, the entire suite is scheduled for analysis. The GC VOA suite includes the following: carbon tetrachloride, chloroform, tetrachloroethylene, 1,1,1-trichloroethane, and trichloroethylene.

The following constituents are exceptions to the flagging rules but still receive analyses by custodian request or during triennial environmental-screening analyses:

- Specific conductance and pH, two indicator constituents, have flagging criteria but do not trigger the scheduling mechanism.
- No flags are set for the following indicator parameters and major cations: alkalinity, 5-day biochemical oxygen demand, calcium, carbonate, chemical oxygen demand, magnesium, potassium, silica, sodium, total dissolved solids, total phosphates (as P), and total phosphorus.
- Aesthetic analyses such as color, odor, corrosivity, Eh, turbidity, and surfactants will not be assigned flagging criteria but may be analyzed by special request.
- Common laboratory contaminants and cleaners including phthalates, dichloromethane (methylene chloride), ketones, and toluene are not assigned flagging criteria unless they have primary drinking water standards. These constituents may be analyzed by special request.

## **GCMS VOA ANALYSES**

All wells are reviewed for total organic halogens (TOH) results twice a year. GCMS VOA (see **Glossary**) is scheduled once for individual wells that are designated as environmental-screening wells, have had two results for TOH greater than 10 µg/L (excluding the first TOH analysis), and have never received GCMS VOA analysis.

## **SAMPLING REQUESTS**

Many analyses are scheduled at the request of various SRS groups. The person or group requesting an analysis must submit a formal sampling request form to EPD/EMS. If the request is within the scope of the Groundwater Monitoring Program, and if provision for the analysis has been made in the current laboratory contract, the analysis is added to the sampling schedule. Likewise, if a sampling request should be deleted, the originator of the request must submit a deletion form.

## **Regulatory Requirements**

All regulatory sampling requirements, such as those mandated by the Resource Conservation and Recovery Act (RCRA), are scheduled by request.

## **Changes in Sampling**

For changes in sampling for first quarter 1999, please refer to *The Savannah River Site's Groundwater Monitoring Program 1999 Sampling Schedule*.



The following RCRA Facility Investigation/Remedial Investigation (RFI/RI) and South Carolina Department of Health and Environmental Control (SCDHEC) projects were in process during first quarter 1999:

- F- and H-Area Hazardous Waste Management Facilities
- F- and H-Area Injection Tanks
- M-Area Hazardous Waste Management Facility and Metallurgical Laboratory Hazardous Waste Management Facility
- Interim Sanitary Landfill
- Old Burial Ground
- Sanitary Landfill
- TNX Area
- Z-Area Saltstone

### **CERCLA Projects**

The following Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) projects were either in process or new during first quarter 1999:

- C-Area Reactor Seepage Basin
- D-Area Coal Pile Runoff Basin Containment Basin and Ash Basins
- H-Area Tank Farm
- P-Area Reactor Seepage Basin

### **New Wells Scheduled for Sampling**

The following wells were scheduled for sampling for the first time during first quarter 1999: wells CSB 8D, and 9D; DCB 8C, 15R, 26A, 26AR, 26C, 27, 28, 29R, 30, 31, 32A, 33B, 33C, 33D, 34A, 34C, 35A, 35C, 36A, 36C, 37A, 37C, 8C, 39A, 39C, 40A, 41A, 41C, 43A, 43C, 44A, 44C, 45A, 45C, 46C, 47C, and 48D; HAA 5B, 5D, 7A, 7B, 7C, 7D, 8A, 8B, 8C, 8D, 9A, 9B, 9C, 9D, 10A, 10B, 10C, 10D, 11A, 11B, 11C, 11D, 12A, 12B, 12C, 12D, 13A, 13B, 13C, 13D, 14A, 14B, 14C, 14D, 15A, 15B, 15C, and 15D; and HTF 12D and 15D.

### **MAINTENANCE OR ACCESS PROBLEMS**

Wells MSB 15C, 16C, 46C, and 48D were not sampled because of mechanical problems.

Recovery wells RWM 9 and 11 were not in operation for the February and March sampling events.

Wells FTF 3, 4, 5, and 7 were inaccessible due to construction. Well KDB 1 was inaccessible for the March sampling event because the road was flooded. Wells MSB 19A, 19B, and 19C also were inaccessible and consequently not sampled.

### **OTHER PROBLEMS**

Well FTF 1, 2, 6, 8, 11 and 14; LSB 4; MSB 9C and 87C; and ZBG 1A were dry during first quarter 1999.



The following wells had flowmeter problems during first quarter 1999: AOB 2; BGX 10D; CSB 2A and 3A; FSB 79B and 108D; FSL 2D and 4D; HAA 11D; HSB101D, 107D, and 110C; HSL 6D and 8D, LDB 1; LFW 28; MSB 36B, 39D, 40B, and 42TA; P 26A, 26B, and 26D; and PCB 3A.

The following wells were sampled during first quarter 1999 using hand-held pumps: TBG 4 and TIR 1M (02/02/99), TCM 3 (02/08/99), and TNX 15D (02/09/99).

The following wells did not have water level measurements and did not have water in the standpipe: MCB 6 (01/06/99); HSB109D (01/15/99); TRW 3 (01/21/99); HSB152D (01/27/99 and 01/28/99); TRW 3 (02/03/99); RWM 1 (02/16/99); RWM 3 (02/17/99); TRW 3 (02/22/99); MSB 3B (02/24/99); MSB 26 (03/01/99); HWS 2 (03/03/99); RWM 2 and 3 (03/08/99); MSB 26 (03/09/99 and 03/10/99); RWM 1 (03/18/99); HSB152D (03/22/99); FSB 90D (03/23/99); TRW 3 (03/24/99); MSB 12D, 17C, and 35D (03/26/99); and MSB 3B, 9C, 10D, 11F, 14C, 15D, 23, 25, 26, and 45C; and SRW 7 and 10 (03/29/99).

Wells FRB 2; FSB119D; HAA 7C and 9D; HSB115D; HSD 7D; HSL 5D; KDB 1, 3, 4, and 5; LDB 1 and 4; MSB 13D, 15D, and 78DR; and TNX 24D had purging problems during first quarter 1999.

Sampling scheduled for BTP and IDB wells was canceled by the project manager for the Accelerator for Production of Tritium project before sampling began.

### **PURGE-WATER CONTAINMENT PROGRAM**

Beginning in 1991, a purge-water containment program was partially implemented to dispose properly of the water purged from certain wells before sampling. According to the *Investigation-Derived Waste Management Plan* (WSRC, 1995), additional wells were identified for purge-water treatment at the M-1 Air Stripper and F- and H-Area Effluent Treatment Facility. The program has been implemented, and no well that was scheduled for analysis as part of the Groundwater Monitoring Program during first quarter 1999 was not sampled.



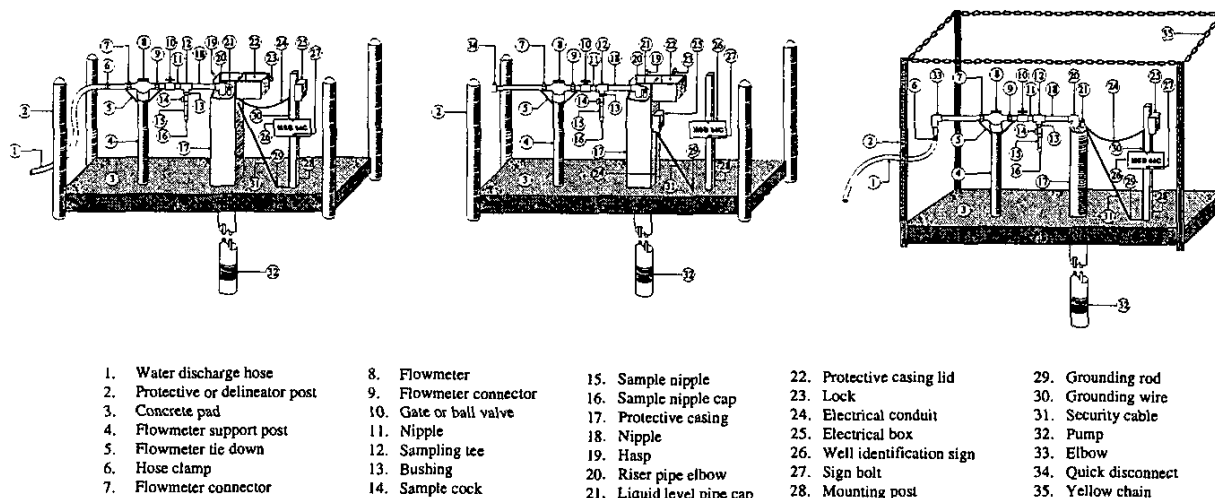
# Field Notes

A sampler may visit a well to collect field data, collect samples, and/or measure depth to water. A well may be visited multiple times during a quarter for any combination of these reasons. Field measurements generally include air temperature, depth to water prior to pumping, dissolved oxygen, Eh (REDOX potential), flow rate, pH, phenolphthalein alkalinity, specific conductance, total alkalinity, turbidity, volume of water purged prior to sampling, and water temperature.

EPD/EMS personnel and RCS Corporation of Aiken, SC, performed well visitations during first quarter 1999. Each sampler maintained a field notebook. These notebooks are in the first quarter 1999 section of the EPD/EMS Groundwater Monitoring Library. All well visitations were routine during first quarter 1999, except as indicated in table 3. The table includes samplers' comments on conditions that may affect the samples or the data-collection process. The majority of wells sampled during first quarter 1999 were pumped. Bailed wells are listed in table 66 in the Quality Control Samples section.

If a well pumps or is bailed dry during purging and is revisited and sampled within 24 hours, this is considered one sampling event yielding a single set of field and analytical data. For such wells, table 3 lists the volume purged before the well went dry during the first visitation. The **Analytical Results** section gives the total amount of water purged from each well in one sampling event.

Comments about dry wells and continuously pumping wells are in the **Analytical Results** section.



**Figure 3. Three Types of Groundwater Monitoring Wellheads**



**Table 3. Comments from the Field Data**

<i>Well</i>	<i>Date</i>	<i>Comments</i>
<b>ABP Series</b>		
ABP 8C	03/10/99	Dry after 5 gal
<b>AMB Series</b>		
AMB 7	02/05/99	Dry after 9 gal
	02/08/99	Dry after 6 gal
AMB 10A	02/05/99	Dry after 63 gal
	02/08/99	Dry after 65 gal
AMB 11D	02/12/99	Surges
AMB 12D	02/12/99	Surges
AMB 13AR	02/17/99	Dry after 86 gal
AMB 14D	03/15/99	Dry after 1 gal
	03/16/99	Dry after 1 gal
AMB 15D	03/15/99	Dry after 8 gal
<b>AOB Series</b>		
AOB 2	02/05/99	Replace flowmeter
AOB 3	01/06/99	Dry after 12 gal
<b>ARP Series</b>		
ARP 5D	03/10/99	Undercurrent; not sampled
<b>ASB Series</b>		
ASB 5AR	02/11/99	Dry after 11 gal
ASB 6TA	02/11/99	Dry after 36 gal
ASB 8	02/22/99	Well broken; not sampled
<b>BGO Series</b>		
BGO 1D	02/22/99	Dry after 12 gal
BGO 20D	01/14/99	Dry after 4 gal
	02/18/99	Dry after 5 gal
	03/15/99	Dry after 2 gal
BGO 27D	01/12/99	Dry after 12 gal
BGO 32D	02/17/99	Dry after 6 gal
BGO 33D	01/13/99	Dry after 9 gal
	02/17/99	Dry after 8 gal
	03/11/99	Dry after 7 gal
BGO 34D	01/13/99	Dry after 11 gal
	02/17/99	Dry after 10 gal
	03/11/99	Dry after 10 gal
BGO 35D	01/13/99	Dry after 8 gal
	02/17/99	Dry after 9 gal
	03/11/99	Dry after 7 gal
BGO 36D	01/13/99	Dry after 8 gal
	02/17/99	Dry after 7 gal
	03/11/99	Dry after 7 gal
BGO 37D	01/13/99	Dry after 7 gal
	02/17/99	Dry after 7 gal
	03/11/99	Dry after 4 gal
BGO 38D	01/13/99	Dry after 9 gal
	02/17/99	Dry after 8 gal
	03/11/99	Dry after 8 gal
BGO 39D	01/13/99	Dry after 4 gal
	02/17/99	Dry after 3 gal
	03/11/99	Dry after 4 gal

**Field Notes**



<i>Well</i>	<i>Date</i>	<i>Comments</i>
BGO 49D	01/13/99	Dry after 4 gal
	02/17/99	Dry after 4 gal
	03/11/99	Dry after 4 gal
BGO 51D	02/17/99	Dry after 3 gal
	03/12/99	Dry after 2 gal
BGO 52D	01/13/99	Dry after 2 gal
	03/15/99	Dry after 3 gal
<b>BGX Series</b>		
BGX 1D	02/25/99	Dry after 5 gal
BGX 3D	02/22/99	Dry after 13 gal
BGX 10D	02/25/99	Dry after 3 gal; flowmeter broken, estimated volume purged; purged through sample port; high turbidity
<b>BSE Series</b>		
BSE 1D4	01/05/99	Resample
<b>CBR Series</b>		
CBR 1D	01/25/99	Dry after 12 gal
<b>CDB Series</b>		
CDB 1	03/01/99	Dry after 26 gal
CDB 2	03/01/99	Dry after 20 gal
<b>CMP Series</b>		
CMP 11D	03/23/99	Dry after 8 gal
<b>CRP Series</b>		
CRP 3D	03/02/99	Dry after 2 gal
<b>CSB Series</b>		
CSB 2A	03/10/99	Flowmeter broken; estimated volume purged
CSB 3A	03/10/99	Flowmeter broken; estimated volume purged
<b>DCB Series</b>		
DCB 13	03/12/99	Dry after 18 gal
	03/24/99	Dry after 9 gal
<b>FCB Series</b>		
FCB 5	01/26/99	Dry after 8 gal
<b>FET Series</b>		
FET 1D	01/29/99	Dry after 9 gal
<b>FRB Series</b>		
FRB 2	03/04/99	17 gal purged through sample port
<b>FSB Series</b>		
FSB 78C	01/13/99	Dry after 43 gal
FSB 79B	01/06/99	Flowmeter broken
FSB 87D	01/07/99	Hard to start
FSB 88D	01/14/99	Dry after 7 gal
FSB 90C	01/06/99	Dry after 34 gal
FSB 90D	01/04/99	Dry after 9 gal

### **Field Notes**



<i>Well</i>	<i>Date</i>	<i>Comments</i>
FSB 91C	01/14/99	Dry after 45 gal
FSB 92C	01/14/99	Dry after 33 gal
FSB 93D	01/13/99	Dry after 6 gal
FSB 94C	01/13/99	Dry after 26 gal
FSB 97D	01/11/99	Dry after 10 gal
FSB 98D	01/28/99	Dry after 12 gal
FSB106D	01/08/99	Dry after 0.5 gal
	01/12/99	Dry after 0.25 gal; highly aerated
FSB108D	01/11/99	After 1 volume, slowed to 1 gal/min; meter not turning at low volume
FSB111D	01/07/99	Dry after 4 gal
FSB113A	01/07/99	Dry after 40 gal
FSB113C	01/07/99	Dry after 26 gal
FSB115D	01/11/99	Turbidity > 15 NTU
FSB116D	01/11/99	Dry after 2 gal
FSB119D	01/12/99	Dry after 8 gal
	01/13/99	Purged 9 gal through sample port to lower turbidity
FSB120A	01/08/99	Dry after 42 gal
FSB120D	01/08/99	Dry after 11 gal
FSB121DR	01/08/99	Dry after 6 gal
<b>FSL Series</b>		
FSL 1D	01/26/99	Dry after 1 gal
FSL 2D	01/13/99	Volume too low for meter
FSL 3D	01/12/99	Slowed to about 200 mL/min after purging
FSL 4D	01/12/99	Volume too low for meter
FSL 6D	01/12/99	Turbidity in excess of limits first three readings
FSL 7D	01/12/99	Dry after 4 gal
<b>FTF Series</b>		
FTF 22	01/21/99	Muddy
FTF 23	01/21/99	No sign
FTF 24A	01/26/99	Pumped dry
FTF 25A	01/26/99	Pumped dry
FTF 26	01/26/99	Pumped dry
FTF 27	01/26/99	Pumped dry
<b>HAA series</b>		
HAA 3D	01/04/99	Dry after 3 gal
	01/05/99	Cloudy
HAA 4D	01/10/99	Dry after 1 gal
HAA 5A	01/10/99	Ball valve split
HAA 5BR	01/10/99	Flowmeter broken and leaks
HAA 5D	02/24/99	Dry after 9 gal
HAA 6D	01/04/99	Dry after 2 gal
	01/05/99	Cloudy
HAA 7C	01/04/99	Dry after 10 gal; tried to lower turbidity by purging through sample port
	01/05/99	Dry after 25 gal; purged slowly through sample port
HAA 9D	02/16/99	Gate valve broken; purged through sample port
HAA 11D	02/18/99	Flowmeter broken; estimated volume purged in 5 gal bucket
HAA 13A	01/06/99	Dry after 3 gal
	02/16/99	Dry after 14 gal
HAA 13D	01/05/99	Dry after 2 gal
	01/06/99	Dry after 2 gal
	02/16/99	Dry after 2 gal
	02/17/99	Dry after 2 gal
	02/18/99	Pumped dry
	02/24/99	Dry after 2 gal

### **Field Notes**



<b>Well</b>	<b>Date</b>	<b>Comments</b>
HAA 14D	02/02/99 02/18/99	Dry after 2 gal; high turbidity Muddy
<b>HET Series</b>		
HET 1D	01/29/99	Dry after 15 gal
HET 2D	01/29/99	Dry after 9 gal
HET 3D	01/29/99	Dry after 11 gal
HET 4D	01/29/99	Dry after 16 gal
<b>HSB Series</b>		
HSB 68B	01/08/99	Dry after 50 gal
HSB 68C	01/08/99	Dry after 19 gal
HSB 70C	01/12/99	Dry after 24 gal
HSB 71C	01/12/99	Dry after 19 gal
HSB 84B	01/11/99	Dry after 43 gal
HSB 84C	01/13/99	Dry after 13 gal
HSB 85B	01/13/99	Dry after 45 gal
HSB 98D	01/28/99	Dry after 12 gal
HSB101C	01/21/99	Dry after 10 gal
HSB101D	01/14/99	Flowmeter broken; volume purged was approximated
HSB102D	01/27/99	Dry after 6 gal
	01/28/99	Dry after 6 gal
HSB107D	01/15/99	Meter not working
	01/28/99	Flowmeter broken; estimated volume purged
HSB108D	01/15/99	Dry after 24 gal
HSB109D	01/15/99	Gate valve broken; not sampled; no water in standpipe
HSB110C	01/15/99	Meter not working
HSB112E	01/15/99	Dry after 5 gal
HSB115D	01/27/99	Dry after 2 gal; purged slowly through sample port to lower turbidity
HSB116D	01/15/99	Dry after 8 gal
HSB119A	01/18/99	Dry after 79 gal
HSB123A	01/18/99	Dry after 33 gal
HSB126D	01/18/99	Dry after 11 gal
HSB139C	01/21/99	Dry after 28 gal
HSB141A	01/19/99	Dry after 79 gal
HSB141D	01/19/99	Dry after 12 gal
	01/20/99	Dry after 2 gal
	01/21/99	Turbidity went up during sampling
HSB145C	01/20/99	Well pumping coarse sand
HSB147D	01/21/99	Dry after 8 gal
HSB148C	01/21/99	Dry after 23 gal
HSB148D	01/21/99	Dry after 4 gal
	01/27/99	Dry after 3 gal
HSB150D	01/21/99	Dry after 9 gal
HSB152D	01/27/99	Dry after 5 gal, no water in standpipe
	01/28/99	Dry after 1 gal, no water in standpipe; turbidity increased while filling bottles
<b>HSL Series</b>		
HSL 3D	01/21/99	High turbidity
HSL 5D	01/22/99	Dry after 4 gal; very turbid
	01/25/99	Bucket volume
HSL 6D	01/22/99	Flow too slow for meter; turbidity stable, high
HSL 7D	01/22/99	Bucket volume; water turned very turbid after filling 1/3 of the bottles
HSL 8D	01/25/99	Bucket volume

### Field Notes



<b>Well</b>	<b>Date</b>	<b>Comments</b>
<b>HTF Series</b>		
HTF 6	01/10/99	Muddy
HTF 7	01/10/99	Muddy
HTF 10	01/08/99	No sign
HTF 12	01/10/99	No sign
HTF 12D	03/03/99	No sign, no lock; flowmeter needs to have tie downs
HTF 13	01/08/99	No sign
HTF 15	01/10/99	No sign
HTF 15D	03/03/99	No sign, no lock; muddy
HTF 34	01/07/99	No sign; muddy
<b>HWS Series</b>		
HWS 2	03/03/99	No water in standpipe
<b>KBP Series</b>		
KBP 1D	03/08/99	Dry after 5 gal
<b>KCB Series</b>		
KCB 7	01/26/99	Dry after 4 gal
<b>KDB Series</b>		
KDB 1	01/14/99	Dry after 17 gal
	02/24/99	Dry after 16 gal
KDB 3	01/14/99	Dry after 18 gal
	02/24/99	Dry after 17 gal; purged 1 gal through sample port
KDB 4	01/14/99	Dry after 8 gal
	02/24/99	Dry after 8 gal; gate valve was broken, gallons purged measured using a 2.5 gal bucket
KDB 5	03/22/99	Purged 3 gal through sample port
	01/14/99	Dry after 8 gal
	02/24/99	Dry after 8 gal; purged 5 gal through sample port
	03/22/99	Dry after 7 gal
<b>KRB Series</b>		
KRB 19D	03/22/99	Broken pump; not sampled
<b>KRP Series</b>		
KRP 3	01/28/99	Inaccessible, road flooded; not sampled
<b>KSB Series</b>		
KSB 5D	03/23/99	Dry after 3 gal
<b>LBP Series</b>		
LBP 1D	01/28/99	Dry after 2 gal
	03/01/99	Dry after 2 gal
	03/08/99	Dry after 1 gal
<b>LDB Series</b>		
LDB 1	01/15/99	Dry after 16 gal; flowmeter broken
	02/25/99	Dry after 15 gal; flowmeter broken; purged 6 gal through sample port to lower turbidity
	03/22/99	Dry after 26 gal; purged through sample port

### **Field Notes**



<i>Well</i>	<i>Date</i>	<i>Comments</i>
LDB 2	01/15/99	Dry after 20 gal
	02/25/99	Dry after 20 gal
	03/22/99	Dry after 20 gal
LDB 4	01/15/99	Dry after 8 gal
	02/25/99	Dry after 7 gal; purged 4 gal through sample port to lower turbidity
<b>LFW Series</b>		
LFW 28	02/23/99	Flowmeter broken; volume purged estimated at 45 gal
LFW 62D	03/18/99	Dry after 9 gal
LFW 76	02/26/99	Dry after 3 gal
LFW 78	02/26/99	Dry after 4 gal; turbidity high, would not clear
<b>LSD Series</b>		
LSD 1D	03/24/99	No pump
<b>MCB Series</b>		
MCB 6	01/06/99	Dry after 3 gal; no water in standpipe
MCB 7C	02/09/99	Dry after 29 gal
MCB 11D	01/07/99	Dry after 1 gal
<b>MSB Series</b>		
MSB 1C	02/18/99	Dry after 28 gal
MSB 1CC	02/18/99	Dry after 19 gal
MSB 2B	02/18/99	Dry after 33 gal
MSB 2C	02/18/99	Dry after 12 gal
MSB 3B	02/24/99	No water in standpipe
MSB 3C	02/24/99	Dry after 14 gal
MSB 7B	02/12/99	Surges; stable with high turbidity
MSB 9B	02/19/99	Dry after 7 gal
MSB 9C	02/19/99	No water in standpipe; hooked up to power, still no water
MSB 13D	02/19/99	Dry after 16 gal
	02/23/99	Dry after 11 gal
	02/24/99	Purged 5 gal through sample port to lower turbidity
MSB 14C	02/09/99	Dry after 1 gal; no water in standpipe
MSB 15C	03/22/98	Pump missing
MSB 15D	02/22/99	Dry after 6 gal
	02/23/99	Purged 3 gal through sample port to lower turbidity
MSB 16A	02/23/99	No power to pump; not sampled
MSB 16C	02/23/99	No power to pump; not sampled
MSB 20C	03/01/99	Dry after 6 gal
MSB 24	03/01/99	Dry after 8 gal
MSB 26	03/01/99	No water in standpipe; could not contain leak; not sampled
	03/09/99	Dry after 40 gal; no water in standpipe
	03/10/99	No water in standpipe
MSB 27TA	02/08/99	Pump broken; not sampled
MSB 29A	01/06/99	Dry after 76 gal
MSB 30AA	02/08/99	Dry after 74 gal
MSB 36B	02/24/99	Flowmeter broken; not sampled
MSB 36D	02/24/99	Dry after 3 gal
	03/05/99	Dry after 2 gal; high turbidity, would not drop
MSB 39D	02/08/99	Meter not turning; surges
MSB 40B	03/02/99	Flowmeter stopped working at 9000; estimated volume purged
MSB 42TA	03/02/99	Flowmeter broken; estimated volume purged
MSB 46A	02/08/99	Dry after 33 gal
MSB 46C	03/22/99	Not enough water to sample
MSB 47TA	02/10/99	Well purged for 228 minutes, turbidity would not drop; not sampled

### **Field Notes**



<i>Well</i>	<i>Date</i>	<i>Comments</i>
MSB 48D	03/22/99	Well has no pump
MSB 55HC	02/10/99	Dry after 11 gal
MSB 58D	03/09/99	Dry after 7 gal
MSB 60D	03/09/99	Dry after 12 gal
MSB 62D	02/09/99	Dry after 7 gal
	02/24/99	Dry after 8 gal
MSB 63D	02/09/99	Dry after 8 gal
	03/04/99	Dry after 9 gal
MSB 70D	03/03/99	Dry after 7 gal; high turbidity
MSB 71B	02/12/99	Surges; stable with high turbidity
MSB 74C	03/04/99	Dry after 19 gal
MSB 74D	03/04/99	Dry after 8 gal
MSB 75C	02/12/99	Dry after 6 gal
MSB 78DR	03/03/99	Purged through sample port to lower turbidity
MSB 79B	03/05/99	Dry after 36 gal
MSB 82A	02/10/99	Dry after 41 gal
MSB 83D	02/10/99	Dry after 10 gal
MSB 84A	01/06/99	Dry after 20 gal
	02/11/99	Dry after 29 gal
MSB 85TA	02/12/99	Dry after 36 gal
<b>P Series</b>		
P 26A	02/03/99	No flowmeter present, estimated volume purged
P 26B	02/03/99	Estimated volume purged using a 5 gal bucket
P 26D	02/08/99	No flowmeter present, estimated volume purged
<b>PBP Series</b>		
PBP 1D	01/29/99	Dry after 3 gal
PBP 3D	01/29/99	Dry after 4 gal
<b>PCB Series</b>		
PCB 1A	01/08/99	Water smells like rotten eggs
PCB 3A	01/08/99	Meter not operating correctly, replace; estimated flow rate and volume purged
<b>PDB Series</b>		
PDB 3	03/08/99	Dry after 24 gal
PDB 4	03/08/99	Dry after 9 gal
PDB 5	03/08/99	Dry after 8 gal
<b>RDB Series</b>		
RDB 1D	03/08/99	Dry after 11 gal
	03/09/99	High turbidity
RDB 2D	03/08/99	Dry after 36 gal
RDB 3D	03/08/99	Dry after 11 gal
<b>RRP Series</b>		
RRP 1	01/25/99	No power to pump; not sampled
RRP 3	01/25/99	No power to pump; not sampled
	01/29/99	Water turned rust colored at 50 gal
<b>RWM Series</b>		
RWM 1	01/18/99	Highly aerated
	02/16/99	No water in standpipe
	03/18/99	No water in standpipe; water aerated
RWM 2	03/18/99	No water in standpipe; water aerated

### **Field Notes**



<i>Well</i>	<i>Date</i>	<i>Comments</i>
RWM 3	02/17/99 03/18/99	No water in standpipe No water in standpipe
<b>SRW Series</b>		
SRW 16A	02/09/99	Dry after 42 gal
<b>TBG Series</b>		
TBG 3	02/08/99	Dry after 7 gal
TBG 4	02/08/99	Hand-held pump will not reach water; not sampled
TBG 6	02/08/99	Dry after 18 gal
<b>TCM Series</b>		
TCM 2	02/02/99	Used hand-held submersible pump
TCM 3	02/08/99	Used hand-held submersible pump
<b>TIR Series</b>		
TIR 1M	02/02/99	Used hand-held submersible pump
<b>TNX Series</b>		
TNX 2D	02/02/99 02/03/99	Dry after 8 gal; needs discharge hose Aerated
TNX 3D	02/08/99	Dry after 4 gal
TNX 4D	02/02/99	Dry after 6 gal
TNX 5D	02/02/99	Dry after 5 gal
TNX 6D	02/02/99	Dry after 7 gal
TNX 15D	02/02/99	Used hand-held submersible pump
TNX 18D	02/03/99	Continues flowing well; could not determine depth to water
TNX 21D	02/03/99	Turbidity stabilized at 27.2 NTU; all samples collected
TNX 24D	02/03/99	5 gal purged through sample port
TNX 26D	02/04/99	Dry after 2 gal
<b>TRW Series</b>		
TRW 3	01/21/99 02/03/99 02/22/99 03/24/99	No water in standpipe No water in standpipe No water in standpipe No water in standpipe
<b>XSB Series</b>		
XSB 3A	02/03/99	No hose
<b>YSB Series</b>		
YSB 3A	02/03/99	Very turbid at start
<b>YSC Series</b>		
YSC 2D	03/09/99	Dry after 12 gal
<b>ZBG Series</b>		
ZBG 1A	01/25/99	Used hand-held submersible pump

### **Field Notes**



**NOTES**



# ***Analytical Data Review***

The SRS Groundwater Monitoring Program evaluates all data systematically to provide high-quality data for reporting on the environmental monitoring and cleanup efforts at SRS. Data verification and validation are continuous, interactive processes, usually completed within 60 days after the last data are received for a quarter.

EX, GE, and WA, the primary contracting laboratories for sample analyses, performed all analyses with the following exceptions:

- The EM Lab at SRS conducted total-activity analyses of samples for shipping clearance. The EM Lab also conducted tritium analyses of samples from specified well series. Data from the EM Lab for first quarter 1999 were not available in time for publication in this report.
- GE subcontracted radionuclide analyses to GP, and WA subcontracted radionuclide analyses to TM. GP and TM conducted gross alpha, nonvolatile beta, tritium, and selected radionuclide analyses.

## **GIMS DATA REVIEW MODULE**

The Geochemical Information Management System (GIMS) is a combination of hardware, software, data, and procedures that supports EPD/EMS' data management activities. The GIMS Data Review Module provides automated data loading, validation and verification functions, data editing, determination of data review status, report generation, and data review QA. The data editing program allows users to correct errors in loaded analytical, field, and shipping data. When the review process is complete, data are loaded into the permanent production database tables in GIMS and are available sitewide.

## **REVIEW OF THE ANALYTICAL DATA**

EPD/EMS reviews analytical data from the laboratories for errors and unusual results before releasing the data for use. The laboratories are asked to review and comment on suspect data.

Typical errors identified during data loading into GIMS include incorrect sample dates, run dates, and sample identifications; incorrectly entered analytical units, methods, and corresponding detection limits; and incorrect dilution factor calculations.

Analytical results that appear different from historical data collected since 1991 are brought to the attention of the appropriate laboratory. Thus, the laboratory is able to identify problems with some of the analyses, including incorrect dilution factor calculations and data entry errors. EPD/EMS corrects data files after receiving written notification from the laboratory. Specific details concerning the corrections are entered in the *EMS Groundwater Monitoring Program Changes to the Database Logbook*.

Samples that exceeded holding times are indicated by an EPA STORET code Q in the analytical results tables (see **Appendix B** for further information). The EPA STORET code V is used to indicate sample results associated with method laboratory blanks at the preparation step that are elevated above the instrument detection limit. Samples that were preserved incorrectly are marked with a Y EPA STORET code in the analytical results tables (see **Appendix B**). Usually, the Y indicates that the sample coolers were not cold enough. An EMS code I indicates that a sample's matrix spike recovery was not within control limits.

To determine if a new analytical result for a sampling site is similar to or relatively higher or lower than historical results, new results for each well are compared to its historical results using the following procedure:

- GIMS calculates the mean of the historical results and the mean of the historical results above detection for all analytes in the wells being compared. The historical results that are below their detection limit value are considered at their detection limits for the purpose of the calculation. The process eliminates any false high values due to diluted samples.



- GIMS factors in trends in the data calculated from the previous eight sampling events. If no previous data are available for a particular well/analyte combination, the program includes previous results from other wells in the same vicinity.
- Results greater than 10 times the calculated mean of the previous results are marked as "high." Results (or their detection limits if the results are below detection) less than 10 percent of the calculated mean of the previous results are marked as "low."

GIMS flags the potentially anomalous results for review. The data reviewer examines the results and takes into account individual historical values, variations of certain values, general trends in the data, and data in the prep batch associated with the current result. The data reviewer eliminates results if anomalous historical results have skewed the calculated mean. Another data reviewer inspects and confirms that the results marked as anomalous are properly identified. Anomalous results are presented to the lab for review and comment. Results significantly high or low compared with historical data are rerun by the lab.

## **Review of the Analytical Narratives**

EPD/EMS reviews the analytical narratives received from the laboratories, which are used as reference materials throughout the data validation process. Any discrepancies between the narratives and the analytical or chain-of-custody (COC) data must be resolved by the laboratories. The narratives include the following types of problems: QA samples that do not meet the criteria specified by the analytical method, problems with matrix interference, sample-specific adjustments to the method caused by high concentrations of some analytes, problems with sample preservation and holding time, instrument calibration problems, and contaminated blanks. The narratives also include additional information about COC and analytical data.

The three primary laboratories (EX, GE, and WA) differ in their analytical suite assignments for certain constituents. Thus, some analytes may not be analyzed by all laboratories. See the **Sample Scheduling, Field Notes, Quality Control Samples, and Analytical Results** sections of this report for more information on wells scheduled but not sampled this quarter.

## **Review of EX's Analytical Data**

A technical review of the quarter's analytical data identified at least one reported result for each of the analyses in table 4 as high compared with historical data. A review of the laboratory records did not reveal any problems with the analyses.

A technical review of the quarter's analytical data identified no reported results as low compared with historical data.

## **Review of GE's Analytical Data**

A technical review of the quarter's analytical data identified at least one reported result for each of the analyses in table 5 as high compared with historical data. A review of the laboratory records did not reveal any problems with the analyses.

A technical review of the quarter's analytical data identified at least one reported result for each of the analyses in table 6 as low as compared with historical data. A review of the laboratory records did not reveal any problems.

## **Review of GP's Analytical Data**

A technical review of the quarter's analytical data identified at least one reported result for each of the analyses in table 7 as high compared with historical data. A review of the laboratory records did not reveal any problems other than those listed below.

A technical review of the quarter's analytical data identified no reported results as low compared with historical data.

---

## **Analytical Data Review**



## Review of WA's Analytical Data

A technical review of the quarter's analytical data identified at least one reported result for each of the analyses in table 8 as high as compared with historical data. A review of the laboratory records did not reveal any problems.

A technical review of the quarter's analytical data identified no reported results as low compared with historical data.

## Review of TM's Analytical Data

A technical review of the quarter's analytical data identified at least one reported result for each of the analyses in table 9 as high as compared with historical data. A review of the laboratory records did not reveal any problems.

A technical review of the quarter's analytical data identified no reported results as low compared with historical data.

## ANALYTICAL METHODS

Sample analyses performed for EPD/EMS during first quarter 1999 were conducted using EPA and other methods as noted in tables 10–14 at the end of this section. EX, GE, and WA performed most of the analyses conducted during the quarter. Their methods and estimated quantitation limits (EQLs) are listed in table 10 for EX, table 11 for GE, and table 12 for WA.

GP and TM performed the radionuclide analyses during first quarter 1999. Radionuclide methods generally are modified by the laboratories performing the analyses. Their methods and EQLs are listed in table 13 for GP and table 14 for TM.

The EM Lab conducted selected radionuclide analyses of samples required by the Groundwater Monitoring Program. The total activity method used by the EM Lab is an in-house method based on applicable EPA, DOE, or other procedures. Methods used by EPD/EMS for testing other radioisotopes also are in-house analytical methods. The EM Lab radioactivity determinations are typically reported as the absolute concentrations calculated from the analytical tests. Analytical data from the EM Lab for first quarter 1999 were not available in time for publication of this report.

If the laboratories used more than one analytical method for an analyte, the methods are listed in the tables in descending order according to frequency of use. Generally, the method listed first was used for at least half of the analyses.

**Table 4. EX Samples with High Analytical Results as Compared to Historical Data**

Analyte	Well(s)
Aluminum	MSB 70D†
Barium	MSB 70D
Chloroethane (Vinyl chloride)	LFW 21
Dichloromethane (Methylene chloride)	MSB 26B, MSB 70C
Fluoride	MSB 29D
Iron	MSB 7A, MSB 70D†, TRW 2
Lead	MSB 6C
Nickel	MSB 6C

## Analytical Data Review



<b>Analyte</b>	<b>Well(s)</b>
Nitrate as nitrogen	P 26A, XSB 5A
Tetrachloroethylene	MSB 10A
Total organic carbon	AMB 7B

† The questioned value was at least 10 times higher than historical data. Because holding times had not been exceeded, the laboratory was asked to reanalyze the sample.

**Table 5. GE Samples with High Analytical Results as Compared to Historical Data**

<b>Analyte</b>	<b>Well(s)</b>
Aluminum	FSB 90C, HSB 68A, HSB112E, HAS115C, HTF 12†
Barium	HTF 15†
Chromium	HTF 15
Copper	FSB110C, HSB137C
Dichloromethane (Methylene chloride)	FSB93D
Iron	FSB 87C, FSB 90C, FSB107C, FSB114C, FSB121C, HSB112E, HSB136D, HSL 2D
Mercury	HSB101C
Nitrate-nitrite as nitrogen	HSB 68B†, HSL 5D†, ZBG 2
Trichloroethylene	FSB 87C
Zinc	FSB 90C, FSB113C, HSB126C, HSB137C

† The questioned value was at least 10 times higher than historical data. Because insufficient sample was left, the laboratory was not asked to reanalyze the sample.

**Table 6. GE Samples with Low Analytical Results as Compared to Historical Data**

<b>Analyte</b>	<b>Well(s)</b>
Aluminum	HSB117C
Nitrate-nitrite as N	FSB102C
Specific conductance	HSB 68B



**Table 7. GP Samples with High Analytical Results as Compared to Historical Data**

Analyte	Well(s)
Americum-241	FSB112C, HSB 86C†
Carbon-14	HSB101C†
Curium 243/244	HSB 86C†
Iodine-129	HSB129C
Nonvolatile beta	FSB123D, HSB 68B†, HSB152D
Radium-226	FSB 97A, FSL9D, HSB 86A†, HSB 86B, HSB111D
Strontium-90	FSL 7D†, HSB 65B, HSB 68B†, HSB101C†, HSB140C†
Technetium-99	HSB101C†
Tritium	FSB 79A, FSB 88C†, FSB106D, FSB108D, FSB109D†, FSB 115C†, FSB115D†, FSB116C†, FSB116D, FSB118D†, FSB121C, FSB123D†, HSB 68C†, HSB71, HSB 83D†, HSB 84A†
Uranium-233/234	HSB 86C†
Uranium-235	HSB 86C†

† The questioned value was at least 10 times higher than historical data. Because insufficient sample was left, the laboratory was not asked to reanalyze the sample.

**Table 8. WA Samples with High Analytical Results as Compared to Historical Data**

Analyte	Well(s)
Aluminum	LAC 2, PSB 7A†
Barium	ASB 8C
Cyanide	ASB 1A
Iron	DCB 4A, DCB 8, FET 1D, HWS 1A, LAC 2, PCB 1A
Mercury	LFW 34
Total Dissolved Solids	ACB 2A

† The questioned value was at least 10 times higher than historical data. Because holding times had been exceeded, the laboratory was asked to reanalyze the sample.

**Table 9. TM Samples with High Analytical Results as Compared to Historical Data**

Analyte	Well(s)
Gross Alpha	P 26D†
Radium-228	HSB100D
Tritium	KDB 1, LDB 4, P 29D†

† The questioned value was at least 10 times higher than historical data. Because holding times had not been exceeded, the laboratory was asked to reanalyze the sample.

**Table 10. Methods and Estimated Quantitation Limits Used by EX**

Analyte	Unit	Method	Minimum/Maximum EQLs
Acenaphthene	µg/L	EPA8270C	10.0
Acenaphthylene	µg/L	EPA8270C	10.0
Acetone	µg/L	EPA8260B	10.0/50.0

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
Acetonitrile	µg/L	EPA8260B	500/2,500
Acetophenone	µg/L	EPA8270C	10.0
2-Acetylaminofluorene	µg/L	EPA8270C	10.0
Acrolein	µg/L	EPA8260B	50.0/250
Acrylonitrile	µg/L	EPA8260B	50.0/250
Allyl chloride	µg/L	EPA8260B	10.0/50.0
Aluminum	µg/L	EPA6010B	200
4-Aminobiphenyl	µg/L	EPA8270C	10.0
Aniline	µg/L	EPA8270C	25.0
Anthracene	µg/L	EPA8270C	10.0
Aramite	µg/L	EPA8270C	10.0
Arsenic	µg/L	EPA6010B	100
Barium	µg/L	EPA6010B	10.0
Benzene	µg/L	EPA8260B	5.0/2,500
Benzo[a]anthracene	µg/L	EPA8270C	10.0
Benzo[b]fluoranthene	µg/L	EPA8270C	10.0
Benzo[k]fluoranthene	µg/L	EPA8270C	10.0
Benzo[g,h,i]perylene	µg/L	EPA8270C	10.0
Benzo[a]pyrene	µg/L	EPA8270C	10.0
Benzyl alcohol	µg/L	EPA8270C	10.0
Bis(2-chloroethoxy) methane	µg/L	EPA8270C	10.0
Bis(2-chloroethyl) ether	µg/L	EPA8270C	10.0
Bis(2-chloroisopropyl) ether	µg/L	EPA8270C	10.0
Bis(2-ethylhexyl) phthalate	µg/L	EPA8270C	10.0
Boron	µg/L	EPA6010B	100
Bromodichloromethane	µg/L	EPA8260B	5.0/2,500
Bromoform	µg/L	EPA8260B	5.0/2,500
Bromomethane	µg/L	EPA8260B	5.0/2,500
4-Bromophenyl phenyl ether	µg/L	EPA8270C	10.0
Butylbenzyl phthalate	µg/L	EPA8270C	10.0
2-sec-Butyl-4,6-dinitrophenol	µg/L	EPA8270C	10.0
Cadmium	µg/L	EPA6010B	10.0
Carbon disulfide	µg/L	EPA8260B	5.0/25.0
Carbon tetrachloride	µg/L	EPA8260B	5.0/2,500
	µg/L	EPA8021B	1.0/100
Chloride	µg/L	EPA300.0	200/400
4-Chloroaniline	µg/L	EPA8270C	10.0
Chlorobenzene	µg/L	EPA8260B	5.0/2,500
Chlorobenzilate	µg/L	EPA8270C	10.0
4-Chloro-m-cresol	µg/L	EPA8270C	10.0
Chloroethane	µg/L	EPA8260B	10.0/5,000
Chloroethene	µg/L	EPA8260B	5.0/2,500
2-Chloroethyl vinyl ether	µg/L	EPA8260B	5.0/2,500
Chloroform	µg/L	EPA8260B	5.0/2,500
	µg/L	EPA8021B	1.0/100
Chloromethane	µg/L	EPA8260B	5.0/2,500
2-Chloronaphthalene	µg/L	EPA8270C	10.0
2-Chlorophenol	µg/L	EPA8270C	10.0
4-Chlorophenyl phenyl ether	µg/L	EPA8270C	10.0
Chloroprene	µg/L	EPA8260B	50.0/250
Chromium	µg/L	EPA6010B	10.0
Chrysene	µg/L	EPA8270C	10.0
m/p-Cresol	µg/L	EPA8270C	10.0/20.0
o-Cresol	µg/L	EPA8270C	10.0
Cyanide	µg/L	EPA9014	10.0
Diallate	µg/L	EPA8270C	10.0
Dibenz[a,h]anthracene	µg/L	EPA8270C	10.0
Dibenzofuran	µg/L	EPA8270C	10.0
Dibromochloromethane	µg/L	EPA8260B	5.0/2,500
1,2-Dibromo-3-chloropropane	µg/L	EPA8260B	5.0/25.0
1,2-Dibromoethane	µg/L	EPA8260B	5.0/25.0
Dibromomethane	µg/L	EPA8260B	5.0/25.0

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
Di-n-butyl phthalate	µg/L	EPA8270C	10.0
1,2-Dichlorobenzene	µg/L	EPA8260B	5.0/25.0
1,3-Dichlorobenzene	µg/L	EPA8260B	5.0/25.0
1,4-Dichlorobenzene	µg/L	EPA8260B	5.0/25.0
3,3'-Dichlorobenzidine	µg/L	EPA8270C	10.0
trans-1,4-Dichloro-2-butene	µg/L	EPA8260B	20.0/100
Dichlorodifluoromethane	µg/L	EPA8260B	5.0/25.0
1,1-Dichloroethane	µg/L	EPA8260B	5.0/2,500
1,2-Dichloroethane	µg/L	EPA8260B	5.0/2,500
1,1-Dichloroethylene	µg/L	EPA8260B	5.0/2,500
cis-1,2-Dichloroethylene	µg/L	EPA8021B	1.0/100
	µg/L	EPA8260B	5.0/25.0
trans-1,2-Dichloroethylene	µg/L	EPA8260B	5.0/2,500
Dichloromethane	µg/L	EPA8260B	5.0/2,500
2,4-Dichlorophenol	µg/L	EPA8270C	10.0
2,6-Dichlorophenol	µg/L	EPA8270C	10.0
2,4-Dichlorophenoxyacetic acid	µg/L	EPA8151A	0.2
1,2-Dichloropropane	µg/L	EPA8260B	5.0/2,500
cis-1,3-Dichloropropene	µg/L	EPA8260B	5.0/2,500
trans-1,3-Dichloropropene	µg/L	EPA8260B	5.0/2,500
Diethyl phthalate	µg/L	EPA8270C	10.0
Dimethoate	µg/L	EPA8270C	10.0
2,4-Dimethyl phenol	µg/L	EPA8270C	10.0
Dimethyl phthalate	µg/L	EPA8270C	10.0
p-Dimethylaminoazobenzene	µg/L	EPA8270C	10.0
7,12-Dimethylbenz[a]anthracene	µg/L	EPA8270C	10.0
3,3'-Dimethylbenzidine	µg/L	EPA8270C	20.0
a,a-Dimethylphenethylamine	µg/L	EPA8270C	10.0
1,3-Dinitrobenzene	µg/L	EPA8270C	10.0
2,4-Dinitrophenol	µg/L	EPA8270C	25.0
2,4-Dinitrotoluene	µg/L	EPA8270C	10.0
2,6-Dinitrotoluene	µg/L	EPA8270C	10.0
Di-n-octyl phthalate	µg/L	EPA8270C	10.0
1,4-Dioxane	µg/L	EPA8260B	1,000/5,000
Diphenylamine	µg/L	EPA8270C	10.0
Disulfoton	µg/L	EPA8270C	10.0
Ethyl methacrylate	µg/L	EPA8260B	5.0/25.0
Ethyl methanesulfonate	µg/L	EPA8270C	10.0
Ethylbenzene	µg/L	EPA8260B	5.0/2,500
Fluoranthene	µg/L	EPA8270C	10.0
Fluorene	µg/L	EPA8270C	10.0
Fluoride	µg/L	EPA300.0	100/200
Hexachlorobenzene	µg/L	EPA8270C	10.0
Hexachlorobutadiene	µg/L	EPA8270C	10.0
Hexachlorocyclopentadiene	µg/L	EPA8270C	10.0
Hexachloroethane	µg/L	EPA8270C	10.0
2-Hexanone	µg/L	EPA8260B	5.0/25.0
Indeno[1,2,3-c,d]pyrene	µg/L	EPA8270C	10.0
Iodomethane	µg/L	EPA8260B	5.0/25.0
Iron	µg/L	EPA6010B	200
Isobutyl alcohol	µg/L	EPA8260B	1,500/7,500
Isodrin	µg/L	EPA8270C	10.0
Isophorone	µg/L	EPA8270C	10.0
Isosafrole	µg/L	EPA8270C	10.0
Kepone	µg/L	EPA8270C	10.0
Lead	µg/L	EPA6010B	100
Lindane	µg/L	EPA8081A	0.1
Manganese	µg/L	EPA6010B	10.0
Mercury	µg/L	EPA7470A	0.5
Methacrylonitrile	µg/L	EPA8260B	500/2,500
Methapyrilene	µg/L	EPA8270C	10.0
2-Methyl-4,6-dinitrophenol	µg/L	EPA8270C	25.0

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
Methyl ethyl ketone	µg/L	EPA8260B	10.0/50.0
Methyl isobutyl ketone	µg/L	EPA8260B	5.0/25.0
Methyl methacrylate	µg/L	EPA8260B	50.0/250
Methyl methanesulfonate	µg/L	EPA8270C	10.0
3-Methylcholanthrene	µg/L	EPA8270C	10.0
2-Methylnaphthalene	µg/L	EPA8270C	10.0
Naphthalene	µg/L	EPA8270C	10.0
1,4-Naphthoquinone	µg/L	EPA8270C	10.0
1-Naphthylamine	µg/L	EPA8270C	10.0
2-Naphthylamine	µg/L	EPA8270C	10.0
Nickel	µg/L	EPA6010B	50.0
Nitrate as nitrogen	µg/L	EPA300.0	100/1,000
Nitrate-nitrite as nitrogen	µg/L	EPA300.0	100/500
m-Nitroaniline	µg/L	EPA8270C	25.0
o-Nitroaniline	µg/L	EPA8270C	25.0
p-Nitroaniline	µg/L	EPA8270C	10.0
Nitrobenzene	µg/L	EPA8270C	10.0
2-Nitrophenol	µg/L	EPA8270C	10.0
4-Nitrophenol	µg/L	EPA8270C	25.0
4-Nitroquinoline-1-oxide	µg/L	EPA8270C	50.0
N-Nitrosodi-n-butylamine	µg/L	EPA8270C	10.0
N-Nitrosodiethylamine	µg/L	EPA8270C	10.0
N-Nitrosodimethylamine	µg/L	EPA8270C	25.0
N-Nitrosodiphenylamine	µg/L	EPA8270C	10.0
N-Nitrosodipropylamine	µg/L	EPA8270C	10.0
N-Nitrosomethylethylamine	µg/L	EPA8270C	10.0
N-Nitrosomorpholine	µg/L	EPA8270C	10.0
N-Nitrosopiperidine	µg/L	EPA8270C	10.0
N-Nitrosopyrrolidine	µg/L	EPA8270C	10.0
5-Nitro-o-toluidine	µg/L	EPA8270C	10.0
Parathion	µg/L	EPA8270C	10.0
Parathion methyl	µg/L	EPA8270C	10.0
PCB 1016	µg/L	EPA8082	2.0
PCB 1221	µg/L	EPA8082	2.0
PCB 1232	µg/L	EPA8082	1.0
PCB 1242	µg/L	EPA8082	1.0
PCB 1248	µg/L	EPA8082	1.0
PCB 1254	µg/L	EPA8082	1.0
PCB 1260	µg/L	EPA8082	1.0
Pentachloroethane	µg/L	EPA8260B	200/1,000
Pentachloronitrobenzene	µg/L	EPA8270C	10.0
Pentachlorophenol	µg/L	EPA8270C	25.0
Phenacetin	µg/L	EPA8270C	10.0
Phenanthrene	µg/L	EPA8270C	10.0
Phenol	µg/L	EPA8270C	10.0
p-Phenylenediamine	µg/L	EPA8270C	10.0
Phorate	µg/L	EPA8270C	10.0
2-Picoline	µg/L	EPA8270C	10.0
Pronamid	µg/L	EPA8270C	10.0
Propionitrile	µg/L	EPA8260B	500/2,500
Pyrene	µg/L	EPA8270C	10.0
Pyridine	µg/L	EPA8270C	25.0
Safrole	µg/L	EPA8270C	10.0
Selenium	µg/L	EPA6010B	10.0/200
Silver	µg/L	EPA6010B	20.0
Sodium	µg/L	EPA6010B	1,000
Styrene	µg/L	EPA8260B	5.0/25.0
Sulfate	µg/L	EPA300.0	200/400
Sulfotep	µg/L	EPA8270C	10.0
1,1,1,2-Tetrachloroethane	µg/L	EPA8260B	5.0/25.0
1,1,2,2-Tetrachloroethane	µg/L	EPA8260B	5.0/2,500
Tetrachloroethylene	µg/L	EPA8260B	5.0/2,500

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
2,3,4,6-Tetrachlorophenol	µg/L	EPA8021B	1.0/100
Thallium	µg/L	EPA8270C	10.0
Thionazin	µg/L	EPA7841	2.0
Toluene	µg/L	EPA8270C	10.0
o-Toluidine	µg/L	EPA8260B	5.0/2,500
Total organic carbon	µg/L	EPA8270C	10.0
	µg/L	AP-3086	5,000
	µg/L	EPA9060	5,000
Total phosphates (as P)	µg/L	EPA300.0	500/2,500
1,2,4-Trichlorobenzene	µg/L	EPA8270C	10.0
1,1,1-Trichloroethane	µg/L	EPA8260B	5.0/2,500
	µg/L	EPA8021B	1.0/100
1,1,2-Trichloroethane	µg/L	EPA8260B	5.0/2,500
Trichloroethylene	µg/L	EPA8260B	5.0/2,500
	µg/L	EPA8021B	1.0/100
Trichlorofluoromethane	µg/L	EPA8260B	5.0/2,500
2,4,5-Trichlorophenol	µg/L	EPA8270C	10.0
2,4,6-Trichlorophenol	µg/L	EPA8270C	25.0
1,2,3-Trichloropropane	µg/L	EPA8260B	5.0/25.0
O,O,O-Triethyl phosphorothioate	µg/L	EPA8270C	10.0
1,3,5-Trinitrobenzene	µg/L	EPA8270C	10.0
Vanadium	µg/L	EPA6010B	10.0
Vinyl acetate	µg/L	EPA8260B	20.0/100
Xylenes	µg/L	EPA8260B	10.0/50.0

**Table 11. Methods and Estimated Quantitation Limits Used by GE**

Analyte	Unit	Method	Minimum/Maximum EQLs
Acenaphthene	µg/L	EPA8270C	10.0
Acenaphthylene	µg/L	EPA8270C	10.0
Acetone	µg/L	EPA8260B	5.0
Acetonitrile	µg/L	EPA8260B	25.0
Acrolein	µg/L	EPA8260B	10.0
Acrylonitrile	µg/L	EPA8260B	10.0
Aldrin	µg/L	EPA8081A	0.0198/0.02
Allyl chloride	µg/L	EPA8260B	5.0
Aluminum	µg/L	EPA6020	10.0/300
	µg/L	EPA6010B	50.0
Anthracene	µg/L	EPA8270C	10.0
Antimony	µg/L	EPA6020	0.2/2.0
	µg/L	EPA6010B	10.0
Arsenic	µg/L	EPA6020	3.0/60.0
	µg/L	EPA6010B	5.0
Barium	µg/L	EPA6020	2.0
	µg/L	EPA6010B	5.0
Benzene	µg/L	EPA8260B	1.0/25.0
alpha-Benzene hexachloride	µg/L	EPA8081A	0.0198/0.02
beta-Benzene hexachloride	µg/L	EPA8081A	0.0198/0.02
delta-Benzene hexachloride	µg/L	EPA8081A	0.0198/0.02
Benzidine	µg/L	EPA8270C	50.0
Benzo[a]anthracene	µg/L	EPA8270C	10.0
Benzo[b]fluoranthene	µg/L	EPA8270C	10.0
Benzo[k]fluoranthene	µg/L	EPA8270C	10.0
Benzoic acid	µg/L	EPA8270C	20.0
Benzo[g,h,i]perylene	µg/L	EPA8270C	10.0
Benzo[a]pyrene	µg/L	EPA8270C	10.0
Benzyl alcohol	µg/L	EPA8270C	10.0

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
Beryllium	µg/L	EPA6010B	5.0
	µg/L	EPA6020	0.3/1.0
Bis(2-chloroethoxy) methane	µg/L	EPA8270C	10.0
Bis(2-chloroethyl) ether	µg/L	EPA8270C	10.0
Bis(2-chloroisopropyl) ether	µg/L	EPA8270C	10.0
Bis(2-ethylhexyl) phthalate	µg/L	EPA8270C	9.9/11.1
Bromochloromethane	µg/L	EPA8260B	1.0
Bromodichloromethane	µg/L	EPA8260B	1.0/25.0
Bromoform	µg/L	EPA8260B	1.0/25.0
Bromomethane	µg/L	EPA8260B	1.0/25.0
4-Bromophenyl phenyl ether	µg/L	EPA8270C	10.0
Butylbenzyl phthalate	µg/L	EPA8270C	10.0
Cadmium	µg/L	EPA6020	1.0
	µg/L	EPA6010B	5.0
Calcium	µg/L	EPA6010B	100
	µg/L	EPA6020	150
Carbon disulfide	µg/L	EPA8260B	5.0/50.0
Carbon tetrachloride	µg/L	EPA8260B	1.0/25.0
alpha-Chlordane	µg/L	EPA8081A	0.0198/0.02
gamma-Chlordane	µg/L	EPA8081A	0.0198/0.02
Chloride	µg/L	EPA9056	100
4-Chloroaniline	µg/L	EPA8270C	10.0
Chlorobenzene	µg/L	EPA8260B	1.0/25.0
4-Chloro-m-cresol	µg/L	EPA8270C	10.0
Chloroethane	µg/L	EPA8260B	1.0/25.0
Chloroethene	µg/L	EPA8260B	1.0/25.0
2-Chloroethyl vinyl ether	µg/L	EPA8260B	5.0/125
Chloroform	µg/L	EPA8260B	1.0/25.0
Chloromethane	µg/L	EPA8260B	1.0/25.0
2-Chloronaphthalene	µg/L	EPA8270C	10.0
2-Chlorophenol	µg/L	EPA8270C	10.0
4-Chlorophenyl phenyl ether	µg/L	EPA8270C	10.0
Chloroprene	µg/L	EPA8260B	2.0/20.0
Chromium	µg/L	EPA6020	3.0/30.0
	µg/L	EPA6010B	5.0
Chrysene	µg/L	EPA8270C	10.0
Cobalt	µg/L	EPA6020	0.2/2.0
	µg/L	EPA6010B	5.0
Copper	µg/L	EPA6020	0.356/2.0
	µg/L	EPA6010B	5.0
m/p-Cresol	µg/L	EPA8270C	10.0
o-Cresol	µg/L	EPA8270C	10.0
Cyanide	µg/L	EPA9012A	10.0
p,p'-DDD	µg/L	EPA8081A	0.0396/0.04
p,p'-DDE	µg/L	EPA8081A	0.0396/0.04
p,p'-DDT	µg/L	EPA8081A	0.0396/0.04
Dibenz[a,h]anthracene	µg/L	EPA8270C	10.0
Dibenzofuran	µg/L	EPA8270C	10.0
Dibromochloromethane	µg/L	EPA8260B	1.0/25.0
1,2-Dibromo-3-chloropropane	µg/L	EPA8260B	1.0/10.0
1,2-Dibromoethane	µg/L	EPA8260B	1.0/10.0
Dibromomethane	µg/L	EPA8260B	1.0/10.0
Di-n-butyl phthalate	µg/L	EPA8270C	10.0
1,2-Dichlorobenzene	µg/L	EPA8270C	10.0
	µg/L	EPA8260B	1.0/10.0
1,3-Dichlorobenzene	µg/L	EPA8270C	10.0
1,4-Dichlorobenzene	µg/L	EPA8270C	10.0
	µg/L	EPA8260B	1.0/10.0
3,3'-Dichlorobenzidine	µg/L	EPA8270C	20.0
trans-1,4-Dichloro-2-butene	µg/L	EPA8260B	5.0/50.0
Dichlorodifluoromethane	µg/L	EPA8260B	5.0/50.0
1,1-Dichloroethane	µg/L	EPA8260B	1.0/25.0

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
1,2-Dichloroethane	µg/L	EPA8260B	1.0/25.0
1,1-Dichloroethylene	µg/L	EPA8260B	1.0/100
1,2-Dichloroethylene	µg/L	EPA8260B	1.0
cis-1,2-Dichloroethylene	µg/L	EPA8260B	1.17/11.7
trans-1,2-Dichloroethylene	µg/L	EPA8260B	1.0/25.0
Dichloromethane	µg/L	EPA8260B	5.0/50.0
2,4-Dichlorophenol	µg/L	EPA8270C	10.0
1,2-Dichloropropane	µg/L	EPA8260B	1.0/25.0
1,1-Dichloropropene	µg/L	EPA8260B	1.0
cis-1,3-Dichloropropene	µg/L	EPA8260B	1.0/25.0
trans-1,3-Dichloropropene	µg/L	EPA8260B	1.0/25.0
Dieldrin	µg/L	EPA8081A	0.0396/0.04
Diethyl phthalate	µg/L	EPA8270C	10.0
2,4-Dimethyl phenol	µg/L	EPA8270C	10.0
Dimethyl phthalate	µg/L	EPA8270C	10.0
2,4-Dinitrophenol	µg/L	EPA8270C	20.0
2,4-Dinitrotoluene	µg/L	EPA8270C	10.0
2,6-Dinitrotoluene	µg/L	EPA8270C	10.0
Di-n-octyl phthalate	µg/L	EPA8270C	10.0
Endosulfan sulfate	µg/L	EPA8081A	0.0396/0.04
Endosulfan I	µg/L	EPA8081A	0.0198/0.02
Endosulfan II	µg/L	EPA8081A	0.0396/0.04
Endrin	µg/L	EPA8081A	0.0396/0.04
Endrin aldehyde	µg/L	EPA8081A	0.0396/0.04
Endrin ketone	µg/L	EPA8081A	0.0396/0.04
Ethyl methacrylate	µg/L	EPA8260B	5.0/50.0
Ethylbenzene	µg/L	EPA8260B	1.0/25.0
Fluoranthene	µg/L	EPA8270C	10.0
Fluorene	µg/L	EPA8270C	10.0
Fluoride	µg/L	EPA9056	50.0
Heptachlor	µg/L	EPA8081A	0.0198/0.02
Heptachlor epoxide	µg/L	EPA8081A	0.0198/0.02
Hexachlorobenzene	µg/L	EPA8270C	10.0
Hexachlorobutadiene	µg/L	EPA8270C	10.0
Hexachlorocyclopentadiene	µg/L	EPA8270C	10.0
Hexachloroethane	µg/L	EPA8270C	10.0
2-Hexanone	µg/L	EPA8260B	5.0/50.0
Indeno[1,2,3-c,d]pyrene	µg/L	EPA8270C	10.0
Iodomethane	µg/L	EPA8260B	10.0/100
Iron	µg/L	EPA6020	15.0/25.0
	µg/L	EPA6010B	50.0
Isobutyl alcohol	µg/L	EPA8260B	50.0/500
Isophorone	µg/L	EPA8270C	10.0
Lead	µg/L	EPA6020	2.0/40.0
	µg/L	EPA6010B	5.0
Lindane	µg/L	EPA8081A	0.0198/0.02
Magnesium	µg/L	EPA6010B	10.0
	µg/L	EPA6020	3.0
Manganese	µg/L	EPA6010B	10.0
	µg/L	EPA6020	0.2
Mercury	µg/L	EPA7470A	0.2/0.8
Methacrylonitrile	µg/L	EPA8260B	5.0/50.0
Methoxychlor	µg/L	EPA8081A	0.198/0.2
2-Methyl-4,6-dinitrophenol	µg/L	EPA8270C	10.0
Methyl ethyl ketone	µg/L	EPA8260B	10.0/100
Methyl isobutyl ketone	µg/L	EPA8260B	5.0/50.0
Methyl methacrylate	µg/L	EPA8260B	5.0/50.0
2-Methylnaphthalene	µg/L	EPA8270C	10.0
Naphthalene	µg/L	EPA8270C	10.0
Nickel	µg/L	EPA6020	2.0/20.0
	µg/L	EPA6010B	5.0
Nitrate-nitrite as nitrogen	µg/L	EPA353.1	50.0/10,000

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
Nitrite as nitrogen	µg/L	EPA9056	50.0
m-Nitroaniline	µg/L	EPA8270C	10.0
o-Nitroaniline	µg/L	EPA8270C	10.0
p-Nitroaniline	µg/L	EPA8270C	10.0
Nitrobenzene	µg/L	EPA8270C	10.0
2-Nitrophenol	µg/L	EPA8270C	10.0
4-Nitrophenol	µg/L	EPA8270C	10.0
N-Nitrosodiphenylamine	µg/L	EPA8270C	10.0
N-Nitrosodipropylamine	µg/L	EPA8270C	10.0
PCB 1016	µg/L	EPA8082	0.099/0.104
PCB 1221	µg/L	EPA8082	0.099/0.104
PCB 1232	µg/L	EPA8082	0.099/0.104
PCB 1242	µg/L	EPA8082	0.099/0.104
PCB 1248	µg/L	EPA8082	0.099/0.104
PCB 1254	µg/L	EPA8082	0.099/0.104
PCB 1260	µg/L	EPA8082	0.099/0.104
Pentachloroethane	µg/L	EPA8260B	5.0/50.0
Pentachlorophenol	µg/L	EPA8270C	20.0
pH	pH	EPA9040B	0.1
Phenanthrene	µg/L	EPA8270C	10.0
Phenol	µg/L	EPA8270C	10.0
Phenols	µg/L	EPA9066	5.0
Potassium	µg/L	EPA6010B	100
	µg/L	EPA6020	15.0
Propionitrile	µg/L	EPA8260B	10.0/100
Pyrene	µg/L	EPA8270C	10.0
Selenium	µg/L	EPA6020	2.0/100
	µg/L	EPA6010B	5.0
Silver	µg/L	EPA6020	1.0
	µg/L	EPA6010B	5.0
Sodium	µg/L	EPA6010B	100
	µg/L	EPA6020	250
Specific conductance	µS/cm	EPA9050A	1.0
Styrene	µg/L	EPA8260B	1.0/10.0
Sulfate	µg/L	EPA9056	200
Sulfide	µg/L	EPA9030	1,000
1,1,1,2-Tetrachloroethane	µg/L	EPA8260B	1.0/10.0
1,1,2,2-Tetrachloroethane	µg/L	EPA8260B	1.0/25.0
Tetrachloroethylene	µg/L	EPA8260B	1.0/25.0
Thallium	µg/L	EPA6020	2.5/50.0
	µg/L	EPA6010B	5.0
Tin	µg/L	EPA6020	5.0
Toluene	µg/L	EPA8260B	1.0/25.0
Total dissolved solids	µg/L	EPA160.1	10,000
Total organic carbon	µg/L	EPA9060	5,000
Total organic halogens	µg/L	EPA9020B	10.0/100
Total phosphates (as P)	µg/L	EPA365.4	50.0
Toxaphene	µg/L	EPA8081A	0.99/1.0
1,2,4-Trichlorobenzene	µg/L	EPA8270C	10.0
1,1,1-Trichloroethane	µg/L	EPA8260B	1.0/100
1,1,2-Trichloroethane	µg/L	EPA8260B	1.0/25.0
Trichloroethylene	µg/L	EPA8260B	1.0/25.0
Trichlorofluoromethane	µg/L	EPA8260B	5.0/125
2,4,5-Trichlorophenol	µg/L	EPA8270C	10.0
2,4,6-Trichlorophenol	µg/L	EPA8270C	10.0
1,2,3-Trichloropropane	µg/L	EPA8260B	1.0/10.0
Tritium	µCi/mL	EPIA-002	5.13E-07/5.31E-07

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
Vanadium	µg/L	EPA6020	4.08/100
	µg/L	EPA6010B	5.0
Vinyl acetate	µg/L	EPA8260B	5.0/50.0
Xylenes	µg/L	EPA8260B	2.0/20.0
Zinc	µg/L	EPA6020	10.0
	µg/L	EPA6010B	5.0

Note: The groundwater samples are unfiltered; thus, the methods for metals are for total recoverable metals. Method 6010 is an inductively coupled plasma atomic emission spectroscopy method for metals determination and is published for RCRA determinations.

**Table 12. Methods and Estimated Quantitation Limits Used by WA**

Analyte	Unit	Method	Minimum/Maximum EQLs
Acenaphthene	µg/L	EPA8270C	10.0/22.0
Acenaphthylene	µg/L	EPA8270C	10.0/22.0
Acetone	µg/L	EPA8260B	10.0/50.0
Acetonitrile	µg/L	EPA8260B	20.0/100
Acetophenone	µg/L	EPA8270C	10.0/22.0
2-Acetylaminofluorene	µg/L	EPA8270C	10.0/22.0
Acrolein	µg/L	EPA8260B	20.0/100
Acrylonitrile	µg/L	EPA8260B	5.0/25.0
Aldrin	µg/L	EPA8081A	0.05/0.1
Alkalinity (as CaCO <sub>3</sub> )	meq/L	EPA310.1	6,700/13,400
Allyl chloride	µg/L	EPA8260B	10.0/50.0
Aluminum	µg/L	EPA6010B	146
4-Aminobiphenyl	µg/L	EPA8270C	10.0/22.0
Aniline	µg/L	EPA8270C	10.0/22.0
Anthracene	µg/L	EPA8270C	10.0/22.0
Antimony	µg/L	EPA6010B	27.0
Aramite	µg/L	EPA8270C	20.0/22.0
Arsenic	µg/L	EPA6010B	40.0
Barium	µg/L	EPA6010B	1.8
Benzene	µg/L	EPA8260B	5.0/1,000
alpha-Benzene hexachloride	µg/L	EPA8081A	0.05/0.106
beta-Benzene hexachloride	µg/L	EPA8081A	0.05/0.116
delta-Benzene hexachloride	µg/L	EPA8081A	0.05/0.106
Benzo[a]anthracene	µg/L	EPA8270C	10.0/22.0
Benzo[b]fluoranthene	µg/L	EPA8270C	10.0/22.0
Benzo[k]fluoranthene	µg/L	EPA8270C	10.0/22.0
Benzoic acid	µg/L	EPA8270C	25.0/55.0
Benzo[g,h,i]perylene	µg/L	EPA8270C	10.0/22.0
Benzo[a]pyrene	µg/L	EPA8270C	10.0/22.0
Benzyl alcohol	µg/L	EPA8270C	10.0/22.0
Beryllium	µg/L	EPA6010B	1.6
Bis(2-chloroethoxy) methane	µg/L	EPA8270C	10.0/22.0
Bis(2-chloroethyl) ether	µg/L	EPA8270C	10.0/22.0
Bis(2-chloroisopropyl) ether	µg/L	EPA8270C	10.0/22.0
Bis(2-ethylhexyl) phthalate	µg/L	EPA8270C	10.0/22.0
Boron	µg/L	EPA6010B	266
Bromochloromethane	µg/L	EPA8260B	5.0
Bromodichloromethane	µg/L	EPA8260B	5.0/1,000
Bromoform	µg/L	EPA8260B	5.0/1,000
Bromomethane	µg/L	EPA8260B	10.0/2,000
4-Bromophenyl phenyl ether	µg/L	EPA8270C	10.0/22.0
Butylbenzyl phthalate	µg/L	EPA8270C	10.0/22.0

## Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
2-sec-Butyl-4,6-dinitrophenol	µg/L	EPA8270C	50.0/110
Cadmium	µg/L	EPA6010B	4.7
Calcium	µg/L	EPA6010B	471
Carbazole	µg/L	EPA8270C	10.0/20.0
Carbon disulfide	µg/L	EPA8260B	5.0/25.0
Carbon tetrachloride	µg/L	EPA8260B	5.0/1,000
	µg/L	EPA8010	1.0/5.0
	µg/L	EPA8021B	1.0/200
alpha-Chlordane	µg/L	EPA8081A	0.05/0.106
gamma-Chlordane	µg/L	EPA8081A	0.05/0.106
Chloride	µg/L	EPA9056	210/1,050
4-Chloroaniline	µg/L	EPA8270C	10.0/22.0
Chlorobenzene	µg/L	EPA8260B	5.0/1,000
Chlorobenzilate	µg/L	EPA8270C	10.0/22.0
4-Chloro-m-cresol	µg/L	EPA8270C	10.0/22.0
Chloroethane	µg/L	EPA8260B	10.0/2,000
Chloroethene	µg/L	EPA8260B	10.0/2,000
2-Chloroethyl vinyl ether	µg/L	EPA8260B	10.0/2,000
Chloroform	µg/L	EPA8260B	5.0/1,000
	µg/L	EPA8010	1.0/5.0
	µg/L	EPA8021B	1.0/200
Chloromethane	µg/L	EPA8260B	10.0/2,000
2-Chloronaphthalene	µg/L	EPA8270C	10.0/22.0
2-Chlorophenol	µg/L	EPA8270C	10.0/22.0
4-Chlorophenyl phenyl ether	µg/L	EPA8270C	10.0/22.0
Chloroprene	µg/L	EPA8260B	5.0/25.0
Chromium	µg/L	EPA6010B	7.0
Chrysene	µg/L	EPA8270C	10.0/22.0
Cobalt	µg/L	EPA6010B	4.5
Copper	µg/L	EPA6010B	15.0
m-Cresol	µg/L	EPA8270C	10.0/20.0
m/p-Cresol	µg/L	EPA8270C	10.0/22.0
o-Cresol	µg/L	EPA8270C	10.0/22.0
Cyanide	µg/L	EPA9014	15.2
p,p'-DDD	µg/L	EPA8081A	0.1/0.213
p,p'-DDE	µg/L	EPA8081A	0.1/0.213
p,p'-DDT	µg/L	EPA8081A	0.1/0.2
Diallate	µg/L	EPA8270C	10.0/22.0
Dibenz[a,h]anthracene	µg/L	EPA8270C	10.0/22.0
Dibenzofuran	µg/L	EPA8270C	10.0/22.0
Dibromochloromethane	µg/L	EPA8260B	5.0/1,000
1,2-Dibromo-3-chloropropane	µg/L	EPA8260B	5.0/25.0
1,2-Dibromoethane	µg/L	EPA8260B	5.0/25.0
Dibromomethane	µg/L	EPA8260B	5.0/25.0
Di-n-butyl phthalate	µg/L	EPA8270C	10.0/22.0
1,2-Dichlorobenzene	µg/L	EPA8270C	10.0/22.0
	µg/L	EPA8260B	5.0
1,3-Dichlorobenzene	µg/L	EPA8270C	10.0/22.0
	µg/L	EPA8260B	5.0
1,4-Dichlorobenzene	µg/L	EPA8260B	5.0
	µg/L	EPA8270C	10.0/22.0
3,3'-Dichlorobenzidine	µg/L	EPA8270C	10.0/22.0
trans-1,4-Dichloro-2-butene	µg/L	EPA8260B	20.0/100
Dichlorodifluoromethane	µg/L	EPA8260B	10.0/50.0
1,1-Dichloroethane	µg/L	EPA8260B	5.0/1,000
	µg/L		5.0
1,2-Dichloroethane	µg/L	EPA8260B	5.0/1,000
1,1-Dichloroethylene	µg/L	EPA8260B	5.0/1,000
1,2-Dichloroethylene	µg/L	EPA8260B	5.0
cis-1,2-Dichloroethylene	µg/L	EPA8260B	5.0/1,000
	µg/L	EPA8010	5.0/25.0
	µg/L	EPA8021B	5.0

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
trans-1,2-Dichloroethylene	µg/L	EPA8260B	5.0/1,000
Dichloromethane	µg/L	EPA8260B	5.0/1,000
2,4-Dichlorophenol	µg/L	EPA8270C	10.0/22.0
2,6-Dichlorophenol	µg/L	EPA8270C	10.0/22.0
2,4-Dichlorophenoxyacetic acid	µg/L	EPA8151A	1.0/2.13
1,2-Dichloropropane	µg/L	EPA8260B	5.0/1,000
1,3-Dichloropropane	µg/L	EPA8260B	5.0
2,2-Dichloropropane	µg/L	EPA8260B	5.0
1,1-Dichloropropene	µg/L	EPA8260B	5.0
cis-1,3-Dichloropropene	µg/L	EPA8260B	5.0/1,000
trans-1,3-Dichloropropene	µg/L	EPA8260B	5.0/1,000
Dieldrin	µg/L	EPA8081A	0.1/0.2
Diethyl phthalate	µg/L	EPA8270C	10.0/22.0
Dimethoate	µg/L	EPA8141A	0.5/1.06
2,4-Dimethyl phenol	µg/L	EPA8270C	10.0/22.0
Dimethyl phthalate	µg/L	EPA8270C	10.0/22.0
p-Dimethylaminoazobenzene	µg/L	EPA8270C	10.0/22.0
7,12-Dimethylbenz[a]anthracene	µg/L	EPA8270C	10.0/22.0
3,3'-Dimethylbenzidine	µg/L	EPA8270C	10.0/22.0
a,a-Dimethylphenethylamine	µg/L	EPA8270C	10.0/22.0
1,3-Dinitrobenzene	µg/L	EPA8270C	10.0/22.0
2,4-Dinitrophenol	µg/L	EPA8270C	25.0/55.0
2,4-Dinitrotoluene	µg/L	EPA8270C	10.0/22.0
2,6-Dinitrotoluene	µg/L	EPA8270C	10.0/22.0
Di-n-octyl phthalate	µg/L	EPA8270C	10.0/22.0
1,4-Dioxane	µg/L	EPA8270C	10.0/22.0
Diphenylamine	µg/L	EPA8270C	10.0/22.0
1,2-Diphenylhydrazine	µg/L	EPA8270C	10.0
Disulfoton	µg/L	EPA8141A	0.5/1.06
Endosulfan sulfate	µg/L	EPA8081A	0.1/0.213
Endosulfan I	µg/L	EPA8081A	0.05/0.106
Endosulfan II	µg/L	EPA8081A	0.1/0.213
Endrin	µg/L	EPA8081A	0.1/0.2
Endrin aldehyde	µg/L	EPA8081A	0.1/0.213
Endrin ketone	µg/L	EPA8081A	0.1/0.2
Ethyl methacrylate	µg/L	EPA8270C	10.0/22.0
Ethyl methanesulfonate	µg/L	EPA8270C	10.0/22.0
Ethylbenzene	µg/L	EPA8260B	5.0/1,000
Famphur	µg/L	EPA8141A	1.3/2.77
Fluoranthene	µg/L	EPA8270C	10.0/22.0
Fluorene	µg/L	EPA8270C	10.0/22.0
Fluoride	µg/L	EPA340.2	40.0
Heptachlor	µg/L	EPA8081A	0.05/0.1
Heptachlor epoxide	µg/L	EPA8081A	0.05/0.106
Hexachlorobenzene	µg/L	EPA8270C	10.0/22.0
Hexachlorobutadiene	µg/L	EPA8270C	10.0/22.0
Hexachlorocyclopentadiene	µg/L	EPA8270C	10.0/22.0
Hexachlorodibenzo-p-dioxins	ng/L	EPA8280A	5.0/11.2
Hexachlorodibenzo-p-furans	ng/L	EPA8280A	5.0/11.2
Hexachloroethane	µg/L	EPA8270C	10.0/22.0
Hexachlorophene	µg/L	EPA8270C	250/275
Hexachloropropene	µg/L	EPA8270C	10.0/22.0
2-Hexanone	µg/L	EPA8260B	10.0/50.0
Indeno[1,2,3-c,d]pyrene	µg/L	EPA8270C	10.0/22.0
Iodomethane	µg/L	EPA8260B	5.0/25.0
Iron	µg/L	EPA6010B	74.0
Isobutyl alcohol	µg/L	EPA8260B	100/500
Isodrin	µg/L	EPA8081A	0.1/0.213
Isophorone	µg/L	EPA8270C	10.0/22.0
Isosafrole	µg/L	EPA8270C	10.0/22.0
Kepone	µg/L	EPA8081A	0.5/1.06
Lead	µg/L	EPA6010B	47.0

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
Lindane	µg/L	EPA8081A	0.05/0.106
Lithium	µg/L	EPA6010B	2.7
Magnesium	µg/L	EPA6010B	74.0
Manganese	µg/L	EPA6010B	7.8
Mercury	µg/L	EPA7470A	0.45/1.35
Methacrylonitrile	µg/L	EPA8260B	10.0/50.0
Methapyriene	µg/L	EPA8270C	10.0/22.0
Methoxychlor	µg/L	EPA8081A	0.5/1.06
2-Methyl-4,6-dinitrophenol	µg/L	EPA8270C	25.0/55.0
Methyl ethyl ketone	µg/L	EPA8260B	10.0/50.0
Methyl isobutyl ketone	µg/L	EPA8260B	10.0/50.0
Methyl methacrylate	µg/L	EPA8270C	10.0/22.0
Methyl methanesulfonate	µg/L	EPA8270C	10.0/22.0
3-Methylcholanthrene	µg/L	EPA8270C	10.0/22.0
2-Methylnaphthalene	µg/L	EPA8270C	10.0/22.0
Naphthalene	µg/L	EPA8270C	10.0/22.0
1,4-Naphthoquinone	µg/L	EPA8270C	10.0/22.0
1-Naphthylamine	µg/L	EPA8270C	10.0/22.0
2-Naphthylamine	µg/L	EPA8270C	10.0/22.0
Nickel	µg/L	EPA6010B	26.0
Nitrate as nitrogen	µg/L	EPA353.2	20.0/200
Nitrate-nitrite as nitrogen	µg/L	EPA353.2	20.0/500
Nitrite as nitrogen	µg/L	EPA353.2	20.0
m-Nitroaniline	µg/L	EPA8270C	25.0/55.0
o-Nitroaniline	µg/L	EPA8270C	25.0/55.0
p-Nitroaniline	µg/L	EPA8270C	25.0/55.0
Nitrobenzene	µg/L	EPA8270C	10.0/22.0
2-Nitrophenol	µg/L	EPA8270C	10.0/22.0
4-Nitrophenol	µg/L	EPA8270C	25.0/55.0
4-Nitroquinoline-1-oxide	µg/L	EPA8270C	20.0/22.0
N-Nitrosodi-n-butylamine	µg/L	EPA8270C	10.0/22.0
N-Nitrosodiethylamine	µg/L	EPA8270C	10.0/22.0
N-Nitrosodimethylamine	µg/L	EPA8270C	10.0/22.0
N-Nitrosodiphenylamine	µg/L	EPA8270C	10.0/22.0
N-Nitrosodipropylamine	µg/L	EPA8270C	10.0/22.0
N-Nitrosomethylethylamine	µg/L	EPA8270C	10.0/22.0
N-Nitrosomorpholine	µg/L	EPA8270C	10.0/22.0
N-Nitrosopiperidine	µg/L	EPA8270C	50.0/110
N-Nitrosopyrrolidine	µg/L	EPA8270C	10.0/22.0
5-Nitro-o-toluidine	µg/L	EPA8270C	10.0/22.0
Parathion	µg/L	EPA8141A	0.5/1.0
Parathion ethyl	µg/L	EPA8141A	0.5/1.06
Parathion methyl	µg/L	EPA8141A	0.5/1.06
PCB 1016	µg/L	EPA8082	1.0/2.23
PCB 1221	µg/L	EPA8082	2.0/4.46
PCB 1232	µg/L	EPA8082	1.0/2.23
PCB 1242	µg/L	EPA8082	1.0/2.23
PCB 1248	µg/L	EPA8082	1.0/2.23
PCB 1254	µg/L	EPA8082	1.0/2.0
PCB 1260	µg/L	EPA8082	1.0/2.23
Pentachlorobenzene	µg/L	EPA8270C	10.0/22.0
Pentachlorodibenzo-p-dioxins	ng/L	EPA8280A	5.0/11.2
	ng/L	EPA8280A	5.0/11.2
Pentachloroethane	µg/L	EPA8270C	10.0/22.0
Pentachloronitrobenzene	µg/L	EPA8270C	50.0/110
Pentachlorophenol	µg/L	EPA8270C	25.0/55.0
pH	pH	EPA9040B	0.1
	pH	EPA9040A	0.1
	µg/L	EPA9040A	0.1
Phenacetin	µg/L	EPA8270C	10.0/22.0
Phenanthrene	µg/L	EPA8270C	10.0/22.0
Phenol	µg/L	EPA8270C	10.0/22.0

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
Phenols	µg/L	EPA9066	37.0
p-Phenylenediamine	µg/L	EPA8270C	10.0/22.0
Phorate	µg/L	EPA8141A	1.0/2.13
2-Picoline	µg/L	EPA8270C	10.0/22.0
Potassium	µg/L	EPA6010B	187
Pronamid	µg/L	EPA8270C	10.0/22.0
Propionitrile	µg/L	EPA8260B	50.0/250
Pyrene	µg/L	EPA8270C	10.0/22.0
Pyridine	µg/L	EPA8270C	10.0/22.0
Safrole	µg/L	EPA8270C	10.0/22.0
Selenium	µg/L	EPA6010B	66.0
Silica	µg/L	EPA6010B	1,350/1,370
Silver	µg/L	EPA6010B	5.0
Sodium	µg/L	EPA6010B	285
Specific conductance	µS/cm	EPA9050A	8.9/10.0
Styrene	µg/L	EPA8260B	5.0/25.0
Sulfate	µg/L	EPA9056	340/68,000
Sulfide	µg/L	EPA9030B	10,000
	µg/L	EPA9034	10,000
	µg/L	EPA376.2	10,000
Sulfotepp	µg/L	EPA8141A	1.0/2.13
2,4,5-T	µg/L	EPA8151A	0.5/1.06
2,3,7,8-TCDD	ng/L	EPA8280A	5.0/11.2
1,2,4,5-Tetrachlorobenzene	µg/L	EPA8270C	10.0/22.0
Tetrachlorodibenzo-p-dioxins	ng/L	EPA8280A	5.0/11.2
Tetrachlorodibenzo-p-furans	ng/L	EPA8280A	5.0/11.2
1,1,1,2-Tetrachloroethane	µg/L	EPA8260B	5.0/25.0
1,1,2,2-Tetrachloroethane	µg/L	EPA8260B	5.0/1,000
Tetrachloroethylene	µg/L	EPA8260B	5.0/1,000
2,3,4,6-Tetrachlorophenol	µg/L	EPA8270C	10.0/22.0
Thallium	µg/L	EPA6010B	55.0
Thionazin	µg/L	EPA8141A	0.5/1.06
Tin	µg/L	EPA6010B	70.0
Toluene	µg/L	EPA8260B	5.0/1,000
o-Toluidine	µg/L	EPA8270C	10.0/22.0
Total dissolved solids	µg/L	EPA160.1	47,000/50,000
Total organic carbon	µg/L	EPA9060	1,000
Total organic halogens	µg/L	EPA9020B	120/1,200
Total petroleum hydrocarbons	µg/L	EPA418.1	10,000
Total phosphates (as P)	µg/L	EPA365.2	67.0
Toxaphene	µg/L	EPA8081A	5.0/10.6
2,4,5-TP (Silvex)	µg/L	EPA8151A	0.5/1.06
1,2,4-Trichlorobenzene	µg/L	EPA8270C	10.0/22.0
1,1,1-Trichloroethane	µg/L	EPA8260B	5.0/1,000
	µg/L	EPA8010	1.0/5.0
	µg/L	EPA8021B	1.0/200
1,1,2-Trichloroethane	µg/L	EPA8260B	5.0/1,000
Trichloroethylene	µg/L	EPA8260B	5.0/1,000
	µg/L	EPA8010	1.0/5.0
	µg/L	EPA8021B	1.0/200
Trichlorofluoromethane	µg/L	EPA8260B	5.0/1,000
2,4,5-Trichlorophenol	µg/L	EPA8270C	25.0/55.0
2,4,6-Trichlorophenol	µg/L	EPA8270C	10.0/22.0
1,2,3-Trichloropropane	µg/L	EPA8260B	5.0/25.0
O,O,O-Triethyl phosphorothioate	µg/L	EPA8141A	0.5/1.06

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
1,3,5-Trinitrobenzene	µg/L	EPA8270C	10.0/22.0
Vanadium	µg/L	EPA6010B	6.9
Vinyl acetate	µg/L	EPA8260B	10.0/50.0
Xylenes	µg/L	EPA8260B	5.0/1,000
Zinc	µg/L	EPA6010B	53.0

Note: The groundwater samples are unfiltered; thus, the methods for metals are for total recoverable metals. Method 200.7 is an inductively coupled plasma atomic emission spectroscopy method for metals determination and is published for Safe Drinking Water Act investigations.

**Table 13. Methods and Estimated Quantitation Limits Used by GP**

Analyte	Unit	Method	Minimum/Maximum EQLs
Actinium-228	µCi/mL	EPIA-013	9.88E-09/2.4E-08
Americium-241	µCi/mL	EPIA-011	1.43E-11/4.22E-09
Antimony-125	µCi/mL	EPIA-013	6.5E-09/1.56E-08
Carbon-14	µCi/mL	EPIA-003	5.16E-09/1.84E-08
Cerium-144	µCi/mL	EPIA-013	1.5E-08/4.1E-08
Cesium-134	µCi/mL	EPIA-013	2.19E-09/4.99E-09
Cesium-137	µCi/mL	EPIA-013	2.3E-09/1.01E-07
Cobalt-57	µCi/mL	EPIA-013	1.92E-09/5.29E-09
Cobalt-60	µCi/mL	EPIA-013	2.04E-09/6.16E-09
Curium-242	µCi/mL	EPIA-011	1.5E-11/3.29E-09
Curium-243/244	µCi/mL	EPIA-011	1.31E-11/3.11E-09
Curium-245/246	µCi/mL	EPIA-011	1.26E-11/1.55E-09
Europium-152	µCi/mL	EPIA-013	6.89E-09/1.69E-08
Europium-154	µCi/mL	EPIA-013	5.78E-09/1.66E-08
Europium-155	µCi/mL	EPIA-013	7.96E-09/2.19E-08
Gross alpha	µCi/mL	EPIA-001	2.54E-10/4.27E-07
Iodine-129	µCi/mL	EPIA-006	1.1E-10/5.06E-09
Lead-212	µCi/mL	EPIA-013	4.01E-09/1.1E-08
Manganese-54	µCi/mL	EPIA-013	1.98E-09/4.88E-09
Nickel-63	µCi/mL	EPIA-022	1.29E-08/1.51E-07
Nonvolatile beta	µCi/mL	EPIA-001	5.39E-10/6.7E-07
Plutonium-238	µCi/mL	EPIA-011	9.09E-12/2.67E-09
Plutonium-239/240	µCi/mL	EPIA-011	9.25E-12/1.96E-09
Potassium-40	µCi/mL	EPIA-013	1.9E-08/6.81E-08
Promethium-144	µCi/mL	EPIA-013	2.17E-09/4.6E-09
Promethium-146	µCi/mL	EPIA-013	3.05E-09/7.09E-09
Radium, total alpha-emitting	µCi/mL	EPIA-010	6.21E-10/8.74E-10
Radium-226	µCi/mL	EPIA-008	1.11E-10/1.04E-09
Radium-228	µCi/mL	EPIA-009	4.02E-10/3.22E-09
Ruthenium-106	µCi/mL	EPIA-013	2.07E-08/4.69E-08
Sodium-22	µCi/mL	EPIA-013	2.06E-09/5.92E-09
Strontium-89/90	µCi/mL	EPIA-004	9.58E-10/6.14E-09
Strontium-90	µCi/mL	EPIA-004	6.32E-10/1.46E-08
Technetium-99	µCi/mL	EPIA-005	3.76E-09/4.89E-08
Thorium-228	µCi/mL	EPIA-012	4.13E-11/6.2E-09
Thorium-230	µCi/mL	EPIA-012	9.86E-12/3.67E-09
Thorium-232	µCi/mL	EPIA-012	8.76E-12/3.22E-09
Tritium	µCi/mL	EPIA-002	5.2E-07/1.09E-05
Uranium-233/234	µCi/mL	EPIA-011	9.8E-12/3.97E-09

### Analytical Data Review



Analyte	Unit	Method	Minimum/Maximum EQLs
Uranium-235	µCi/mL	EPIA-011	8.87E-12/3.38E-09
Uranium-238	µCi/mL	EPIA-011	1.9E-11/2.94E-09
Yttrium-88	µCi/mL	EPIA-013	2.25E-09/6.15E-09
Zinc-65	µCi/mL	EPIA-013	7.52E-10/1.45E-08

**Table 14. Methods and Estimated Quantitation Limits Used by TM**

Analyte	Unit	Method	Minimum/Maximum EQLs
Actinium-228	µCi/mL	EPA901.1MOD	1.571E-08/2.874E-08
Americium-241/Curium-246	µCi/mL	EMLAM01MOD	1.2E-10/7.9E-10
Antimony-124	µCi/mL	EPA901.1MOD	4.48E-09/6.76E-09
Antimony-125	µCi/mL	EPA901.1MOD	9.22E-09/1.751E-08
Barium-133	µCi/mL	EPA901.1MOD	4.56E-09/7.57E-09
Carbon-14	µCi/mL	ENICMOD	1.6994E-07/1.8243E-07
Cerium-144	µCi/mL	EPA901.1MOD	2.283E-08/2.864E-08
Cesium-134	µCi/mL	EPA901.1MOD	4.03E-09/6.44E-09
Cesium-137	µCi/mL	EPA901.1MOD	4.38E-09/7.28E-09
Cobalt-57	µCi/mL	EPA901.1MOD	2.74E-09/3.67E-09
Cobalt-58	µCi/mL	EPA901.1MOD	4.22E-09/7.41E-09
Cobalt-60	µCi/mL	EPA901.1MOD	4.33E-09/8.28E-09
Curium-242	µCi/mL	EMLAM01MOD	1.5E-10/6.8E-10
Curium-243/244	µCi/mL	EMLAM01MOD	2.2E-10/1.19E-09
Europium-152	µCi/mL	EPA901.1MOD	2.994E-08/5.317E-08
Europium-154	µCi/mL	EPA901.1MOD	1.087E-08/2.188E-08
Europium-155	µCi/mL	EPA901.1MOD	8.0E-09/1.389E-08
Gross alpha	µCi/mL	EPA900.0MOD	2.0E-11/3.44E-09
Iodine-129	µCi/mL	EPA902.0MOD	1.34E-09/1.356E-08
Lead-212	µCi/mL	EPA901.1MOD	5.92E-09/1.058E-08
Manganese-54	µCi/mL	EPA901.1MOD	4.24E-09/7.73E-09
Neptunium-239	µCi/mL	EPA901.1MOD	3.856E-08/7.313E-07
Nickel-63	µCi/mL	3500NIEMOD	2.22E-09/2.4E-08
Nonvolatile beta	µCi/mL	EPA900.0MOD	1.0E-10/6.75E-09
Plutonium-238	µCi/mL	EMLPU02MOD	1.5E-10/2.12E-09
Plutonium-239/240	µCi/mL	EMLPU02MOD	6.0E-11/1.48E-09
Potassium-40	µCi/mL	EPA901.1MOD	3.825E-08/8.659E-08
Promethium-144	µCi/mL	EPA901.1MOD	3.99E-09/7.24E-09
Promethium-146	µCi/mL	EPA901.1MOD	7.04E-09/1.172E-08
Radium, total alpha-emitting	µCi/mL	EPA903.0MOD	2.2E-10/1.73E-09
	µCi/mL	EPA900.0MOD	5.1E-10
Radium-226	µCi/mL	EPA903.0MOD	7.0E-11/4.2E-10
Radium-228	µCi/mL	EPA904.0MOD	9.6E-10/2.64E-09
Ruthenium-106	µCi/mL	EPA901.1MOD	3.656E-08/6.143E-08
Sodium-22	µCi/mL	EPA901.1MOD	3.87E-09/7.8E-09
Strontium-90	µCi/mL	EMLSR02MOD	6.6E-10/1.87E-09
Technetium-99	µCi/mL	EICHR0MTC1MOD	1.26E-09/1.686E-08
Thorium-228	µCi/mL	EMLTH01MOD	1.5E-10/6.3E-10
Thorium-230	µCi/mL	EMLTH01MOD	1.1E-10/4.8E-10
Thorium-232	µCi/mL	EMLTH01MOD	1.1E-10/5.1E-10
Tin-113	µCi/mL	EPA901.1MOD	4.38E-09/7.65E-09
Tritium	µCi/mL	EPA906.0MOD	4.8E-07/6.3195E-04
Uranium-234	µCi/mL	EMLU02MOD	1.0E-10/3.8E-10
Uranium-235	µCi/mL	EMLU02MOD	1.0E-10/3.4E-10

### Analytical Data Review



<i>Analyte</i>	<i>Unit</i>	<i>Method</i>	<i>Minimum/Maximum EQLs</i>
Uranium-238	µCi/mL	EMLU02MOD	1.0E-10/3.1E-10
Yttrium-88	µCi/mL	EPA901.1MOD	3.54E-09/9.41E-09
Zinc-65	µCi/mL	EPA901.1MOD	8.65E-09/1.601E-08
Zirconium-95	µCi/mL	EPA901.1MOD	6.86E-09/1.429E-08



# Quality Control Samples

This section discusses the analytical data in terms of the following indicators of data quality: precision, accuracy, representativeness, comparability, and completeness. Precision is determined from the field and laboratory duplicate or replicate analyses and indicates the consistency of field and laboratory techniques. Accuracy is determined from the quality control standards, laboratory control samples or blank spikes, surrogates, matrix spikes, and the results of method, field, and trip blanks and indicates the ability of the laboratory to generate correct results. (Equipment blanks are used to evaluate the effectiveness of the cleaning procedures used in the field.) Representativeness is the determination of how well the sample reflects the site's characteristics. Comparability expresses the confidence with which data from different laboratories are considered to be equivalent. Completeness measures the amount of useable data resulting from the data collection activity.

## PRECISION

Precision is a measure of the repeatability of a measurement and is evaluated from the results of duplicate samples and splits. Blind replicates, or field replicates, measure the repeatability of the sampling and analytical techniques, and laboratory duplicates measure the ability of the laboratory to reproduce a result. Split samples measure whether two laboratories using comparable procedures obtain equivalent results. Low precision can be caused by poor instrument performance, poor operator technique, inconsistent application of method protocols, laboratory environment, time between analyses, or by a difficult, heterogeneous sample matrix.

## Replicate and Duplicate Analyses of Samples

Blind replicate and duplicate samples are analyzed to establish the precision of scheduled analyses. The replicate and duplicate analytical results are used to generate Mean Relative Difference (MRD) indices, which are used to evaluate the laboratories' performances.

The primary laboratories EX, GE, and WA, performed all analyses with the following exception: GP and TM performed radionuclide analyses for EX, GE, and WA.

For intralaboratory comparisons, generally 10% of the samples are analyzed in duplicate. In addition, EPD/EMS sends blind replicates of approximately 5% of the total samples to the laboratories for analysis. The results of the blind replicate analyses are used for both intralaboratory and interlaboratory comparisons.

All these results are included in the **Analytical Results** section (**Appendix B**) of this report. Results from duplicate samples are included in the main table for a given well and sample date. Results from analyses of replicate samples and duplicate analyses of the replicates are reported in a second table for the same well and sample date.

Table 15 lists the well names, sample dates, and associated blanks for wells used as blind replicates for EX, GE, and WA.

Certain analytes were not present in concentrations above estimated quantitation limits in any well samples having replicates or duplicates. These analytes are not considered in further evaluation of replicate and duplicate analyses and are listed in tables 16 and 17. See tables 10–14 for the estimated quantitation limits that are applicable this quarter.

## Intralaboratory Comparisons

Intralaboratory comparisons are of two types: in-house duplicates and blind replicates. The MRD was developed by R.C. Tuckfield of the Applied Statistics Group at the Savannah River Technology Center, in conjunction with M.M. Khalil of EPD/EMS, to assess the reproducibility of identical chemical analyses. For both intralaboratory comparisons, the MRD is defined as the average absolute difference between an original sample and its duplicate or blind replicate, expressed as a percentage of the mean of those two values. It is calculated as



$$MRD = \left\{ \frac{\sum_{i=1}^n (|x_i - y_i| / [(x_i + y_i) / 2])}{n} \right\} \times 100,$$

where

$x_i$  = an analyte's mean concentration  
in a water sample for the  $i^{th}$  well,

$y_i$  = the analyte's mean concentration  
in the replicate or duplicate, and

$n$  = the number of pairs of observations.

For the in-house duplicate comparisons, the quantities  $x_i$  and  $y_i$  represent the results for the original sample and the in-house duplicate, respectively. For the blind replicate comparisons,  $x_i$  and  $y_i$  represent the results for the known sample and the EPD blind replicate, respectively. Generally, the closer the original results and their replicate or duplicate results are to each other, the lower the MRD.

### An Adjusted Mean Relative Difference

A drawback to the MRD statistic occurs when  $x_i$  and  $y_i$  are close to zero. This drawback can be illustrated by determining the relative difference (RD) for the  $i^{th}$  well or sample as follows:

$$RD_i = \frac{|x_i - y_i|}{z_i}$$

$$\text{where } z_i = \left( \frac{x_i + y_i}{2} \right)$$

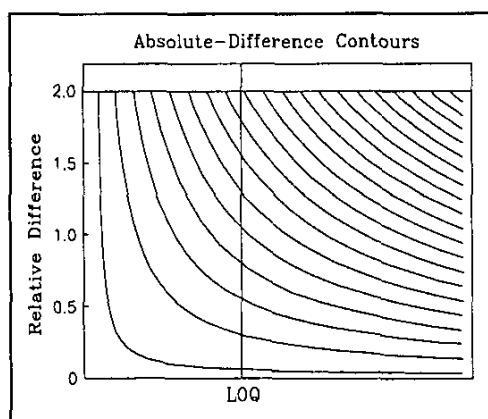


Figure 4. Relative Difference vs. the Mean

The  $RD_i$  is an individual term in the MRD calculation for the  $i^{th}$  replicated sample. For example, if  $x_i = 99$  and  $y_i = 101$ , then  $RD_i = 2\%$ . However, if  $x_i = 3$  and  $y_i = 1$ , then  $RD_i = 100\%$ . Both situations have the same absolute difference, but the latter situation has a much larger relative difference. The effect can be shown by graphing the relative difference vs. the mean ( $z_i$ ) and marking contours for constant levels of absolute difference

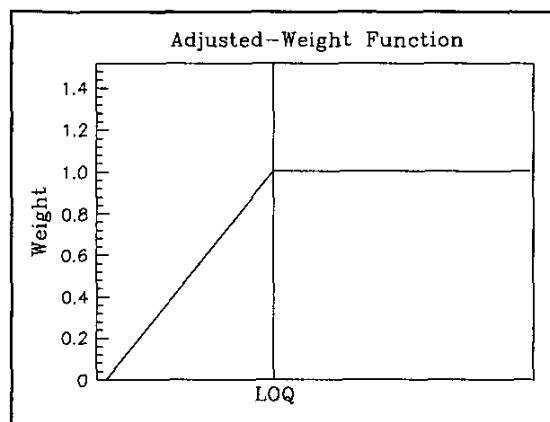


(figure 4). The first contour, in the lower left corner of the figure, represents the smallest absolute difference. The last contour, in the upper right corner of the figure, represents the largest absolute difference.

The inordinate inflation of the MRD when  $x_i$  and  $y_i$  are near zero is of particular concern when the results are below the limit of quantitation (LOQ). Briefly, the LOQ is defined by L.H. Keith (1991) as 10 times the instrument signal standard deviation ( $\sigma$ ) for blank samples. For perspective, the limit of detection is defined as  $3\sigma$ .

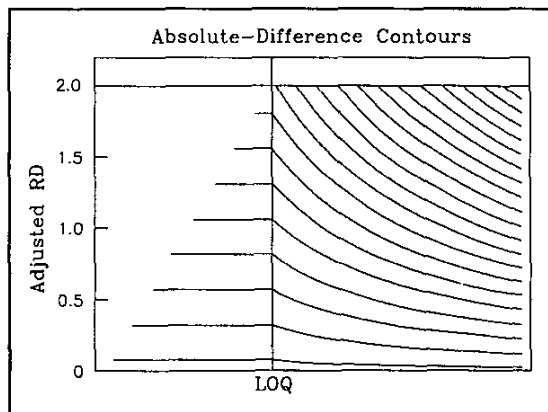
The reproducibility of analytical results less than the LOQ is considered by environmental chemists to be questionable. In this situation, the  $RD_i$  may reflect variation more in the measuring device itself than in the measuring process. However, the MRD can be a useful statistic if adjusted so that results below the LOQ have less influence than more reproducible results above the LOQ.

The simplest adjustment to the MRD to reduce the influence of analyte concentrations near zero is to weight each  $RD_i$  in the calculation by an amount,  $w_i$ , that reflects its proximity to the LOQ value. Figure 5 shows the relationship between  $w_i$  and analyte concentration. This relationship is a linear-weight function.



**Figure 5. Relationship between  $w_i$  and Analyte Concentration**

Figure 6 shows the computer simulation results for the effect of a linear-weight function on the now-adjusted MRD ( $MRD_{adj}$ ), developed by Tuckfield and Khalil, again by determining constant contours of absolute difference. Below the LOQ, all samples with the same absolute difference are given the same adjusted RD value. Above the LOQ, the unadjusted RD is preserved because the weight function is unity when  $z_i$  is greater than the LOQ.



**Figure 6. Effect of a Linear-Weight Function on the  $MRD_{adj}$**



The MRDadj, then, has the following form:

$$\text{MRDadj} = \frac{\sum_{i=1}^n w_i \text{RD}_i}{n},$$
$$\text{where } w_i = \begin{cases} \frac{z_i}{\text{LOQ}} & ; \text{ if } z_i < \text{LOQ} \\ 1 & ; \text{ otherwise.} \end{cases}$$

This adjustment has several advantages. For example, the weight function reflects the chemist's view of the reliability of the measurement. If analyses are conducted on different equipment (i.e., with different LOQs), the precision of the equipment is included automatically in the MRD. Data from more precise equipment are given more influence. Also, no data are removed from the computation completely, so the sample size ( $n$ ) is not affected.

### **Normalizing Data to the Reference Detection Limit**

Because some detection limits may be anomalously high (because of dilution or other effects, for example), it is necessary to use a reference detection limit (RDL) in the MRD calculations. This is set as the 90th percentile value of the detection limits of the not-detected samples. All the results less than the RDL are adjusted up to that value. Results that are detection limit values above the RDL are eliminated from the MRD index calculations. By definition, fewer than 10% of the detection limit values are above the RDL. The intralaboratory MRD indices are listed in tables 18–23.

### **Interlaboratory Comparisons**

For interlaboratory comparisons, the MRD is calculated as the average absolute difference between the laboratories for the  $i^{\text{th}}$  well expressed as a percentage of the mean of both laboratories. For these comparisons,  $x_i$  and  $y_i$  represent the mean analyte concentrations for the  $i^{\text{th}}$  well;  $x_i$  represents the mean from one laboratory, and  $y_i$  represents the mean from the other. The means are calculated from the known sample results and the EPD blind replicate results.

### **Choosing an RDL**

For interlaboratory comparisons, a new RDL must be established for calculation of the MRD. The interlaboratory RDL is chosen as the 90th percentile value from the combined array of non-detected sample results from both laboratories.

### **Normalizing Data to the RDL**

All results less than the RDL are adjusted to the new RDL value. Detection limit values above the RDL are eliminated from the MRD index comparison and from the  $t$ -tests. By definition, fewer than 10% of the detection limit values are above the RDL. In addition to the interlaboratory MRD calculations, paired  $t$ -tests are performed to see if the difference between the mean concentrations of an analyte from the same well reported by each laboratory is significant. The  $t$ -test tests the null hypothesis that there is no significant difference in the concentrations reported by the two laboratories. The MRD and the  $t$ -test results for analytes with at least one pair of results above the interlaboratory RDL are listed in tables 24–26.

Analytes with significance-of-probability values less than .050 (tables 24–26) indicate a probability of less than 5% that the results for that analyte are the same from both laboratories.

### **Presentation of the Replicate and Duplicate Analyses**

In tables 24–26, high MRDs (greater than or equal to 20) appear in bold type. Low MRDs (less than or equal to .050) appear in bold italic type.



Table 27 lists analytes and wells for which samples and blind replicates analyzed by EX yielded results where one was more than twice another.

Table 28 lists analytes and wells for which samples and blind replicates analyzed by GE yielded results where one was more than twice another.

Table 29 lists analytes and wells for which samples and blind replicates analyzed by WA yielded results where one was more than twice another.

Table 30 lists analytes and wells for which samples and laboratory duplicates analyzed by WA yielded results where one was more than twice another.

Table 31 lists analytes and wells for which samples and blind replicates analyzed by GP yielded results where one was more than twice another.

Table 32 lists analytes and wells for which samples and laboratory duplicates analyzed by GP yielded results where one was more than twice another.

Table 33 lists analytes and wells for which samples and blind replicates analyzed by TM yielded results where one was more than twice another.

Table 34 lists analytes and wells for which samples and laboratory duplicates analyzed by TM yielded results where one was more than twice another.

Tables 35-37 list analytes and wells where a result from one laboratory was more than twice the corresponding result from the other laboratory.

See the **Analytical Methods** subsection of the **Analytical Data Review** section of this report for more information.

## **ACCURACY**

Accuracy is defined as the closeness of agreement between an observed value and an accepted reference value or as a measure of the over- or underestimation of reported concentrations. Accuracy is especially important when the concentration of concern approaches the detection limit and/or the action limit. When the concentration is underestimated near the detection limit, the analyte may be present but reported as not detected; near the action limit, the analyte may be at a concentration that would require remediation, but the remediation would not be performed. When the concentration is overestimated near the detection limit, the analyte may not be present but reported as detected; near the action limit, the analyte may not be at a concentration that would require remediation, but the remediation would be performed. Quality control standards, performance evaluation studies, laboratory control samples, surrogate and matrix spikes, and method blanks are used to evaluate accuracy.

## **Quality Control Standards**

During first quarter 1999, EPD/EMS conducted quality assessments of EX, GE, and WA laboratories. Each laboratory received a set of certified environmental quality control standards from Environmental Resource Associates (ERA) of Arvada, CO (lot numbers 439, 586, 3227, 3427, 8922, and 9987). Each laboratory's results were compared with the ERA-certified values and performance acceptance limits (PALs). The PALs are listed as guidelines for acceptable analytical results given the limitations of the EPA methods used to determine these parameters. The PALs closely approximate the 95% confidence interval. EX, GE, and WA all returned results for first quarter 1999 quality control assessments. The laboratories' results and the certified values and limits are listed in tables 38-40.

EX, GE, and WA analyzed total petroleum hydrocarbons by the infrared method. WSRC cancelled the analysis of a performance evaluation sample for toxaphene for two of the laboratories: GE, due to a broken vial; WA, because the toxaphene ampule was received empty by the laboratory.

---

## **Quality Control Samples**



Of 103 analyses reported by EX, 98, or 95.1%, were within the PALs. Of the 103 analyses reported by GE, 102, or 99.0%, were within the PALs. Of 103 analyses reported by WA, 90, or 87.4%, were within the PALs.

## **Laboratory Control Samples**

Laboratory control samples are used to monitor the performance of all steps in the analysis process, including sample preparation, and are used to identify problems with the analytical procedure. Laboratory control samples are deionized water that is spiked with the target analyte, digested, and analyzed with the regular samples for inorganic parameters. Blank spikes are organic-free water that is spiked with selected target analytes, extracted, and analyzed with the regular samples for organic parameters. The spiking solutions for laboratory control samples are obtained from the EPA or a third-party supplier, or they are prepared in the laboratory with chemicals from a different source than the calibration standards. All laboratory control standards are validated to EPA standards, as detailed in the *EGG Operating Handbook*, section 1.800, **Analytical Data Qualification**.

The percent recovery (% R) for laboratory control samples or blank spikes is calculated as

Tables 41–45 list the statistical information for the percent recovery for laboratory control samples by analyte for EX, GE, WA, GP, and TM. The *Qualified Out of Range* column provides the number of laboratory control samples or blank spikes that had percent recoveries outside the acceptance limits compared to the total number analyzed; the other columns provide the mean recovery, standard deviation, and the minimum and maximum recoveries.

## **Surrogates**

Surrogates are analytes not normally found in environmental samples that are used to spike all samples, QC samples, and calibration standards for organic analyses. Surrogates are added prior to analysis for VOAs (volatile organic analyses) and prior to extraction for semivolatiles, pesticides, and herbicides. Low surrogate recovery is a measure of the effect of the sample matrix, high analyte concentration, or laboratory error. High surrogate recovery usually indicates instrument or sample preparation errors. All surrogates are validated to EPA standards, as detailed in the WSRC *EGG Operating Handbook*, section 1.800, **Analytical Data Qualification**.

Tables 46–48 list the statistical information for the percent recovery for the surrogates by analyte for EX, GE, and WA. The *Qualified Out of Range* column gives the number of surrogates that had percent recoveries outside the acceptance limits compared to the total number analyzed; the other columns provide the mean recovery, standard deviation, and the minimum and maximum recoveries.

## **Matrix Spikes**

Matrix spikes are used to evaluate the effect of the sample matrix on the analytical procedure. Matrix spikes are prepared by adding a known quantity of the target analyte to at least 5% of the samples prior to sample preparation. For the inorganic analyses, all target analytes are spiked. For the organic analyses, selected target analytes are used in the spiking solution. Results from the matrix spike are used to evaluate the extent of matrix interference and to determine the bias of the procedure for the sample matrix. Matrix spikes have the same recovery limits as laboratory control samples.



The percent recovery for matrix spikes is calculated as

where

% R = percent recovery

SSR = spiked sample result

SR = sample result, and

SA = spike added.

Percent bias in tables 49–52 is the difference between 100% and the mean recovery; a negative value indicates that the mean recovery was below 100%. If the bias is consistently positive, the laboratory may be overestimating the concentration of the analyte, and if the bias is consistently negative, the laboratory may be underestimating the concentration of the analyte. Results close to the quantitation and action limits should be closely examined, and their use in decision-making should be carefully considered.

Matrix spikes are rejected if the concentration of the analyte in the sample is more than four times the amount of the spike. Results for matrix spikes are provided in tables 49–52 for EX, GE, WA, and GP. The *Qualified Out of Range* column provides the number of matrix spikes that had percent recoveries outside the acceptance limits compared to the total number analyzed; the other columns provide the mean recovery, standard deviation, percent bias, and the minimum and maximum recoveries.

### Method Blanks

Method blanks, or laboratory blanks, are used to determine the existence and magnitude of contamination problems resulting from the analytical process. Method blanks are deionized water to which all reagents are added in the same proportions used in sample processing. When method blanks have detectable concentrations of the analytes, the laboratory must determine the cause and take corrective action to eliminate the contamination.

Tables 53–57 list the statistical information for analytes detected in method blanks for EX, GE, WA, GP, and TM. The *Frequency of Detection* column provides the number of method blanks analyzed for each analyte during the quarter that had detectable concentrations compared to the total number that were analyzed. The other columns list the mean result, standard deviation, and minimum and maximum results.

### Field Blanks

Field blanks (called QA blanks in the tables) are used to identify possible sources of contamination from the processing and shipping of samples. Field blanks are sample bottles filled with deionized water prior to well sampling; the bottles are not opened at the sampling site. The field blanks are sent along with, and analyzed in the same manner as, the samples. Positive results from field blanks can result from analytical bias, contaminated sample bottles, contaminated deionized water, or contamination during shipping or analysis. The results from all samples in the sample delivery group are evaluated by the laboratory and data validators to determine the cause of the contamination and the corrective action to be taken.

Tables 58–62 list the statistical information for the field blanks by analyte for EX, GE, WA, GP, and TM. The *Frequency of Detection* column gives the number of field blanks analyzed for each analyte during the quarter that had detectable concentrations compared to the total number analyzed. The other columns list the mean result, standard deviation, and minimum and maximum results.



## **Trip Blanks**

Trip blanks are vials of deionized water sent to the laboratory for volatiles analysis with each shipping cooler containing volatiles samples. Trip blanks are used to check for contamination resulting from shipping, primarily due to the breaking of the vial's seal because of depressurization during air transport. Trip blanks are used also to test the laboratories' reliability. The blanks are prepared by adding preservative to a 40 mL vial, filling it completely with deionized water, and sealing the top with a teflon-lined septum cap. The results from all samples in the sample delivery group are evaluated by the laboratory and data validators to determine the cause of the contamination and the corrective action to be taken.

Tables 63–65 list the statistical information for the analytes detected in trip blanks by EX, GE, and WA. The *Frequency of Detection* column gives the number of trip blanks analyzed for each analyte during the quarter that had detectable concentrations compared to the total number analyzed. The other columns list the mean result, standard deviation, and minimum and maximum results.

## **Equipment Blanks or Rinsates**

Equipment blanks (called EPT blanks in the tables) or rinsates are used to determine if sampling equipment that has been cleaned in the field is contaminated. Prior to sampling, deionized water is poured over or pumped through portions of the sampling equipment that come in contact with the sample. If the equipment blank is contaminated, the field cleaning procedure must be evaluated to determine the cause of the contamination. Results for all samples collected with equipment cleaned in the field must be evaluated to determine whether the contamination is isolated or generalized.

No information about equipment blanks was provided for first quarter 1999.

## **Blanks Results**

The blanks results tables in **Appendix C** list the dates, field measurements, and analytical results for the sampling blanks. See **Appendix B** for a key to the abbreviations used in the tables.

## **REPRESENTATIVENESS**

A representative sample is a sample that can be expected to exhibit the average properties of the population being sampled. Representativeness for groundwater samples can be affected by using a bailer to collect the sample from the well, metal casings in the well, and turbidity (suspended particulates) in the sample. The results may be biased positively or negatively.

If a well is bailed, VOAs are biased negatively due to aeration of the sample in the sampling process. Table 66 lists wells that were bailed during first quarter 1999.

For metal casings, the bias for metals can be positive or negative depending on whether the casing is releasing or absorbing metals. Table 67 lists the wells with metal casings that were sampled during first quarter 1999.

If turbidity is greater than 15 NTU, the metals can be biased positively or negatively, and the radionuclides—particularly those that are determined by gamma spectroscopy—can be masked due to self-absorption. Table 68 lists the wells that had turbidity results greater than 15 NTU during first quarter 1999.

## **COMPARABILITY**

Comparability is evaluated by confirming that the laboratories used the same standardized procedures for sample preparation and analysis, that the reporting units are the same, and that similar quantitation limits were obtained. The analytical methods, reporting units, and EQLs reported by each laboratory are given in tables 10–14 in the **Analytical Data Review** section. Tables 35–37 list the analytes and wells where a result from one laboratory was more than twice the corresponding result from the other laboratory.



## COMPLETENESS

Completeness is evaluated by comparing the wells scheduled for sampling with the wells sampled and comparing the requested analyses with the analytical data received. The number of wells sampled and the requested analyses are determined from the chains of custody. Tables 69–71 list the reasons the laboratories did not perform certain analyses on samples from wells that could be sampled. See the **Sample Scheduling**, **Field Notes**, and **Analytical Results** sections of this report for more information on wells scheduled but not sampled this quarter.

**Table 15. Wells Providing Blind Replicate Samples and Associated Blanks**

<i>Well</i>	<i>Sample Date</i>	<i>Replicate</i>	<i>Associated Blank</i>
ABP 2A	02/12/99	QA 25A	QA 26A
AMB 7B	03/11/99	QA 27A	QA 28A
AMB 11B	02/23/99	QA 29A	QA 30A
ASB 8B	02/11/99	QA 31A	QA 32A
ASB 8TA	02/22/99	QA 33A	QA 34A
BGO 35C	01/19/99	QA 55A	QA 56A
BGO 37C	02/25/99	QA 57A	QA 58A
BGO 49C	03/11/99	QA 59A	QA 60A
CSB 2C	03/19/99	QA 97A	QA 98A
CSB 8D	03/19/99	QA 99A	QA 100A
FSB 76C	01/06/99	QA 1A	QA 2A
FSB 79A	01/11/99	QA 3A	QA 4A
FSB 89C	01/20/99	QA 5A	QA 6A
FSB121C	01/11/99	QA 7A	QA 8A
FSB123C	01/20/99	QA 9AD	QA 10A
HAA 4D	01/10/99	QA 61A	QA 62A
HAA 5A	01/10/99	QA 63A	QA 64A
HAA 5C	03/02/99	QA 65A	QA 66A
HAA 11C	01/05/99	QA 67A	QA 68A
HAA 15C	02/18/99	QA 69A	QA 70A
HSB 68B	01/20/99	QA 11A	QA 12A
HSB 83C	01/20/99	QA 13A	QA 14A
HSB105C	01/20/99	QA 15A	QA 16A
HSB112C	01/15/99	QA 17A	QA 28A
HSB122A	01/27/99	QA 19A	QA 20A
HSB135C	01/19/99	QA 21A	QA 22A
HSB144A	01/27/99	QA 23A	QA 24A
LFW 43B	02/25/99	QA 77A	QA 78A
LFW 58D	03/18/99	QA 79A	QA 80A
LFW 67C	03/16/99	QA 81A	QA 82A
MSB 12A	02/22/99	QA 35A	QA 36A
MSB 17BB	03/03/99	QA 37A	QA 38A
MSB 29TA	02/02/99	QA 39A	QA 40A
MSB 31C	03/02/99	QA 41A	QA 42A
MSB 37B	03/10/99	QA 43A	QA 44A
MSB 42B	03/02/99	QA 45A	QA 46A
MSB 54B	02/23/99	QA 47A	QA 48A
MSB 62B	03/08/99	QA 49A	QA 50A
MSB 83TA	02/22/99	QA 51A	QA 52A
MSB 86C	02/22/99	QA 53A	QA 54
P 26A	02/03/99	QA 85A	QA 86A
PSB 3A	01/26/99	QA 75A	Not applicable
TBG 5B	02/02/99	QA 87A	QA 88A
TRW 2	02/03/99 and 02/22/99	QA 83A	QA 84A
ZBG 1	01/20/99	QA 73A	QA 74A

## Quality Control Samples



**Table 16. Analytes Not Showing Measurable Concentrations above Estimated Quantitation Limits in Any Replicated or Duplicated Samples for GE, WA, and EX**

Analyte	Number of Analyses		EX
	GE	WA	
Acenaphthene	2	16	—
Acenaphthylene	2	22	—
Acetonitrile	1	16	8
Acetophenone	—	20	—
2-Acetylaminofluorene	—	20	—
Acrolein	1	16	8
Acrylonitrile	1	16	8
Aldrin	2	8	—
Alkalinity (as CaCO <sub>3</sub> )	—	2	—
Allyl chloride	1	16	8
4-Aminobiphenyl	—	20	—
Aniline	—	20	—
Anthracene	2	22	—
Aramite	—	20	—
Arsenic	36	68	15
alpha-Benzene hexachloride	2	11	—
beta-Benzene hexachloride	3	18	—
delta-Benzene hexachloride	2	11	—
Benidine	2	—	—
Benzo[a]anthracene	2	22	—
Benzo[b]fluoranthene	2	22	—
Benzo[k]fluoranthene	2	22	—
Benzoic acid	2	20	—
Benzo[g,h,i]perylene	2	22	—
Benzo[a]pyrene	2	22	—
Benzyl alcohol	2	20	—
Beryllium	3	14	—
Bis(2-chloroethoxy) methane	2	22	—
Bis(2-chloroethyl) ether	2	22	—
Bis(2-chloroisopropyl) ether	2	22	—
Bis(2-ethylhexyl) phthalate	25	37	—
Bromochloromethane	1	5	—
Bromodichloromethane	28	85	37
Bromoform	28	85	37
Bromomethane	28	85	37
4-Bromophenyl phenyl ether	2	22	—
Butylbenzyl phthalate	2	22	—
2-sec-Butyl-4,6-dinitrophenol	—	20	—
Cadmium	36	55	4
Carbazole	—	2	—
Carbon disulfide	3	17	8
alpha-Chlordane	2	11	—
gamma-Chlordane	2	11	—
4-Chloroaniline	2	22	—
Chlorobenzilate	—	20	—
4-Chloro-m-cresol	2	16	—
2-Chloroethyl vinyl ether	25	68	29
Chloromethane	28	85	37
2-Chloronaphthalene	2	22	—
2-Chlorophenol	2	16	—
4-Chlorophenyl phenyl ether	2	22	—
Chloroprene	1	16	8
Chrysene	2	22	—
m-Cresol	—	15	—
m/p-Cresol	2	41	6
o-Cresol	2	22	—
p,p'-DDD	2	11	—

**Quality Control Samples**



Analyte	Number of Analyses		
	GE	WA	EX
p,p'-DDE	2	11	—
p,p'-DDT	2	8	—
Diallate	—	20	—
Dibenz[a,h]anthracene	2	22	—
Dibenzofuran	2	22	—
Dibromochloromethane	28	85	37
1,2-Dibromo-3-chloropropane	1	16	8
1,2-Dibromoethane	1	16	8
Dibromomethane	1	16	8
Di-n-butyl phthalate	3	27	—
1,2-Dichlorobenzene	3	42	6
1,3-Dichlorobenzene	2	22	6
3,3'-Dichlorobenzidine	2	22	—
trans-1,4-Dichloro-2-butene	1	15	8
1,2-Dichloroethane	28	85	37
1,2-Dichloroethylene	2	1	—
trans-1,2-Dichloroethylene	26	89	37
2,4-Dichlorophenol	2	22	—
2,6-Dichlorophenol	—	26	—
2,4-Dichlorophenoxyacetic acid	—	20	2
1,2-Dichloropropane	28	85	37
cis-1,3-Dichloropropene	28	85	37
trans-1,3-Dichloropropene	28	85	37
Dieldrin	2	8	—
Diethyl phthalate	2	22	—
Dimethoate	—	17	—
2,4-Dimethyl phenol	2	22	—
Dimethyl phthalate	2	22	—
p-Dimethylaminoazobenzene	—	20	—
7,12-Dimethylbenz[a]anthracene	—	20	—
3,3'-Dimethylbenzidine	—	20	—
a,a-Dimethylphenethylamine	—	13	—
1,3-Dinitrobenzene	—	20	—
2,4-Dinitrophenol	2	22	—
2,4-Dinitrotoluene	2	16	—
2,6-Dinitrotoluene	2	22	—
Di-n-octyl phthalate	2	22	—
1,4-Dioxane	—	20	6
Diphenylamine	—	20	—
Disulfoton	—	17	—
Endosulfan sulfate	2	11	—
Endosulfan I	2	11	—
Endosulfan II	2	11	—
Endrin	2	8	—
Endrin aldehyde	2	11	—
Endrin ketone	2	2	—
Ethyl methacrylate	—	20	6
Ethyl methanesulfonate	—	20	—
Famphur	—	17	—
Fluoranthene	2	22	—
Fluorene	2	22	—
Heptachlor	2	8	—
Heptachlor epoxide	2	11	—
Hexachlorobenzene	2	22	—
Hexachlorobutadiene	2	22	—
Hexachlorocyclopentadiene	2	22	—
Hexachlorodibenzo-p-dioxins	—	10	—
Hexachlorodibenzo-p-furans	—	10	—
Hexachloroethane	2	22	—
Hexachlorophene	—	20	—
Hexachloropropene	—	20	—

### Quality Control Samples



<i>Analyte</i>	<i>Number of Analyses GE</i>	<i>WA</i>	<i>EX</i>
2-Hexanone	3	17	8
Indeno[1,2,3-c,d]pyrene	2	22	—
Iodomethane	1	16	8
Isobutyl alcohol	1	16	8
Isodrin	—	9	—
Isophorone	2	22	—
Isosafrole	—	20	—
Kepone	—	9	—
Lindane	2	22	2
Mercury	36	48	39
Methacrylonitrile	1	16	8
Methapyrilene	—	20	—
Methoxychlor	2	11	—
2-Methyl-4,6-dinitrophenol	2	22	—
Methyl ethyl ketone	3	17	8
Methyl isobutyl ketone	3	17	8
Methyl methacrylate	—	20	6
Methyl methanesulfonate	—	20	—
3-Methylcholanthrene	—	20	—
2-Methylnaphthalene	2	22	—
Naphthalene	2	22	—
1,4-Naphthoquinone	—	20	—
1-Naphthylamine	—	20	—
2-Naphthylamine	—	20	—
Nitrite as nitrogen	5	2	—
<i>m</i> -Nitroaniline	2	22	—
<i>o</i> -Nitroaniline	2	22	—
<i>p</i> -Nitroaniline	2	22	—
Nitrobenzene	2	22	—
2-Nitrophenol	2	22	—
4-Nitrophenol	2	16	—
4-Nitroquinoline-1-oxide	—	20	—
N-Nitrosodi-n-butylamine	—	20	—
N-Nitrosodiethylamine	—	20	—
N-Nitrosodimethylamine	—	20	—
N-Nitrosodiphenylamine	2	22	—
N-Nitrosodipropylamine	2	16	—
N-Nitrosomethylethylamine	—	20	—
<i>N</i> -Nitrosomorpholine	—	20	—
N-Nitrosopiperidine	—	20	—
N-Nitrosopyrrolidine	—	20	—
5-Nitro- <i>o</i> -toluidine	—	20	—
Parathion	—	4	—
Parathion ethyl	—	13	—
Parathion methyl	—	17	—
PCB 1016	2	24	2
PCB 1221	2	24	2
PCB 1232	2	24	2
PCB 1242	2	24	2
PCB 1248	2	24	2
PCB 1254	2	16	2
PCB 1260	2	24	2
Pentachlorobenzene	—	20	—
Pentachlorodibenzo- <i>p</i> -dioxins	—	10	—
Pentachlorodibenzo- <i>p</i> -furans	—	10	—
Pentachloroethane	—	20	6
Pentachloronitrobenzene	—	23	—
Pentachlorophenol	2	16	—
Phenacetin	—	20	—
Phenanthrene	2	22	—
Phenol	2	33	2

### Quality Control Samples



Analyte	Number of Analyses		
	GE	WA	EX
Phenols	37	7	—
p-Phenylenediamine	—	20	—
Phorate	—	17	—
2-Picoline	—	20	—
Pronamid	—	20	—
Propionitrile	1	16	8
Pyrene	2	16	—
Pyridine	—	20	—
Safrole	—	20	—
Selenium	36	82	84
Styrene	3	17	8
Sulfotepp	—	17	—
2,4,5-T	—	8	—
2,3,7,8-TCDD	—	10	—
1,2,4,5-Tetrachlorobenzene	—	20	—
Tetrachlorodibenzo-p-dioxins	—	10	—
Tetrachlorodibenzo-p-furans	—	10	—
1,1,1,2-Tetrachloroethane	1	16	8
1,1,2,2-Tetrachloroethane	28	85	37
2,3,4,6-Tetrachlorophenol	—	20	—
Thallium	13	21	—
Thionazin	—	17	—
o-Toluidine	—	20	—
Total organic halogens	4	40	—
Toxaphene	2	11	—
2,4,5-TP (Silvex)	—	8	—
1,2,4-Trichlorobenzene	2	16	—
1,1,1-Trichloroethane	36	114	71
1,1,2-Trichloroethane	28	85	37
2,4,5-Trichlorophenol	2	22	—
2,4,6-Trichlorophenol	2	22	—
1,2,3-Trichloropropane	1	16	8
O,O,O-Triethyl phosphorothioate	—	17	—
1,3,5-Trinitrobenzene	—	20	—
Vanadium	26	30	—
Vinyl acetate	3	17	8

— No replicate or duplicate analyses were performed.

**Table 17. Analytes Not Showing Measurable Concentrations above Estimated Quantitation Limits in Any Replicated or Duplicated Samples for GP and TM**

Analyte	Number of Analyses	
	GP	TM
Americium-241/Curium-246	—	14
Antimony-124	—	22
Antimony-125	75	27
Barium-133	—	22
Cerium-144	75	27
Cesium-134	75	27
Cobalt-57	75	27
Cobalt-58	—	22
Curium-242	79	19
Europium-154	75	27
Manganese-54	75	27
Neptunium-239	—	22

### Quality Control Samples



<i>Analyte</i>	<i>Number of Analyses GP</i>	<i>TM</i>
Promethium-146	75	27
Sodium-22	75	27
Tin-113	-	22
Uranium-234	-	14
Yttrium-88	75	27
Zirconium-95	-	22

- No replicate or duplicate analyses were performed.

**Table 18. Intralaboratory MRD Indices for EX**

Analyte	RDL	In-house Duplicates			Blind Replicates		
		Number of Dup. Pairs	MRD	MRDadj	Number of Dup. Pairs	MRD	MRDadj
Acetone	5.0E+01 µg/L 0	-	-	-	2	0.00	0.00
Aluminum	2.0E+02 µg/L 0	-	-	-	14	0.00	0.00
Barium	1.0E+01 µg/L 0	-	-	-	13	6.73	4.28
Benzene	2.5E+02 µg/L 0	-	-	-	11	0.00	0.00
Boron	1.0E+02 µg/L 0	-	-	-	2	0.00	0.00
Carbon tetrachloride	1.25E+02 µg/L 0	-	-	-	13	0.00	0.00
Chloride	† 2	1.17	1.17	0	-	-	-
Chlorobenzene	2.5E+02 µg/L 0	-	-	-	11	0.00	0.00
Chloroethane	5.0E+02 µg/L 0	-	-	-	11	0.00	0.00
Chloroethene	2.5E+02 µg/L 0	-	-	-	11	0.00	0.00
Chloroform	1.25E+02 µg/L 0	-	-	-	13	0.00	0.00
Chromium	1.0E+01 µg/L 0	-	-	-	2	0.00	0.00
Cyanide	1.0E+01 µg/L 0	-	-	-	10	0.00	0.00
1,4-Dichlorobenzene	2.5E+01 µg/L 0	-	-	-	2	3.36	2.99
Dichlorodifluoromethane	2.5E+01 µg/L 0	-	-	-	2	0.00	0.00
1,1-Dichloroethane	2.5E+02 µg/L 0	-	-	-	11	0.00	0.00
1,1-Dichloroethylene	2.5E+02 µg/L 0	-	-	-	11	0.00	0.00
cis-1,2-Dichloroethylene	5.0E+01 µg/L 0	-	-	-	4	1.87	0.63
Dichloromethane	2.5E+02 µg/L 0	-	-	-	11	0.00	0.00
Ethylbenzene	2.5E+02 µg/L 0	-	-	-	11	0.00	0.00
Fluoride	2.0E+02 µg/L 2	0.40	0.40	0	-	-	-
Iron	2.0E+02 µg/L 0	-	-	-	14	0.81	0.81
Lead	1.0E+02 µg/L 0	-	-	-	14	0.00	0.00
Manganese	1.0E+01 µg/L 0	-	-	-	3	3.81	2.20
Nickel	5.0E+01 µg/L 0	-	-	-	10	0.00	0.00
Nitrate as nitrogen	2.0E+02 µg/L 10	0.43	0.43	2	1.50	1.50	1.50
Nitrate-nitrite as nitrogen	5.0E+02 µg/L 1	2.16	2.16	0	-	-	-
Silver	2.0E+01 µg/L 0	-	-	-	2	0.00	0.00
Sodium	1.0E+03 µg/L 0	-	-	-	0	-	-
Sulfate	4.0E+02 µg/L 2	0.00	0.00	0	-	-	-
Tetrachloroethylene	5.0E+01 µg/L 0	-	-	-	13	0.81	0.81
Toluene	2.5E+02 µg/L 0	-	-	-	11	0.00	0.00
Total organic carbon	5.0E+03 µg/L 0	-	-	-	0	-	-

### Quality Control Samples



Analyte	RDL	<u>In-house Duplicates</u>			<u>Blind Replicates</u>		
		Number of Dup. Pairs	MRD	MRDadj	Number of Dup. Pairs	MRD	MRDadj
Total phosphates (as P)	2.5E+03 µg/L	1	0.00	0.00	0	-	-
Trichloroethylene	5.0E+00 µg/L	0	-	-	14	3.37	2.75
Trichlorofluoromethane	2.5E+02 µg/L	0	-	-	11	0.00	0.00
Xylenes	5.0E+01 µg/L	0	-	-	2	0.31	0.12

† No detection limit, or no replicate or duplicate results below detection limit.

- No replicate or duplicate analyses could be calculated.

Note: An MRD of 0.00 indicates no difference between any of the pairs of results used in calculating the MRD.

**Table 19. Intralaboratory MRD Indices for GE**

Analyte	RDL	<u>In-house Duplicates</u>			<u>Blind Replicates</u>		
		Number of Dup. Pairs	MRD	MRDadj	Number of Dup. Pairs	MRD	MRDadj
Acetone	5.0 µg/L	0	-	-	1	0.00	0.00
Aluminum	50.0 µg/L	0	-	-	17	4.79	3.89
Antimony	10.0 µg/L	0	-	-	13	0.00	0.00
Barium	15.5 µg/L	0	-	-	17	12.24	11.31
Benzene	1.0 µg/L	0	-	-	17	0.00	0.00
Calcium	†	0	-	-	1	3.86	3.86
Carbon tetrachloride	1.0 µg/L	0	-	-	17	0.00	0.00
Chlorobenzene	1.0 µg/L	0	-	-	17	0.00	0.00
Chloroethane	1.0 µg/L	0	-	-	13	0.23	0.07
Chloroethene	1.0 µg/L	0	-	-	13	0.00	0.00
Chloroform	1.0 µg/L	0	-	-	16	0.00	0.00
Chromium	5.0 µg/L	0	-	-	17	1.93	0.70
Cobalt	5.0 µg/L	0	-	-	12	0.00	0.00
Copper	5.0 µg/L	0	-	-	12	7.93	4.64
Cyanide	10.0 µg/L	32	0.00	0.00	12	0.00	0.00
1,4-Dichlorobenzene	10.0 µg/L	0	-	-	1	0.00	0.00
Dichlorodifluoromethane	5.0 µg/L	0	-	-	0	-	-
1,1-Dichloroethane	1.0 µg/L	0	-	-	13	0.00	0.00
1,1-Dichloroethylene	1.0 µg/L	0	-	-	17	0.00	0.00
cis-1,2-Dichloroethylene	1.17 µg/L	0	-	-	0	-	-
Dichloromethane	9.44 µg/L	0	-	-	11	0.00	0.00
Ethylbenzene	1.0 µg/L	0	-	-	13	0.00	0.00
Iron	53.9 µg/L	0	-	-	17	30.85	25.65
Lead	5.0 µg/L	0	-	-	16	4.04	1.40
Magnesium	†	0	-	-	1	10.57	10.57
Manganese	10.0 µg/L	0	-	-	1	0.00	0.00
Nickel	5.0 µg/L	0	-	-	12	0.00	0.00
Nitrate-nitrite as nitrogen	50.0 µg/L	29	1.91	1.78	11	30.29	30.29
pH	†	34	0.23	0.23	12	3.26	3.26
Potassium	†	0	-	-	1	9.50	9.50
Silver	5.0 µg/L	0	-	-	17	0.00	0.00
Sodium	†	0	-	-	1	2.88	2.88
Specific conductance	†	29	2.16	2.16	11	4.64	4.64
Sulfide	†	1	11.87	11.87	0	-	-
Tetrachloroethylene	1.0 µg/L	0	-	-	17	1.09	0.46
Tin	5.0 µg/L	0	-	-	6	0.00	0.00
Toluene	1.0 µg/L	0	-	-	17	0.00	0.00

### Quality Control Samples



Analyte	RDL	<u>In-house Duplicates</u>			<u>Blind Replicates</u>		
		Number of Dup. Pairs	MRD	MRDadj	Number of Dup. Pairs	MRD	MRDadj
Trichloroethylene	1.0 µg/L	0	-	-	17	0.69	0.34
Trichlorofluoromethane	5.0 µg/L	0	-	-	12	0.00	0.00
Xylenes	2.0 µg/L	0	-	-	1	0.00	0.00
Zinc	10.0 µg/L	0	-	-	11	11.92	7.04

† No detection limit, or no replicate or duplicate results below detection limit.

- No replicate or duplicate analyses could be calculated.

Note: An MRD of 0.00 indicates no difference between any of the pairs of results used in calculating the MRD. MRD results greater than or equal to 20 appear in **bold**.

**Table 20. Intralaboratory MRD Matrix Spike Indices for GE**

Analyte	RDL	<u>In-house Duplicates</u>		
		Number of Dup. Pairs	MRD	MRDadj
Acenaphthene	†	2	10.34	10.34
Aldrin	†	2	4.65	4.65
Benzene	†	60	3.43	3.43
Chlorobenzene	†	60	3.27	3.27
4-Chloro-m-cresol	†	2	13.23	13.23
2-Chlorophenol	†	2	6.57	6.57
p,p'-DDT	†	2	0.63	0.63
1,4-Dichlorobenzene	†	2	6.51	6.51
1,1-Dichloroethylene	†	60	4.49	4.49
Dieldrin	†	2	2.63	2.63
2,4-Dinitrotoluene	†	2	12.43	12.43
Endrin	†	2	1.18	1.18
Heptachlor	†	2	1.98	1.98
Lindane	†	2	1.96	1.96
4-Nitrophenol	†	2	8.30	8.30
N-Nitrosodipropylamine	†	2	8.57	8.57
PCB 1260	†	2	<b>21.07</b>	21.07
Pentachlorophenol	†	2	11.61	11.61
Phenol	†	2	6.47	6.47
Pyrene	†	2	4.95	4.95
Toluene	†	60	4.50	4.50
1,2,4-Trichlorobenzene	†	2	7.47	7.47
Trichloroethylene	†	60	3.91	3.91

† No detection limit, or no replicate or duplicate results below detection limit.

Note: An MRD of 0.00 indicates no difference between any of the pairs of results used in calculating the MRD. MRD results greater than or equal to 20 appear in **bold**.

**Table 21. Intralaboratory MRD Indices for WA**

Analyte	RDL	<u>In-house Duplicates</u>			<u>Blind Replicates</u>		
		Number of Dup. Pairs	MRD	MRDadj	Number of Dup. Pairs	MRD	MRDadj
Acetone	10.0 µg/L	3	0.00	0.00	3	0.00	0.00
Aluminum	146 µg/L	26	1.89	0.86	6	0.78	0.24

### Quality Control Samples



Analyte	RDL	<u>In-house Duplicates</u>		MRDadj	<u>Blind Replicates</u>		MRDadj
		Number of Dup. Pairs	MRD		Number of Dup. Pairs	MRD	
Antimony	27.0 µg/L	11	0.00	0.00	1	0.00	0.00
Barium	1.8 µg/L	22	9.47	8.83	6	<b>27.45</b>	26.18
Benzene	5.0 µg/L	13	0.00	0.00	8	0.00	0.00
Boron	266 µg/L	7	0.00	0.00	0	-	-
Calcium	471 µg/L	10	1.34	1.31	0	-	-
Carbon tetrachloride	5.0 µg/L	27	0.00	0.00	8	0.18	0.07
Chloride	†	9	4.74	4.74	2	2.37	2.37
Chlorobenzene	5.0 µg/L	13	0.00	0.00	8	0.00	0.00
Chloroethane	10.0 µg/L	13	0.00	0.00	8	0.00	0.00
Chloroethene	10.0 µg/L	13	0.00	0.00	8	0.00	0.00
Chloroform	5.0 µg/L	27	0.00	0.00	8	0.06	0.06
Chromium	7.0 µg/L	23	0.40	0.15	3	0.00	0.00
Cobalt	4.5 µg/L	10	0.00	0.00	1	0.00	0.00
Copper	15.0 µg/L	11	0.33	0.15	1	0.00	0.00
Cyanide	15.2 µg/L	9	0.00	0.00	5	0.00	0.00
1,4-Dichlorobenzene	20.0 µg/L	7	0.00	0.00	1	0.00	0.00
Dichlorodifluoromethane	10.0 µg/L	3	0.00	0.00	3	0.00	0.00
1,1-Dichloroethane	5.0 µg/L	13	0.00	0.00	8	0.24	0.24
1,1-Dichloroethylene	5.0 µg/L	13	0.00	0.00	8	0.60	0.60
cis-1,2-Dichloroethylene	25.0 µg/L	17	0.00	0.00	3	0.00	0.00
Dichloromethane	13.1 µg/L	13	0.00	0.00	6	0.00	0.00
Ethylbenzene	5.0 µg/L	13	0.00	0.00	8	0.00	0.00
Fluoride	50.5 µg/L	6	0.00	0.00	2	0.00	0.00
Iron	74.0 µg/L	26	4.68	3.54	6	13.62	13.62
Lead	47.0 µg/L	24	0.00	0.00	6	0.00	0.00
Lithium	2.7 µg/L	7	0.23	0.23	0	-	-
Magnesium	†	9	2.98	2.98	0	-	-
Manganese	7.8 µg/L	16	0.73	0.65	2	1.89	0.58
Nickel	26.0 µg/L	15	0.00	0.00	6	0.00	0.00
Nitrate as nitrogen	20.0 µg/L	3	3.74	1.71	0	-	-
Nitrate-nitrite as nitrogen	20.0 µg/L	12	1.17	1.17	2	3.24	3.24
pH	†	8	0.65	0.65	1	1.31	1.31
Potassium	187 µg/L	9	1.68	1.47	0	-	-
Silica	†	7	1.38	1.38	0	-	-
Silver	5.0 µg/L	22	0.00	0.00	3	0.00	0.00
Sodium	†	16	1.73	1.73	2	0.57	0.57
Specific conductance	8.9 µS/cm	3	2.81	2.81	1	<b>43.17</b>	16.52
Sulfate	†	10	4.20	4.20	2	2.60	2.60
Sulfide	10,000 µg/L	4	0.00	0.00	0	-	-
Tetrachloroethylene	5.0 µg/L	25	0.55	0.55	8	0.28	0.28
Tin	70.0 µg/L	7	0.00	0.00	0	-	-
Toluene	5.0 µg/L	13	0.00	0.00	8	0.00	0.00
Total dissolved solids	50,000 µg/L	4	4.56	3.50	0	-	-
Total organic carbon	1,000 µg/L	7	3.66	1.59	2	6.67	2.70
Total phosphates (as P)	67.0 µg/L	9	1.66	1.19	2	0.00	0.00
Trichloroethylene	5.0 µg/L	28	3.24	2.63	9	2.67	2.19
Trichlorofluoromethane	5.0 µg/L	13	0.14	0.14	8	0.00	0.00
Xylenes	5.0 µg/L	13	0.00	0.00	8	0.00	0.00
Zinc	53.0 µg/L	11	0.00	0.00	1	0.00	0.00

† No detection limit, or no replicate or duplicate results below detection limit.

- No replicate or duplicate analyses could be calculated.

Note: An MRD of 0.00 indicates no difference between any of the pairs of results used in calculating the MRD. MRD results greater than or equal to 20 appear in bold.

### Quality Control Samples



**Table 22. Intralaboratory MRD Indices for GP**

Analyte	RDL	<u>In-house Duplicates</u>		MRDadj	<u>Blind Replicates</u>		MRDadj
		Number of Dup. Pairs	MRD		Number of Dup. Pairs	MRD	
Actinium-228	1.74E-08 µCi/mL	23	1.73	1.09	10	0.00	0.00
Americium-241	9.91E-10 µCi/mL	24	0.87	0.87	11	0.00	0.00
Carbon-14	1.33E-08 µCi/mL	19	15.24	9.40	12	6.19	3.06
Cesium-137	4.05E-09 µCi/mL	23	1.46	0.70	10	<b>21.43</b>	13.85
Cobalt-60	4.38E-09 µCi/mL	20	0.46	0.27	11	0.00	0.00
Curium-243/244	7.73E-10 µCi/mL	26	3.73	1.98	10	0.00	0.00
Curium-245/246	3.61E-10 µCi/mL	24	3.97	1.84	10	0.00	0.00
Europium-152	1.11E-08 µCi/mL	23	0.91	0.31	11	0.00	0.00
Europium-155	1.43E-08 µCi/mL	22	0.00	0.00	12	0.00	0.00
Gross alpha	1.03E-09 µCi/mL	32	10.55	7.98	16	6.11	2.36
Iodine-129	1.31E-09 µCi/mL	19	6.09	4.54	11	1.05	0.33
Lead-212	7.57E-09 µCi/mL	23	9.02	3.98	10	5.76	2.32
Nickel-63	1.47E-07 µCi/mL	11	10.69	6.90	6	10.27	4.46
Nonvolatile beta	1.39E-09 µCi/mL	32	12.77	10.46	16	14.22	8.84
Plutonium-238	7.72E-10 µCi/mL	23	0.00	0.00	11	0.00	0.00
Plutonium-239/240	4.51E-10 µCi/mL	22	2.42	0.86	10	0.00	0.00
Potassium-40	5.26E-08 µCi/mL	20	0.00	0.00	12	4.13	1.65
Promethium-144	3.76E-09 µCi/mL	22	0.00	0.00	9	0.00	0.00
Radium, total alpha-emitting	8.74E-10 µCi/mL	4	<b>23.20</b>	12.46	1	2.93	0.89
Radium-226	7.73E-10 µCi/mL	25	7.80	6.26	10	17.78	10.93
Radium-228	1.59E-09 µCi/mL	23	6.41	3.64	11	0.00	0.00
Ruthenium-106	3.42E-08 µCi/mL	22	0.84	0.28	9	0.00	0.00
Strontium-89/90	6.14E-09 µCi/mL	5	0.00	0.00	0	-	-
Strontium-90	2.07E-09 µCi/mL	19	6.41	6.03	12	1.50	0.50
Technetium-99	2.4E-08 µCi/mL	20	3.36	1.86	11	0.48	0.15
Thorium-228	7.27E-10 µCi/mL	23	3.74	1.33	11	0.00	0.00
Thorium-230	4.13E-10 µCi/mL	23	0.00	0.00	11	0.00	0.00
Thorium-232	3.37E-10 µCi/mL	22	0.00	0.00	11	0.00	0.00
Tritium	7.14E-07 µCi/mL	23	5.73	5.06	17	13.44	12.17
Uranium-233/234	6.18E-10 µCi/mL	26	6.41	4.68	11	0.00	0.00
Uranium-235	5.24E-10 µCi/mL	23	1.17	1.17	11	0.00	0.00
Uranium-238	3.17E-10 µCi/mL	25	7.09	6.27	11	0.00	0.00
Zinc-65	8.56E-09 µCi/mL	22	2.34	0.95	11	0.00	0.00

- No replicate or duplicate analyses could be calculated.

Note: An MRD of 0.00 indicates no difference between any of the pairs of results used in calculating the MRD. MRD results greater than or equal to 20 appear in **bold**.



**Table 23. Intralaboratory MRD Indices for TM**

Analyte	RDL	<u>In-house Duplicates</u>		<u>Blind Replicates</u>			
		Number of Dup. Pairs	MRD	MRDadj	Number of Dup. Pairs	MRD	MRDadj
Actinium-228	2.742E-08 µCi/mL	9	0.00	0.00	0	-	-
Carbon-14	1.8131E-07 µCi/mL	7	4.55	2.32	0	-	-
Cesium-137	6.99E-09 µCi/mL	10	0.00	0.00	0	-	-
Cobalt-60	8.05E-09 µCi/mL	9	0.00	0.00	0	-	-
Curium-243/244	8.2E-10 µCi/mL	6	0.00	0.00	0	-	-
Europium-152	5.036E-08 µCi/mL	10	0.34	0.10	0	-	-
Europium-155	1.366E-08 µCi/mL	10	0.00	0.00	0	-	-
Gross alpha	1.51E-09 µCi/mL	84	11.99	8.75	8	16.73	9.91
Iodine-129	1.206E-08 µCi/mL	7	2.25	0.73	0	-	-
Lead-212	8.48E-09 µCi/mL	10	0.00	0.00	0	-	-
Nickel-63	2.3E-08 µCi/mL	4	0.00	0.00	0	-	-
Nonvolatile beta	3.56E-09 µCi/mL	65	3.66	2.51	6	13.33	5.00
Plutonium-238	5.2E-10 µCi/mL	7	0.00	0.00	0	-	-
Plutonium-239/240	5.1E-10 µCi/mL	7	0.00	0.00	0	-	-
Potassium-40	8.293E-08 µCi/mL	9	0.00	0.00	0	-	-
Promethium-144	6.48E-09 µCi/mL	10	0.00	0.00	0	-	-
Radium, total alpha-emitting	1.52E-09 µCi/mL	16	6.33	3.47	2	0.00	0.00
Radium-226	3.9E-10 µCi/mL	7	0.00	0.00	0	-	-
Radium-228	2.59E-09 µCi/mL	7	0.00	0.00	0	-	-
Ruthenium-106	5.706E-08 µCi/mL	10	0.00	0.00	0	-	-
Strontium-90	1.7E-09 µCi/mL	7	0.00	0.00	0	-	-
Technetium-99	1.502E-08 µCi/mL	7	4.24	1.76	0	-	-
Thorium-228	5.7E-10 µCi/mL	6	0.00	0.00	0	-	-
Thorium-230	4.8E-10 µCi/mL	7	2.45	0.80	0	-	-
Thorium-232	5.0E-10 µCi/mL	7	0.00	0.00	0	-	-
Tritium	7.8E-07 µCi/mL	89	12.03	10.32	6	11.30	9.06
Uranium-235	3.4E-10 µCi/mL	7	0.00	0.00	0	-	-
Uranium-238	3.0E-10 µCi/mL	6	0.00	0.00	0	-	-
Zinc-65	1.551E-08 µCi/mL	10	0.00	0.00	0	-	-

- No replicate or duplicate analyses could be calculated.

Note: An MRD of 0.00 indicates no difference between any of the pairs of results used in calculating the MRD.



**Table 24. Interlaboratory MRD and t-test Results for Analytes with at Least One Pair of Results above the RDL for EX and WA**

<i>Analyte</i>	<i>RDL</i>	<i>Unit</i>	<i>MRD</i>	<i>t-test Probability</i>
Acetone	10.0	µg/L	18.75	.391
Aluminum	200	µg/L	6.11	.389
Barium	10.0	µg/L	<b>20.60</b>	.164
Benzene	125	µg/L	<b>0.00</b>	-
Boron	266	µg/L	<b>0.00</b>	-
Carbon tetrachloride	50.0	µg/L	<b>0.00</b>	-
Chlorobenzene	100	µg/L	<b>0.00</b>	-
Chloroethene	125	µg/L	1.34	.334
Chloroform	50.0	µg/L	<b>0.00</b>	-
Chromium	10.0	µg/L	<b>0.00</b>	-
Cyanide	15.2	µg/L	1.75	.334
1,4-Dichlorobenzene	20.0	µg/L	4.69	.058
Dichlorodifluoromethane	10.0	µg/L	<b>23.63</b>	.250
1,1-Dichloroethane	125	µg/L	<b>0.00</b>	-
1,1-Dichloroethylene	100	µg/L	<b>0.00</b>	-
cis-1,2-Dichloroethylene	25.0	µg/L	<b>0.00</b>	-
Dichloromethane	125	µg/L	0.71	.333
Ethylbenzene	125	µg/L	<b>0.00</b>	-
Fluoride	200	µg/L	<b>0.00</b>	-
Iron	200	µg/L	4.72	.279
Lead	100	µg/L	<b>0.00</b>	-
Manganese	10.0	µg/L	11.90	.508
Nickel	50.0	µg/L	<b>0.00</b>	-
Nitrate as nitrogen	200	µg/L	3.85	.423
Nitrate-nitrite as nitrogen	500	µg/L	11.33	.500
Sodium	1,000	µg/L	15.04	.193
Sulfate	400	µg/L	<b>25.73</b>	.100
Tetrachloroethylene	20.0	µg/L	3.38	.300
Toluene	100	µg/L	<b>0.00</b>	-
Total organic carbon	5,000	µg/L	9.91	.500
Total phosphates (as P)	2,500	µg/L	<b>0.00</b>	-
Trichloroethylene	5.0	µg/L	13.74	.119
Trichlorofluoromethane	125	µg/L	<b>0.00</b>	-
Xylenes	10.0	µg/L	0.71	.391

- Could not calculate because there are no differences between pairs.

Note: Values less than .050 indicate a probability of less than 1 in 20 that the results for that analyte are the same from both laboratories. MRD results greater than or equal to 20 appear in **bold**; less than or equal to .050, in **bold italic**.



**Table 25. Interlaboratory MRD and t-test Results for Analytes with at Least One Pair of Results above the RDL for GE and WA**

Analyte	RDL	Unit	MRD	t-test Probability
Aluminum	146	µg/L	3.67	.450
Antimony	27.0	µg/L	<b>0.00</b>	-
Barium	15.5	µg/L	9.83	.220
Calcium	471	µg/L	6.48	-
Carbon tetrachloride	5.0	µg/L	<b>0.00</b>	-
Chloroethane	10.0	µg/L	<b>0.00</b>	-
Chloroform	5.0	µg/L	<b>0.00</b>	-
Chromium	7.0	µg/L	1.31	.406
Cobalt	4.5	µg/L	<b>0.00</b>	-
Copper	15.0	µg/L	1.77	.295
1,1-Dichloroethane	5.0	µg/L	<b>0.00</b>	-
1,1-Dichloroethylene	5.0	µg/L	<b>0.00</b>	-
Dichloromethane	10.7	µg/L	<b>0.00</b>	-
Iron	74.0	µg/L	<b>25.25</b>	.068
Lead	47.0	µg/L	<b>0.00</b>	-
Nickel	26.0	µg/L	<b>0.00</b>	-
Nitrate-nitrite as nitrogen	50.0	µg/L	<b>22.14</b>	.482
Potassium	187	µg/L	3.55	-
Silver	5.0	µg/L	3.78	.331
Specific conductance	8.9	µS/cm	<b>21.66</b>	.000
Tetrachloroethylene	5.0	µg/L	<b>0.00</b>	-
Tin	70.0	µg/L	<b>0.00</b>	-
Trichloroethylene	5.0	µg/L	<b>0.00</b>	-
Trichlorofluoromethane	5.0	µg/L	<b>0.00</b>	-
Zinc	53.0	µg/L	0.51	.336

- Could not calculate because there are no differences between pairs.

Note: Values less than .050 indicate a probability of less than 1 in 20 that the results for that analyte are the same from both laboratories. MRD results greater than or equal to 20 appear in **bold**; less than or equal to .050, in **bold italic**.

**Table 26. Interlaboratory MRD and t-test Results for Analytes with at Least One Pair of Results above the RDL for GP and TM**

Analyte	RDL	Unit	MRD	t-test Probability
Actinium-228	2.419E-08	µCi/mL	<b>0.00</b>	-
Carbon-14	1.789E-07	µCi/mL	6.26	.302
Cesium-137	6.2E-09	µCi/mL	5.97	.177
Cobalt-60	6.93E-09	µCi/mL	<b>0.00</b>	-
Curium-243/244	8.0E-10	µCi/mL	<b>0.00</b>	-
Europium-152	4.352E-08	µCi/mL	0.85	.341
Europium-155	1.41E-08	µCi/mL	<b>0.00</b>	-
Gross alpha	1.51E-09	µCi/mL	19.22	.067
Iodine-129	1.109E-08	µCi/mL	1.42	.347
Lead-212	8.17E-09	µCi/mL	5.69	.527
Nickel-63	7.87E-08	µCi/mL	18.62	.363

### Quality Control Samples



Analyte	RDL	Unit	MRD	t-test Probability
Nonvolatile beta	3.55E-09	µCi/mL	<b>21.96</b>	.348
Plutonium-238	7.64E-10	µCi/mL	<b>0.00</b>	-
Plutonium-239/240	5.1E-10	µCi/mL	<b>0.00</b>	-
Potassium-40	6.604E-08	µCi/mL	<b>0.00</b>	-
Promethium-144	5.8E-09	µCi/mL	<b>0.00</b>	-
Radium, total alpha-emitting	1.52E-09	µCi/mL	<b>0.00</b>	-
Radium-226	7.38E-10	µCi/mL	13.72	.084
Radium-228	2.35E-09	µCi/mL	16.70	.341
Ruthenium-106	5.183E-08	µCi/mL	<b>0.00</b>	-
Strontium-90	1.92E-09	µCi/mL	1.65	.304
Technetium-99	2.34E-08	µCi/mL	0.21	.336
Thorium-228	6.3E-10	µCi/mL	<b>0.00</b>	-
Thorium-230	4.3E-10	µCi/mL	5.07	.225
Thorium-232	3.7E-10	µCi/mL	2.54	.341
Tritium	7.17E-07	µCi/mL	13.19	.773
Uranium-235	4.54E-10	µCi/mL	<b>0.00</b>	-
Uranium-238	3.0E-10	µCi/mL	<b>0.00</b>	-
Zinc-65	1.359E-08	µCi/mL	<b>0.00</b>	-

- Could not calculate because there are no differences between pairs.

Note: Values less than .050 indicate a probability of less than 1 in 20 that the results for that analyte are the same from both laboratories. MRD results greater than or equal to 20 appear in **bold**; less than or equal to .050, in **bold italic**.

**Table 27. EX Samples and Blind Replicates Yielding Results Where One Is More Than Twice Another**

Analyte	Wells
Barium	LFW 67C

**Table 28. GE Samples and Blind Replicates Yielding Results Where One Is More Than Twice Another**

Analyte	Wells
Barium	FSB121C
Copper	CSB 2C
Iron	CSB 2C, FSB121C, HAA 5C
Nitrate-nitrite as nitrogen	FSB 79A, FSB 89C

**Table 29. WA Samples and Blind Replicates Yielding Results Where One Is More Than Twice Another**

Analyte	Wells
Barium	AMB 11B

### Quality Control Samples



<i>Analyte</i>	<i>Wells</i>
Iron	ASB 8TA

**Table 30. WA Samples and Laboratory Duplicates Yielding Results Where One Is More Than Twice Another**

<i>Analyte</i>	<i>Wells</i>
Barium	AMB 11B

**Table 31. GP Samples and Blind Replicates Yielding Results Where One Is More Than Twice Another**

<i>Analyte</i>	<i>Wells</i>
Cesium-137	FSB121C, ZBG 1
Radium-226	FSB 76C, FSB121C

**Table 32. GP Samples and Laboratory Duplicates Yielding Results Where One Is More Than Twice Another**

<i>Analyte</i>	<i>Wells</i>
Carbon-14	QA 98A
Nickel-63	HSB152D
Nonvolatile beta	HIN600TK
Radium, total alpha-emitting	ZBG 2
Radium-228	HSB114D

Note: Results for blind blanks are given in Appendix C.

**Table 33. TM Samples and Blind Replicates Yielding Results Where One Is More Than Twice Another**

<i>Analyte</i>	<i>Wells</i>
Gross alpha	P 26A

**Table 34. TM Samples and Laboratory Duplicates Yielding Results Where One Is More Than Twice Another**

<i>Analyte</i>	<i>Wells</i>
Gross alpha	AMB 4B, P 26D

### **Quality Control Samples**



Analyte	Wells
Tritium	P 29D

**Table 35. Analytes with One Laboratory's Result Greater Than Twice the Result from the Other Laboratory between EX and WA**

Analyte	Wells
Acetone	LFW 67C
Aluminum	TNX 26D
Barium	ABP 2A, MSB 42B
Trichloroethylene	MSB 12A

**Table 36. Analytes with One Laboratory's Result Greater Than Twice the Result from the Other Laboratory between GE and WA**

Analyte	Wells
Barium	FSB121C
Iron	FSB121C, HSB122A
Nitrate-nitrite as nitrogen	FSB 89C, HSB144A
Silver	HSB 83C

**Table 37. Analytes with One Laboratory's Result Greater Than Twice the Result from the Other Laboratory between GP and TM**

Analyte	Wells
Gross alpha	HAA 5A, HAA 15C, P 26A
Nickel-63	HSB144A
Nonvolatile beta	FSB121C, HSB100D, HSB112C, TBG 5B
Radium-226	FSB 76C
Radium-228	HSB100D

**Table 38. Quality Control Standards for Selected Analyses for EX**

Analyte	Certified Value	Performance Acceptance Limits	EX Result	Functional Guideline Code
<b>Acids (Lot 586)</b>				
2,6-Dichlorophenol (µg/L)	132	72.9–153	†	
2-Methylphenol (µg/L)	59.9	19.0–69.3	37.7	
4-Methylphenol (µg/L)	82.8	25.4–95.9	53.0	
Pentachlorophenol (µg/L)	129	40.2–162	96.4	
2,4,5-Trichlorophenol (µg/L)	60.5	23.8–69.9	43.2	
2,4,6-Trichlorophenol (µg/L)	55.7	24.0–63.8	38.5	

### Quality Control Samples



Analyte	Certified Value	Performance Acceptance Limits	EX Result	Functional Guideline Code
<b>Base/Neutrals (Lot 586)</b>				
Anthracene (µg/L)	86.3	40.7–101	73.4	
Benzo[g,h,i]perylene (µg/L)	17.3	7.16–24.3	14.0	
Bis(2-ethylhexyl) phthalate (µg/L)	76.9	31.0–98.1	70.1	
4-Bromophenyl-phenylether (µg/L)	185	91.4–221	128	
Chrysene (µg/L)	28.7	13.3–35.2	26.2	
Dibenz[a,h]anthracene (µg/L)	14.7	5.26–19.0	10.8	J
Dibenzofuran (µg/L)	118	56.1–131	79.3	
1,2-Dichlorobenzene (µg/L)	113	26.4–129	58.1	
Diethylphthalate (µg/L)	90.9	21.8–117	11.7♦	
Dimethylphthalate (µg/L)	138	59.4–160	4.03♦	J
2,4-Dinitrotoluene (µg/L)	104	43.5–120	74.4	
Naphthalene (µg/L)	89.9	31.9–102	49.6	
N-Nitroso-di-n-propylamine (µg/L)	63.1	26.7–77.6	30.1	
Phenanthrene (µg/L)	55.2	29.9–63.5	45.7	
Pyrene (µg/L)	99.6	46.6–121	86.5	
1,2,4-Trichlorobenzene (µg/L)	102	29.7–116	53.4	
<b>Cations (Lot 439)</b>				
Calcium (µg/L)	101,000	90,900–111,000	103,000	
Magnesium (µg/L)	74,900	66,700–83,100	72,100	
Potassium (µg/L)	90,300	82,200–98,400	81,700♦	
Sodium (µg/L)	94,900	84,500–106,000	87,700	
<b>Cyanide and Phenol (Lot 9987)</b>				
Cyanide, total (µg/L)	82.6	60.3–105	77.1	
Phenol (µg/L)	106	80.6–131	109	
<b>Grease and Oil (Lot 9987)</b>				
Grease and oil (gravimetric) (mg/bottle)	50.6	30.4–63.3	43.2	
<b>Inorganics (Lot 3427)</b>				
Alkalinity (as CaCO <sub>3</sub> ) (µg/L)	151,000	141,000–170,000	166,000	
Chloride (µg/L)	56,800	50,500–64,100	58,800	
Fluoride (µg/L)	4,730	4,260–5,200	3,930♦	
Nitrate as nitrogen (µg/L)	3,260	2,930–3,590	3,160	
pH (pH units)	9.23	9.03–9.43	9.18	
Potassium (µg/L)	18,800	16,100–21,900	18,700	
Sodium (µg/L)	144,000	130,000–159,000	142,000	
Specific conductance (µS/cm)	676	566–769	685	
Sulfate (µg/L)	79,500	68,200–89,900	80,600	
Total dissolved solids (µg/L)	607,000	497,000–680,000	600,000	
<b>Nutrients (Lot 9987)</b>				
Ammonia as nitrogen (µg/L)	3,560	2,990–4,130	2,910♦	
Nitrate-nitrite as nitrogen (µg/L)	5,420	4,820–6,020	5,250	
Total phosphates (as P) (µg/L)	4,060	3,450–4,670	4,060	
<b>PCBs (Lot 586)</b>				
PCB 1254 (µg/L)	5.71	3.42–7.17	4.50	
<b>Pesticides (Lot 586)</b>				
Aldrin (µg/L)	1.60	0.830–1.97	1.00	
beta-Benzene hexachloride (µg/L)	7.12	3.80–9.00	5.50	
delta-Benzene hexachloride (µg/L)	5.74	2.53–7.37	5.20	
gamma-Benzene hexachloride (Lindane)	1.04	0.585–1.35	0.64	

### Quality Control Samples



<i>Analyte</i>	<i>Certified Value</i>	<i>Performance Acceptance Limits</i>	<i>EX Result</i>	<i>Functional Guideline Code</i>
(µg/L)				
gamma-Chlordane (µg/L)	8.56	5.96–10.2	7.60	
4,4'-DDD (µg/L)	6.50	3.99–8.44	6.90	
4,4'-DDE (µg/L)	0.877	0.511–1.10	0.91	
4,4'-DDT (µg/L)	1.19	0.692–1.49	1.30	
Dieldrin (µg/L)	3.65	2.26–4.72	3.50	
Endrin (µg/L)	1.43	0.896–1.85	1.40	
Heptachlor (µg/L)	5.83	2.64–7.22	3.50	
Heptachlor epoxide (µg/L)	0.915	0.566–1.12	0.77	
<b>Pesticides/Herbicides (Lot 3227)</b>				
2-sec-Butyl-4,6-dinitrophenol (µg/L)	4.24	1.39–5.48	0.48	
2,4-Dichlorophenoxyacetic acid (µg/L)	5.92	2.96–8.88	3.50	
2,4,5-TP (Silvex) (µg/L)	4.90	2.45–7.35	3.72	
<b>Total Petroleum Hydrocarbons (Lot 8922)</b>				
Total petroleum hydrocarbons, infrared (mg/bottle)	54.6	34.0–70.8	59.9	
<b>Toxaphene (Lot 3227)</b>				
Toxaphene (µg/L)	3.02	1.66–4.38	3.60	
<b>Trace Metals (Lot 9987)</b>				
Aluminum (µg/L)	233	191–275	249	
Antimony (µg/L)	192	144–240	220	
Arsenic (µg/L)	117	87.8–138	118	
Barium (µg/L)	617	506–728	636	
Beryllium (µg/L)	105	86.1–124	106	
Boron (µg/L)	641	526–801	709	
Cadmium (µg/L)	175	144–207	162	
Chromium (µg/L)	242	198–285	249	
Cobalt (µg/L)	517	424–610	547	
Copper (µg/L)	275	226–325	265	
Iron (µg/L)	467	383–551	494	
Lead (µg/L)	433	355–511	430	
Manganese (µg/L)	558	458–658	572	
Mercury (µg/L)	6.67	5.00–8.34	5.92	
Molybdenum (µg/L)	142	116–168	155	
Nickel (µg/L)	342	280–404	338	
Selenium (µg/L)	139	104–164	139	
Silver (µg/L)	183	150–216	173	
Strontium (µg/L)	533	437–629	539	
Thallium (µg/L)	108	81.0–135	112	
Vanadium (µg/L)	458	376–540	451	
Zinc (µg/L)	117	95.9–138	109	
<b>Turbidity (Lot 3427)</b>				
Turbidity (NTU)	3.36	2.86–3.93	3.35	
<b>Volatiles (Lot 586)</b>				
Benzene (µg/L)	110	85.4–137	120	
Bromodichloromethane (µg/L)	61.3	47.1–76.3	72.0	
Bromoform (µg/L)	86.8	63.5–112	110	
Carbon tetrachloride (µg/L)	175	129–218	190	
Chlorobenzene (µg/L)	78.1	61.1–93.7	81.0	
Chloroform (µg/L)	96.1	73.7–117	100	
Dibromochloromethane (µg/L)	15.9	12.4–19.6	16.0	
1,2-Dichlorobenzene (µg/L)	62.6	47.5–76.9	66.0	

### Quality Control Samples



Analyte	Certified Value	Performance Acceptance Limits	EX Result	Functional Guideline Code
1,3-Dichlorobenzene (µg/L)	127	97.0–153	120	
1,4-Dichlorobenzene (µg/L)	57.6	43.3–70.2	53.0	
1,2-Dichloroethane (µg/L)	60.1	46.9–75.7	67.0	
Dichloromethane (methylene chloride) (µg/L)	60.8	43.0–79.2	62.0	
Ethylbenzene (µg/L)	49.3	36.9–57.6	54.0	
4-Methyl-2-pentanone (MIBK) (µg/L)	63.5	36.7–86.7	62.0	
1,1,2,2-Tetrachloroethane (µg/L)	81.0	59.0–102	80.0	
Tetrachloroethylene (µg/L)	64.3	47.4–77.6	60.0	
Toluene (µg/L)	84.4	65.1–102	88.0	
1,1,1-Trichloroethane (µg/L)	59.0	42.6–70.4	60.0	
1,1,2-Trichloroethane (µg/L)	36.4	27.7–45.7	37.0	
Trichloroethylene (µg/L)	37.6	27.9–45.5	39.0	
m/p-Xylene (µg/L)	41.2	26.6–51.8	42.0	

† Result was not reported by laboratory.

◆ Result is out of range.

J The analytical result is an estimated quantity.

**Table 39. Quality Control Standards for Selected Analyses for GE**

Analyte	Certified Value	Performance Acceptance Limits	GE Result	Functional Guideline Code
<b>Acids (Lot 586)</b>				
2,6-Dichlorophenol (µg/L)	132	72.9–153	97.2	
2-Methylphenol (µg/L)	59.9	19.0–69.3	40.5	
4-Methylphenol (µg/L)	82.8	25.4–95.9	47.6	
Pentachlorophenol (µg/L)	129	40.2–162	110	
2,4,5-Trichlorophenol (µg/L)	60.5	23.8–69.9	39.9	
2,4,6-Trichlorophenol (µg/L)	55.7	24.0–63.8	35.5	
<b>Base/Neutrals (Lot 586)</b>				
Anthracene (µg/L)	86.3	40.7–101	73.2	
Benzo[ <i>g,h,i</i> ]perylene (µg/L)	17.3	7.16–24.3	12.9	
Bis(2-ethylhexyl) phthalate (µg/L)	76.9	31.0–98.1	71.9	
4-Bromophenyl-phenylether (µg/L)	185	91.4–221	144	
Chrysene (µg/L)	28.7	13.3–35.2	25.1	
Dibenz[ <i>a,h</i> ]anthracene (µg/L)	14.7	5.26–19.0	10.4	
Dibenzofuran (µg/L)	118	56.1–131	91.4	
1,2-Dichlorobenzene (µg/L)	113	26.4–129	64.3	
Diethylphthalate (µg/L)	90.9	21.8–117	58.1	
Dimethylphthalate (µg/L)	138	59.4–160	53.3◆	
2,4-Dinitrotoluene (µg/L)	104	43.5–120	75.4	
Naphthalene (µg/L)	89.9	31.9–102	64.3	
N-Nitroso-di-n-propylamine (µg/L)	63.1	26.7–77.6	50.3	
Phenanthrene (µg/L)	55.2	29.9–63.5	44.8	
Pyrene (µg/L)	99.6	46.6–121	84.6	
1,2,4-Trichlorobenzene (µg/L)	102	29.7–116	58.7	
<b>Cations (Lot 439)</b>				
Calcium (µg/L)	101,000	90,900–111,000	104,000	
Magnesium (µg/L)	74,900	66,700–83,100	75,400	
Potassium (µg/L)	90,300	82,200–98,400	82,500	
Sodium (µg/L)	94,900	84,500–106,000	98,300	

### Quality Control Samples



Analyte	Certified Value	Performance Acceptance Limits	GE Result	Functional Guideline Code
<b>Cyanide and Phenol (Lot 9987)</b>				
Cyanide, total (µg/L)	82.6	60.3–105	82.6	
Phenol (µg/L)	106	80.6–131	89.7	
<b>Grease and Oil (Lot 9987)</b>				
Grease and oil (gravimetric) (mg/bottle)	50.6	30.4–63.3	41.4	
<b>Inorganics (Lot 3427)</b>				
Alkalinity (as CaCO <sub>3</sub> ) (µg/L)	151,000	141,000–170,000	145,000	
Chloride (µg/L)	56,800	50,500–64,100	54,300	
Fluoride (µg/L)	4,730	4,260–5,200	4,530	
Nitrate as nitrogen (µg/L)	3,260	2,930–3,590	3,010	
pH (pH units)	9.23	9.03–9.43	9.07	
Potassium (µg/L)	18,800	16,100–21,900	19,100	
Sodium (µg/L)	144,000	130,000–159,000	151,000	
Specific conductance (µS/cm)	676	566–769	718	
Sulfate (µg/L)	79,500	68,200–89,900	75,700	
Total dissolved solids (µg/L)	607,000	497,000–680,000	580,000	
<b>Nutrients (Lot 9987)</b>				
Ammonia as nitrogen (µg/L)	3,560	2,990–4,130	3,350	
Nitrate-nitrite as nitrogen (µg/L)	5,420	4,820–6,020	5,450	
Total phosphates (as P) (µg/L)	4,060	3,450–4,670	3,630	
<b>PCBs (Lot 586)</b>				
PCB 1254 (µg/L)	5.71	3.42–7.17	5.30	J
<b>Pesticides (Lot 586)</b>				
Aldrin (µg/L)	1.60	0.830–1.97	1.51	J
beta-Benzene hexachloride (µg/L)	7.12	3.80–9.00	6.69	J
delta-Benzene hexachloride (µg/L)	5.74	2.53–7.37	5.78	J
gamma-Benzene hexachloride (Lindane) (µg/L)	1.04	0.585–1.35	0.87	J
gamma-Chlordane (µg/L)	8.56	5.96–10.2	8.0	J
4,4'-DDD (µg/L)	6.50	3.99–8.44	5.52	J
4,4'-DDE (µg/L)	0.877	0.511–1.10	0.76	J
4,4'-DDT (µg/L)	1.19	0.692–1.49	1.15	J
Dieldrin (µg/L)	3.65	2.26–4.72	3.22	J
Endrin (µg/L)	1.43	0.896–1.85	1.36	J
Heptachlor (µg/L)	5.83	2.64–7.22	5.20	J
Heptachlor epoxide (µg/L)	0.915	0.566–1.12	0.79	J
<b>Pesticides/Herbicides (Lot 3227)</b>				
2-sec-Butyl-4,6-dinitrophenol (µg/L)	4.24	1.39–5.48	3.92	
2,4-Dichlorophenoxyacetic acid (µg/L)	5.92	2.96–8.88	5.66	
2,4,5-TP (Silvex) (µg/L)	4.90	2.45–7.35	4.33	
<b>Total Petroleum Hydrocarbons (Lot 8922)</b>				
Total petroleum hydrocarbons, infrared (mg/bottle)	54.6	34.0–70.8	49.5	
<b>Toxaphene (Lot 3227)</b>				
Toxaphene (µg/L)	3.02	1.66–4.38	†	

### Quality Control Samples



Analyte	Certified Value	Performance Acceptance Limits	GE Result	Functional Guideline Code
<b>Trace Metals (Lot 9987)</b>				
Aluminum (µg/L)	233	191-275	253	
Antimony (µg/L)	192	144-240	194	
Arsenic (µg/L)	117	87.8-138	118	
Barium (µg/L)	617	506-728	604	
Beryllium (µg/L)	105	86.1-124	103	
Boron (µg/L)	641	526-801	706	
Cadmium (µg/L)	175	144-207	176	
Chromium (µg/L)	242	198-285	240	
Cobalt (µg/L)	517	424-610	528	
Copper (µg/L)	275	226-325	267	
Iron (µg/L)	467	383-551	461	
Lead (µg/L)	433	355-511	414	
Manganese (µg/L)	558	458-658	556	
Mercury (µg/L)	6.67	5.00-8.34	6.08	
Molybdenum (µg/L)	142	116-168	132	
Nickel (µg/L)	342	280-404	352	
Selenium (µg/L)	139	104-164	140	
Silver (µg/L)	183	150-216	175	
Strontium (µg/L)	533	437-629	521	
Thallium (µg/L)	108	81.0-135	110	
Vanadium (µg/L)	458	376-540	448	
Zinc (µg/L)	117	95.9-138	118	
<b>Turbidity (Lot 3427)</b>				
Turbidity (NTU)	3.36	2.86-3.93	3.22	
<b>Volatiles (Lot 586)</b>				
Benzene (µg/L)	110	85.4-137	104	
Bromodichloromethane (µg/L)	61.3	47.1-76.3	59.0	
Bromoform (µg/L)	86.8	63.5-112	93.2	
Carbon tetrachloride (µg/L)	175	129-218	188	
Chlorobenzene (µg/L)	78.1	61.1-93.7	79.2	
Chloroform (µg/L)	96.1	73.7-117	95.2	
Dibromochloromethane (µg/L)	15.9	12.4-19.6	16.3	
1,2-Dichlorobenzene (µg/L)	62.6	47.5-76.9	63.3	
1,3-Dichlorobenzene (µg/L)	127	97.0-153	134	
1,4-Dichlorobenzene (µg/L)	57.6	43.3-70.2	65.4	
1,2-Dichloroethane (µg/L)	60.1	46.9-75.7	61.9	
Dichloromethane (methylene chloride) (µg/L)	60.8	43.0-79.2	61.8	
Ethylbenzene (µg/L)	49.3	36.9-57.6	49.5	
4-Methyl-2-pentanone (MIBK) (µg/L)	63.5	36.7-86.7	60.0	
1,1,2,2-Tetrachloroethane (µg/L)	81.0	59.0-102	72.4	
Tetrachloroethylene (µg/L)	64.3	47.4-77.6	71.7	
Toluene (µg/L)	84.4	65.1-102	80.7	
1,1,1-Trichloroethane (µg/L)	59.0	42.6-70.4	62.5	
1,1,2-Trichloroethane (µg/L)	36.4	27.7-45.7	34.7	
Trichloroethylene (µg/L)	37.6	27.9-45.5	38.4	
m/p-Xylene (µg/L)	41.2	26.6-51.8	43.3	

† Result was not reported by laboratory.

◆ Result is out of range.

J The analytical result is an estimated quantity.

### Quality Control Samples



**Table 40. Quality Control Standards for Selected Analyses for WA**

Analyte	Certified Value	Performance Acceptance Limits	WA Result	Functional Guideline Code
<b>Acids (Lot 586)</b>				
2,6-Dichlorophenol (µg/L)	132	72.9–153	106	
2-Methylphenol (µg/L)	59.9	19.0–69.3	42.7	
4-Methylphenol (µg/L)	82.8	25.4–95.9	59.8	
Pentachlorophenol (µg/L)	129	40.2–162	108	
2,4,5-Trichlorophenol (µg/L)	60.5	23.8–69.9	52.2	
2,4,6-Trichlorophenol (µg/L)	55.7	24.0–63.8	49.0	
<b>Base/Neutrals (Lot 586)</b>				
Anthracene (µg/L)	86.3	40.7–101	64.1	
Benzo[ <i>g,h,i</i> ]perylene (µg/L)	17.3	7.16–24.3	17.3	
Bis(2-ethylhexyl) phthalate (µg/L)	76.9	31.0–98.1	61.4	
4-Bromophenyl-phenylether (µg/L)	185	91.4–221	165	
Chrysene (µg/L)	28.7	13.3–35.2	24.4	
Dibenz[ <i>a,h</i> ]anthracene (µg/L)	14.7	5.26–19.0	16.0	
Dibenzofuran (µg/L)	118	56.1–131	106	
1,2-Dichlorobenzene (µg/L)	113	26.4–129	85.0	
Diethylphthalate (µg/L)	90.9	21.8–117	68.0	
Dimethylphthalate (µg/L)	138	59.4–160	123	
2,4-Dinitrotoluene (µg/L)	104	43.5–120	85.1	
Naphthalene (µg/L)	89.9	31.9–102	62.3	
N-Nitroso-di-n-propylamine (µg/L)	63.1	26.7–77.6	50.2	
Phenanthrene (µg/L)	55.2	29.9–63.5	48.4	
Pyrene (µg/L)	99.6	46.6–121	74.9	
1,2,4-Trichlorobenzene (µg/L)	102	29.7–116	68.8	
<b>Cations (Lot 439)</b>				
Calcium (µg/L)	101,000	90,900–111,000	102,000	
Magnesium (µg/L)	74,900	66,700–83,100	71,100	
Potassium (µg/L)	90,300	82,200–98,400	90,800	
Sodium (µg/L)	94,900	84,500–106,000	91,100	
<b>Cyanide and Phenol (Lot 9987)</b>				
Cyanide, total (µg/L)	82.6	60.3–105	83.1	
Phenol (µg/L)	106	80.6–131	102	
<b>Grease and Oil (Lot 9987)</b>				
Grease and oil (gravimetric) (mg/bottle)	50.6	30.4–63.3	36.1	J
<b>Inorganics (Lot 3427)</b>				
Alkalinity (as CaCO <sub>3</sub> ) (µg/L)	151,000	141,000–170,000	151,000	
Chloride (µg/L)	56,800	50,500–64,100	63,000	
Fluoride (µg/L)	4,730	4,260–5,200	4,740	
Nitrate as nitrogen (µg/L)	3,260	2,930–3,590	3,230	
pH (pH units)	9.23	9.03–9.43	9.17	
Potassium (µg/L)	18,800	16,100–21,900	19,200	
Sodium (µg/L)	144,000	130,000–159,000	134,000	
Specific conductance (µS/cm)	676	566–769	559♦	
Sulfate (µg/L)	79,500	68,200–89,900	81,600	
Total dissolved solids (µg/L)	607,000	497,000–680,000	581,000	
<b>Nutrients (Lot 9987)</b>				
Ammonia as nitrogen (µg/L)	3,560	2,990–4,130	3,500	
Nitrate-nitrite as nitrogen (µg/L)	5,420	4,820–6,020	5,410	

**Quality Control Samples**



<b>Analyte</b>	<b>Certified Value</b>	<b>Performance Acceptance Limits</b>	<b>WA Result</b>	<b>Functional Guideline Code</b>
Total phosphates (as P) (µg/L)	4,060	3,450–4,670	4,080	
<b>PCBs (Lot 586)</b>				
PCB 1254 (µg/L)	5.71	3.42–7.17	5.28	
<b>Pesticides (Lot 586)</b>				
Aldrin (µg/L)	1.60	0.830–1.97	1.82	
beta-Benzene hexachloride (µg/L)	7.12	3.80–9.00	8.01	
delta-Benzene hexachloride (µg/L)	5.74	2.53–7.37	5.92	
gamma-Benzene hexachloride (Lindane) (µg/L)	1.04	0.585–1.35	1.03	
gamma-Chlordane (µg/L)	8.56	5.96–10.2	8.48	
4,4'-DDD (µg/L)	6.50	3.99–8.44	5.93	
4,4'-DDE (µg/L)	0.877	0.511–1.10	0.76	
4,4'-DDT (µg/L)	1.19	0.692–1.49	1.23	
Dieldrin (µg/L)	3.65	2.26–4.72	3.72	
Endrin (µg/L)	1.43	0.896–1.85	1.69	
Heptachlor (µg/L)	5.83	2.64–7.22	6.01	
Heptachlor epoxide (µg/L)	0.915	0.566–1.12	0.84	
<b>Pesticides/Herbicides (Lot 3227)</b>				
2-sec-Butyl-4,6-dinitrophenol (µg/L)	4.24	1.39–5.48	4.19	
2,4-Dichlorophenoxyacetic acid (µg/L)	5.92	2.96–8.88	6.24	
2,4,5-TP (Silvex) (µg/L)	4.90	2.45–7.35	4.56	
<b>Total Petroleum Hydrocarbons (Lot 8922)</b>				
Total petroleum hydrocarbons, infrared (mg/bottle)	54.6	34.0–70.8	<1,000❖	
<b>Toxaphene (Lot 3227)</b>				
Toxaphene (µg/L)	3.02	1.66–4.38	†	
<b>Trace Metals (Lot 9987)</b>				
Aluminum (µg/L)	233	191–275	308◆	
Antimony (µg/L)	192	144–240	200	
Arsenic (µg/L)	117	87.8–138	118	
Barium (µg/L)	617	506–728	623	
Beryllium (µg/L)	105	86.1–124	101	
Boron (µg/L)	641	526–801	660	
Cadmium (µg/L)	175	144–207	176	
Chromium (µg/L)	242	198–285	241	
Cobalt (µg/L)	517	424–610	521	
Copper (µg/L)	275	226–325	269	
Iron (µg/L)	467	383–551	461	
Lead (µg/L)	433	355–511	441	
Manganese (µg/L)	558	458–658	576	
Mercury (µg/L)	6.67	5.00–8.34	6.58	
Molybdenum (µg/L)	142	116–168	144	
Nickel (µg/L)	342	280–404	350	
Selenium (µg/L)	139	104–164	148	
Silver (µg/L)	183	150–216	183	
Strontium (µg/L)	533	437–629	531	
Thallium (µg/L)	108	81.0–135	110	
Vanadium (µg/L)	458	376–540	454	
Zinc (µg/L)	117	95.9–138	119	

### Quality Control Samples



<b>Analyte</b>	<b>Certified Value</b>	<b>Performance Acceptance Limits</b>	<b>WA Result</b>	<b>Functional Guideline Code</b>
<b>Turbidity (Lot 3427)</b>				
Turbidity (NTU)	3.36	2.86–3.93	3.30	
<b>Volatiles (Lot 586)</b>				
Benzene (µg/L)	110	85.4–137	134	
Bromodichloromethane (µg/L)	61.3	47.1–76.3	75.6	
Bromoform (µg/L)	86.8	63.5–112	123♦	
Carbon tetrachloride (µg/L)	175	129–218	194	
Chlorobenzene (µg/L)	78.1	61.1–93.7	99.2♦	
Chloroform (µg/L)	96.1	73.7–117	116	
Dibromochloromethane (µg/L)	15.9	12.4–19.6	20.7♦	
1,2-Dichlorobenzene (µg/L)	62.6	47.5–76.9	69.8	
1,3-Dichlorobenzene (µg/L)	127	97.0–153	167♦	
1,4-Dichlorobenzene (µg/L)	57.6	43.3–70.2	78.0♦	
1,2-Dichloroethane (µg/L)	60.1	46.9–75.7	77.3♦	
Dichloromethane (methylene chloride) (µg/L)	60.8	43.0–79.2	64.8	
Ethylbenzene (µg/L)	49.3	36.9–57.6	63.2♦	
4-Methyl-2-pentanone (MIBK) (µg/L)	63.5	36.7–86.7	76.2	
1,1,2,2-Tetrachloroethane (µg/L)	81.0	59.0–102	111♦	
Tetrachloroethylene (µg/L)	64.3	47.4–77.6	74.5	
Toluene (µg/L)	84.4	65.1–102	104♦	
1,1,1-Trichloroethane (µg/L)	59.0	42.6–70.4	66.1	
1,1,2-Trichloroethane (µg/L)	36.4	27.7–45.7	47.4♦	
Trichloroethylene (µg/L)	37.6	27.9–45.5	42.7	
m/p-Xylene (µg/L)	41.2	26.6–51.8	52.2♦	

† Result was not reported by laboratory.

♦ Result is out of range.

❖ Not enough information to determine if result is within performance acceptance limits.

J The analytical result is an estimated quantity.

**Table 41. Laboratory Control Sample Recoveries for EX**

<b>Analyte</b>	<b>Qualified Out of Range†</b>	<b>Mean Recovery (%)</b>	<b>Standard Deviation</b>	<b>Minimum Recovery (%)</b>	<b>Maximum Recovery (%)</b>
<b>AP-3086</b>					
Total organic carbon	0/2	97.0	0.0	97.0	97.0
<b>EPA300.0</b>					
Chloride	0/8	104	5.90	97.0	114
Fluoride	0/8	103	3.55	96.0	105
Nitrate as nitrogen	0/22	101	2.73	98.0	108
Nitrate-nitrite as nitrogen	0/12	103	4.64	96.0	109
Sulfate	0/8	98.1	4.88	91.0	105
Total phosphates (as P)	0/8	99.6	5.85	91.0	107
<b>EPA6010B</b>					
Aluminum	0/56	104	4.30	94.0	113
Arsenic	0/12	103	5.23	96.0	112
Barium	0/40	103	3.90	94.0	112
Boron	0/20	104	6.14	94.0	114
Cadmium	0/6	106	3.49	102	111
Chromium	0/12	105	4.47	99.0	112
Iron	0/56	105	4.48	95.0	114
Lead	0/56	105	5.37	95.0	117

### Quality Control Samples



Analyte	Qualified Out of Range†	Mean Recovery (%)	Standard Deviation	Minimum Recovery (%)	Maximum Recovery (%)
Manganese	0/22	103	5.21	94.0	113
Nickel	0/38	104	4.24	95.0	112
Selenium	0/39	100	8.13	87.0	114
Silver	0/12	106	4.75	100	114
Sodium	0/6	106	4.75	101	111
<b>EPA7470A</b>					
Mercury	1/32	98.4	5.56	79.0	107
<b>EPA7841</b>					
Thallium	0/2	103	0.0	103	103
<b>EPA8021B</b>					
Carbon tetrachloride	0/20	110	9.27	93.0	127
Chloroform	0/20	113	9.62	96.0	129
cis-1,2-Dichloroethylene	0/20	113	9.51	95.0	133
Tetrachloroethylene	0/20	116	13.8	94.0	141
1,1,1-Trichloroethane	0/20	111	11.2	94.0	130
Trichloroethylene	4/20	110	10.4	91.0	130
<b>EPA8081A</b>					
Lindane	0/5	72.6	9.50	62.0	86.0
<b>EPA8082</b>					
PCB 1260	0/11	102	6.59	96.0	117
<b>EPA8151A</b>					
2,4-Dichlorophenoxyacetic acid	0/6	103	22.1	80.0	127
<b>EPA8260B</b>					
Benzene	0/66	101	4.89	91.0	113
Chlorobenzene	0/66	100	5.34	90.0	113
1,1-Dichloroethylene	0/66	99.2	7.88	83.0	116
Toluene	0/66	99.8	5.14	87.0	110
Trichloroethylene	0/66	101	6.13	86.0	115
<b>EPA8270C</b>					
Acenaphthene	2/4	51.8	22.8	31.0	72.0
4-Chloro-m-cresol	2/4	76.0	34.7	44.0	106
2-Chlorophenol	1/4	52.5	31.2	23.0	90.0
2,4-Dinitrotoluene	2/4	85.0	22.7	64.0	111
4-Nitrophenol	2/4	76.5	19.7	59.0	99.0
N-Nitrosodipropylamine	2/4	32.5	15.6	18.0	46.0
Pentachlorophenol	4/4	212	57.2	162	271
Phenol	0/10	60.5	28.6	17.0	96.0
Pyrene	0/4	67.3	4.79	63.0	74.0
1,2,4-Trichlorobenzene	3/4	26.8	16.6	11.0	46.0
<b>EPA9014</b>					
Cyanide	0/30	95.5	1.48	93.0	99.0
<b>EPA9060</b>					
Total organic carbon	0/3	96.3	2.08	94.0	98.0

† Number of batches qualified that exhibit poor laboratory control sample and blank spike recovery due to interference compared to the total number of batches containing laboratory control samples and blank spikes.

Note: A value of 0 is reported as 0.0.

### Quality Control Samples



**Table 42. Laboratory Control Sample Recoveries for GE**

<b>Analyte</b>	<b>Qualified Out of Range†</b>	<b>Mean Recovery (%)</b>	<b>Standard Deviation</b>	<b>Minimum Recovery (%)</b>	<b>Maximum Recovery (%)</b>
<b>EPA160.1</b>					
Total dissolved solids	0/1	98.3	—	98.3	98.3
<b>EPA353.1</b>					
Nitrate-nitrite as nitrogen	0/17	103	5.71	94.0	118
<b>EPA365.4</b>					
Total phosphates (as P)	0/1	106	—	106	106
<b>EPA6010B</b>					
Aluminum	0/18	101	3.47	93.4	106
Antimony	0/5	101	3.58	95.5	105
Arsenic	0/17	102	3.64	93.4	108
Barium	0/17	99.3	4.02	92.0	104
Beryllium	0/2	99.1	6.93	94.2	104
Cadmium	0/17	101	4.55	93.1	109
Calcium	0/1	95.9	—	95.9	95.9
Chromium	0/17	101	3.80	93.0	107
Cobalt	0/2	99.5	7.85	93.9	105
Copper	0/2	98.7	8.98	92.3	105
Iron	0/19	101	4.84	89.5	108
Lead	0/17	103	4.31	93.0	111
Magnesium	0/1	95.2	—	95.2	95.2
Manganese	0/2	95.1	1.77	93.8	96.3
Nickel	0/2	100	8.49	94.0	106
Potassium	0/1	91.5	—	91.5	91.5
Selenium	0/17	99.9	3.78	92.8	106
Silver	1/17	98.3	24.4	4.57	109
Sodium	0/1	92.6	—	92.6	92.6
Thallium	0/2	100	11.4	91.9	108
Vanadium	0/2	98.7	7.57	93.3	104
Zinc	0/2	101	8.98	94.3	107
<b>EPA6020</b>					
Aluminum	1/25	105	8.61	85.1	122
Antimony	0/21	94.8	9.22	84.9	112
Arsenic	0/21	103	5.61	86.9	110
Barium	0/21	91.5	7.74	80.8	105
Beryllium	0/2	107	4.95	103	110
Cadmium	0/22	101	3.75	87.2	105
Calcium	0/2	98.6	0.07	98.5	98.6
Chromium	0/22	91.9	7.74	83.0	105
Cobalt	0/21	100	4.40	85.0	105
Copper	0/21	104	5.33	85.2	110
Iron	2/25	97.3	14.2	70.7	133
Lead	0/22	103	5.09	89.2	112
Magnesium	0/2	88.4	2.40	86.7	90.1
Manganese	0/2	102	0.0	102	102
Nickel	0/22	101	5.46	81.8	109
Potassium	0/2	82.6	0.71	82.1	83.1
Selenium	0/21	104	7.28	83.4	112
Silver	4/26	96.4	27.3	15.4	114
Sodium	0/2	101	1.70	99.6	102
Thallium	0/16	98.6	6.13	88.6	105
Tin	2/17	93.9	31.9	16.4	190
Vanadium	1/22	99.8	14.8	40.0	113
Zinc	0/21	98.5	7.25	86.8	110

**Quality Control Samples**



Analyte	Qualified Out of Range†	Mean Recovery (%)	Standard Deviation	Minimum Recovery (%)	Maximum Recovery (%)
<b>EPA7470A</b>					
Mercury	0/36	99.3	6.95	88.1	115
<b>EPA8081A</b>					
Aldrin	0/1	120	—	120	120
p,p'-DDT	0/1	127	—	127	127
Dieldrin	0/1	112	—	112	112
Endrin	1/1	136	—	136	136
Heptachlor	0/1	124	—	124	124
Lindane	0/1	115	—	115	115
<b>EPA8082</b>					
PCB 1260	0/2	88.0	4.24	85.0	91.0
<b>EPA8260B</b>					
Benzene	0/82	102	6.46	86.8	116
Chlorobenzene	1/82	96.4	12.2	0.0	108
1,1-Dichloroethylene	1/82	106	14.4	0.0	124
Toluene	0/82	96.2	7.47	81.2	109
Trichloroethylene	1/82	96.9	13.1	0.0	119
<b>EPA8270C</b>					
Acenaphthene	0/1	67.2	—	67.2	67.2
4-Chloro-m-cresol	0/1	78.3	—	78.3	78.3
2-Chlorophenol	0/1	53.3	—	53.3	53.3
1,4-Dichlorobenzene	0/1	47.0	—	47.0	47.0
2,4-Dinitrotoluene	0/1	75.5	—	75.5	75.5
4-Nitrophenol	0/1	27.7	—	27.7	27.7
N-Nitrosodipropylamine	0/1	76.4	—	76.4	76.4
Pentachlorophenol	0/1	93.4	—	93.4	93.4
Phenol	0/1	28.9	—	28.9	28.9
Pyrene	0/1	76.2	—	76.2	76.2
1,2,4-Trichlorobenzene	0/1	49.4	—	49.4	49.4
<b>EPA9012A</b>					
Cyanide	0/23	93.7	8.39	80.7	112
<b>EPA9030</b>					
Sulfide	0/1	113	—	113	113
<b>EPA9040B</b>					
pH	0/25	99.7	0.41	98.8	101
<b>EPA9050A</b>					
Specific conductance	0/19	102	3.60	92.8	105
<b>EPA9056</b>					
Chloride	0/1	96.7	—	96.7	96.7
Fluoride	0/1	97.9	—	97.9	97.9
Nitrite as nitrogen	0/2	99.6	7.64	94.2	105
Sulfate	0/1	98.4	—	98.4	98.4

### Quality Control Samples



<i>Analyte</i>	<i>Qualified Out of Range†</i>	<i>Mean Recovery (%)</i>	<i>Standard Deviation</i>	<i>Minimum Recovery (%)</i>	<i>Maximum Recovery (%)</i>
<b>EPA9060</b>					
Total organic carbon	0/1	99.3	—	99.3	99.3
<b>EPA9066</b>					
Phenols	0/9	101	4.49	96.7	111

† Number of batches qualified that exhibit poor laboratory control sample and blank spike recovery due to interference compared to the total number of batches containing laboratory control samples and blank spikes.  
— Standard deviation cannot be determined.

Note: A value of 0 is reported as 0.0.

**Table 43. Laboratory Control Sample Recoveries for WA**

<i>Analyte</i>	<i>Qualified Out of Range†</i>	<i>Mean Recovery (%)</i>	<i>Standard Deviation</i>	<i>Minimum Recovery (%)</i>	<i>Maximum Recovery (%)</i>
<b>EPA160.1</b>					
Total dissolved solids	0/34	100	3.43	94.0	107
<b>EPA310.1</b>					
Alkalinity (as CaCO <sub>3</sub> )	0/2	99.5	0.71	99.0	100
<b>EPA340.2</b>					
Fluoride	0/28	97.7	4.35	88.8	102
<b>EPA353.2</b>					
Nitrate as nitrogen	0/6	99.7	4.34	96.0	108
Nitrate-nitrite as nitrogen	0/52	99.1	1.61	96.0	103
Nitrite as nitrogen	0/2	102	0.71	101	102
<b>EPA365.2</b>					
Total phosphates (as P)	0/30	100	2.04	98.2	107
<b>EPA376.2</b>					
Sulfide	0/2	101	0.0	101	101
<b>EPA6010B</b>					
Aluminum	0/51	102	1.50	99.5	106
Antimony	0/16	99.4	1.06	97.0	101
Arsenic	0/41	99.6	1.42	97.8	104
Barium	0/39	98.6	1.59	96.4	105
Beryllium	0/11	98.8	1.53	97.0	101
Boron	0/15	96.7	1.42	95.1	99.4
Cadmium	0/39	98.7	1.17	97.2	102
Calcium	0/17	101	1.75	98.6	104
Chromium	0/38	99.5	1.38	97.5	104
Cobalt	0/13	98.4	1.08	96.6	100
Copper	0/15	99.2	1.35	96.2	101
Iron	0/50	98.9	1.33	97.4	103
Lead	0/44	99.5	1.46	96.5	103
Lithium	0/15	104	2.58	99.9	108
Magnesium	0/17	101	1.45	98.7	104
Manganese	0/32	101	2.07	98.3	107
Nickel	0/24	97.9	1.56	95.8	103
Potassium	0/17	103	3.03	100	108
Selenium	0/43	101	1.62	99.0	106

### Quality Control Samples



<b>Analyte</b>	<b>Qualified Out of Range†</b>	<b>Mean Recovery (%)</b>	<b>Standard Deviation</b>	<b>Minimum Recovery (%)</b>	<b>Maximum Recovery (%)</b>
Silica	0/17	98.7	3.16	95.1	107
Silver	0/36	99.9	1.25	98.0	105
Sodium	0/22	99.2	1.55	97.1	102
Thallium	0/12	100	0.93	98.6	101
Tin	0/10	98.9	1.29	97.4	101
Vanadium	0/13	101	1.18	99.2	103
Zinc	0/15	98.7	1.28	97.5	102
<b>EPA7470A</b>					
Mercury	0/35	103	2.27	99.5	107
<b>EPA8010</b>					
Carbon tetrachloride	0/7	93.7	8.34	84.7	110
Chloroform	0/7	94.6	7.79	84.3	109
cis-1,2-Dichloroethylene	0/9	93.6	7.27	86.0	107
1,1,1-Trichloroethane	0/7	96.9	8.60	87.9	114
Trichloroethylene	0/7	98.8	9.68	86.3	117
<b>EPA8021B</b>					
Carbon tetrachloride	0/15	100	8.43	88.7	112
Chloroform	0/15	99.2	8.08	86.8	110
cis-1,2-Dichloroethylene	0/2	92.2	7.78	86.7	97.7
1,1,1-Trichloroethane	0/15	98.5	7.57	88.3	109
Trichloroethylene	0/15	96.7	5.47	89.2	106
<b>EPA8081A</b>					
Aldrin	0/9	86.1	12.2	75.0	110
p,p'-DDT	0/9	107	12.6	94.0	130
Dieldrin	1/9	108	18.2	94.0	150
Endrin	2/9	117	17.7	86.0	152
Heptachlor	0/9	95.0	14.4	80.0	125
Lindane	3/15	95.0	27.8	20.0	140
<b>EPA8082</b>					
PCB 1254	0/10	82.9	5.49	77.9	92.8
<b>EPA8141A</b>					
Dimethoate	0/10	68.7	22.4	48.5	112
Disulfoton	0/10	85.9	11.5	68.5	112
Famphur	0/10	105	12.0	92.0	136
Parathion	0/2	86.8	11.7	78.5	95.0
Parathion ethyl	0/8	90.8	5.62	86.5	104
Parathion methyl	0/10	91.5	10.9	81.0	119
Phorate	0/10	88.5	9.41	80.5	112
Sulfotepp	0/10	80.0	9.19	72.0	102
Thionazin	0/10	92.3	11.9	83.0	120
O,O,O-Triethyl phosphorothioate	0/10	120	20.8	90.0	154
<b>EPA8151A</b>					
2,4-Dichlorophenoxyacetic acid	0/10	85.1	19.8	49.2	106
2,4,5-T	0/8	99.1	20.9	66.0	123
2,4,5-TP (Silvex)	0/8	82.2	14.9	60.8	98.8
<b>EPA8260B</b>					
Benzene	0/31	96.6	5.94	85.2	111
Chlorobenzene	0/31	95.8	5.38	84.6	110
1,1-Dichloroethylene	0/32	91.0	9.08	75.1	116
1,2-Dichloroethylene	0/1	105	—	105	105

### Quality Control Samples



<b>Analyte</b>	<b>Qualified Out of Range†</b>	<b>Mean Recovery (%)</b>	<b>Standard Deviation</b>	<b>Minimum Recovery (%)</b>	<b>Maximum Recovery (%)</b>
cis-1,2-Dichloroethylene	0/15	98.7	8.16	86.7	111
Tetrachloroethylene	0/22	99.2	7.24	86.5	114
Toluene	0/31	98.0	5.42	87.6	112
Trichloroethylene	0/31	92.4	5.19	78.1	102
<b>EPA8270C</b>					
Acenaphthene	1/11	56.9	9.47	36.1	71.0
Bis(2-ethylhexyl) phthalate	0/4	72.8	18.1	46.3	87.4
4-Chloro-m-cresol	1/11	52.2	12.5	21.6	65.5
2-Chlorophenol	0/11	55.8	9.58	34.5	71.0
1,4-Dichlorobenzene	2/10	40.9	6.87	31.6	52.6
2,4-Dinitrotoluene	0/11	65.3	17.6	27.2	85.4
4-Nitrophenol	1/11	51.8	19.5	17.9	87.2
N-Nitrosodipropylamine	1/11	62.8	14.5	38.3	85.1
Pentachlorophenol	1/11	55.2	22.3	0.0	83.8
Phenol	0/18	59.5	13.6	26.3	75.8
Pyrene	0/11	68.3	17.4	34.6	88.5
1,2,4-Trichlorobenzene	2/11	44.5	9.18	23.4	58.2
<b>EPA8280A</b>					
Hexachlorodibenzo-p-dioxins	0/5	99.8	11.5	91.0	120
Hexachlorodibenzo-p-furans	0/5	96.4	6.07	92.0	107
Pentachlorodibenzo-p-furans	0/10	104	6.41	92.0	110
2,3,7,8-TCDD	0/6	107	2.32	104	111
Tetrachlorodibenzo-p-dioxins	0/5	107	2.59	104	111
Tetrachlorodibenzo-p-furans	0/5	92.0	1.58	90.0	94.0
<b>EPA9014</b>					
Cyanide	0/62	94.1	6.67	82.5	109
<b>EPA9020B</b>					
Total organic halogens	0/106	103	3.36	90.6	108
<b>EPA9030B</b>					
Sulfide	0/10	99.7	0.42	99.0	100
<b>EPA9034</b>					
Sulfide	0/4	99.3	0.29	99.0	99.5
<b>EPA9050A</b>					
Specific conductance	0/8	96.5	2.16	93.5	98.7
<b>EPA9056</b>					
Chloride	0/27	95.9	4.16	91.9	104
Sulfate	0/28	96.9	1.68	95.2	102
<b>EPA9060</b>					
Total organic carbon	0/34	106	3.49	96.4	110
<b>EPA9066</b>					
Phenols	0/2	96.5	0.64	96.0	96.9

† Number of batches qualified that exhibit poor laboratory control sample and blank spike recovery due to interference compared to the total number of batches containing laboratory control samples and blank spikes.

— Standard deviation cannot be determined.

Note: A value of 0 is reported as 0.0.

### Quality Control Samples



**Table 44. Laboratory Control Sample Recoveries for GP**

<b>Analyte</b>	<b>Qualified Out of Range†</b>	<b>Mean Recovery (%)</b>	<b>Standard Deviation</b>	<b>Minimum Recovery (%)</b>	<b>Maximum Recovery (%)</b>
<b>EPIA-001</b>					
Gross alpha	1/33	99.6	7.46	84.3	122
Nonvolatile beta	1/31	107	8.03	83.7	123
<b>EPIA-002</b>					
Tritium	1/27	269	874	88.9	4,640
<b>EPIA-003</b>					
Carbon-14	1/21	94.1	6.57	78.5	108
<b>EPIA-004</b>					
Strontium-89/90	0/5	88.9	12.2	80.1	109
Strontium-90	3/23	97.7	14.3	80.4	125
<b>EPIA-005</b>					
Technetium-99	0/24	106	5.55	96.2	116
<b>EPIA-006</b>					
Iodine-129	1/23	104	7.92	91.4	123
<b>EPIA-008</b>					
Radium-226	0/29	102	8.39	87.4	114
<b>EPIA-009</b>					
Radium-228	2/25	98.0	12.1	71.3	116
<b>EPIA-010</b>					
Radium, total alpha-emitting	1/4	85.5	5.22	79.2	90.6
<b>EPIA-011</b>					
Americium-241	2/29	100	11.6	78.6	125
Curium-243/244	2/29	98.5	11.5	74.6	121
Plutonium-238	3/3	0.0	0.0	0.0	0.0
Plutonium-239/240	1/25	94.0	9.62	77.9	116
Uranium-238	1/29	94.2	7.43	79.8	110
<b>EPIA-012</b>					
Thorium-232	2/26	90.9	7.56	75.8	106
<b>EPIA-013</b>					
Cesium-134	1/19	90.6	6.06	79.0	104
Cesium-137	2/9	79.4	45.0	0.0	106
<b>EPIA-022</b>					
Nickel-63	0/11	101	5.97	89.6	109

† Number of batches qualified that exhibit poor laboratory control sample and blank spike recovery due to interference compared to the total number of batches containing laboratory control samples and blank spikes.

Note: A value of 0 is reported as 0.0.



**Table 45. Laboratory Control Sample Recoveries for TM**

<b>Analyte</b>	<b>Qualified Out of Range†</b>	<b>Mean Recovery (%)</b>	<b>Standard Deviation</b>	<b>Minimum Recovery (%)</b>	<b>Maximum Recovery (%)</b>
<b>3500NIEMOD</b>					
Nickel-63	1/4	103	24.3	80.3	127
<b>EICHROMTC1MOD</b>					
Technetium-99	0/9	104	4.83	97.6	113
<b>EMLAM01MOD</b>					
Americium-241/Curium-246	0/7	98.2	6.86	88.9	108
Curium-243/244	0/7	93.0	4.03	89.3	101
<b>EMLPU02MOD</b>					
Plutonium-238	0/7	94.7	2.85	90.3	99.0
Plutonium-239/240	0/7	105	6.60	98.1	113
<b>EMLSR02MOD</b>					
Strontium-90	0/9	98.6	7.38	80.7	105
<b>EMLTH01MOD</b>					
Thorium-228	0/7	104	10.1	93.7	120
Thorium-230	0/7	98.0	6.98	88.1	107
Thorium-232	0/7	105	7.69	94.9	117
<b>EMLU02MOD</b>					
Uranium-234	0/8	94.2	5.92	89.5	106
Uranium-235	6/8	68.7	34.9	25.0	125
Uranium-238	0/8	96.8	5.18	90.9	106
<b>ENICMOD</b>					
Carbon-14	0/8	102	1.40	99.5	104
<b>EPA900.0MOD</b>					
Gross alpha	17/91	112	8.20	96.2	134
Nonvolatile beta	0/72	104	3.82	91.9	114
<b>EPA901.1MOD</b>					
Cesium-137	0/11	97.9	2.57	91.6	101
Cobalt-60	0/11	99.6	3.0	94.0	103
<b>EPA902.0MOD</b>					
Iodine-129	0/8	103	10.4	87.3	118
<b>EPA903.0MOD</b>					
Radium, total alpha-emitting	0/17	102	5.37	90.1	117
Radium-226	0/9	94.0	5.83	85.5	105
<b>EPA904.0MOD</b>					
Radium-228	3/9	96.1	18.9	71.0	129
<b>EPA906.0MOD</b>					
Tritium	8/97	100	11.3	74.9	132

† Number of batches qualified that exhibit poor laboratory control sample and blank spike recovery due to interference compared to the total number of batches containing laboratory control samples and blank spikes.

Note: A value of 0 is reported as 0.0.

### Quality Control Samples



**Table 46. Surrogate Recoveries for EX**

Analyte	Qualified Out of Range†	Mean Recovery (%)	Standard Deviation	Minimum Recovery (%)	Maximum Recovery (%)
<b>EPA8021B</b>					
p-Bromofluorobenzene	40/143	107	11.3	78.0	138
<b>EPA8081A</b>					
Decachlorobiphenyl	0/16	103	10.3	84.0	129
Tetrachloro-m-xylene	0/16	60.4	14.0	49.0	96.0
<b>EPA8082</b>					
Decachlorobiphenyl	0/33	110	10.4	95.0	125
Tetrachloro-m-xylene	0/33	67.8	12.7	46.0	96.0
<b>EPA8151A</b>					
2,4-Dichlorophenylacetic acid	0/19	87.0	16.8	60.0	107
<b>EPA8260B</b>					
p-Bromofluorobenzene	0/434	101	5.79	84.0	125
1,2-Dichloroethane-d4	0/433	103	10.4	78.0	133
Toluene-d8	0/434	101	4.76	88.0	120
<b>EPA8270C</b>					
2-Fluorobiphenyl	5/26	54.6	21.0	14.0	101
2-Fluorophenol	4/26	46.6	22.2	10.0	103
Nitrobenzene-d5	5/26	55.0	24.4	11.0	109
Phenol-d5	1/26	52.0	22.0	12.0	104
p-Terphenyl-d14	0/26	78.9	16.2	54.0	117
2,4,6-Tribromophenol (surr)	0/26	70.0	34.9	20.0	161

† Number of batches qualified that exhibit poor surrogate recovery due to interference compared to the total number of batches containing surrogates.

**Table 47. Surrogate Recoveries for GE**

Analyte	Qualified Out of Range†	Mean Recovery (%)	Standard Deviation	Minimum Recovery (%)	Maximum Recovery (%)
<b>EPA8081A</b>					
Decachlorobiphenyl	0/12	99.0	8.34	82.4	110
Tetrachloro-m-xylene	0/12	92.9	7.56	79.4	108
<b>EPA8082</b>					
Decachlorobiphenyl	0/13	100	10.6	80.5	114
Tetrachloro-m-xylene	0/13	80.2	6.93	68.5	96.0
<b>EPA8260B</b>					
p-Bromofluorobenzene	341/622	96.4	32.6	63.6	776
Dibromofluoromethane	182/622	93.2	27.8	71.4	750
Toluene-d8	419/622	94.3	32.5	69.1	810
<b>EPA8270C</b>					
2-Fluorobiphenyl	7/391	65.2	10.4	7.12	89.4
2-Fluorophenol	0/12	32.8	6.73	15.5	39.8

**Quality Control Samples**



Analyte	Qualified Out of Range†	Mean Recovery (%)	Standard Deviation	Minimum Recovery (%)	Maximum Recovery (%)
Nitrobenzene-d5	3/391	59.8	10.2	6.64	81.8
Phenol-d6	0/12	25.0	4.55	17.4	33.0
p-Terphenyl-d14	6/391	61.0	16.9	8.40	108
2,4,6-Tribromophenol (surr)	0/12	55.8	11.0	31.0	78.1

† Number of batches qualified that exhibit poor surrogate recovery due to interference compared to the total number of batches containing surrogates.

**Table 48. Surrogate Recoveries for WA**

Analyte	Qualified Out of Range†	Mean Recovery (%)	Standard Deviation	Minimum Recovery (%)	Maximum Recovery (%)
<b>EPA8010</b>					
Bromochloromethane	3/79	95.1	15.4	4.62	135
<b>EPA8021B</b>					
Bromochloromethane	0/83	103	8.84	75.3	116
<b>EPA8081A</b>					
Decachlorobiphenyl	0/102	104	28.4	29.0	260
Tetrachloro-m-xylene	0/102	77.5	25.2	12.5	185
<b>EPA8082</b>					
Decachlorobiphenyl	0/58	99.8	32.9	27.0	293
Tetrachloro-m-xylene	0/56	75.5	33.7	10.0	282
<b>EPA8141A</b>					
TPP	0/50	77.7	37.3	7.0	162
Tributyl phosphate	0/50	88.8	39.0	11.0	202
<b>EPA8151A</b>					
2,4-Dichlorophenylacetic acid	7/73	91.7	16.6	46.3	124
<b>EPA8260B</b>					
p-Bromofluorobenzene	1/399	97.2	5.28	87.0	116
1,2-Dichloroethane-d4	1/399	97.4	8.37	76.0	115
Toluene-d8	2/399	99.8	3.75	88.0	112
<b>EPA8270C</b>					
2-Fluorobiphenyl	4/93	58.4	13.6	9.36	83.6
2-Fluorophenol	0/105	57.4	14.0	4.73	78.8
Nitrobenzene-d5	2/93	62.1	14.6	6.67	84.1
Phenol-d5	0/105	50.3	17.5	5.19	86.6
p-Terphenyl-d14	1/93	69.5	18.7	12.2	102
2,4,6-Tribromophenol (surr)	0/105	65.2	18.3	6.44	103
<b>EPA8280A</b>					
Carbon 13-labeled 1,2,3,6,7,8- HxCDD	0/26	86.5	14.4	66.0	114
Carbon 13-labeled 2,3,7,8- TCDD	0/28	79.1	6.36	67.0	89.0
Carbon 13-labeled 2,3,7,8- TCDF	0/26	76.0	5.91	62.0	85.0
Carbon 13-labeled HPCDF	0/26	81.8	14.1	50.0	107

† Number of batches qualified that exhibit poor surrogate recovery due to interference compared to the total number of batches containing surrogates.

### Quality Control Samples



**Table 49. Matrix Spike Recoveries for EX**

Analyte	Qualified Out of Range†	Mean Recovery (%)	Standard Deviation	Bias (%)	Minimum Recovery (%)	Maximum Recovery (%)
<b>EPA300.0</b>						
Chloride	0/2	95.0	4.24	-5.0	92.0	98.0
Fluoride	0/2	103	16.3	3.0	91.0	114
Nitrate as nitrogen	0/16	96.0	12.3	-4.0	54.0	108
Nitrate-nitrite as nitrogen	0/3	105	8.08	5.0	100	114
Sulfate	0/2	92.5	3.54	-7.50	90.0	95.0
Total phosphates (as P)	0/1	100	—	0.0	100	100
<b>EPA6010B</b>						
Aluminum	0/62	104	5.05	4.0	96.0	114
Arsenic	0/6	103	3.25	3.0	100	108
Barium	0/44	104	4.70	4.0	96.0	113
Boron	0/20	106	8.27	6.0	94.0	124
Cadmium	0/6	106	4.68	6.0	100	113
Chromium	0/6	105	4.22	5.0	101	111
Iron	0/62	105	5.67	5.0	97.0	119
Lead	0/60	106	6.24	6.0	96.0	119
Manganese	0/22	104	7.28	4.0	94.0	115
Nickel	0/36	104	5.44	4.0	95.0	116
Selenium	0/36	101	9.92	1.0	80.0	116
Silver	0/6	106	4.67	6.0	100	113
<b>EPA7470A</b>						
Mercury	0/14	97.1	7.10	-2.90	82.0	108
<b>EPA8021B</b>						
Carbon tetrachloride	0/24	110	10.4	10.0	82.0	125
Chloroform	0/24	113	10.1	13.0	87.0	124
cis-1,2-Dichloroethylene	0/24	107	12.1	7.0	76.0	122
Tetrachloroethylene	0/24	114	13.8	14.0	88.0	141
1,1,1-Trichloroethane	0/24	110	9.38	10.0	90.0	123
Trichloroethylene	0/24	95.7	17.1	-4.30	71.0	125
<b>EPA8082</b>						
PCB 1260	0/4	108	10.4	8.0	95.0	117
<b>EPA8151A</b>						
2,4-Dichlorophenoxyacetic acid	0/2	99.5	0.71	-0.50	99.0	100
<b>EPA8260B</b>						
Benzene	0/46	101	6.51	1.0	92.0	117
Chlorobenzene	0/46	98.8	6.92	-1.20	83.0	109
1,1-Dichloroethylene	0/46	98.9	8.42	-1.10	78.0	118
Toluene	0/46	99.1	6.43	-0.90	86.0	112
Trichloroethylene	0/46	96.7	9.10	-3.30	69.0	116
<b>EPA9014</b>						
Cyanide	0/46	89.1	23.5	-10.9	1.0	103

† Number of batches qualified that exhibit poor spike recovery due to interference compared to the total number of batches containing spikes.

— Standard deviation cannot be determined.

Note: A value of 0 is reported as 0.0.

### Quality Control Samples



**Table 50. Matrix Spike Recoveries for GE**

<i>Analyte</i>	<i>Qualified Out of Range†</i>	<i>Mean Recovery (%)</i>	<i>Standard Deviation</i>	<i>Bias (%)</i>	<i>Minimum Recovery (%)</i>	<i>Maximum Recovery (%)</i>
<b>EPA353.1</b>						
Nitrate-nitrite as nitrogen	0/31	101	7.93	1.0	72.0	114
<b>EPA6010B</b>						
Aluminum	0/28	64.2	83.8	-35.8	-163	106
Antimony	0/6	101	5.48	1.0	92.5	105
Arsenic	0/28	102	4.61	2.0	90.8	110
Barium	0/28	98.2	4.31	-1.80	90.3	104
Beryllium	0/2	92.6	1.13	-7.40	91.8	93.4
Cadmium	0/28	101	5.47	1.0	90.6	110
Calcium	0/2	94.7	1.63	-5.30	93.5	95.8
Chromium	0/28	101	4.78	1.0	90.1	108
Cobalt	0/2	92.3	1.06	-7.70	91.5	93.0
Copper	0/2	90.9	1.20	-9.10	90.0	91.7
Iron	0/30	97.3	29.8	-2.70	-43.0	144
Lead	0/28	104	5.99	4.0	90.9	115
Magnesium	0/2	93.6	1.48	-6.40	92.5	94.6
Manganese	0/4	94.0	2.39	-6.0	91.4	96.9
Nickel	0/2	92.0	1.13	-8.0	91.2	92.8
Potassium	0/2	90.2	1.41	-9.80	89.2	91.2
Selenium	0/28	100	4.36	0.0	90.4	106
Silver	0/28	97.0	26.6	-3.0	3.51	110
Sodium	0/2	91.5	0.64	-8.50	91.0	91.9
Thallium	0/2	90.1	0.85	-9.90	89.5	90.7
Vanadium	0/2	92.1	1.13	-7.90	91.3	92.9
Zinc	0/2	92.7	1.77	-7.30	91.4	93.9
<b>EPA6020</b>						
Aluminum	0/36	102	172	2.0	-354	680
Antimony	0/36	94.2	8.79	-5.80	83.4	111
Arsenic	0/36	99.7	8.50	-0.30	69.9	109
Barium	0/36	91.7	9.15	-8.30	80.3	116
Beryllium	0/2	101	1.63	1.0	99.7	102
Cadmium	0/36	99.5	4.55	-0.50	82.0	105
Calcium	0/2	109	0.71	9.0	108	109
Chromium	0/36	90.1	7.79	-9.90	78.4	109
Cobalt	0/36	97.6	6.22	-2.40	79.4	107
Copper	0/36	99.2	7.77	-0.80	78.9	109
Iron	0/36	79.6	27.0	-20.4	-1.22	119
Lead	0/36	102	6.22	2.0	84.4	112
Magnesium	0/2	80.7	1.34	-19.3	79.7	81.6
Manganese	0/2	100	0.0	0.0	100	100
Nickel	0/36	97.9	7.02	-2.10	78.8	111
Potassium	0/2	89.3	1.48	-10.7	88.2	90.3
Selenium	0/36	101	9.11	1.0	71.5	114
Silver	0/44	92.5	27.8	-7.50	14.9	116
Sodium	0/2	108	2.83	8.0	106	110
Thallium	0/14	95.4	6.79	-4.60	84.0	105
Tin	0/24	82.1	26.9	-17.9	0.0	108
Vanadium	0/38	103	8.83	3.0	79.6	124
Zinc	0/36	93.3	8.97	-6.70	80.2	113
<b>EPA7470A</b>						
Mercury	0/60	101	10.1	1.0	86.1	130
<b>EPA8081A</b>						
Aldrin	0/2	108	3.54	8.0	105	110
p,p'-DDT	0/2	128	0.71	28.0	127	128

**Quality Control Samples**



<b>Analyte</b>	<b>Qualified Out of Range†</b>	<b>Mean Recovery (%)</b>	<b>Standard Deviation</b>	<b>Bias (%)</b>	<b>Minimum Recovery (%)</b>	<b>Maximum Recovery (%)</b>
Dieldrin	0/2	107	2.12	7.0	105	108
Endrin	0/2	135	1.41	35.0	134	136
Heptachlor	0/2	101	1.41	1.0	100	102
Lindane	0/2	102	1.41	2.0	101	103
<b>EPA8082</b>						
PCB 1260	0/2	86.9	12.9	-13.1	77.7	96.0
<b>EPA8260B</b>						
Benzene	0/56	102	6.06	2.0	83.4	114
Chlorobenzene	0/56	95.7	6.42	-4.30	83.9	114
1,1-Dichloroethylene	0/56	105	7.95	5.0	85.3	122
Toluene	0/56	94.0	6.97	-6.0	78.9	112
Trichloroethylene	0/56	96.2	7.42	-3.80	78.5	114
<b>EPA8270C</b>						
Acenaphthene	0/2	46.4	3.46	-53.6	43.9	48.8
4-Chloro-m-cresol	0/2	52.2	4.88	-47.8	48.7	55.6
2-Chlorophenol	0/2	42.6	1.98	-57.4	41.2	44.0
1,4-Dichlorobenzene	0/2	43.0	2.12	-57.0	41.5	44.5
2,4-Dinitrotoluene	0/2	56.3	4.95	-43.7	52.8	59.8
4-Nitrophenol	0/2	37.4	2.19	-62.6	35.8	38.9
N-Nitrosodipropylamine	0/2	53.8	3.18	-46.2	51.5	56.0
Pentachlorophenol	0/2	62.9	5.16	-37.1	59.2	66.5
Phenol	0/2	29.4	1.34	-70.6	28.4	30.3
Pyrene	0/2	68.7	2.33	-31.3	67.0	70.3
1,2,4-Trichlorobenzene	0/2	45.5	2.47	-54.5	43.7	47.2
<b>EPA9012A</b>						
Cyanide	0/32	90.8	13.8	-9.20	55.0	129
<b>EPA9020B</b>						
Total organic halogens	0/1	125	—	25.0	125	125
<b>EPA9030</b>						
Sulfide	0/1	59.0	—	-41.0	59.0	59.0
<b>EPA9056</b>						
Nitrite as nitrogen	0/2	98.2	3.96	-1.80	95.4	101
<b>EPA9066</b>						
Phenols	0/14	95.2	6.68	-4.80	81.9	105

† Number of batches qualified that exhibit poor spike recovery due to interference compared to the total number of batches containing spikes.

— Standard deviation cannot be determined.

Note: A value of 0 is reported as 0.0.

### Quality Control Samples



**Table 51. Matrix Spike Recoveries for WA**

Analyte	Qualified Out of Range†	Mean Recovery (%)	Standard Deviation	Bias (%)	Minimum Recovery (%)	Maximum Recovery (%)
<b>EPA310.1</b>						
Alkalinity (as CaCO <sub>3</sub> )	0/1	101	—	1.0	101	101
<b>EPA340.2</b>						
Fluoride	0/9	91.6	11.5	-8.40	72.2	109
<b>EPA353.2</b>						
Nitrate as nitrogen	0/3	105	4.16	5.0	100	108
Nitrate-nitrite as nitrogen	0/12	101	3.85	1.0	92.4	107
Nitrite as nitrogen	0/1	105	—	5.0	105	105
<b>EPA365.2</b>						
Total phosphates (as P)	0/8	105	4.71	5.0	97.6	111
<b>EPA6010B</b>						
Aluminum	0/50	104	4.37	4.0	98.8	126
Antimony	0/22	101	2.30	1.0	97.2	104
Arsenic	0/48	102	2.44	2.0	94.5	108
Barium	0/44	99.3	2.88	-0.70	92.5	108
Beryllium	0/12	101	2.29	1.0	96.8	103
Boron	0/16	97.5	3.05	-2.50	89.2	101
Cadmium	0/39	99.8	2.49	-0.20	94.4	104
Calcium	0/21	101	2.79	1.0	95.2	105
Chromium	0/46	101	2.44	1.0	95.2	107
Cobalt	0/20	99.7	1.85	-0.30	96.2	103
Copper	0/22	99.7	1.95	-0.30	96.3	103
Iron	0/52	102	6.05	2.0	92.0	129
Lead	0/49	101	2.78	1.0	93.6	107
Lithium	0/16	107	3.54	7.0	100	113
Magnesium	0/19	102	2.79	2.0	95.6	106
Manganese	0/31	102	2.83	2.0	95.9	107
Nickel	0/29	100	2.84	0.0	93.5	105
Potassium	0/19	104	3.46	4.0	97.5	110
Selenium	0/46	103	3.03	3.0	95.6	112
Silica	0/16	121	31.2	21.0	97.3	213
Silver	0/44	99.6	3.36	-0.40	91.2	110
Sodium	0/32	96.3	3.81	-3.70	81.6	100
Thallium	0/16	102	1.48	2.0	100	105
Tin	0/14	99.2	1.88	-0.80	96.0	102
Vanadium	0/20	102	2.72	2.0	98.8	108
Zinc	0/22	99.2	1.26	-0.80	97.0	102
<b>EPA7470A</b>						
Mercury	0/24	92.2	13.3	-7.80	51.4	104
<b>EPA8010</b>						
Carbon tetrachloride	0/7	102	10.6	2.0	87.6	121
Chloroform	0/7	103	9.62	3.0	91.8	122
cis-1,2-Dichloroethylene	0/7	100	14.2	0.0	80.9	128
1,1,1-Trichloroethane	0/7	104	11.1	4.0	88.8	125
Trichloroethylene	0/7	99.8	15.9	-0.20	75.0	127
<b>EPA8021B</b>						
Carbon tetrachloride	0/9	97.1	7.54	-2.90	81.4	105
Chloroform	0/9	97.8	6.31	-2.20	83.4	105
cis-1,2-Dichloroethylene	0/1	91.1	—	-8.90	91.1	91.1
1,1,1-Trichloroethane	0/9	95.4	6.64	-4.60	80.6	103
Trichloroethylene	0/9	88.1	16.1	-11.9	51.7	102

**Quality Control Samples**



Analyte	Qualified Out of Range†	Mean Recovery (%)	Standard Deviation	Bias (%)	Minimum Recovery (%)	Maximum Recovery (%)
<b>EPA8081A</b>						
Aldrin	0/4	78.8	10.3	-21.2	70.0	90.0
p,p'-DDT	0/4	92.0	11.8	-8.0	80.0	104
Dieldrin	0/4	91.0	8.87	-9.0	80.0	100
Endrin	0/4	105	11.5	5.0	98.0	122
Heptachlor	0/4	85.0	9.17	-15.0	75.0	95.1
Lindane	0/9	78.8	23.9	-21.2	19.2	100
<b>EPA8082</b>						
PCB 1016	0/0		—			
PCB 1221	0/0		—			
PCB 1232	0/0		—			
PCB 1242	0/0		—			
PCB 1248	0/0		—			
PCB 1254	0/7	83.8	8.61	-16.2	67.2	92.5
PCB 1260	0/0		—			
<b>EPA8141A</b>						
Dimethoate	0/6	81.0	8.09	-19.0	74.5	96.0
Disulfoton	0/6	88.4	11.1	-11.6	74.5	106
Famphur	0/6	108	10.8	8.0	97.0	128
Parathion	0/2	90.0	9.19	-10.0	83.5	96.5
Parathion ethyl	0/4	89.9	9.28	-10.1	79.0	99.0
Parathion methyl	0/6	97.3	11.3	-2.70	82.0	114
Phorate	0/6	91.0	12.2	-9.0	78.0	111
Sulfotepp	0/6	82.8	11.4	-17.2	70.5	104
Thionazin	0/6	95.1	11.7	-4.90	80.5	113
O,O,O-Triethyl phosphorothioate	0/6	125	26.4	25.0	86.5	150
<b>EPA8151A</b>						
2,4-Dichlorophenoxyacetic acid	0/8	87.5	25.0	-12.5	42.8	121
2,4,5-T	0/4	109	13.5	9.0	90.8	122
2,4,5-TP (Silvex)	0/4	87.2	11.5	-12.8	71.6	96.4
<b>EPA8260B</b>						
Benzene	0/15	98.3	6.86	-1.70	88.1	110
Chlorobenzene	0/15	96.8	6.97	-3.20	87.1	110
1,1-Dichloroethylene	0/15	93.0	6.32	-7.0	80.9	103
1,2-Dichloroethylene	0/1	103	—	3.0	103	103
cis-1,2-Dichloroethylene	0/7	97.6	7.46	-2.40	83.2	105
Tetrachloroethylene	0/16	98.6	10.0	-1.40	75.4	124
Toluene	0/15	98.8	7.41	-1.20	85.3	111
Trichloroethylene	0/15	90.0	9.15	-10.0	65.0	102
<b>EPA8270C</b>						
Acenaphthene	0/9	56.0	16.5	-44.0	22.0	80.2
Bis(2-ethylhexyl) phthalate	0/5	74.5	12.9	-25.5	53.4	88.2
4-Chloro-m-cresol	0/9	52.6	16.0	-47.4	14.8	72.2
2-Chlorophenol	0/9	56.0	15.6	-44.0	22.0	77.6
1,4-Dichlorobenzene	0/9	44.5	14.3	-55.5	19.4	66.5
2,4-Dinitrotoluene	0/9	66.0	21.3	-34.0	15.3	86.2
4-Nitrophenol	0/9	47.8	16.4	-52.2	11.8	68.2
N-Nitrosodipropylamine	0/9	63.5	17.7	-36.5	24.3	84.1
Pentachlorophenol	0/9	59.7	22.0	-40.3	8.74	90.4
Phenol	0/16	59.9	13.7	-40.1	17.8	78.0
Pyrene	0/9	61.4	18.0	-38.6	21.3	85.3
1,2,4-Trichlorobenzene	0/9	49.9	17.1	-50.1	13.2	72.8

### Quality Control Samples



<i>Analyte</i>	<i>Qualified Out of Range†</i>	<i>Mean Recovery (%)</i>	<i>Standard Deviation</i>	<i>Bias (%)</i>	<i>Minimum Recovery (%)</i>	<i>Maximum Recovery (%)</i>
<b>EPA8280A</b>						
Hexachlorodibenzo-p-dioxins	0/5	96.0	6.16	-4.0	91.0	106
Hexachlorodibenzo-p-furans	0/5	95.2	5.85	-4.80	85.0	99.0
Pentachlorodibenzo-p-furans	0/10	103	8.52	3.0	93.0	115
2,3,7,8-TCDD	0/5	104	4.30	4.0	100	111
Tetrachlorodibenzo-p-dioxins	0/5	104	4.30	4.0	100	111
Tetrachlorodibenzo-p-furans	0/5	94.6	1.67	-5.40	92.0	96.0
<b>EPA9014</b>						
Cyanide	0/10	94.1	5.85	-5.90	83.3	103
<b>EPA9020B</b>						
Total organic halogens	0/12	105	6.29	5.0	89.5	115
<b>EPA9030B</b>						
Sulfide	0/4	99.2	0.76	-0.80	98.2	100
<b>EPA9056</b>						
Chloride	0/9	98.5	7.72	-1.50	82.4	109
Sulfate	0/10	97.1	9.08	-2.90	77.0	109
<b>EPA9060</b>						
Total organic carbon	0/7	109	7.04	9.0	99.6	118
<b>EPA9066</b>						
Phenols	0/2	98.0	0.71	-2.0	97.5	98.5

† Number of batches qualified that exhibit poor spike recovery due to interference compared to the total number of batches containing spikes.

— Standard deviation cannot be determined.

Note: A value of 0 is reported as 0.0.

**Table 52. Matrix Spike Recoveries for GP**

<i>Analyte</i>	<i>Qualified Out of Range†</i>	<i>Mean Recovery (%)</i>	<i>Standard Deviation</i>	<i>Bias (%)</i>	<i>Minimum Recovery (%)</i>	<i>Maximum Recovery (%)</i>
<b>EPIA-001</b>						
Gross alpha	0/34	94.2	10.1	-5.80	79.4	120
Nonvolatile beta	0/32	92.0	65.0	-8.0	-214	229
<b>EPIA-002</b>						
Tritium	0/27	258	867	158	-308	4,560
<b>EPIA-003</b>						
Carbon-14	0/21	93.9	7.25	-6.10	75.3	103
<b>EPIA-004</b>						
Strontium-89/90	0/5	96.8	15.5	-3.20	79.1	118
Strontium-90	0/21	108	33.8	8.0	84.7	246
<b>EPIA-005</b>						

### Quality Control Samples



Analyte	Qualified Out of Range†	Mean Recovery (%)	Standard Deviation	Bias (%)	Minimum Recovery (%)	Maximum Recovery (%)
Technetium-99	0/23	108	6.22	8.0	96.2	119
<b>EPIA-006</b>						
Iodine-129	0/20	107	8.51	7.0	85.2	119
<b>EPIA-008</b>						
Radium-226	0/28	104	9.38	4.0	79.7	119
<b>EPIA-009</b>						
Radium-228	0/25	98.5	13.8	-1.50	75.6	120
<b>EPIA-010</b>						
Radium, total alpha-emitting	0/4	83.4	8.83	-16.6	75.7	94.0
<b>EPIA-011</b>						
Americium-241	0/30	96.2	10.2	-3.80	75.7	114
Curium-243/244	0/30	98.7	10.9	-1.30	75.1	118
Plutonium-238	0/3	0.0	0.0	-100	0.0	0.0
Plutonium-239/240	0/27	92.8	8.73	-7.20	78.6	109
Uranium-238	0/30	85.3	41.7	-14.7	-69.1	114
<b>EPIA-012</b>						
Thorium-232	0/26	93.9	11.5	-6.10	75.9	118
<b>EPIA-013</b>						
Cesium-134	0/19	87.6	8.11	-12.4	75.6	106
Cesium-137	0/8	77.6	48.2	-22.4	0.0	112
<b>EPIA-022</b>						
Nickel-63	0/11	99.7	7.02	-0.30	86.8	110

† Number of batches qualified that exhibit poor spike recovery due to interference compared to the total number of batches containing spikes.

Note: A value of 0 is reported as 0.0.

**Table 53. Analytes Detected in Method Blanks for EX**

Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>AP-3086</b>				
Total organic carbon	0/1	5,000	—	5,000/5,000 µg/L
<b>EPA300.0</b>				
Chloride	0/5	200	0.0	200/200 µg/L
Fluoride	0/5	100	0.0	100/100 µg/L
Nitrate as nitrogen	0/11	100	0.0	100/100 µg/L
Nitrate-nitrite as nitrogen	0/6	100	0.0	100/100 µg/L
Sulfate	0/5	200	0.0	200/200 µg/L
Total phosphates (as P)	0/5	500	0.0	500/500 µg/L
<b>EPA6010B</b>				
Aluminum	0/33	200	0.0	200/200 µg/L
Arsenic	0/7	100	0.0	100/100 µg/L
Barium	0/24	10.0	0.0	10.0/10.0 µg/L
Boron	1/11	91.9	26.8	11.0/100 µg/L

### Quality Control Samples



<b>Analyte</b>	<b>Frequency of Detection†</b>	<b>Mean Result</b>	<b>Standard Deviation</b>	<b>Minimum/Maximum Results</b>
Cadmium	0/3	10.0	0.0	10.0/10.0 µg/L
Chromium	1/6	9.16	2.07	4.93/10.0 µg/L
Iron	8/32	152	83.9	4.19/200 µg/L
Lead	2/32	96.4	14.4	41.2/100 µg/L
Manganese	0/12	10.0	0.0	10.0/10.0 µg/L
Nickel	0/22	50.0	0.0	50.0/50.0 µg/L
Selenium	1/23	166	68.9	10.0/200 µg/L
Silver	0/6	20.0	0.0	20.0/20.0 µg/L
Sodium	0/3	1,000	0.0	1,000/1,000 µg/L
<b>EPA7470A</b>				
Mercury	0/16	0.50	0.0	0.50/0.50 µg/L
<b>EPA7841</b>				
Thallium	0/1	2.0	—	2.0/2.0 µg/L
<b>EPA8021B</b>				
Carbon tetrachloride	0/10	1.0	0.0	1.0/1.0 µg/L
Chloroform	0/10	1.0	0.0	1.0/1.0 µg/L
cis-1,2-Dichloroethylene	0/10	1.0	0.0	1.0/1.0 µg/L
Tetrachloroethylene	0/10	1.0	0.0	1.0/1.0 µg/L
1,1,1-Trichloroethane	0/10	1.0	0.0	1.0/1.0 µg/L
Trichloroethylene	0/10	1.0	0.0	1.0/1.0 µg/L
<b>EPA8081A</b>				
Lindane	0/3	0.10	0.0	0.10/0.10 µg/L
<b>EPA8082</b>				
PCB 1016	0/7	2.0	0.0	2.0/2.0 µg/L
PCB 1221	0/6	2.0	0.0	2.0/2.0 µg/L
PCB 1232	0/6	1.0	0.0	1.0/1.0 µg/L
PCB 1242	0/6	1.0	0.0	1.0/1.0 µg/L
PCB 1248	0/6	1.0	0.0	1.0/1.0 µg/L
PCB 1254	0/6	1.0	0.0	1.0/1.0 µg/L
PCB 1260	0/6	1.0	0.0	1.0/1.0 µg/L
<b>EPA8151A</b>				
2,4-Dichlorophenoxyacetic acid	0/3	0.20	0.0	0.20/0.20 µg/L
<b>EPA8260B</b>				
Acetone	0/8	10.0	0.0	10.0/10.0 µg/L
Acetonitrile	0/8	500	0.0	500/500 µg/L
Acrolein	0/8	50.0	0.0	50.0/50.0 µg/L
Acrylonitrile	0/8	50.0	0.0	50.0/50.0 µg/L
Allyl chloride	0/8	10.0	0.0	10.0/10.0 µg/L
Benzene	0/33	5.0	0.0	5.0/5.0 µg/L
Bromodichloromethane	0/33	5.0	0.0	5.0/5.0 µg/L
Bromoform	0/33	5.0	0.0	5.0/5.0 µg/L
Bromomethane	0/33	5.0	0.0	5.0/5.0 µg/L
Carbon disulfide	0/8	5.0	0.0	5.0/5.0 µg/L
Carbon tetrachloride	0/33	5.0	0.0	5.0/5.0 µg/L
Chlorobenzene	0/33	5.0	0.0	5.0/5.0 µg/L
Chloroethane	0/33	10.0	0.0	10.0/10.0 µg/L
Chloroethene	0/33	5.0	0.0	5.0/5.0 µg/L
2-Chloroethyl vinyl ether	0/25	5.0	0.0	5.0/5.0 µg/L
Chloroform	0/33	5.0	0.0	5.0/5.0 µg/L
Chloromethane	0/33	5.0	0.0	5.0/5.0 µg/L
Chloroprene	0/8	50.0	0.0	50.0/50.0 µg/L
Dibromochloromethane	0/33	5.0	0.0	5.0/5.0 µg/L
1,2-Dibromo-3-chloropropane	0/8	5.0	0.0	5.0/5.0 µg/L
1,2-Dibromoethane	0/8	5.0	0.0	5.0/5.0 µg/L

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
Dibromomethane	0/8	5.0	0.0	5.0/5.0 µg/L
1,2-Dichlorobenzene	0/8	5.0	0.0	5.0/5.0 µg/L
1,3-Dichlorobenzene	0/8	5.0	0.0	5.0/5.0 µg/L
1,4-Dichlorobenzene	0/8	5.0	0.0	5.0/5.0 µg/L
trans-1,4-Dichloro-2-butene	0/8	20.0	0.0	20.0/20.0 µg/L
Dichlorodifluoromethane	0/8	5.0	0.0	5.0/5.0 µg/L
1,1-Dichloroethane	0/33	5.0	0.0	5.0/5.0 µg/L
1,2-Dichloroethane	0/33	5.0	0.0	5.0/5.0 µg/L
1,1-Dichloroethylene	0/33	5.0	0.0	5.0/5.0 µg/L
cis-1,2-Dichloroethylene	0/8	5.0	0.0	5.0/5.0 µg/L
trans-1,2-Dichloroethylene	0/33	5.0	0.0	5.0/5.0 µg/L
Dichloromethane	2/33	5.03	0.18	5.0/6.01 µg/L
1,2-Dichloropropane	0/33	5.0	0.0	5.0/5.0 µg/L
cis-1,3-Dichloropropene	0/33	5.0	0.0	5.0/5.0 µg/L
trans-1,3-Dichloropropene	0/33	5.0	0.0	5.0/5.0 µg/L
1,4-Dioxane	0/8	1,000	0.0	1,000/1,000 µg/L
Ethyl methacrylate	0/8	5.0	0.0	5.0/5.0 µg/L
Ethylbenzene	0/33	5.0	0.0	5.0/5.0 µg/L
2-Hexanone	0/8	5.0	0.0	5.0/5.0 µg/L
Iodomethane	0/8	5.0	0.0	5.0/5.0 µg/L
Isobutyl alcohol	0/8	1,500	0.0	1,500/1,500 µg/L
Methacrylonitrile	0/8	500	0.0	500/500 µg/L
Methyl ethyl ketone	0/8	10.0	0.0	10.0/10.0 µg/L
Methyl isobutyl ketone	0/8	5.0	0.0	5.0/5.0 µg/L
Methyl methacrylate	0/8	50.0	0.0	50.0/50.0 µg/L
Pentachloroethane	0/8	200	0.0	200/200 µg/L
Propionitrile	0/8	500	0.0	500/500 µg/L
Styrene	0/8	5.0	0.0	5.0/5.0 µg/L
1,1,1,2-Tetrachloroethane	0/10	5.0	0.0	5.0/5.0 µg/L
1,1,2,2-Tetrachloroethane	0/33	5.0	0.0	5.0/5.0 µg/L
Tetrachloroethylene	0/33	5.0	0.0	5.0/5.0 µg/L
Toluene	0/33	5.0	0.0	5.0/5.0 µg/L
1,1,1-Trichloroethane	0/38	5.0	0.0	5.0/5.0 µg/L
1,1,2-Trichloroethane	0/33	5.0	0.0	5.0/5.0 µg/L
Trichloroethylene	0/33	5.0	0.0	5.0/5.0 µg/L
Trichlorofluoromethane	0/33	5.0	0.0	5.0/5.0 µg/L
1,2,3-Trichloropropane	0/8	5.0	0.0	5.0/5.0 µg/L
Vinyl acetate	0/8	20.0	0.0	20.0/20.0 µg/L
Xylenes	0/8	10.0	0.0	10.0/10.0 µg/L
<b>EPA8270C</b>				
Acenaphthene	0/2	10.0	0.0	10.0/10.0 µg/L
Acenaphthylene	0/2	10.0	0.0	10.0/10.0 µg/L
Acetophenone	0/2	10.0	0.0	10.0/10.0 µg/L
2-Acetylaminofluorene	0/2	10.0	0.0	10.0/10.0 µg/L
4-Aminobiphenyl	0/2	10.0	0.0	10.0/10.0 µg/L
Aniline	0/2	25.0	0.0	25.0/25.0 µg/L
Anthracene	0/2	10.0	0.0	10.0/10.0 µg/L
Aramite	0/2	10.0	0.0	10.0/10.0 µg/L
Benzo[a]anthracene	0/2	10.0	0.0	10.0/10.0 µg/L
Benzo[b]fluoranthene	0/2	10.0	0.0	10.0/10.0 µg/L
Benzo[k]fluoranthene	0/2	10.0	0.0	10.0/10.0 µg/L
Benzo[g,h,i]perylene	0/2	10.0	0.0	10.0/10.0 µg/L
Benzo[a]pyrene	0/2	10.0	0.0	10.0/10.0 µg/L
Benzyl alcohol	0/2	10.0	0.0	10.0/10.0 µg/L
Bis(2-chloroethoxy) methane	0/2	10.0	0.0	10.0/10.0 µg/L
Bis(2-chloroethyl) ether	0/2	10.0	0.0	10.0/10.0 µg/L
Bis(2-chloroisopropyl) ether	0/2	10.0	0.0	10.0/10.0 µg/L
Bis(2-ethylhexyl) phthalate	1/2	11.2	1.63	10.0/12.3 µg/L
4-Bromophenyl phenyl ether	0/2	10.0	0.0	10.0/10.0 µg/L
Butylbenzyl phthalate	0/2	10.0	0.0	10.0/10.0 µg/L

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
2-sec-Butyl-4,6-dinitrophenol	0/2	10.0	0.0	10.0/10.0 µg/L
4-Chloroaniline	0/2	10.0	0.0	10.0/10.0 µg/L
Chlorobenzilate	0/2	10.0	0.0	10.0/10.0 µg/L
4-Chloro-m-cresol	0/2	10.0	0.0	10.0/10.0 µg/L
2-Chloronaphthalene	0/2	10.0	0.0	10.0/10.0 µg/L
2-Chlorophenol	0/2	10.0	0.0	10.0/10.0 µg/L
4-Chlorophenyl phenyl ether	0/2	10.0	0.0	10.0/10.0 µg/L
Chrysene	0/2	10.0	0.0	10.0/10.0 µg/L
m/p-Cresol	0/4	15.0	5.77	10.0/20.0 µg/L
o-Cresol	0/2	10.0	0.0	10.0/10.0 µg/L
Diallate	0/2	10.0	0.0	10.0/10.0 µg/L
Dibenz[a,h]anthracene	0/2	10.0	0.0	10.0/10.0 µg/L
Dibenzofuran	0/2	10.0	0.0	10.0/10.0 µg/L
Di-n-butyl phthalate	0/2	10.0	0.0	10.0/10.0 µg/L
3,3'-Dichlorobenzidine	0/2	10.0	0.0	10.0/10.0 µg/L
2,4-Dichlorophenol	0/2	10.0	0.0	10.0/10.0 µg/L
2,6-Dichlorophenol	0/2	10.0	0.0	10.0/10.0 µg/L
Diethyl phthalate	0/2	10.0	0.0	10.0/10.0 µg/L
Dimethoate	0/2	10.0	0.0	10.0/10.0 µg/L
2,4-Dimethyl phenol	0/2	10.0	0.0	10.0/10.0 µg/L
Dimethyl phthalate	0/2	10.0	0.0	10.0/10.0 µg/L
p-Dimethylaminoazobenzene	0/2	10.0	0.0	10.0/10.0 µg/L
7,12-Dimethylbenz[a]anthracene	0/2	10.0	0.0	10.0/10.0 µg/L
3,3'-Dimethylbenzidine	0/2	20.0	0.0	20.0/20.0 µg/L
a,a-Dimethylphenethylamine	0/2	10.0	0.0	10.0/10.0 µg/L
1,3-Dinitrobenzene	0/2	10.0	0.0	10.0/10.0 µg/L
2,4-Dinitrophenol	0/2	25.0	0.0	25.0/25.0 µg/L
2,4-Dinitrotoluene	0/2	10.0	0.0	10.0/10.0 µg/L
2,6-Dinitrotoluene	0/2	10.0	0.0	10.0/10.0 µg/L
Di-n-octyl phthalate	0/2	10.0	0.0	10.0/10.0 µg/L
Diphenylamine	0/2	10.0	0.0	10.0/10.0 µg/L
Disulfoton	0/2	10.0	0.0	10.0/10.0 µg/L
Ethyl methanesulfonate	0/2	10.0	0.0	10.0/10.0 µg/L
Fluoranthene	0/2	10.0	0.0	10.0/10.0 µg/L
Fluorene	0/2	10.0	0.0	10.0/10.0 µg/L
Hexachlorobenzene	0/2	10.0	0.0	10.0/10.0 µg/L
Hexachlorobutadiene	0/2	10.0	0.0	10.0/10.0 µg/L
Hexachlorocyclopentadiene	0/2	10.0	0.0	10.0/10.0 µg/L
Hexachloroethane	0/2	10.0	0.0	10.0/10.0 µg/L
Indeno[1,2,3-c,d]pyrene	0/2	10.0	0.0	10.0/10.0 µg/L
Isodrin	0/2	10.0	0.0	10.0/10.0 µg/L
Isophorone	0/2	10.0	0.0	10.0/10.0 µg/L
Isosafrole	0/2	10.0	0.0	10.0/10.0 µg/L
Kepone	0/2	10.0	0.0	10.0/10.0 µg/L
Methapyrilene	0/2	10.0	0.0	10.0/10.0 µg/L
2-Methyl-4,6-dinitrophenol	0/2	25.0	0.0	25.0/25.0 µg/L
Methyl methanesulfonate	0/2	10.0	0.0	10.0/10.0 µg/L
3-Methylcholanthrene	0/2	10.0	0.0	10.0/10.0 µg/L
2-Methylnaphthalene	0/2	10.0	0.0	10.0/10.0 µg/L
Naphthalene	0/2	10.0	0.0	10.0/10.0 µg/L
1,4-Naphthoquinone	0/2	10.0	0.0	10.0/10.0 µg/L
1-Naphthylamine	0/2	10.0	0.0	10.0/10.0 µg/L
2-Naphthylamine	0/2	10.0	0.0	10.0/10.0 µg/L
m-Nitroaniline	0/2	25.0	0.0	25.0/25.0 µg/L
o-Nitroaniline	0/2	25.0	0.0	25.0/25.0 µg/L
p-Nitroaniline	0/2	10.0	0.0	10.0/10.0 µg/L
Nitrobenzene	0/2	10.0	0.0	10.0/10.0 µg/L
2-Nitrophenol	0/2	10.0	0.0	10.0/10.0 µg/L
4-Nitrophenol	0/2	25.0	0.0	25.0/25.0 µg/L
4-Nitroquinoline-1-oxide	0/2	50.0	0.0	50.0/50.0 µg/L
N-Nitrosodi-n-butylamine	0/2	10.0	0.0	10.0/10.0 µg/L

### Quality Control Samples



<b>Analyte</b>	<b>Frequency of Detection†</b>	<b>Mean Result</b>	<b>Standard Deviation</b>	<b>Minimum/Maximum Results</b>
N-Nitrosodiethylamine	0/2	10.0	0.0	10.0/10.0 µg/L
N-Nitrosodimethylamine	0/2	25.0	0.0	25.0/25.0 µg/L
N-Nitrosodiphenylamine	0/2	10.0	0.0	10.0/10.0 µg/L
N-Nitrosodipropylamine	0/2	10.0	0.0	10.0/10.0 µg/L
N-Nitrosomethylethylamine	0/2	10.0	0.0	10.0/10.0 µg/L
N-Nitrosomorpholine	0/2	10.0	0.0	10.0/10.0 µg/L
N-Nitrosopiperidine	0/2	10.0	0.0	10.0/10.0 µg/L
N-Nitrosopyrrolidine	0/2	10.0	0.0	10.0/10.0 µg/L
5-Nitro-o-toluidine	0/2	10.0	0.0	10.0/10.0 µg/L
Parathion	0/2	10.0	0.0	10.0/10.0 µg/L
Parathion methyl	0/2	10.0	0.0	10.0/10.0 µg/L
Pentachloronitrobenzene	0/2	10.0	0.0	10.0/10.0 µg/L
Pentachlorophenol	0/2	25.0	0.0	25.0/25.0 µg/L
Phenacetin	0/2	10.0	0.0	10.0/10.0 µg/L
Phenanthrene	0/2	10.0	0.0	10.0/10.0 µg/L
Phenol	0/5	10.0	0.0	10.0/10.0 µg/L
p-Phenylenediamine	0/2	10.0	0.0	10.0/10.0 µg/L
Phorate	0/2	10.0	0.0	10.0/10.0 µg/L
2-Picoline	0/2	10.0	0.0	10.0/10.0 µg/L
Pronamid	0/2	10.0	0.0	10.0/10.0 µg/L
Pyrene	0/2	10.0	0.0	10.0/10.0 µg/L
Pyridine	0/2	25.0	0.0	25.0/25.0 µg/L
Safrole	0/2	10.0	0.0	10.0/10.0 µg/L
Sulfotep	0/2	10.0	0.0	10.0/10.0 µg/L
2,3,4,6-Tetrachlorophenol	0/2	10.0	0.0	10.0/10.0 µg/L
Thionazin	0/2	10.0	0.0	10.0/10.0 µg/L
o-Toluidine	0/2	10.0	0.0	10.0/10.0 µg/L
1,2,4-Trichlorobenzene	0/2	10.0	0.0	10.0/10.0 µg/L
2,4,5-Trichlorophenol	0/2	10.0	0.0	10.0/10.0 µg/L
2,4,6-Trichlorophenol	0/2	25.0	0.0	25.0/25.0 µg/L
O,O,O-Triethyl phosphorothioate	0/2	10.0	0.0	10.0/10.0 µg/L
1,3,5-Trinitrobenzene	0/2	10.0	0.0	10.0/10.0 µg/L
<b>EPA9014</b>				
Cyanide	0/22	10.0	0.0	10.0/10.0 µg/L
<b>EPA9060</b>				
Total organic carbon	0/2	5,000	0.0	5,000/5,000 µg/L

† Number of times analyte was detected compared to the total number of method blanks for the analyte.  
— Standard deviation cannot be determined.

Note: If the analyte was not detected in the method blank(s), detection limit information appears in the *Mean Result* and *Minimum/Maximum Results* columns.

**Table 54. Analytes Detected in Method Blanks for GE**

<b>Analyte</b>	<b>Frequency of Detection†</b>	<b>Mean Result</b>	<b>Standard Deviation</b>	<b>Minimum/Maximum Results</b>
<b>EPA160.1</b>				
Total dissolved solids	1/1	10,000	—	10,000/10,000 µg/L
<b>EPA353.1</b>				
Nitrate-nitrite as nitrogen	6/17	38.2	18.8	10.0/50.0 µg/L
<b>EPA365.4</b>				
Total phosphates (as P)	1/1	50.0	—	50.0/50.0 µg/L

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>EPA6010B</b>				
Aluminum	6/16	37.0	17.4	12.8/50.0 µg/L
Antimony	0/4	10.0	0.0	10.0/10.0 µg/L
Arsenic	0/15	5.0	0.0	5.0/5.0 µg/L
Barium	1/15	4.71	1.12	0.67/5.0 µg/L
Beryllium	0/2	5.0	0.0	5.0/5.0 µg/L
Cadmium	0/15	5.0	0.0	5.0/5.0 µg/L
Calcium	0/1	100	—	100/100 µg/L
Chromium	1/15	4.71	1.11	0.70/5.0 µg/L
Cobalt	0/2	5.0	0.0	5.0/5.0 µg/L
Copper	0/2	5.0	0.0	5.0/5.0 µg/L
Iron	1/17	51.5	6.23	50.0/75.7 µg/L
Lead	0/15	5.0	0.0	5.0/5.0 µg/L
Magnesium	0/1	10.0	—	10.0/10.0 µg/L
Manganese	1/2	10.2	0.28	10.0/10.4 µg/L
Nickel	0/2	5.0	0.0	5.0/5.0 µg/L
Potassium	0/1	100	—	100/100 µg/L
Selenium	1/15	4.85	0.58	2.74/5.0 µg/L
Silver	5/15	3.90	1.68	0.85/5.0 µg/L
Sodium	0/1	100	—	100/100 µg/L
Thallium	0/2	5.0	0.0	5.0/5.0 µg/L
Vanadium	0/2	5.0	0.0	5.0/5.0 µg/L
Zinc	1/2	4.46	0.76	3.92/5.0 µg/L
<b>EPA6020</b>				
Aluminum	1/23	14.8	1.04	10.0/15.0 µg/L
Antimony	4/20	0.30	0.41	0.15/2.0 µg/L
Arsenic	0/20	3.0	0.0	3.0/3.0 µg/L
Barium	0/20	2.0	0.0	2.0/2.0 µg/L
Beryllium	0/3	0.77	0.40	0.30/1.0 µg/L
Cadmium	2/21	0.97	0.16	0.26/1.0 µg/L
Calcium	1/2	150	0.0	150/150 µg/L
Chromium	1/21	3.0	0.0	3.0/3.0 µg/L
Cobalt	3/20	0.22	0.20	0.03/1.0 µg/L
Copper	3/20	0.98	0.30	0.33/2.0 µg/L
Iron	2/23	15.6	2.15	15.0/25.0 µg/L
Lead	1/21	2.0	0.0	2.0/2.0 µg/L
Magnesium	1/2	3.0	0.0	3.0/3.0 µg/L
Manganese	1/2	0.20	0.0	0.20/0.20 µg/L
Nickel	1/21	2.04	0.50	0.94/4.0 µg/L
Potassium	1/2	15.0	0.0	15.0/15.0 µg/L
Selenium	1/20	4.74	0.81	2.0/5.0 µg/L
Silver	0/23	1.0	0.0	1.0/1.0 µg/L
Sodium	1/2	250	0.0	250/250 µg/L
Thallium	8/16	1.30	1.24	0.03/2.50 µg/L
Tin	0/16	5.0	0.0	5.0/5.0 µg/L
Vanadium	1/21	9.69	1.43	3.46/10.0 µg/L
Zinc	0/20	10.0	0.0	10.0/10.0 µg/L
<b>EPA7470A</b>				
Mercury	3/31	0.19	0.03	0.05/0.20 µg/L
<b>EPA8081A</b>				
Aldrin	0/1	0.02	—	0.02/0.02 µg/L
alpha-Benzene hexachloride	0/1	0.02	—	0.02/0.02 µg/L
beta-Benzene hexachloride	0/2	0.02	0.0	0.02/0.02 µg/L
delta-Benzene hexachloride	0/1	0.02	—	0.02/0.02 µg/L
alpha-Chlordane	0/1	0.02	—	0.02/0.02 µg/L
gamma-Chlordane	0/1	0.02	—	0.02/0.02 µg/L
p,p'-DDD	0/1	0.04	—	0.04/0.04 µg/L

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
p,p'-DDE	0/1	0.04	—	0.04/0.04 µg/L
p,p'-DDT	0/1	0.04	—	0.04/0.04 µg/L
Dieldrin	0/1	0.04	—	0.04/0.04 µg/L
Endosulfan sulfate	0/1	0.04	—	0.04/0.04 µg/L
Endosulfan I	0/1	0.02	—	0.02/0.02 µg/L
Endosulfan II	0/1	0.04	—	0.04/0.04 µg/L
Endrin	0/1	0.04	—	0.04/0.04 µg/L
Endrin aldehyde	0/1	0.04	—	0.04/0.04 µg/L
Endrin ketone	0/1	0.04	—	0.04/0.04 µg/L
Heptachlor	0/1	0.02	—	0.02/0.02 µg/L
Heptachlor epoxide	0/1	0.02	—	0.02/0.02 µg/L
Lindane	0/1	0.02	—	0.02/0.02 µg/L
Methoxychlor	0/1	0.20	—	0.20/0.20 µg/L
Toxaphene	0/1	1.0	—	1.0/1.0 µg/L
<b>EPA8082</b>				
PCB 1016	0/1	0.10	—	0.10/0.10 µg/L
PCB 1221	0/1	0.10	—	0.10/0.10 µg/L
PCB 1232	0/1	0.10	—	0.10/0.10 µg/L
PCB 1242	0/1	0.10	—	0.10/0.10 µg/L
PCB 1248	0/1	0.10	—	0.10/0.10 µg/L
PCB 1254	0/1	0.10	—	0.10/0.10 µg/L
PCB 1260	0/1	0.10	—	0.10/0.10 µg/L
<b>EPA8260B</b>				
Acetone	1/8	5.10	0.29	5.0/5.81 µg/L
Acetonitrile	0/5	25.0	0.0	25.0/25.0 µg/L
Acrolein	0/5	10.0	0.0	10.0/10.0 µg/L
Acrylonitrile	0/5	10.0	0.0	10.0/10.0 µg/L
Allyl chloride	0/5	5.0	0.0	5.0/5.0 µg/L
Benzene	1/84	1.0	0.0	1.0/1.0 µg/L
Bromochloromethane	0/5	1.0	0.0	1.0/1.0 µg/L
Bromodichloromethane	0/66	1.14	1.11	1.0/10.0 µg/L
Bromoform	0/66	1.14	1.11	1.0/10.0 µg/L
Bromomethane	0/66	1.14	1.11	1.0/10.0 µg/L
Carbon disulfide	0/8	10.6	15.9	5.0/50.0 µg/L
Carbon tetrachloride	1/84	1.11	0.98	1.0/10.0 µg/L
Chlorobenzene	1/84	1.11	0.98	1.0/10.0 µg/L
Chloroethane	0/66	1.14	1.11	1.0/10.0 µg/L
Chloroethene	0/66	1.14	1.11	1.0/10.0 µg/L
2-Chloroethyl vinyl ether	0/58	5.0	0.0	5.0/5.0 µg/L
Chloroform	7/84	1.12	0.99	0.85/10.0 µg/L
Chloromethane	0/66	1.14	1.11	1.0/10.0 µg/L
Chloroprene	0/5	5.60	8.05	2.0/20.0 µg/L
Dibromochloromethane	0/66	1.14	1.11	1.0/10.0 µg/L
1,2-Dibromo-3-chloropropane	0/5	2.80	4.02	1.0/10.0 µg/L
1,2-Dibromoethane	0/5	2.80	4.02	1.0/10.0 µg/L
Dibromomethane	0/5	2.80	4.02	1.0/10.0 µg/L
1,2-Dichlorobenzene	0/5	2.80	4.02	1.0/10.0 µg/L
1,4-Dichlorobenzene	0/5	2.80	4.02	1.0/10.0 µg/L
trans-1,4-Dichloro-2-butene	0/5	14.0	20.1	5.0/50.0 µg/L
Dichlorodifluoromethane	0/5	14.0	20.1	5.0/50.0 µg/L
1,1-Dichloroethane	0/66	1.14	1.11	1.0/10.0 µg/L
1,2-Dichloroethane	0/66	1.14	1.11	1.0/10.0 µg/L
1,1-Dichloroethylene	1/84	1.11	0.98	1.0/10.0 µg/L
1,2-Dichloroethylene	0/3	1.0	0.0	1.0/1.0 µg/L
cis-1,2-Dichloroethylene	0/5	3.28	4.71	1.17/11.7 µg/L
trans-1,2-Dichloroethylene	0/63	1.14	1.13	1.0/10.0 µg/L
Dichloromethane	28/66	5.24	5.80	1.27/50.0 µg/L
1,2-Dichloropropane	0/66	1.14	1.11	1.0/10.0 µg/L
1,1-Dichloropropene	0/1	1.0	—	1.0/1.0 µg/L

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
cis-1,3-Dichloropropene	0/66	1.14	1.11	1.0/10.0 µg/L
trans-1,3-Dichloropropene	0/66	1.14	1.11	1.0/10.0 µg/L
Ethyl methacrylate	0/5	14.0	20.1	5.0/50.0 µg/L
Ethylbenzene	0/66	1.14	1.11	1.0/10.0 µg/L
2-Hexanone	0/8	10.6	15.9	5.0/50.0 µg/L
Iodomethane	0/5	28.0	40.2	10.0/100 µg/L
Isobutyl alcohol	0/5	140	201	50.0/500 µg/L
Methacrylonitrile	0/5	14.0	20.1	5.0/50.0 µg/L
Methyl ethyl ketone	0/8	21.3	31.8	10.0/100 µg/L
Methyl isobutyl ketone	0/8	10.6	15.9	5.0/50.0 µg/L
Methyl methacrylate	0/5	14.0	20.1	5.0/50.0 µg/L
Pentachloroethane	0/5	14.0	20.1	5.0/50.0 µg/L
Propionitrile	0/5	28.0	40.2	10.0/100 µg/L
Styrene	0/8	2.13	3.18	1.0/10.0 µg/L
1,1,1,2-Tetrachloroethane	0/5	2.80	4.02	1.0/10.0 µg/L
1,1,2,2-Tetrachloroethane	0/66	1.14	1.11	1.0/10.0 µg/L
Tetrachloroethylene	1/84	1.11	0.98	1.0/10.0 µg/L
Toluene	10/84	1.09	0.99	0.52/10.0 µg/L
1,1,1-Trichloroethane	1/84	1.11	0.98	1.0/10.0 µg/L
1,1,2-Trichloroethane	0/66	1.14	1.11	1.0/10.0 µg/L
Trichloroethylene	1/84	1.11	0.98	1.0/10.0 µg/L
Trichlorofluoromethane	0/63	5.71	5.67	5.0/50.0 µg/L
1,2,3-Trichloropropane	0/5	2.80	4.02	1.0/10.0 µg/L
Vinyl acetate	0/8	10.6	15.9	5.0/50.0 µg/L
Xylenes	0/8	4.25	6.36	2.0/20.0 µg/L

#### EPA8270C

Acenaphthene	0/1	10.0	—	10.0/10.0 µg/L
Acenaphthylene	0/1	10.0	—	10.0/10.0 µg/L
Anthracene	0/1	10.0	—	10.0/10.0 µg/L
Benzidine	0/1	50.0	—	50.0/50.0 µg/L
Benzo[a]anthracene	0/1	10.0	—	10.0/10.0 µg/L
Benzo[b]fluoranthene	0/1	10.0	—	10.0/10.0 µg/L
Benzo[k]fluoranthene	0/1	10.0	—	10.0/10.0 µg/L
Benzoic acid	0/1	20.0	—	20.0/20.0 µg/L
Benzo[g,h,i]perylene	0/1	10.0	—	10.0/10.0 µg/L
Benzo[a]pyrene	0/1	10.0	—	10.0/10.0 µg/L
Benzyl alcohol	0/1	10.0	—	10.0/10.0 µg/L
Bis(2-chloroethoxy) methane	0/1	10.0	—	10.0/10.0 µg/L
Bis(2-chloroethyl) ether	0/1	10.0	—	10.0/10.0 µg/L
Bis(2-chloroisopropyl) ether	0/1	10.0	—	10.0/10.0 µg/L
Bis(2-ethylhexyl) phthalate	0/31	10.0	0.0	10.0/10.0 µg/L
4-Bromophenyl phenyl ether	0/1	10.0	—	10.0/10.0 µg/L
Butylbenzyl phthalate	0/1	10.0	—	10.0/10.0 µg/L
4-Chloroaniline	0/1	10.0	—	10.0/10.0 µg/L
4-Chloro-m-cresol	0/1	10.0	—	10.0/10.0 µg/L
2-Chloronaphthalene	0/1	10.0	—	10.0/10.0 µg/L
2-Chlorophenol	0/1	10.0	—	10.0/10.0 µg/L
4-Chlorophenyl phenyl ether	0/1	10.0	—	10.0/10.0 µg/L
Chrysene	0/1	10.0	—	10.0/10.0 µg/L
m/p-Cresol	0/1	10.0	—	10.0/10.0 µg/L
o-Cresol	0/1	10.0	—	10.0/10.0 µg/L
Dibenz[a,h]anthracene	0/1	10.0	—	10.0/10.0 µg/L
Dibenzofuran	0/1	10.0	—	10.0/10.0 µg/L
Di-n-butyl phthalate	0/2	10.0	0.0	10.0/10.0 µg/L
1,2-Dichlorobenzene	0/1	10.0	—	10.0/10.0 µg/L
1,3-Dichlorobenzene	0/1	10.0	—	10.0/10.0 µg/L
1,4-Dichlorobenzene	0/1	10.0	—	10.0/10.0 µg/L
3,3'-Dichlorobenzidine	0/1	20.0	—	20.0/20.0 µg/L
2,4-Dichlorophenol	0/1	10.0	—	10.0/10.0 µg/L
Diethyl phthalate	0/1	10.0	—	10.0/10.0 µg/L

#### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
2,4-Dimethyl phenol	0/1	10.0	—	10.0/10.0 µg/L
Dimethyl phthalate	0/1	10.0	—	10.0/10.0 µg/L
2,4-Dinitrophenol	0/1	20.0	—	20.0/20.0 µg/L
2,4-Dinitrotoluene	0/1	10.0	—	10.0/10.0 µg/L
2,6-Dinitrotoluene	0/1	10.0	—	10.0/10.0 µg/L
Di-n-octyl phthalate	0/1	10.0	—	10.0/10.0 µg/L
Fluoranthene	0/1	10.0	—	10.0/10.0 µg/L
Fluorene	0/1	10.0	—	10.0/10.0 µg/L
Hexachlorobenzene	0/1	10.0	—	10.0/10.0 µg/L
Hexachlorobutadiene	0/1	10.0	—	10.0/10.0 µg/L
Hexachlorocyclopentadiene	0/1	10.0	—	10.0/10.0 µg/L
Hexachloroethane	0/1	10.0	—	10.0/10.0 µg/L
Indeno[1,2,3-c,d]pyrene	0/1	10.0	—	10.0/10.0 µg/L
Isophorone	0/1	10.0	—	10.0/10.0 µg/L
2-Methyl-4,6-dinitrophenol	0/1	10.0	—	10.0/10.0 µg/L
2-Methylnaphthalene	0/1	10.0	—	10.0/10.0 µg/L
Naphthalene	0/1	10.0	—	10.0/10.0 µg/L
m-Nitroaniline	0/1	10.0	—	10.0/10.0 µg/L
o-Nitroaniline	0/1	10.0	—	10.0/10.0 µg/L
p-Nitroaniline	0/1	10.0	—	10.0/10.0 µg/L
Nitrobenzene	0/1	10.0	—	10.0/10.0 µg/L
2-Nitrophenol	0/1	10.0	—	10.0/10.0 µg/L
4-Nitrophenol	0/1	10.0	—	10.0/10.0 µg/L
N-Nitrosodiphenylamine	0/1	10.0	—	10.0/10.0 µg/L
N-Nitrosodipropylamine	0/1	10.0	—	10.0/10.0 µg/L
Pentachlorophenol	0/1	20.0	—	20.0/20.0 µg/L
Phenanthrene	0/1	10.0	—	10.0/10.0 µg/L
Phenol	0/1	10.0	—	10.0/10.0 µg/L
Pyrene	0/1	10.0	—	10.0/10.0 µg/L
1,2,4-Trichlorobenzene	0/1	10.0	—	10.0/10.0 µg/L
2,4,5-Trichlorophenol	0/1	10.0	—	10.0/10.0 µg/L
2,4,6-Trichlorophenol	0/1	10.0	—	10.0/10.0 µg/L
<b>EPA9012A</b>				
Cyanide	0/21	10.0	0.0	10.0/10.0 µg/L
<b>EPA9030</b>				
Sulfide	0/1	1,000	—	1,000/1,000 µg/L
<b>EPA9056</b>				
Chloride	1/1	100	—	100/100 µg/L
Fluoride	1/1	50.0	—	50.0/50.0 µg/L
Nitrite as nitrogen	0/2	50.0	0.0	50.0/50.0 µg/L
Sulfate	1/1	200	—	200/200 µg/L
<b>EPA9060</b>				
Total organic carbon	1/1	200	—	200/200 µg/L
<b>EPA9066</b>				
Phenols	1/9	4.70	0.91	2.26/5.0 µg/L

† Number of times analyte was detected compared to the total number of method blanks for the analyte.  
— Standard deviation cannot be determined.

Note: If the analyte was not detected in the method blank(s), detection limit information appears in the *Mean Result* and *Minimum/Maximum Results* columns.

### Quality Control Samples



**Table 55. Analytes Detected in Method Blanks for WA**

<b>Analyte</b>	<b>Frequency of Detection†</b>	<b>Mean Result</b>	<b>Standard Deviation</b>	<b>Minimum/Maximum Results</b>
<b>EPA160.1</b> Total dissolved solids	1/17	48,800	1,520	47,000/50,000 µg/L
<b>EPA310.1</b> Alkalinity (as CaCO <sub>3</sub> )	0/1	6.70	—	6.70/6.70 mg/L
<b>EPA340.2</b> Fluoride	15/15	22.2	3.52	18.6/30.9 µg/L
<b>EPA353.2</b> Nitrate as nitrogen	0/3	20.0	0.0	20.0/20.0 µg/L
Nitrate-nitrite as nitrogen	2/26	18.7	4.62	3.0/20.0 µg/L
Nitrite as nitrogen	0/1	20.0	—	20.0/20.0 µg/L
<b>EPA365.2</b> Total phosphates (as P)	0/15	67.0	0.0	67.0/67.0 µg/L
<b>EPA376.2</b> Sulfide	0/1	10,000	—	10,000/10,000 µg/L
<b>EPA6010B</b>				
Aluminum	6/54	132	39.2	16.1/146 µg/L
Antimony	2/16	24.2	7.75	4.30/27.0 µg/L
Arsenic	0/42	40.0	0.0	40.0/40.0 µg/L
Barium	26/40	0.89	0.70	0.19/1.80 µg/L
Beryllium	0/11	1.60	0.0	1.60/1.60 µg/L
Boron	0/15	266	0.0	266/266 µg/L
Cadmium	0/40	4.70	0.0	4.70/4.70 µg/L
Calcium	0/17	471	0.0	471/471 µg/L
Chromium	2/38	6.68	1.37	0.95/7.0 µg/L
Cobalt	0/13	4.50	0.0	4.50/4.50 µg/L
Copper	8/15	8.03	6.76	1.50/15.0 µg/L
Iron	22/58	50.9	30.2	7.80/74.0 µg/L
Lead	0/45	47.0	0.0	47.0/47.0 µg/L
Lithium	6/15	1.80	1.14	0.33/2.70 µg/L
Magnesium	6/18	53.2	30.4	7.40/74.0 µg/L
Manganese	0/32	7.80	0.0	7.80/7.80 µg/L
Nickel	0/24	26.0	0.0	26.0/26.0 µg/L
Potassium	0/17	187	0.0	187/187 µg/L
Selenium	0/45	66.0	0.0	66.0/66.0 µg/L
Silica	0/17	1,350	6.64	1,350/1,370 µg/L
Silver	6/37	4.37	1.44	0.90/5.0 µg/L
Sodium	4/22	244	89.0	46.0/285 µg/L
Thallium	0/12	55.0	0.0	55.0/55.0 µg/L
Tin	0/10	70.0	0.0	70.0/70.0 µg/L
Vanadium	0/13	6.90	0.0	6.90/6.90 µg/L
Zinc	0/15	53.0	0.0	53.0/53.0 µg/L
<b>EPA7470A</b> Mercury	0/34	0.45	0.0	0.45/0.45 µg/L
<b>EPA8010</b>				
Carbon tetrachloride	0/8	1.0	0.0	1.0/1.0 µg/L
Chloroform	0/7	1.0	0.0	1.0/1.0 µg/L
cis-1,2-Dichloroethylene	0/10	5.0	0.0	5.0/5.0 µg/L
1,1,1-Trichloroethane	0/7	1.0	0.0	1.0/1.0 µg/L
Trichloroethylene	0/7	1.0	0.0	1.0/1.0 µg/L

**Quality Control Samples**



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>EPA8021B</b>				
Carbon tetrachloride	0/15	1.0	0.0	1.0/1.0 µg/L
Chloroform	0/15	1.0	0.0	1.0/1.0 µg/L
cis-1,2-Dichloroethylene	0/2	5.0	0.0	5.0/5.0 µg/L
1,1,1-Trichloroethane	0/15	1.0	0.0	1.0/1.0 µg/L
Trichloroethylene	0/15	1.0	0.0	1.0/1.0 µg/L
<b>EPA8081A</b>				
Aldrin	0/10	0.05	0.0	0.05/0.05 µg/L
alpha-Benzene hexachloride	0/10	0.05	0.0	0.05/0.05 µg/L
beta-Benzene hexachloride	0/13	0.05	0.0	0.05/0.05 µg/L
delta-Benzene hexachloride	0/10	0.05	0.0	0.05/0.05 µg/L
alpha-Chlordane	0/10	0.05	0.0	0.05/0.05 µg/L
gamma-Chlordane	0/10	0.05	0.0	0.05/0.05 µg/L
p,p'-DDD	0/10	0.10	0.0	0.10/0.10 µg/L
p,p'-DDE	0/10	0.10	0.0	0.10/0.10 µg/L
p,p'-DDT	0/10	0.10	0.0	0.10/0.10 µg/L
Dieldrin	0/10	0.10	0.0	0.10/0.10 µg/L
Endosulfan sulfate	0/10	0.10	0.0	0.10/0.10 µg/L
Endosulfan I	0/10	0.05	0.0	0.05/0.05 µg/L
Endosulfan II	0/10	0.10	0.0	0.10/0.10 µg/L
Endrin	0/10	0.10	0.0	0.10/0.10 µg/L
Endrin aldehyde	0/10	0.10	0.0	0.10/0.10 µg/L
Endrin ketone	0/1	0.10	—	0.10/0.10 µg/L
Heptachlor	0/10	0.05	0.0	0.05/0.05 µg/L
Heptachlor epoxide	0/10	0.05	0.0	0.05/0.05 µg/L
Isodrin	0/8	0.10	0.0	0.10/0.10 µg/L
Kepone	0/8	0.50	0.0	0.50/0.50 µg/L
Lindane	0/14	0.05	0.0	0.05/0.05 µg/L
Methoxychlor	0/10	0.50	0.0	0.50/0.50 µg/L
Toxaphene	0/10	5.0	0.0	5.0/5.0 µg/L
<b>EPA8082</b>				
PCB 1016	0/12	1.0	0.0	1.0/1.0 µg/L
PCB 1221	0/12	2.0	0.0	2.0/2.0 µg/L
PCB 1232	0/12	1.0	0.0	1.0/1.0 µg/L
PCB 1242	0/12	1.0	0.0	1.0/1.0 µg/L
PCB 1248	0/12	1.0	0.0	1.0/1.0 µg/L
PCB 1254	0/12	1.0	0.0	1.0/1.0 µg/L
PCB 1260	0/12	1.0	0.0	1.0/1.0 µg/L
<b>EPA8141A</b>				
Dimethoate	0/10	0.50	0.0	0.50/0.50 µg/L
Disulfoton	0/10	0.50	0.0	0.50/0.50 µg/L
Famphur	0/10	1.30	0.0	1.30/1.30 µg/L
Parathion	0/2	0.50	0.0	0.50/0.50 µg/L
Parathion ethyl	0/8	0.50	0.0	0.50/0.50 µg/L
Parathion methyl	0/10	0.50	0.0	0.50/0.50 µg/L
Phorate	0/10	1.0	0.0	1.0/1.0 µg/L
Sulfotepp	0/10	1.0	0.0	1.0/1.0 µg/L
Thionazin	0/10	0.50	0.0	0.50/0.50 µg/L
O,O,O-Triethyl phosphorothioate	0/10	0.50	0.0	0.50/0.50 µg/L
<b>EPA8151A</b>				
2,4-Dichlorophenoxyacetic acid	0/11	1.0	0.0	1.0/1.0 µg/L
2,4,5-T	0/8	0.50	0.0	0.50/0.50 µg/L
2,4,5-TP (Silvex)	0/8	0.50	0.0	0.50/0.50 µg/L
<b>EPA8260B</b>				
Acetone	2/21	10.1	0.87	8.42/13.6 µg/L
Acetonitrile	0/20	20.0	0.0	20.0/20.0 µg/L

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
Acrolein	0/21	20.0	0.0	20.0/20.0 µg/L
Acrylonitrile	0/21	5.24	1.09	5.0/10.0 µg/L
Allyl chloride	0/20	10.0	0.0	10.0/10.0 µg/L
Benzene	0/68	5.0	0.0	5.0/5.0 µg/L
Bromochloromethane	0/7	5.0	0.0	5.0/5.0 µg/L
Bromodichloromethane	0/69	5.0	0.0	5.0/5.0 µg/L
Bromoform	0/69	5.0	0.0	5.0/5.0 µg/L
Bromomethane	4/69	9.60	1.66	1.90/10.0 µg/L
Carbon disulfide	0/21	5.0	0.0	5.0/5.0 µg/L
Carbon tetrachloride	0/69	5.0	0.0	5.0/5.0 µg/L
Chlorobenzene	0/68	5.0	0.0	5.0/5.0 µg/L
Chloroethane	0/69	10.0	0.0	10.0/10.0 µg/L
Chloroethene	0/69	10.0	0.0	10.0/10.0 µg/L
2-Chloroethyl vinyl ether	0/48	10.0	0.0	10.0/10.0 µg/L
Chloroform	0/69	5.0	0.0	5.0/5.0 µg/L
Chloromethane	2/69	9.77	1.33	1.58/10.0 µg/L
Chloroprene	0/20	5.0	0.0	5.0/5.0 µg/L
Dibromochloromethane	0/69	5.0	0.0	5.0/5.0 µg/L
1,2-Dibromo-3-chloropropane	0/20	5.0	0.0	5.0/5.0 µg/L
1,2-Dibromoethane	0/20	5.0	0.0	5.0/5.0 µg/L
Dibromomethane	0/20	5.0	0.0	5.0/5.0 µg/L
1,2-Dichlorobenzene	0/8	5.0	0.0	5.0/5.0 µg/L
1,3-Dichlorobenzene	0/1	5.0	—	5.0/5.0 µg/L
1,4-Dichlorobenzene	0/10	5.0	0.0	5.0/5.0 µg/L
trans-1,4-Dichloro-2-butene	0/19	20.0	0.0	20.0/20.0 µg/L
Dichlorodifluoromethane	0/20	10.0	0.0	10.0/10.0 µg/L
1,1-Dichloroethane	0/75	5.0	0.0	5.0/5.0 µg/L
1,2-Dichloroethane	0/69	5.0	0.0	5.0/5.0 µg/L
1,1-Dichloroethylene	0/68	5.0	0.0	5.0/5.0 µg/L
1,2-Dichloroethylene	0/2	5.0	0.0	5.0/5.0 µg/L
cis-1,2-Dichloroethylene	0/35	6.14	4.71	5.0/25.0 µg/L
trans-1,2-Dichloroethylene	0/69	5.0	0.0	5.0/5.0 µg/L
Dichloromethane	26/70	6.61	3.03	4.11/17.6 µg/L
1,2-Dichloropropane	0/69	5.0	0.0	5.0/5.0 µg/L
1,3-Dichloropropane	0/1	5.0	—	5.0/5.0 µg/L
2,2-Dichloropropane	0/1	5.0	—	5.0/5.0 µg/L
1,1-Dichloropropene	0/1	5.0	—	5.0/5.0 µg/L
cis-1,3-Dichloropropene	0/69	5.0	0.0	5.0/5.0 µg/L
trans-1,3-Dichloropropene	0/69	5.0	0.0	5.0/5.0 µg/L
Ethylbenzene	0/69	5.0	0.0	5.0/5.0 µg/L
2-Hexanone	0/21	10.0	0.0	10.0/10.0 µg/L
Iodomethane	0/20	5.0	0.0	5.0/5.0 µg/L
Isobutyl alcohol	0/20	100	0.0	100/100 µg/L
Methacrylonitrile	0/20	10.0	0.0	10.0/10.0 µg/L
Methyl ethyl ketone	0/21	10.0	0.0	10.0/10.0 µg/L
Methyl isobutyl ketone	0/21	10.0	0.0	10.0/10.0 µg/L
Propionitrile	0/20	50.0	0.0	50.0/50.0 µg/L
Styrene	0/21	5.0	0.0	5.0/5.0 µg/L
1,1,1,2-Tetrachloroethane	0/20	5.0	0.0	5.0/5.0 µg/L
1,1,2,2-Tetrachloroethane	0/69	5.0	0.0	5.0/5.0 µg/L
Tetrachloroethylene	0/91	5.0	0.0	5.0/5.0 µg/L
Toluene	0/68	5.0	0.0	5.0/5.0 µg/L
1,1,1-Trichloroethane	0/69	5.0	0.0	5.0/5.0 µg/L
1,1,2-Trichloroethane	0/69	5.0	0.0	5.0/5.0 µg/L
Trichloroethylene	0/68	5.0	0.0	5.0/5.0 µg/L
Trichlorofluoromethane	0/67	5.0	0.0	5.0/5.0 µg/L
1,2,3-Trichloropropane	0/20	5.0	0.0	5.0/5.0 µg/L
Vinyl acetate	0/20	10.0	0.0	10.0/10.0 µg/L
Xylenes	0/68	5.0	0.0	5.0/5.0 µg/L

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>EPA8270C</b>				
Acenaphthene	0/11	10.0	0.0	10.0/10.0 µg/L
Acenaphthylene	0/11	10.0	0.0	10.0/10.0 µg/L
Acetophenone	0/9	10.0	0.0	10.0/10.0 µg/L
2-Acetylaminofluorene	0/9	10.0	0.0	10.0/10.0 µg/L
4-Aminobiphenyl	0/9	10.0	0.0	10.0/10.0 µg/L
Aniline	0/9	10.0	0.0	10.0/10.0 µg/L
Anthracene	0/11	10.0	0.0	10.0/10.0 µg/L
Aramite	0/9	20.0	0.0	20.0/20.0 µg/L
Benzo[a]anthracene	0/11	10.0	0.0	10.0/10.0 µg/L
Benzo[b]fluoranthene	0/11	10.0	0.0	10.0/10.0 µg/L
Benzo[k]fluoranthene	0/11	10.0	0.0	10.0/10.0 µg/L
Benzoic acid	0/9	25.0	0.0	25.0/25.0 µg/L
Benzo[g,h,i]perylene	0/11	10.0	0.0	10.0/10.0 µg/L
Benzo[a]pyrene	0/11	10.0	0.0	10.0/10.0 µg/L
Benzyl alcohol	0/9	10.0	0.0	10.0/10.0 µg/L
Bis(2-chloroethoxy) methane	0/11	10.0	0.0	10.0/10.0 µg/L
Bis(2-chloroethyl) ether	0/11	10.0	0.0	10.0/10.0 µg/L
Bis(2-chloroisopropyl) ether	0/11	10.0	0.0	10.0/10.0 µg/L
Bis(2-ethylhexyl) phthalate	1/16	12.3	9.23	10.0/46.9 µg/L
4-Bromophenyl phenyl ether	0/11	10.0	0.0	10.0/10.0 µg/L
Butylbenzyl phthalate	0/11	10.0	0.0	10.0/10.0 µg/L
2-sec-Butyl-4,6-dinitrophenol	0/9	50.0	0.0	50.0/50.0 µg/L
Carbazole	0/1	10.0	—	10.0/10.0 µg/L
4-Chloroaniline	0/10	10.0	0.0	10.0/10.0 µg/L
Chlorobenzilate	0/9	10.0	0.0	10.0/10.0 µg/L
4-Chloro-m-cresol	0/11	10.0	0.0	10.0/10.0 µg/L
2-Chloronaphthalene	0/11	10.0	0.0	10.0/10.0 µg/L
2-Chlorophenol	0/11	10.0	0.0	10.0/10.0 µg/L
4-Chlorophenyl phenyl ether	0/11	10.0	0.0	10.0/10.0 µg/L
Chrysene	0/11	10.0	0.0	10.0/10.0 µg/L
m-Cresol	0/6	10.0	0.0	10.0/10.0 µg/L
m/p-Cresol	0/13	10.0	0.0	10.0/10.0 µg/L
o-Cresol	0/10	10.0	0.0	10.0/10.0 µg/L
Diallate	0/9	10.0	0.0	10.0/10.0 µg/L
Dibenz[a,h]anthracene	0/11	10.0	0.0	10.0/10.0 µg/L
Dibenzofuran	0/10	10.0	0.0	10.0/10.0 µg/L
Di-n-butyl phthalate	0/13	10.0	0.0	10.0/10.0 µg/L
1,2-Dichlorobenzene	0/10	10.0	0.0	10.0/10.0 µg/L
1,3-Dichlorobenzene	0/10	10.0	0.0	10.0/10.0 µg/L
1,4-Dichlorobenzene	0/10	10.0	0.0	10.0/10.0 µg/L
3,3'-Dichlorobenzidine	0/11	10.9	3.02	10.0/20.0 µg/L
2,4-Dichlorophenol	0/11	10.0	0.0	10.0/10.0 µg/L
2,6-Dichlorophenol	0/11	10.0	0.0	10.0/10.0 µg/L
Diethyl phthalate	0/11	10.0	0.0	10.0/10.0 µg/L
2,4-Dimethyl phenol	0/11	10.0	0.0	10.0/10.0 µg/L
Dimethyl phthalate	0/11	10.0	0.0	10.0/10.0 µg/L
p-Dimethylaminoazobenzene	0/9	10.0	0.0	10.0/10.0 µg/L
7,12-Dimethylbenz[a]anthracene	0/9	10.0	0.0	10.0/10.0 µg/L
3,3'-Dimethylbenzidine	0/9	10.0	0.0	10.0/10.0 µg/L
a,a-Dimethylphenethylamine	0/6	10.0	0.0	10.0/10.0 µg/L
1,3-Dinitrobenzene	0/9	10.0	0.0	10.0/10.0 µg/L
2,4-Dinitrophenol	0/11	25.0	0.0	25.0/25.0 µg/L
2,4-Dinitrotoluene	0/11	10.0	0.0	10.0/10.0 µg/L
2,6-Dinitrotoluene	0/11	10.0	0.0	10.0/10.0 µg/L
Di-n-octyl phthalate	0/11	10.0	0.0	10.0/10.0 µg/L
1,4-Dioxane	0/9	10.0	0.0	10.0/10.0 µg/L
Diphenylamine	0/9	10.0	0.0	10.0/10.0 µg/L
1,2-Diphenylhydrazine	0/1	10.0	—	10.0/10.0 µg/L
Ethyl methacrylate	0/9	10.0	0.0	10.0/10.0 µg/L
Ethyl methanesulfonate	0/9	10.0	0.0	10.0/10.0 µg/L

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
Fluoranthene	0/11	10.0	0.0	10.0/10.0 µg/L
Fluorene	0/11	10.0	0.0	10.0/10.0 µg/L
Hexachlorobenzene	0/11	10.0	0.0	10.0/10.0 µg/L
Hexachlorobutadiene	0/11	10.0	0.0	10.0/10.0 µg/L
Hexachlorocyclopentadiene	0/11	10.0	0.0	10.0/10.0 µg/L
Hexachloroethane	0/11	10.0	0.0	10.0/10.0 µg/L
Hexachlorophene	0/9	250	0.0	250/250 µg/L
Hexachloropropene	0/9	10.0	0.0	10.0/10.0 µg/L
Indeno[1,2,3-c,d]pyrene	0/11	10.0	0.0	10.0/10.0 µg/L
Isophorone	0/11	10.0	0.0	10.0/10.0 µg/L
Isosafrole	0/9	10.0	0.0	10.0/10.0 µg/L
Methapyrilene	0/9	10.0	0.0	10.0/10.0 µg/L
2-Methyl-4,6-dinitrophenol	0/11	25.0	0.0	25.0/25.0 µg/L
Methyl methacrylate	0/9	10.0	0.0	10.0/10.0 µg/L
Methyl methanesulfonate	0/9	10.0	0.0	10.0/10.0 µg/L
3-Methylcholanthrene	0/9	10.0	0.0	10.0/10.0 µg/L
2-Methylnaphthalene	0/10	10.0	0.0	10.0/10.0 µg/L
Naphthalene	0/11	10.0	0.0	10.0/10.0 µg/L
1,4-Naphthoquinone	0/9	10.0	0.0	10.0/10.0 µg/L
1-Naphthylamine	0/9	10.0	0.0	10.0/10.0 µg/L
2-Naphthylamine	0/9	10.0	0.0	10.0/10.0 µg/L
m-Nitroaniline	0/10	25.0	0.0	25.0/25.0 µg/L
o-Nitroaniline	0/10	25.0	0.0	25.0/25.0 µg/L
p-Nitroaniline	0/10	25.0	0.0	25.0/25.0 µg/L
Nitrobenzene	0/11	10.0	0.0	10.0/10.0 µg/L
2-Nitrophenol	0/11	10.0	0.0	10.0/10.0 µg/L
4-Nitrophenol	0/11	25.0	0.0	25.0/25.0 µg/L
4-Nitroquinoline-1-oxide	0/9	20.0	0.0	20.0/20.0 µg/L
N-Nitrosodi-n-butylamine	0/9	10.0	0.0	10.0/10.0 µg/L
N-Nitrosodiethylamine	0/9	10.0	0.0	10.0/10.0 µg/L
N-Nitrosodimethylamine	0/10	10.0	0.0	10.0/10.0 µg/L
N-Nitrosodiphenylamine	0/11	10.0	0.0	10.0/10.0 µg/L
N-Nitrosodipropylamine	0/11	10.0	0.0	10.0/10.0 µg/L
N-Nitrosomethylethylamine	0/9	10.0	0.0	10.0/10.0 µg/L
N-Nitrosomorpholine	0/9	10.0	0.0	10.0/10.0 µg/L
N-Nitrosopiperidine	0/9	50.0	0.0	50.0/50.0 µg/L
N-Nitrosopyrrolidine	0/9	10.0	0.0	10.0/10.0 µg/L
5-Nitro-o-toluidine	0/9	10.0	0.0	10.0/10.0 µg/L
Pentachlorobenzene	0/9	10.0	0.0	10.0/10.0 µg/L
Pentachloroethane	0/9	10.0	0.0	10.0/10.0 µg/L
Pentachloronitrobenzene	0/10	50.0	0.0	50.0/50.0 µg/L
Pentachlorophenol	0/11	25.0	0.0	25.0/25.0 µg/L
Phenacetin	0/9	10.0	0.0	10.0/10.0 µg/L
Phenanthrene	0/11	10.0	0.0	10.0/10.0 µg/L
Phenol	0/19	10.0	0.0	10.0/10.0 µg/L
p-Phenylenediamine	0/9	10.0	0.0	10.0/10.0 µg/L
2-Picoline	0/9	10.0	0.0	10.0/10.0 µg/L
Pronamid	0/9	10.0	0.0	10.0/10.0 µg/L
Pyrene	0/11	10.0	0.0	10.0/10.0 µg/L
Pyridine	0/9	10.0	0.0	10.0/10.0 µg/L
Safrole	0/9	10.0	0.0	10.0/10.0 µg/L
1,2,4,5-Tetrachlorobenzene	0/9	10.0	0.0	10.0/10.0 µg/L
2,3,4,6-Tetrachlorophenol	0/9	10.0	0.0	10.0/10.0 µg/L
o-Toluidine	0/9	10.0	0.0	10.0/10.0 µg/L
1,2,4-Trichlorobenzene	0/11	10.0	0.0	10.0/10.0 µg/L
2,4,5-Trichlorophenol	0/10	25.0	0.0	25.0/25.0 µg/L
2,4,6-Trichlorophenol	0/11	10.0	0.0	10.0/10.0 µg/L
1,3,5-Trinitrobenzene	0/9	10.0	0.0	10.0/10.0 µg/L
<b>EPA8280A</b>				
Hexachlorodibenzo-p-dioxins	0/5	5.0	0.0	5.0/5.0 ng/L

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
Hexachlorodibenzo-p-furans	0/5	5.0	0.0	5.0/5.0 ng/L
Pentachlorodibenzo-p-furans	0/10	5.0	0.0	5.0/5.0 ng/L
2,3,7,8-TCDD	0/6	5.0	0.0	5.0/5.0 ng/L
Tetrachlorodibenzo-p-dioxins	0/5	5.0	0.0	5.0/5.0 ng/L
Tetrachlorodibenzo-p-furans	0/5	5.0	0.0	5.0/5.0 ng/L
<b>EPA9014</b>				
Cyanide	0/31	15.2	0.0	15.2/15.2 µg/L
<b>EPA9020B</b>				
Total organic halogens	0/56	120	0.0	120/120 µg/L
<b>EPA9030B</b>				
Sulfide	0/5	10,000	0.0	10,000/10,000 µg/L
<b>EPA9034</b>				
Sulfide	0/2	10,000	0.0	10,000/10,000 µg/L
<b>EPA9050A</b>				
Specific conductance	0/5	8.90	0.0	8.90/8.90 µS/cm
<b>EPA9056</b>				
Chloride	4/24	204	26.8	111/229 µg/L
Sulfate	0/25	340	0.0	340/340 µg/L
<b>EPA9060</b>				
Total organic carbon	0/18	1,000	0.0	1,000/1,000 µg/L
<b>EPA9066</b>				
Phenols	0/1	37.0	—	37.0/37.0 µg/L

† Number of times analyte was detected compared to the total number of method blanks for the analyte.

— Standard deviation cannot be determined.

Note: If the analyte was not detected in the method blank(s), detection limit information appears in the *Mean Result* and *Minimum/Maximum Results* columns.

**Table 56. Analytes Detected in Method Blanks for GP**

Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>EPIA-001</b>				
Gross alpha	1/33	8.25E-11	1.65E-10	-2.70E-10/4.90E-10 µCi/mL
Nonvolatile beta	1/31	2.95E-10	4.31E-10	-4.20E-10/1.31E-09 µCi/mL
<b>EPIA-002</b>				
Tritium	1/27	-3.17E-08	1.68E-07	-4.27E-07/2.58E-07 µCi/mL
<b>EPIA-003</b>				
Carbon-14	0/21	-8.24E-10	2.85E-09	-4.81E-09/3.72E-09 µCi/mL
<b>EPIA-004</b>				
Strontium-89/90	0/5	-4.31E-10	4.02E-10	-9.07E-10/1.13E-10 µCi/mL
Strontium-90	0/23	6.00E-11	5.08E-10	-6.96E-10/1.26E-09 µCi/mL

### Quality Control Samples



<b>Analyte</b>	<b>Frequency of Detection†</b>	<b>Mean Result</b>	<b>Standard Deviation</b>	<b>Minimum/Maximum Results</b>
<b>EPIA-005</b> Technetium-99	0/24	-1.11E-09	6.55E-09	-1.51E-08/1.31E-08 µCi/mL
<b>EPIA-006</b> Iodine-129	2/23	2.95E-10	4.24E-10	-7.88E-10/1.46E-09 µCi/mL
<b>EPIA-008</b> Radium-226	0/29	2.17E-10	1.30E-10	0.0/6.08E-10 µCi/mL
<b>EPIA-009</b> Radium-228	4/25	6.84E-11	7.52E-10	-1.77E-09/9.99E-10 µCi/mL
<b>EPIA-010</b> Radium, total alpha-emitting	0/4	2.25E-10	1.89E-10	1.00E-10/5.00E-10 µCi/mL
<b>EPIA-011</b> Americium-241	3/28	1.16E-11	7.24E-11	-1.07E-10/2.52E-10 µCi/mL
Curium-242	0/28	-9.84E-12	2.82E-11	-9.31E-11/3.94E-11 µCi/mL
Curium-243/244	1/28	2.75E-11	5.46E-11	-2.37E-11/1.88E-10 µCi/mL
Curium-245/246	1/28	1.45E-11	3.23E-11	-8.00E-12/1.61E-10 µCi/mL
Plutonium-238	1/25	2.92E-11	6.48E-11	-3.79E-11/2.77E-10 µCi/mL
Plutonium-239/240	1/25	1.41E-11	2.07E-11	-4.38E-12/9.06E-11 µCi/mL
Uranium-233/234	3/29	4.19E-11	1.11E-10	-1.18E-11/5.66E-10 µCi/mL
Uranium-235	0/29	9.91E-12	2.78E-11	-9.42E-12/1.38E-10 µCi/mL
Uranium-238	1/29	2.36E-11	5.35E-11	-6.52E-12/2.56E-10 µCi/mL
<b>EPIA-012</b> Thorium-228	0/26	2.44E-11	3.63E-11	-2.14E-11/1.08E-10 µCi/mL
Thorium-230	1/26	1.39E-11	9.89E-12	-1.87E-12/4.23E-11 µCi/mL
Thorium-232	0/26	2.19E-12	4.84E-12	-2.95E-12/1.45E-11 µCi/mL
<b>EPIA-013</b> Actinium-228	0/26	6.28E-09	4.17E-09	-6.51E-10/1.61E-08 µCi/mL
Antimony-125	0/26	7.61E-10	4.11E-09	-4.72E-09/1.54E-08 µCi/mL
Cerium-144	0/26	2.57E-09	6.60E-09	-1.02E-08/1.76E-08 µCi/mL
Cesium-134	0/26	-1.28E-10	1.45E-09	-6.07E-09/1.68E-09 µCi/mL
Cesium-137	0/26	1.51E-09	3.11E-09	-1.62E-09/1.23E-08 µCi/mL
Cobalt-57	0/26	1.79E-10	6.61E-10	-1.03E-09/1.87E-09 µCi/mL
Cobalt-60	0/26	3.05E-10	1.02E-09	-1.80E-09/2.49E-09 µCi/mL
Europium-152	0/26	1.46E-09	2.29E-09	-3.09E-09/5.64E-09 µCi/mL
Europium-154	0/26	6.00E-10	3.24E-09	-3.23E-09/8.91E-09 µCi/mL
Europium-155	0/26	-9.01E-10	3.21E-09	-7.18E-09/4.74E-09 µCi/mL
Lead-212	0/26	3.16E-09	1.72E-09	4.59E-10/8.26E-09 µCi/mL
Manganese-54	0/26	2.71E-10	1.34E-09	-2.73E-09/3.81E-09 µCi/mL
Potassium-40	1/26	1.95E-08	1.59E-08	-7.98E-09/5.27E-08 µCi/mL
Promethium-144	0/26	2.27E-10	8.81E-10	-1.26E-09/2.48E-09 µCi/mL
Promethium-146	0/26	1.87E-10	1.86E-09	-3.04E-09/5.48E-09 µCi/mL
Ruthenium-106	0/26	1.84E-09	8.31E-09	-1.52E-08/1.58E-08 µCi/mL
Sodium-22	0/26	2.40E-10	1.13E-09	-1.14E-09/3.17E-09 µCi/mL
Yttrium-88	0/26	-8.71E-11	1.55E-09	-3.86E-09/3.25E-09 µCi/mL
Zinc-65	0/26	-1.09E-09	2.47E-09	-5.97E-09/3.83E-09 µCi/mL

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>EPIA-022</b> Nickel-63	0/11	9.00E-09	1.77E-08	-2.04E-08/4.85E-08 µCi/mL

† Number of times analyte was detected compared to the total number of method blanks for the analyte.

Note: If the analyte was not detected in the method blank(s), detection limit information appears in the *Mean Result* and *Minimum/Maximum Results* columns.

**Table 57. Analytes Detected in Method Blanks for TM**

Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>3500NIEMOD</b> Nickel-63	0/4	-1.13E-08	1.51E-08	-3.39E-08/-2.75E-09 µCi/mL
<b>EICHROMTC1MOD</b> Technetium-99	0/9	2.66E-10	2.55E-10	-3.00E-10/5.20E-10 µCi/mL
<b>EMLAM01MOD</b> Americium-241/Curium-246	4/7	1.74E-10	9.74E-11	2.00E-11/2.90E-10 µCi/mL
Curium-242	0/7	2.86E-12	2.21E-11	-2.00E-11/4.00E-11 µCi/mL
Curium-243/244	0/7	2.00E-11	4.16E-11	-3.00E-11/9.00E-11 µCi/mL
<b>EMLPU02MOD</b> Plutonium-238	0/7	2.71E-11	2.93E-11	0.0/9.00E-11 µCi/mL
Plutonium-239/240	0/7	2.57E-11	3.05E-11	0.0/9.00E-11 µCi/mL
<b>EMLSR02MOD</b> Strontium-90	2/9	4.29E-10	8.95E-10	-4.50E-10/2.20E-09 µCi/mL
<b>EMLTH01MOD</b> Thorium-228	0/7	6.43E-11	3.15E-11	2.00E-11/1.20E-10 µCi/mL
Thorium-230	4/7	1.73E-10	6.73E-11	1.10E-10/2.70E-10 µCi/mL
Thorium-232	0/7	6.86E-11	4.14E-11	2.00E-11/1.30E-10 µCi/mL
<b>EMLU02MOD</b> Uranium-234	0/8	7.50E-11	6.14E-11	3.00E-11/2.20E-10 µCi/mL
Uranium-235	0/8	1.88E-11	9.91E-12	0.0/3.00E-11 µCi/mL
Uranium-238	0/8	3.63E-11	2.88E-11	0.0/8.00E-11 µCi/mL
<b>ENICMOD</b> Carbon-14	0/8	3.52E-09	6.18E-08	-8.08E-08/9.65E-08 µCi/mL
<b>EPA900.0MOD</b> Gross alpha	7/91	4.29E-12	1.69E-10	-2.70E-10/9.40E-10 µCi/mL
Nonvolatile beta	2/72	-2.26E-10	4.21E-10	-1.11E-09/1.43E-09 µCi/mL
<b>EPA901.1MOD</b> Cesium-137	0/11	7.98E-10	1.20E-09	-1.19E-09/2.38E-09 µCi/mL
Cobalt-60	0/11	3.46E-10	1.16E-09	-1.46E-09/1.65E-09 µCi/mL
<b>EPA902.0MOD</b> Iodine-129	0/8	3.86E-10	5.80E-10	-2.50E-10/1.18E-09 µCi/mL

### Quality Control Samples



<i>Analyte</i>	<i>Frequency of Detection†</i>	<i>Mean Result</i>	<i>Standard Deviation</i>	<i>Minimum/Maximum Results</i>
<b>EPA903.0MOD</b>				
Radium, total alpha-emitting	2/17	1.15E-10	1.30E-10	-9.00E-11/3.60E-10 µCi/mL
Radium-226	1/9	7.22E-11	3.96E-11	0.0/1.30E-10 µCi/mL
<b>EPA904.0MOD</b>				
Radium-228	1/9	-2.89E-11	5.69E-10	-6.70E-10/1.16E-09 µCi/mL
<b>EPA906.0MOD</b>				
Tritium	14/97	2.74E-07	1.06E-06	-2.10E-06/6.20E-06 µCi/mL

† Number of times analyte was detected compared to the total number of method blanks for the analyte.

**Table 58. Analytes Detected in Field Blanks for EX**

<i>Analyte</i>	<i>Frequency of Detection†</i>	<i>Mean Result</i>	<i>Standard Deviation</i>	<i>Minimum/Maximum Results</i>
<b>EPA300.0</b>				
Nitrate as nitrogen	0/3	133	57.7	100/200 µg/L
<b>EPA6010B</b>				
Aluminum	0/18	200	0.0	200/200 µg/L
Arsenic	0/2	100	0.0	100/100 µg/L
Barium	0/14	10.0	0.0	10.0/10.0 µg/L
Boron	0/5	100	0.0	100/100 µg/L
Cadmium	0/2	10.0	0.0	10.0/10.0 µg/L
Chromium	0/2	10.0	0.0	10.0/10.0 µg/L
Iron	2/18	148	85.6	6.58/200 µg/L
Lead	0/17	96.8	13.0	46.3/100 µg/L
Manganese	0/6	10.0	0.0	10.0/10.0 µg/L
Nickel	0/11	42.5	16.7	7.80/50.0 µg/L
Selenium	0/13	156	83.3	10.0/200 µg/L
Silver	0/2	20.0	0.0	20.0/20.0 µg/L
<b>EPA7470A</b>				
Mercury	1/5	0.44	0.14	0.19/0.50 µg/L
<b>EPA8082</b>				
PCB 1016	0/1	2.0	—	2.0/2.0 µg/L
PCB 1221	0/1	2.0	—	2.0/2.0 µg/L
PCB 1232	0/1	1.0	—	1.0/1.0 µg/L
PCB 1242	0/1	1.0	—	1.0/1.0 µg/L
PCB 1248	0/1	1.0	—	1.0/1.0 µg/L
PCB 1254	0/1	1.0	—	1.0/1.0 µg/L
PCB 1260	0/1	1.0	—	1.0/1.0 µg/L
<b>EPA9014</b>				
Cyanide	0/10	10.0	0.0	10.0/10.0 µg/L

† Number of times analyte was detected compared to the total number of field blanks for the analyte.

— Standard deviation cannot be determined.

Note: If the analyte was not detected in the field blank(s), detection limit information appears in the *Mean Result* and *Minimum/Maximum Results* columns.

### Quality Control Samples



**Table 59. Analytes Detected in Field Blanks for GE**

<b>Analyte</b>	<b>Frequency of Detection†</b>	<b>Mean Result</b>	<b>Standard Deviation</b>	<b>Minimum/Maximum Results</b>
<b>EPA353.1</b>				
Nitrate-nitrite as nitrogen	3/13	46.9	27.2	10.0/120 µg/L
<b>EPA6010B</b>				
Aluminum	1/6	113	159	22.4/435 µg/L
Antimony	0/2	10.0	0.0	10.0/10.0 µg/L
Arsenic	0/6	5.0	0.0	5.0/5.0 µg/L
Barium	1/6	7.27	5.55	5.0/18.6 µg/L
Beryllium	0/1	5.0	—	5.0/5.0 µg/L
Cadmium	0/6	5.0	0.0	5.0/5.0 µg/L
Calcium	0/1	100	—	100/100 µg/L
Chromium	2/6	3.56	2.23	0.58/5.0 µg/L
Cobalt	0/1	5.0	—	5.0/5.0 µg/L
Copper	0/1	5.0	—	5.0/5.0 µg/L
Iron	1/6	51.8	4.33	50.0/60.6 µg/L
Lead	2/6	7.92	7.44	4.44/23.1 µg/L
Magnesium	0/1	10.0	—	10.0/10.0 µg/L
Manganese	0/1	10.0	—	10.0/10.0 µg/L
Nickel	0/1	5.0	—	5.0/5.0 µg/L
Potassium	0/1	100	—	100/100 µg/L
Selenium	0/6	5.0	0.0	5.0/5.0 µg/L
Silver	1/6	2.70	1.89	0.80/5.0 µg/L
Sodium	0/1	100	—	100/100 µg/L
Thallium	0/1	5.0	—	5.0/5.0 µg/L
Vanadium	0/1	5.0	—	5.0/5.0 µg/L
Zinc	0/1	2.94	—	2.94/2.94 µg/L
<b>EPA6020</b>				
Aluminum	0/12	15.0	0.0	15.0/15.0 µg/L
Antimony	0/12	0.19	0.02	0.13/0.20 µg/L
Arsenic	0/12	3.0	0.0	3.0/3.0 µg/L
Barium	2/12	1.81	0.45	0.76/2.0 µg/L
Cadmium	0/12	0.87	0.30	0.23/1.0 µg/L
Chromium	2/12	2.53	0.91	0.64/3.0 µg/L
Cobalt	0/12	0.19	0.04	0.08/0.20 µg/L
Copper	5/12	0.75	0.38	0.28/1.22 µg/L
Iron	1/12	21.0	20.8	15.0/87.1 µg/L
Lead	1/12	1.87	0.46	0.40/2.0 µg/L
Nickel	1/12	1.90	0.35	0.80/2.0 µg/L
Selenium	0/12	5.0	0.0	5.0/5.0 µg/L
Silver	0/12	1.0	0.0	1.0/1.0 µg/L
Thallium	1/5	1.64	1.19	0.12/2.50 µg/L
Tin	0/7	5.0	0.0	5.0/5.0 µg/L
Vanadium	0/12	6.69	3.46	3.15/10.0 µg/L
Zinc	0/12	10.0	0.0	10.0/10.0 µg/L
<b>EPA7470A</b>				
Mercury	1/18	0.19	0.03	0.05/0.20 µg/L
<b>EPA8081A</b>				
Aldrin	0/1	0.02	—	0.02/0.02 µg/L
alpha-Benzene hexachloride	0/1	0.02	—	0.02/0.02 µg/L
beta-Benzene hexachloride	0/1	0.02	—	0.02/0.02 µg/L
delta-Benzene hexachloride	0/1	0.02	—	0.02/0.02 µg/L
alpha-Chlordane	0/1	0.02	—	0.02/0.02 µg/L
gamma-Chlordane	0/1	0.02	—	0.02/0.02 µg/L
p,p'-DDD	0/1	0.04	—	0.04/0.04 µg/L
p,p'-DDE	0/1	0.04	—	0.04/0.04 µg/L

**Quality Control Samples**



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
p,p'-DDT	0/1	0.04	—	0.04/0.04 µg/L
Dieldrin	0/1	0.04	—	0.04/0.04 µg/L
Endosulfan sulfate	0/1	0.04	—	0.04/0.04 µg/L
Endosulfan I	0/1	0.02	—	0.02/0.02 µg/L
Endosulfan II	0/1	0.04	—	0.04/0.04 µg/L
Endrin	0/1	0.04	—	0.04/0.04 µg/L
Endrin aldehyde	0/1	0.04	—	0.04/0.04 µg/L
Endrin ketone	0/1	0.04	—	0.04/0.04 µg/L
Heptachlor	0/1	0.02	—	0.02/0.02 µg/L
Heptachlor epoxide	0/1	0.02	—	0.02/0.02 µg/L
Lindane	0/1	0.02	—	0.02/0.02 µg/L
Methoxychlor	0/1	0.20	—	0.20/0.20 µg/L
Toxaphene	0/1	1.0	—	1.0/1.0 µg/L
<b>EPA8082</b>				
PCB 1016	0/1	0.10	—	0.10/0.10 µg/L
PCB 1221	0/1	0.10	—	0.10/0.10 µg/L
PCB 1232	0/1	0.10	—	0.10/0.10 µg/L
PCB 1242	0/1	0.10	—	0.10/0.10 µg/L
PCB 1248	0/1	0.10	—	0.10/0.10 µg/L
PCB 1254	0/1	0.10	—	0.10/0.10 µg/L
PCB 1260	0/1	0.10	—	0.10/0.10 µg/L
<b>EPA8270C</b>				
Acenaphthene	0/1	10.0	—	10.0/10.0 µg/L
Acenaphthylene	0/1	10.0	—	10.0/10.0 µg/L
Anthracene	0/1	10.0	—	10.0/10.0 µg/L
Benidine	0/1	50.0	—	50.0/50.0 µg/L
Benzo[a]anthracene	0/1	10.0	—	10.0/10.0 µg/L
Benzo[b]fluoranthene	0/1	10.0	—	10.0/10.0 µg/L
Benzo[k]fluoranthene	0/1	10.0	—	10.0/10.0 µg/L
Benzoic acid	0/1	20.0	—	20.0/20.0 µg/L
Benzo[g,h,i]perylene	0/1	10.0	—	10.0/10.0 µg/L
Benzo[a]pyrene	0/1	10.0	—	10.0/10.0 µg/L
Benzyl alcohol	0/1	10.0	—	10.0/10.0 µg/L
Bis(2-chloroethoxy) methane	0/1	10.0	—	10.0/10.0 µg/L
Bis(2-chloroethyl) ether	0/1	10.0	—	10.0/10.0 µg/L
Bis(2-chloroisopropyl) ether	0/1	10.0	—	10.0/10.0 µg/L
Bis(2-ethylhexyl) phthalate	8/13	12.6	5.20	9.27/27.9 µg/L
4-Bromophenyl phenyl ether	0/1	10.0	—	10.0/10.0 µg/L
Butylbenzyl phthalate	0/1	10.0	—	10.0/10.0 µg/L
4-Chloroaniline	0/1	10.0	—	10.0/10.0 µg/L
4-Chloro-m-cresol	0/1	10.0	—	10.0/10.0 µg/L
2-Chloronaphthalene	0/1	10.0	—	10.0/10.0 µg/L
2-Chlorophenol	0/1	10.0	—	10.0/10.0 µg/L
4-Chlorophenyl phenyl ether	0/1	10.0	—	10.0/10.0 µg/L
Chrysene	0/1	10.0	—	10.0/10.0 µg/L
m/p-Cresol	0/1	10.0	—	10.0/10.0 µg/L
o-Cresol	0/1	10.0	—	10.0/10.0 µg/L
Dibenz[a,h]anthracene	0/1	10.0	—	10.0/10.0 µg/L
Dibenzofuran	0/1	10.0	—	10.0/10.0 µg/L
Di-n-butyl phthalate	0/1	10.0	—	10.0/10.0 µg/L
1,2-Dichlorobenzene	0/1	10.0	—	10.0/10.0 µg/L
1,3-Dichlorobenzene	0/1	10.0	—	10.0/10.0 µg/L
1,4-Dichlorobenzene	0/1	10.0	—	10.0/10.0 µg/L
3,3'-Dichlorobenzidine	0/1	20.0	—	20.0/20.0 µg/L
2,4-Dichlorophenol	0/1	10.0	—	10.0/10.0 µg/L
Diethyl phthalate	0/1	10.0	—	10.0/10.0 µg/L
2,4-Dimethyl phenol	0/1	10.0	—	10.0/10.0 µg/L
Dimethyl phthalate	0/1	10.0	—	10.0/10.0 µg/L
2,4-Dinitrophenol	0/1	20.0	—	20.0/20.0 µg/L

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
2,4-Dinitrotoluene	0/1	10.0	—	10.0/10.0 µg/L
2,6-Dinitrotoluene	0/1	10.0	—	10.0/10.0 µg/L
Di-n-octyl phthalate	0/1	10.0	—	10.0/10.0 µg/L
Fluoranthene	0/1	10.0	—	10.0/10.0 µg/L
Fluorene	0/1	10.0	—	10.0/10.0 µg/L
Hexachlorobenzene	0/1	10.0	—	10.0/10.0 µg/L
Hexachlorobutadiene	0/1	10.0	—	10.0/10.0 µg/L
Hexachlorocyclopentadiene	0/1	10.0	—	10.0/10.0 µg/L
Hexachloroethane	0/1	10.0	—	10.0/10.0 µg/L
Indeno[1,2,3-c,d]pyrene	0/1	10.0	—	10.0/10.0 µg/L
Isophorone	0/1	10.0	—	10.0/10.0 µg/L
2-Methyl-4,6-dinitrophenol	0/1	10.0	—	10.0/10.0 µg/L
2-Methylnaphthalene	0/1	10.0	—	10.0/10.0 µg/L
Naphthalene	0/1	10.0	—	10.0/10.0 µg/L
m-Nitroaniline	0/1	10.0	—	10.0/10.0 µg/L
o-Nitroaniline	0/1	10.0	—	10.0/10.0 µg/L
p-Nitroaniline	0/1	10.0	—	10.0/10.0 µg/L
Nitrobenzene	0/1	10.0	—	10.0/10.0 µg/L
2-Nitrophenol	0/1	10.0	—	10.0/10.0 µg/L
4-Nitrophenol	0/1	10.0	—	10.0/10.0 µg/L
N-Nitrosodiphenylamine	0/1	10.0	—	10.0/10.0 µg/L
N-Nitrosodipropylamine	0/1	10.0	—	10.0/10.0 µg/L
Pentachlorophenol	0/1	20.0	—	20.0/20.0 µg/L
Phenanthrene	0/1	10.0	—	10.0/10.0 µg/L
Phenol	0/1	10.0	—	10.0/10.0 µg/L
Pyrene	0/1	10.0	—	10.0/10.0 µg/L
1,2,4-Trichlorobenzene	0/1	10.0	—	10.0/10.0 µg/L
2,4,5-Trichlorophenol	0/1	10.0	—	10.0/10.0 µg/L
2,4,6-Trichlorophenol	0/1	10.0	—	10.0/10.0 µg/L
<b>EPA9012A</b>				
Cyanide	0/15	10.0	0.0	10.0/10.0 µg/L
<b>EPA9020B</b>				
Total organic halogens	1/1	13.8	—	13.8/13.8 µg/L
<b>EPA9040B</b>				
pH	16/16	5.67	0.27	5.26/6.18 pH
<b>EPA9050A</b>				
Specific conductance	13/13	1.74	0.53	1.19/3.30 µS/cm
<b>EPA9056</b>				
Nitrite as nitrogen	0/1	50.0	—	50.0/50.0 µg/L
<b>EPA9066</b>				
Phenols	0/7	5.0	0.0	5.0/5.0 µg/L
<b>EPIA-002</b>				
Tritium	0/1	-8.29E-09	—	-8.29E-09/-8.29E-09 µCi/mL

† Number of times analyte was detected compared to the total number of field blanks for the analyte.

— Standard deviation cannot be determined.

Note: If the analyte was not detected in the field blank(s), detection limit information appears in the *Mean Result* and *Minimum/Maximum Results* columns.

### Quality Control Samples



**Table 60. Analytes Detected in Field Blanks for WA**

Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>EPA340.2</b> Fluoride	0/3	16.0	2.40	14.1/18.7 µg/L
<b>EPA353.2</b> Nitrate-nitrite as nitrogen	1/2	11.0	12.7	2.0/20.0 µg/L
<b>EPA365.2</b> Total phosphates (as P)	1/2	38.2	40.8	9.34/67.0 µg/L
<b>EPA6010B</b> Aluminum	1/6	109	57.7	26.7/146 µg/L
Antimony	0/1	27.0	—	27.0/27.0 µg/L
Arsenic	0/3	40.0	0.0	40.0/40.0 µg/L
Barium	0/6	1.21	0.72	0.31/1.80 µg/L
Beryllium	0/1	1.60	—	1.60/1.60 µg/L
Cadmium	0/1	4.70	—	4.70/4.70 µg/L
Chromium	0/3	7.0	0.0	7.0/7.0 µg/L
Cobalt	0/1	4.50	—	4.50/4.50 µg/L
Copper	0/1	15.0	—	15.0/15.0 µg/L
Iron	1/6	45.4	32.1	8.50/74.0 µg/L
Lead	0/6	47.0	0.0	47.0/47.0 µg/L
Manganese	0/2	7.80	0.0	7.80/7.80 µg/L
Nickel	0/6	26.0	0.0	26.0/26.0 µg/L
Selenium	0/6	66.0	0.0	66.0/66.0 µg/L
Silver	0/3	5.0	0.0	5.0/5.0 µg/L
Sodium	1/2	37.7	11.6	29.5/45.9 µg/L
Thallium	0/1	55.0	—	55.0/55.0 µg/L
Vanadium	0/1	6.90	—	6.90/6.90 µg/L
Zinc	0/1	53.0	—	53.0/53.0 µg/L
<b>EPA7470A</b> Mercury	0/3	0.45	0.0	0.45/0.45 µg/L
<b>EPA8081A</b> beta-Benzene hexachloride	0/1	0.05	—	0.05/0.05 µg/L
Lindane	0/2	0.05	0.0	0.05/0.05 µg/L
<b>EPA8151A</b> 2,4-Dichlorophenoxyacetic acid	0/2	1.05	0.01	1.04/1.05 µg/L
<b>EPA8270C</b> Di-n-butyl phthalate	0/1	10.2	—	10.2/10.2 µg/L
Phenol	0/2	10.2	0.0	10.2/10.2 µg/L
<b>EPA9014</b> Cyanide	1/5	13.2	4.40	5.37/15.2 µg/L
<b>EPA9020B</b> Total organic halogens	0/2	120	0.0	120/120 µg/L
<b>EPA9040B</b> pH	1/1	5.77	—	5.77/5.77 pH
<b>EPA9050A</b> Specific conductance	0/1	8.90	—	8.90/8.90 µS/cm

**Quality Control Samples**



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>EPA9056</b>				
Chloride	1/2	219	12.0	210/227 µg/L
Sulfate	0/2	340	0.0	340/340 µg/L
<b>EPA9060</b>				
Total organic carbon	2/2	1,090	305	878/1,310 µg/L

† Number of times analyte was detected compared to the total number of field blanks for the analyte.

— Standard deviation cannot be determined.

Note: If the analyte was not detected in the field blank(s), detection limit information appears in the *Mean Result* and *Minimum/Maximum Results* columns.

**Table 61. Analytes Detected in Field Blanks for GP**

Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>EPIA-001</b>				
Gross alpha	1/21	1.48E-10	3.01E-10	-2.43E-10/1.22E-09 µCi/mL
Nonvolatile beta	2/20	1.13E-09	3.06E-09	-1.84E-10/1.39E-08 µCi/mL
<b>EPIA-002</b>				
Tritium	1/20	1.43E-06	6.91E-06	-3.54E-07/3.08E-05 µCi/mL
<b>EPIA-003</b>				
Carbon-14	1/14	3.73E-09	7.77E-09	-3.56E-09/2.85E-08 µCi/mL
<b>EPIA-004</b>				
Strontium-90	1/15	2.78E-09	1.08E-08	-1.57E-09/4.17E-08 µCi/mL
<b>EPIA-005</b>				
Technetium-99	0/16	-1.24E-08	1.60E-08	-3.71E-08/6.42E-09 µCi/mL
<b>EPIA-006</b>				
Iodine-129	1/17	3.59E-10	3.61E-10	-5.02E-10/1.02E-09 µCi/mL
<b>EPIA-008</b>				
Radium-226	3/16	4.22E-10	2.36E-10	1.07E-10/9.15E-10 µCi/mL
<b>EPIA-009</b>				
Radium-228	2/17	7.54E-10	8.54E-10	-3.59E-12/3.80E-09 µCi/mL
<b>EPIA-010</b>				
Radium, total alpha-emitting	0/1	-2.00E-10	—	-2.00E-10/-2.00E-10 µCi/mL
<b>EPIA-011</b>				
Americium-241	0/15	3.26E-11	5.55E-11	-5.93E-11/1.43E-10 µCi/mL
Curium-242	0/15	2.54E-12	1.67E-11	-2.79E-11/4.02E-11 µCi/mL
Curium-243/244	0/15	9.86E-12	1.73E-11	-1.49E-11/4.17E-11 µCi/mL
Curium-245/246	1/15	7.64E-11	1.61E-10	0.0/6.28E-10 µCi/mL
Plutonium-238	1/15	6.29E-11	1.34E-10	-9.07E-11/4.69E-10 µCi/mL

### Quality Control Samples



<i>Analyte</i>	<i>Frequency of Detection†</i>	<i>Mean Result</i>	<i>Standard Deviation</i>	<i>Minimum/Maximum Results</i>
Plutonium-239/240	0/15	3.97E-11	6.08E-11	-4.87E-11/1.97E-10 µCi/mL
Uranium-233/234	2/15	1.05E-10	9.05E-11	-8.16E-12/2.66E-10 µCi/mL
Uranium-235	1/15	2.64E-11	4.57E-11	-4.27E-11/1.49E-10 µCi/mL
Uranium-238	0/15	2.16E-11	3.29E-11	-1.44E-11/1.10E-10 µCi/mL
<b>EPIA-012</b>				
Thorium-228	0/15	2.59E-11	6.37E-11	-8.84E-11/1.28E-10 µCi/mL
Thorium-230	1/15	7.33E-11	7.95E-11	1.19E-11/3.14E-10 µCi/mL
Thorium-232	0/15	2.03E-12	2.81E-11	-3.58E-11/8.87E-11 µCi/mL
<b>EPIA-013</b>				
Actinium-228	0/19	5.32E-09	3.13E-09	1.17E-09/1.24E-08 µCi/mL
Antimony-125	0/19	9.55E-10	2.63E-09	-2.65E-09/5.39E-09 µCi/mL
Cerium-144	0/19	-6.30E-10	5.76E-09	-9.15E-09/1.25E-08 µCi/mL
Cesium-134	0/19	3.39E-11	1.02E-09	-1.80E-09/2.02E-09 µCi/mL
Cesium-137	2/19	1.02E-09	2.43E-09	-1.26E-09/8.91E-09 µCi/mL
Cobalt-57	1/19	-2.93E-12	9.28E-10	-1.43E-09/2.12E-09 µCi/mL
Cobalt-60	0/19	4.15E-10	1.14E-09	-1.93E-09/2.47E-09 µCi/mL
Europium-152	0/19	-3.72E-10	2.16E-09	-4.33E-09/4.68E-09 µCi/mL
Europium-154	0/19	6.15E-10	2.96E-09	-6.14E-09/4.97E-09 µCi/mL
Europium-155	0/19	1.37E-10	3.82E-09	-7.15E-09/7.62E-09 µCi/mL
Lead-212	1/19	3.50E-09	3.00E-09	3.74E-10/1.27E-08 µCi/mL
Manganese-54	0/19	-1.44E-10	7.38E-10	-1.68E-09/8.22E-10 µCi/mL
Potassium-40	2/19	1.94E-08	1.63E-08	-8.71E-10/5.37E-08 µCi/mL
Promethium-144	0/19	2.08E-10	8.20E-10	-1.14E-09/1.62E-09 µCi/mL
Promethium-146	0/19	4.26E-11	1.36E-09	-2.88E-09/2.22E-09 µCi/mL
Ruthenium-106	0/19	1.27E-10	7.54E-09	-1.15E-08/1.28E-08 µCi/mL
Sodium-22	0/19	2.34E-10	1.07E-09	-2.21E-09/1.78E-09 µCi/mL
Yttrium-88	0/19	1.09E-11	1.51E-09	-2.17E-09/3.73E-09 µCi/mL
Zinc-65	0/19	-1.10E-09	2.53E-09	-4.98E-09/2.55E-09 µCi/mL
<b>EPIA-022</b>				
Nickel-63	0/7	-4.57E-09	2.10E-08	-2.63E-08/2.52E-08 µCi/mL

† Number of times analyte was detected compared to the total number of field blanks for the analyte.

— Standard deviation cannot be determined.

Note: If the analyte was not detected in the field blank(s), detection limit information appears in the *Mean Result* and *Minimum/Maximum Results* columns.

### Quality Control Samples



**Table 62. Analytes Detected in Field Blanks for TM**

Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>EPA900.0MOD</b>				
Gross alpha	2/12	1.02E-10	3.45E-10	-4.90E-10/6.70E-10 µCi/mL
Nonvolatile beta	1/9	-1.31E-10	1.05E-09	-1.47E-09/2.15E-09 µCi/mL
<b>EPA903.0MOD</b>				
Radium, total alpha-emitting	0/2	-3.00E-11	1.84E-10	-1.60E-10/1.00E-10 µCi/mL
<b>EPA906.0MOD</b>				
Tritium	1/7	7.00E-08	3.14E-07	-2.80E-07/6.50E-07 µCi/mL

† Number of times analyte was detected compared to the total number of field blanks for the analyte.

Note: If the analyte was not detected in the field blank(s), detection limit information appears in the *Mean Result* and *Minimum/Maximum Results* columns.

**Table 63. Analytes Detected in Trip Blanks for EX**

Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>EPA8021B</b>				
Carbon tetrachloride	0/7	1.0	0.0	1.0/1.0 µg/L
Chloroform	0/7	1.0	0.0	1.0/1.0 µg/L
cis-1,2-Dichloroethylene	0/7	1.0	0.0	1.0/1.0 µg/L
Tetrachloroethylene	0/7	1.0	0.0	1.0/1.0 µg/L
1,1,1-Trichloroethane	0/7	1.0	0.0	1.0/1.0 µg/L
Trichloroethylene	0/7	1.0	0.0	1.0/1.0 µg/L
<b>EPA8260B</b>				
Acetone	0/7	10.0	0.0	10.0/10.0 µg/L
Acetonitrile	0/7	500	0.0	500/500 µg/L
Acrolein	0/7	50.0	0.0	50.0/50.0 µg/L
Acrylonitrile	0/7	50.0	0.0	50.0/50.0 µg/L
Allyl chloride	0/7	10.0	0.0	10.0/10.0 µg/L
Benzene	0/29	5.0	0.0	5.0/5.0 µg/L
Bromodichloromethane	0/29	5.0	0.0	5.0/5.0 µg/L
Bromoform	0/29	5.0	0.0	5.0/5.0 µg/L
Bromomethane	0/29	5.0	0.0	5.0/5.0 µg/L
Carbon disulfide	0/7	5.0	0.0	5.0/5.0 µg/L
Carbon tetrachloride	0/29	5.0	0.0	5.0/5.0 µg/L
Chlorobenzene	0/29	5.0	0.0	5.0/5.0 µg/L
Chloroethane	0/29	10.0	0.0	10.0/10.0 µg/L
Chloroethene	0/29	5.0	0.0	5.0/5.0 µg/L
2-Chloroethyl vinyl ether	0/22	5.0	0.0	5.0/5.0 µg/L
Chloroform	0/29	5.0	0.0	5.0/5.0 µg/L
Chloromethane	0/29	5.0	0.0	5.0/5.0 µg/L
Chloroprene	0/7	50.0	0.0	50.0/50.0 µg/L
Dibromochloromethane	0/29	5.0	0.0	5.0/5.0 µg/L
1,2-Dibromo-3-chloropropane	0/7	5.0	0.0	5.0/5.0 µg/L
1,2-Dibromoethane	0/7	5.0	0.0	5.0/5.0 µg/L
Dibromomethane	0/7	5.0	0.0	5.0/5.0 µg/L
1,2-Dichlorobenzene	0/7	5.0	0.0	5.0/5.0 µg/L
1,3-Dichlorobenzene	0/7	5.0	0.0	5.0/5.0 µg/L
1,4-Dichlorobenzene	0/7	5.0	0.0	5.0/5.0 µg/L
trans-1,4-Dichloro-2-butene	0/7	20.0	0.0	20.0/20.0 µg/L

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
Dichlorodifluoromethane	0/7	5.0	0.0	5.0/5.0 µg/L
1,1-Dichloroethane	0/29	5.0	0.0	5.0/5.0 µg/L
1,2-Dichloroethane	0/29	5.0	0.0	5.0/5.0 µg/L
1,1-Dichloroethylene	0/29	5.0	0.0	5.0/5.0 µg/L
cis-1,2-Dichloroethylene	0/7	5.0	0.0	5.0/5.0 µg/L
trans-1,2-Dichloroethylene	0/29	5.0	0.0	5.0/5.0 µg/L
Dichloromethane	3/29	5.32	0.93	5.0/9.31 µg/L
1,2-Dichloropropane	0/29	5.0	0.0	5.0/5.0 µg/L
cis-1,3-Dichloropropene	0/29	5.0	0.0	5.0/5.0 µg/L
trans-1,3-Dichloropropene	0/29	5.0	0.0	5.0/5.0 µg/L
1,4-Dioxane	0/7	1,000	0.0	1,000/1,000 µg/L
Ethyl methacrylate	0/7	5.0	0.0	5.0/5.0 µg/L
Ethylbenzene	0/29	5.0	0.0	5.0/5.0 µg/L
2-Hexanone	0/7	5.0	0.0	5.0/5.0 µg/L
Iodomethane	0/7	5.0	0.0	5.0/5.0 µg/L
Isobutyl alcohol	0/7	1,500	0.0	1,500/1,500 µg/L
Methacrylonitrile	0/7	500	0.0	500/500 µg/L
Methyl ethyl ketone	0/7	10.0	0.0	10.0/10.0 µg/L
Methyl isobutyl ketone	0/7	5.0	0.0	5.0/5.0 µg/L
Methyl methacrylate	0/7	50.0	0.0	50.0/50.0 µg/L
Pentachloroethane	0/7	200	0.0	200/200 µg/L
Propionitrile	0/7	500	0.0	500/500 µg/L
Styrene	0/7	5.0	0.0	5.0/5.0 µg/L
1,1,1,2-Tetrachloroethane	0/7	5.0	0.0	5.0/5.0 µg/L
1,1,2,2-Tetrachloroethane	0/29	5.0	0.0	5.0/5.0 µg/L
Tetrachloroethylene	0/29	5.0	0.0	5.0/5.0 µg/L
Toluene	0/29	5.0	0.0	5.0/5.0 µg/L
1,1,1-Trichloroethane	0/29	5.0	0.0	5.0/5.0 µg/L
1,1,2-Trichloroethane	0/29	5.0	0.0	5.0/5.0 µg/L
Trichloroethylene	0/29	5.0	0.0	5.0/5.0 µg/L
Trichlorofluoromethane	0/29	5.0	0.0	5.0/5.0 µg/L
1,2,3-Trichloropropane	0/7	5.0	0.0	5.0/5.0 µg/L
Vinyl acetate	0/7	20.0	0.0	20.0/20.0 µg/L
Xylenes	0/7	10.0	0.0	10.0/10.0 µg/L

† Number of times analyte was detected compared to the total number of field blanks for the analyte.

Note: If the analyte was not detected in the trip blank(s), detection limit information appears in the *Mean Result* and *Minimum/Maximum Results* columns.

**Table 64. Analytes Detected in Trip Blanks for GE**

Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>EPA8260B</b>				
Acetone	0/2	5.0	0.0	5.0/5.0 µg/L
Acetonitrile	0/1	25.0	—	25.0/25.0 µg/L
Acrolein	0/1	10.0	—	10.0/10.0 µg/L
Acrylonitrile	0/1	10.0	—	10.0/10.0 µg/L
Allyl chloride	0/1	5.0	—	5.0/5.0 µg/L
Benzene	1/46	1.0	0.0	1.0/1.0 µg/L
Bromochloromethane	0/1	1.0	—	1.0/1.0 µg/L
Bromodichloromethane	0/33	1.0	0.0	1.0/1.0 µg/L
Bromoform	0/33	1.0	0.0	1.0/1.0 µg/L
Bromomethane	0/33	1.0	0.0	1.0/1.0 µg/L
Carbon disulfide	0/2	5.0	0.0	5.0/5.0 µg/L
Carbon tetrachloride	1/46	1.0	0.0	1.0/1.0 µg/L

### Quality Control Samples



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
Chlorobenzene	1/46	1.0	0.0	1.0/1.0 µg/L
Chloroethane	0/33	1.0	0.0	1.0/1.0 µg/L
Chloroethene	0/33	1.0	0.0	1.0/1.0 µg/L
2-Chloroethyl vinyl ether	0/31	5.0	0.0	5.0/5.0 µg/L
Chloroform	1/46	1.01	0.11	0.93/1.76 µg/L
Chloromethane	0/33	1.0	0.0	1.0/1.0 µg/L
Chloroprene	0/1	2.0	—	2.0/2.0 µg/L
Dibromochloromethane	0/33	1.0	0.0	1.0/1.0 µg/L
1,2-Dibromo-3-chloropropane	0/1	1.0	—	1.0/1.0 µg/L
1,2-Dibromoethane	0/1	1.0	—	1.0/1.0 µg/L
Dibromomethane	0/1	1.0	—	1.0/1.0 µg/L
1,2-Dichlorobenzene	0/1	1.0	—	1.0/1.0 µg/L
1,4-Dichlorobenzene	0/1	1.0	—	1.0/1.0 µg/L
trans-1,4-Dichloro-2-butene	0/1	5.0	—	5.0/5.0 µg/L
Dichlorodifluoromethane	0/1	5.0	—	5.0/5.0 µg/L
1,1-Dichloroethane	0/33	1.0	0.0	1.0/1.0 µg/L
1,2-Dichloroethane	0/33	1.0	0.0	1.0/1.0 µg/L
1,1-Dichloroethylene	1/46	1.0	0.0	1.0/1.0 µg/L
1,2-Dichloroethylene	0/1	1.0	—	1.0/1.0 µg/L
cis-1,2-Dichloroethylene	0/1	1.17	—	1.17/1.17 µg/L
trans-1,2-Dichloroethylene	0/32	1.0	0.0	1.0/1.0 µg/L
Dichloromethane	3/33	4.28	1.22	1.56/6.61 µg/L
1,2-Dichloropropane	0/33	1.0	0.0	1.0/1.0 µg/L
cis-1,3-Dichloropropene	0/33	1.0	0.0	1.0/1.0 µg/L
trans-1,3-Dichloropropene	0/33	1.0	0.0	1.0/1.0 µg/L
Ethyl methacrylate	0/1	5.0	—	5.0/5.0 µg/L
Ethylbenzene	0/33	1.0	0.0	1.0/1.0 µg/L
2-Hexanone	0/2	5.0	0.0	5.0/5.0 µg/L
Iodomethane	0/1	10.0	—	10.0/10.0 µg/L
Isobutyl alcohol	0/1	50.0	—	50.0/50.0 µg/L
Methacrylonitrile	0/1	5.0	—	5.0/5.0 µg/L
Methyl ethyl ketone	0/2	10.0	0.0	10.0/10.0 µg/L
Methyl isobutyl ketone	0/2	5.0	0.0	5.0/5.0 µg/L
Methyl methacrylate	0/1	5.0	—	5.0/5.0 µg/L
Pentachloroethane	0/1	5.0	—	5.0/5.0 µg/L
Propionitrile	0/1	10.0	—	10.0/10.0 µg/L
Styrene	0/2	1.0	0.0	1.0/1.0 µg/L
1,1,1,2-Tetrachloroethane	0/1	1.0	—	1.0/1.0 µg/L
1,1,2,2-Tetrachloroethane	0/33	1.0	0.0	1.0/1.0 µg/L
Tetrachloroethylene	1/46	1.0	0.0	1.0/1.0 µg/L
Toluene	3/46	0.98	0.11	0.53/1.24 µg/L
1,1,1-Trichloroethane	1/46	1.0	0.0	1.0/1.0 µg/L
1,1,2-Trichloroethane	0/33	1.0	0.0	1.0/1.0 µg/L
Trichloroethylene	1/46	1.0	0.0	1.0/1.0 µg/L
Trichlorofluoromethane	0/32	5.0	0.0	5.0/5.0 µg/L
1,2,3-Trichloropropane	0/1	1.0	—	1.0/1.0 µg/L
Vinyl acetate	0/2	5.0	0.0	5.0/5.0 µg/L
Xylenes	0/2	2.0	0.0	2.0/2.0 µg/L

† Number of times analyte was detected compared to the total number of trip blanks for the analyte.

— Standard deviation cannot be determined.

Note: If the analyte was not detected in the trip blank(s), detection limit information appears in the *Mean Result* and *Minimum/Maximum Results* columns.

### Quality Control Samples



**Table 65. Analytes Detected in Trip Blanks for WA**

Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
<b>EPA8010</b>				
Carbon tetrachloride	0/11	1.0	0.0	1.0/1.0 µg/L
Chloroform	0/11	1.0	0.0	1.0/1.0 µg/L
cis-1,2-Dichloroethylene	0/11	5.0	0.0	5.0/5.0 µg/L
1,1,1-Trichloroethane	0/11	1.0	0.0	1.0/1.0 µg/L
Trichloroethylene	0/11	1.0	0.0	1.0/1.0 µg/L
<b>EPA8021B</b>				
Carbon tetrachloride	0/8	1.0	0.0	1.0/1.0 µg/L
Chloroform	0/8	1.0	0.0	1.0/1.0 µg/L
1,1,1-Trichloroethane	0/8	1.0	0.0	1.0/1.0 µg/L
Trichloroethylene	1/8	1.01	0.03	1.0/1.09 µg/L
<b>EPA8260B</b>				
Acetone	0/12	9.34	2.27	2.12/10.0 µg/L
Acetonitrile	0/11	20.0	0.0	20.0/20.0 µg/L
Acrolein	0/11	20.0	0.0	20.0/20.0 µg/L
Acrylonitrile	0/11	5.0	0.0	5.0/5.0 µg/L
Allyl chloride	0/11	10.0	0.0	10.0/10.0 µg/L
Benzene	0/36	5.0	0.0	5.0/5.0 µg/L
Bromochloromethane	0/3	5.0	0.0	5.0/5.0 µg/L
Bromodichloromethane	0/36	5.0	0.0	5.0/5.0 µg/L
Bromoform	0/36	5.0	0.0	5.0/5.0 µg/L
Bromomethane	0/36	10.0	0.0	10.0/10.0 µg/L
Carbon disulfide	0/12	5.0	0.0	5.0/5.0 µg/L
Carbon tetrachloride	0/36	5.0	0.0	5.0/5.0 µg/L
Chlorobenzene	0/36	5.0	0.0	5.0/5.0 µg/L
Chloroethane	0/36	10.0	0.0	10.0/10.0 µg/L
Chloroethene	0/36	10.0	0.0	10.0/10.0 µg/L
2-Chloroethyl vinyl ether	0/24	10.0	0.0	10.0/10.0 µg/L
Chloroform	0/36	5.0	0.0	5.0/5.0 µg/L
Chloromethane	0/36	10.0	0.0	10.0/10.0 µg/L
Chloroprene	0/11	5.0	0.0	5.0/5.0 µg/L
Dibromochloromethane	0/36	5.0	0.0	5.0/5.0 µg/L
1,2-Dibromo-3-chloropropane	0/11	5.0	0.0	5.0/5.0 µg/L
1,2-Dibromoethane	0/11	5.0	0.0	5.0/5.0 µg/L
Dibromomethane	0/11	5.0	0.0	5.0/5.0 µg/L
1,2-Dichlorobenzene	0/3	5.0	0.0	5.0/5.0 µg/L
1,4-Dichlorobenzene	1/5	4.22	1.75	1.08/5.0 µg/L
trans-1,4-Dichloro-2-butene	0/10	20.0	0.0	20.0/20.0 µg/L
Dichlorodifluoromethane	0/11	10.0	0.0	10.0/10.0 µg/L
1,1-Dichloroethane	0/37	5.0	0.0	5.0/5.0 µg/L
1,2-Dichloroethane	0/36	5.0	0.0	5.0/5.0 µg/L
1,1-Dichloroethylene	0/36	5.0	0.0	5.0/5.0 µg/L
1,2-Dichloroethylene	0/1	5.0	—	5.0/5.0 µg/L
cis-1,2-Dichloroethylene	0/16	7.50	6.83	5.0/25.0 µg/L
trans-1,2-Dichloroethylene	0/36	5.0	0.0	5.0/5.0 µg/L
Dichloromethane	0/36	5.56	2.29	3.20/14.1 µg/L
1,2-Dichloropropane	0/36	5.0	0.0	5.0/5.0 µg/L
1,3-Dichloropropane	0/3	5.0	0.0	5.0/5.0 µg/L
2,2-Dichloropropane	0/3	5.0	0.0	5.0/5.0 µg/L
1,1-Dichloropropene	0/3	5.0	0.0	5.0/5.0 µg/L
cis-1,3-Dichloropropene	0/36	5.0	0.0	5.0/5.0 µg/L
trans-1,3-Dichloropropene	0/36	5.0	0.0	5.0/5.0 µg/L
Ethylbenzene	0/36	5.0	0.0	5.0/5.0 µg/L
2-Hexanone	0/12	10.0	0.0	10.0/10.0 µg/L
Iodomethane	0/11	5.0	0.0	5.0/5.0 µg/L
Isobutyl alcohol	0/11	100	0.0	100/100 µg/L

**Quality Control Samples**



Analyte	Frequency of Detection†	Mean Result	Standard Deviation	Minimum/Maximum Results
Methacrylonitrile	0/11	10.0	0.0	10.0/10.0 µg/L
Methyl ethyl ketone	0/12	10.0	0.0	10.0/10.0 µg/L
Methyl isobutyl ketone	0/12	10.0	0.0	10.0/10.0 µg/L
Propionitrile	0/11	50.0	0.0	50.0/50.0 µg/L
Styrene	0/12	5.0	0.0	5.0/5.0 µg/L
1,1,1,2-Tetrachloroethane	0/11	5.0	0.0	5.0/5.0 µg/L
1,1,2,2-Tetrachloroethane	0/36	5.0	0.0	5.0/5.0 µg/L
Tetrachloroethylene	0/55	5.0	0.0	5.0/5.0 µg/L
Toluene	0/36	5.0	0.0	5.0/5.0 µg/L
1,1,1-Trichloroethane	0/36	5.0	0.0	5.0/5.0 µg/L
1,1,2-Trichloroethane	0/36	5.0	0.0	5.0/5.0 µg/L
Trichloroethylene	0/36	5.0	0.0	5.0/5.0 µg/L
Trichlorofluoromethane	0/35	5.0	0.0	5.0/5.0 µg/L
1,2,3-Trichloropropane	0/11	5.0	0.0	5.0/5.0 µg/L
Vinyl acetate	0/12	10.0	0.0	10.0/10.0 µg/L
Xylenes	0/36	5.0	0.0	5.0/5.0 µg/L

† Number of times analyte was detected compared to the total number of trip blanks for the analyte.

— Standard deviation cannot be determined.

Note: If the analyte was not detected in the trip blank(s), detection limit information appears in the *Mean Result* and *Minimum/Maximum Results* columns.

**Table 66. Bailed Wells**

Well	Date	Well	Date
FTF 9	01/21/99	FTF 22	01/21/99
FTF 10	01/21/99	FTF 23	01/21/99
FTF 12	01/21/99	HTF 2	01/09/99
FTF 13	01/21/99	HTF 3	01/09/99
FTF 15	01/21/99	HTF 4	01/10/99
FTF 16	01/21/99	HTF 5	01/10/99
FTF 17	01/21/99	HTF 6	01/10/99
FTF 18	01/21/99	HTF 7	01/11/99
FTF 19	01/21/99	HTF 8	01/10/99
FTF 20	01/21/99	HTF 34	01/07/99
FTF 21	01/21/99		

**Table 67. Sampled Wells with Metal Casings**

Well	Casing	Well	Casing
AC 1A	Steel	MSB 54TA	Carbon steel
AC 1B	Steel	MSB 55TA	Carbon steel
ASB 8TA	Carbon steel	MSB 82TA	Carbon steel
FTF 12	Steel	RWM 1	Carbon steel
FTF 13	Steel	RWM 3	Carbon steel
HTF 1	Steel	RWM 4	Carbon steel
HTF 2	Steel	RWM 5	Carbon steel
HTF 3	Steel	RWM 6	Carbon steel
HTF 4	Steel	RWM 7	Carbon steel
HTF 5	Steel	RWM 8	Carbon steel
HTF 6	Steel	RWM 9	Carbon steel
HTF 7	Steel	RWM 10	Carbon steel

### Quality Control Samples



<i>Well</i>	<i>Casing</i>	<i>Well</i>	<i>Casing</i>
HTF 8	Steel	RWM 11	Carbon steel
HTF 9	Steel	RWM 13B	Carbon steel
HTF 10	Steel	RWM 13C	Carbon steel
HTF 11	Steel	RWM 14B	Carbon steel
HTF 13	Steel	RWM 14C	Carbon steel
MSB 12TA	Steel	RWM 15B	Carbon steel
MSB 23TA	Steel	TNX 13D	Stainless steel
MSB 27TA	Carbon steel	TNX 14D	Stainless steel
MSB 29TA	Carbon steel	TNX 15D	Stainless steel
MSB 34TA	Steel	TNX 16D	Stainless steel
MSB 35TA	Carbon steel	TNX 17D	Stainless steel
MSB 36TA	Carbon steel	TNX 18D	Stainless steel
MSB 39TA	Carbon steel	TNX 19D	Stainless steel
MSB 41TA	Carbon steel	TNX 20D	Stainless steel
MSB 42TA	Carbon steel	TNX 21D	Stainless steel
MSB 43TA	Carbon steel	TNX 22D	Stainless steel
MSB 47TA	Carbon steel	TNX 26D	Stainless steel
MSB 48TA	Carbon steel		

**Table 68. Wells That Had Turbidity Greater Than 15 NTU**

<i>Well</i>	<i>Date</i>	<i>Results (In NTU)</i>
ABP 10D	01/07/99	23.4
FSB115D	01/11/99	35.9
FTF 9	01/21/99	59.1
FTF 10	01/21/99	99.0
FTF 12	01/21/99	75.8
FTF 13	01/21/99	91.2
FTF 15	01/21/99	103
FTF 16	01/21/99	121
FTF 17	01/21/99	88.0
FTF 18	01/21/99	>1,000
FTF 19	01/21/99	80.3
FTF 20	01/21/99	236
FTF 21	01/21/99	230
FTF 22	01/21/99	133
FTF 23	01/21/99	62.2
HAA 4D	01/10/99	66.0
HAA 5A	01/10/99	473
HAA 5C	01/10/99	187
HAA 5D	02/25/99	24.6
HAA 10AR	01/06/99	24.5
HAA 13A	01/07/99	47.2
HAA 13D	01/06/99	741
HAA 14D	02/18/99	170
HAA 15C	01/11/99	19.0
HAA 15D	01/19/99	21.8
HSL 3D	01/21/99	27.6
HSL 6D	01/22/99	31.0
HSL 7D	01/22/99	30.9
HTF 2	01/09/99	89.4
HTF 3	01/09/99	153
HTF 4	01/10/99	722
HTF 5	01/10/99	101
HTF 6	01/10/99	107
HTF 7	01/11/99	40.6
HTF 8	01/10/99	18.0

**Quality Control Samples**



<i>Well</i>	<i>Date</i>	<i>Results (in NTU)</i>
HTF 9	01/10/99	114
HTF 10	01/08/99	341
HTF 11	01/08/99	190
HTF 13	01/08/99	710
HTF 15D	03/03/99	>1,000
HTF 18	01/08/99	286
HTF 19	01/08/99	531
HTF 20	01/08/99	16.8
HTF 21	01/08/99	284
HTF 34	01/07/99	1,000
LBP 1D	01/29/99	18.1
MSB 71B	02/12/99	94.1
RDB 1D	03/09/99	32.8
TCM 3	02/08/99	18.0
TNX 4D	02/03/99	53.8
TNX 21D	02/03/99	27.2

**Table 69. Analyses Not Performed by EX**

<i>Well</i>	<i>Analyte</i>	<i>Reason</i>
P 26D	Nitrate-nitrite as nitrogen	Canceled

**Table 70. Analyses Not Performed by GE**

<i>Well</i>	<i>Analyte</i>	<i>Reason</i>
HSB 67	Bis-2-ethylhexylphthlate	Canceled

**Table 71. Analyses Not Performed by WA**

<i>Well</i>	<i>Analyte</i>	<i>Reason</i>
AMB 18C	Tin	Not logged for analysis
HAA 5A	GC VOA	Not sampled

### **Quality Control Samples**



**NOTES**





# Site Index

Table 72 provides information about sites, locations, and well series. Some site names and locations were not available.

**Table 72. Sites and Locations by Well Series**

Well Series	Site	Location
ABP	A-Area Metals Burning Pit	South of the burning/rubble pits
ABW	A Area near Firing Range	North of Road D-1 and east of Road 1-7
AC	A-Area Cluster Perimeter Wells and M-Area Plume Definition Wells	
ACB	A-Area Coal Pile Runoff Containment Basin	Southeast of A Area
AMB	Metallurgical Laboratory Seepage Basin	At the eastern edge of A Area
AMP	A-Area Rubble Pile	
AOB	Motor Shop Oil Basin	At the south edge of A Area near NPDES Outfall A-14
ARP	A-Area Burning/Rubble Pits and A-Area Ash Pile	West of Road D, south of A Area
ASB	Savannah River Laboratory Seepage Basins	Across the road from the Savannah River Technology Center (formerly the Savannah River Laboratory)
BGO	Burial Grounds Perimeter	Southern E Area
BGX	E-Area Vaults/Burial Ground Expansion	Northern E Area
BRD	Road A Chemical Basin (Baxley Road)	East of D Area
BRR	Burma Road Rubble Pit	Southwest of F Area
BSE	Old Burial Ground	Southeast edge of the Old Burial Ground
BTP	Characterization Piezometers for the Proposed Sanitary Landfill	Site B, off Road E-2
CBR	N-Area (Central Shops) Burning/Rubble Pit south of the Ford Building Seepage Basin	Southeast of N Area
CCB	C-Area Coal Pile Runoff Containment Basin	Southeast of C Area
CDB	C-Area Disassembly Basin	Near the C-Area reactor building
CDS	108-3C Bioremediation Facility	Near the C-Area reactor building
CMP	Chemicals, Metals, and Pesticides Pits	West of Road C, approximately two miles southeast of N Area
CRP	C-Area Burning/Rubble Pit	Southeast of N Area
CSA	Hydrofluoric Acid Spill Area	South of Road 3 in N Area
CSB	C-Area Reactor Seepage Basins	Southern C Area, west of the reactor building
CSR	N-Area (Central Shops) Burning/Rubble Pits	North of N Area
CSO	Fire Department Training Facility	Southeast portion of N Area
DBP	D-Area Burning/Rubble Pits	Western portion of D Area
DCB	D-Area Coal Pile Runoff Containment Basin and Ash Basins	South (containment basin) and southwest (ash basins) of D Area
DOB	D-Area Oil Seepage Basin	North of D Area
DOL	D-Area Oil Seepage Basin	North of D Area
FAB	F-Area Ash Basin 288-1 Groundwater Quality Assessment	East of F Area and south of the F-Area acid/caustic basin
FAL	F-Area A Line	Adjacent to the F-Area canyon building
FBP	F-Area Burning/Rubble Pits	North of Road C and west of F Area
FCA	F-Area Canyon Building	Central F Area
FCB	F-Area Coal Pile Runoff Containment Basin	Southeast of F Area
FET	F-Area Effluent Treatment Cooling Water Basin	South of F Area
FEX	F-Area Seepage Basins Remediation Extraction Wells	
FIN	F-Area Seepage Basins Remediation Injection Tanks	South of Road C
FIW	F-Area Seepage Basins	Southwest portion of F Area
FNB	Old F-Area Seepage Basin	North of F Area
FOB	F-Area Seepage Basins	West-southwestern edge of F Area

## Site Index



<i>Well Series</i>	<i>Site</i>	<i>Location</i>
FRB	F-Area Retention Basin	
FSB	F-Area Seepage Basins	South of Road C; east of Road C-4
FSL	F-Area Inactive Process Sewer Line	South of Road C; east of Road C-4
FSS	F-Area Sludge Land Application Site	
FST	Savannah River Ecology Laboratory Flowing Springs Site	Adjacent to Aquatic Ecology Laboratory (Road C)
FTF	F-Area Tank Farm	
GBW	Background Well near Hawthorne Fire Tower	West of Road 2-1.1F
HAA	H-Area Tank Farm Groundwater Operable Unit	
HAP	H-Area Auxiliary Pump Pit	At the east end of H Area near the coal pile runoff containment basin
HCA	H-Area Canyon Building	
HCB	H-Area Coal Pile Runoff Containment Basin	East of H Area
HET	H-Area Effluent Treatment Cooling Water Basin	Southwest of H Area
HEX	H-Area Seepage Basins Remediation Extraction Wells	East of Road 4
HHP	HP-52 Outfall Area and Warners Pond	
HIN	H-Area Injection Tank	South of Road E
HIW	H-Area Injection Wells	Near the H-Area seepage basins
HMD	Hazardous Waste/Mixed Waste Disposal Facility	Northwest of the burial ground expansion
HR3	Old H-Area Retention Basin	Southeast of the intersection of Roads 4 and E
HR8	H-Area Retention Basin	Southeast of the intersection of Roads 4 and E
HSB	H-Area Seepage Basins	Southwest of H Area and the intersection of Roads 4 and E
HSL	H-Area Inactive Process Sewer Line	Extends from the southwest portion of H Area to north of the H-Area seepage basins
HSS	H-Area Sludge Land Application Site	Southeast of H Area
HTF	H-Area Tank Farm	At the south end of H Area
HWP	Warner's Pond and HP-52 Outfall	
HWS	Hazardous Waste Storage Facility	Northwest of N Area
HXB	Ford Building Seepage Basin	In the southeast portion of N Area
IDB	Interim Waste Technology Site Characterization Wells, Site B	Two miles northeast of H Area
IDP	Interim Waste Technology Site Characterization Wells, Site P	South of B Area and north of Highway 125
IDQ	Interim Waste Technology Site Characterization Wells, Site Q	Adjacent to Site P, South of B Area and north of Highway 125
KAB	K-Area Ash Basin	Southwest of K Area
KBP	K-Area Bingham Pump Outage Pit	
KCB	K-Area Coal Pile Runoff Containment Basin	West of K Area, between the K-Area ash basin and reactor seepage basin
KDB	K-Area Disassembly Basin	
KDT	K-Area Diesel Tank	Central K Area, north of the disassembly basin
KRB	K-Area Retention Basin	Northwest of K Area
KRP	K-Area Burning/Rubble Pit	
KSB	K-Area Reactor Seepage Basin	West of K Area
KSM	K-Area Tritium Sump	Near the K-Area process water storage tank
KSS	K-Area Sludge Land Application Site	Southeast of K Area
LAC	L-Area Acid/Caustic Basin	
LAW	L-Area Research Wells	North of Road B and east of Road B-2.13
LBP	L-Area Bingham Pump Outage Pit	
LCO	L-Area Oil and Chemical Basin	South of L Area
LDB	L-Area Disassembly Basin	
LDS	108-3L Bioremediation Facility	
LFW	Sanitary Landfill	South of Road C
LRP	L-Area Burning/Rubble Pit	Northwest of L Area
LSB	L-Area Reactor Seepage Basin	Southeast of L Area, adjacent to the L-Area oil and chemical basin

### **Site Index**



<b>Well Series</b>	<b>Site</b>	<b>Location</b>
MCB	Miscellaneous Chemical Basin	West of Road D near the A-Area metals burning pit
MSB	M-Area Hazardous Waste Management Facility (HWMF) and M-Area Plume Definition Wells	South of A Area and M Area and west of Road D (HWMF)
NBG	Wells between the F-Area Canyon Building and the Naval Fuel Material Facility	Between the canyon building and the Naval Fuel Material Facility
P	SRS Baseline Hydrogeologic Investigation Observation Well Clusters B-Area Microbiology Wells (P 29 Cluster) East of H-Area Perimeter Fence (P 27 Cluster) R-Area Bedrock Exploration Hydrology Wells (P 20 Cluster) T-Area (TNX) Background Wells (P 26 Cluster)	East of the H-Area perimeter fence
PB	L-Area Cooling Pond Dam Piezometers	
PBP	P-Area Bingham Pump Outage Pit	
PCB	P-Area Coal Pile Runoff Containment Basin	Southeast of the coal pile and south of P Area
PDB	P-Area Disassembly Basin	
PRP	P-Area Burning/Rubble Pit	West of P Area
PSB	P-Area Reactor Seepage Basins	Southwest of the reactor building
PSS	Par Pond Sludge Land Application Site	South of PAR Pond
PW	Production Wells	
RAC	R-Area Acid/Caustic Basin	South of R Area, just south of Road G
RBP	R-Area Bingham Pump Outage Pit	
RBW	R-Area Reactor Seepage Basins	Northwest of R Area
RCP	R-Area Coal Pile	West of the R-Area reactor building
RDB	R-Area Disassembly Basin	
RPC	R-Area Reactor Seepage Basins	Northwest of R Area
RRP	R-Area Burning/Rubble Pits	Southeast of R Area and Road G
RSA	Series A, R-Area Reactor Seepage Basins	Northwest of R Area
RSB	Series B, R-Area Reactor Seepage Basins	Northwest of R Area
RSC	Series C, R-Area Reactor Seepage Basins	Northwest of R Area
RSD	Series D, between R-Area Reactor Seepage Basin and R-Area Disassembly Basin	Northwest of R Area
RSE	Series E, R-Area Reactor Seepage Basins	Northwest of R Area
RSF	Series F, R-Area Reactor Seepage Basins	Northwest of R Area
RSP	R-Area Reactor Seepage Basins	Northwest of R Area
RWM	M-Area Recovery Wells	
SBG	S-Area Defense Waste Processing Facility	
SCA	S-Area Vitrification Building	
SLP	S-Area Low-Point Pump Pit	At the south end of S Area
SRW	Silverton Road Waste Site	South of Silverton Road
TBG	T-Area (TNX) Burying Ground	Within the T-Area fence
TCM	TNX-Area Operable Unit	
TIR	TNX Intrinsic Remediation Piezometers	
TNX	T-Area (TNX) Assessment Wells	
TRW	T-Area (TNX) Test Recovery Wells	
XSB	New T-Area (TNX) Seepage Basin	In the southwest corner of T Area
YSB	Old T-Area (TNX) Seepage Basin	In the east section of T Area, across Road A-4.7 miles from the TNX process area
YSC	Y-Area Waste Solidification and Disposal Facility	North of the intersection of Roads F and 4
ZBG	Z-Area Saltstone Facility	
ZDT	Z-Area Low-Point Drain Tank	Southeastern S Area

### Site Index



## **SITE HISTORY**

Geographical descriptions in the text are based on true north rather than SRS grid coordinates.

The following sections describe facilities at approximately 100 locations within designated areas at SRS. The sections are arranged in the following order:

- acid/caustic basins
- burning/rubble, rubble, and metals burning pits
- coal pile runoff containment basins, ash basins, and coal piles
- disassembly basins
- seepage and retention basins
- operating buildings and facilities
- plume monitoring
- radioactive waste storage and disposal facilities
- sanitary landfill and interim sanitary landfill
- sludge application sites
- other sites

### **Acid/Caustic Basins**

The acid/caustic basins in F Area, H Area, K Area, L Area, P Area, and R Area are unlined earthen pits (approximately 50 by 50 by 7 feet deep). These pits received dilute sulfuric acid and sodium hydroxide solutions used to regenerate ion-exchange units in power plant water purification processes at the reactor and separations areas in the center of SRS. The basins allowed mixing and neutralization of the dilute solutions before their discharge to nearby streams.

The basins were constructed between 1952 and 1955. They are uncovered, and most are dry except during periods of prolonged precipitation. The R-Area and L-Area basins were abandoned in 1964 and 1968, respectively. The other basins remained in service until 1982, when the water purification systems either were shut down or modernized. However, the H-Area basin continued to receive steam condensate from a hose box and drainage from a chemical pad until the basin was abandoned in 1985. During July through September 1993, the F-, H-, K-, and P-Area basins were dewatered, vegetation was removed and disposed of, the basins were filled with compacted soil from the Burma Road clay pit, a grass cover was established, and the fences were reinstalled.

### **Burning/Rubble, Rubble, and Metals Burning Pits**

From 1951 to 1973, burnable wastes—such as paper, wood, plastics, rubber, oil, degreasers, and drummed solvents—were received and burned monthly in one or more of the burning/rubble pits in the following areas: A, C, D, F, K, L, N, P, and R. In 1973, waste no longer was burned at the pits, which were covered with a layer of soil. Rubble wastes—including paper, wood, cans, concrete, and empty galvanized-steel barrels and drums—then were disposed of in the pits until they reached capacity and were covered with soil. All burning/rubble pits were inactive by 1981, and all are covered except the R-Area pit, which has not been backfilled. Lithium-aluminum alloy, aluminum pieces, metal drums, other metal scraps, and plastic pipe were deposited and burned periodically in the A-Area metals burning pit, beginning about 1952. In 1974, the solid materials remaining on the site were covered with soil, and the pit was regraded. The site is inactive.



The Burma Road rubble pit consists of two excavated earthen pits that may contain paint cans, fluorescent light fixtures, metal, concrete, lumber, poles, and glass. Unknown quantities of refuse were deposited here from approximately 1973 through 1983. The pit is inactive and has been covered with soil.

### **Coal Pile Runoff Containment Basins, Ash Basins, and Coal Piles**

Electricity and steam at SRS are generated by burning coal. Coal piles originally existed in the following areas: A, C, D, F, H, K, L, P, and R. The facilities generally contained a 90-day reserve of coal that was not rotated. During long-term exposure to the environment, chemical and biological oxidation of sulfur compounds in coal resulted in the formation of sulfuric acid.

The R-Area coal pile was removed in 1964, and the L-Area coal pile was removed in 1968. To achieve compliance with the National Pollutant Discharge Elimination System (NPDES) permit issued in 1977, coal pile runoff containment basins in A Area and D Area were completed in October 1978, and basins in C Area, F Area, H Area, K Area, and P Area were completed in March 1981. The coal piles in C Area and F Area were removed in 1985. In 1991, the K-Area coal pile was reduced to a 2-inch base, and 75 percent of the P-Area coal pile was removed.

Currently, rainwater runoff from the remaining coal piles in A, D, H, K, and P Areas flows into the coal pile runoff containment basins via gravity flow ditches and sewers. The basins allow mixing of the runoff and its seepage into the subsurface, thus preventing the entry of large surges of low-pH runoff into surface streams. The basins in C and F Areas also still collect runoff, although no coal remains at either location. Ash sluice water from the D-Area and K-Area powerhouses has been discharged to the D-Area ash basins and the K-Area ash basin, respectively, since 1951.

#### **F-Area Ash Basin**

The F-Area ash basin was monitored for the first time during second quarter 1994.

#### **R-Area Coal Pile**

Two wells were installed in 1990 inside the boundaries of the former coal storage area, originally for groundwater assessment in relation to the R-Area coal pile.

### **Disassembly Basins**

The disassembly basins, also called fuel and target storage basins, are concrete-lined, open tanks of water next to the reactor rooms inside the reactor buildings in C, K, L, P, and R Areas. Irradiated assemblies (reactor fuel and target rods) were rinsed and stored in the basins prior to their shipment to the separations areas. Some radioactivity was transferred to the basin water from leaks in porous components and as a liquid or oxide corrosion film on the irradiated components.

Sand filters were used to remove radioactive particulates from the disassembly basin water. The filtered water was circulated through deionizers to remove additional constituents and was purged periodically through regenerated deionizers to the reactor seepage basins.

### **Seepage and Retention Basins**

Seepage, retention, and settling basins have been used at SRS to store or dispose of wastewater from various operations. Seepage and retention basins in the following areas are monitored: A, C, F, H, K, L, M, N, P, R, T, and the Savannah River Laboratory.

#### **C-Area Reactor Seepage Basins**

These basins have received low-level radioactive purge water from the disassembly basin since 1957.



### **F-Area Seepage Basins and Inactive Process Sewer Line**

Beginning in 1955, the F-Area seepage basins received F-Area wastewater containing low-level radioactivity and chemicals, including chromium, mercury, nitric acid, and sodium hydroxide. Clay caps were completed in 1991 when the basins were closed.

### **Ford Building Seepage Basin**

The Ford Building seepage basin received low-level radioactive wastewater from Ford Building operations (repairing heat exchangers) from 1964 to January 1984.

### **H-Area Retention Basins**

A small, unlined earthen retention basin (the old H-Area retention basin) was used from 1955 to 1973 to provide temporary emergency storage for cooling water from the chemical separations process that contained radio-nuclides and possible trace quantities of chemicals.

A larger, rubber-lined retention basin replaced the original basin in 1973 and still is in use for receipt of diverted cooling water or tank farm stormwater runoff.

### **H-Area Seepage Basins and Inactive Process Sewer Line**

Starting in 1955, the H-Area seepage basins received wastewater from H Area containing low-level radioactivity and chemicals, including nitric acid, mercury, and sodium hydroxide. Basin 3 has been inactive since 1962. Basins 1, 2, and 4 operated from 1980 until they were taken out of service in the fourth quarter of 1988. Clay caps were completed early in 1991 when the basins were closed.

### **K-Area Reactor Seepage Basin**

This basin has received low-level radioactive purge water from the disassembly basin since 1957.

### **L-Area Reactor Seepage Basin**

This basin has received low-level radioactive purge water from the disassembly basin since 1957.

### **M-Area Hazardous Waste Management Facility**

The unlined M-Area settling basin, in operation from 1958 until 1985, received wastewater containing metal-cleaning solvents, depleted uranium, and other chemicals and metals from fuel fabrication processes in M Area. Because surface water flowed from this basin, it is classified as a settling basin rather than a seepage basin. Water from the basin flowed through an overflow ditch to Lost Lake, a shallow upland depression. A seepage area formed adjacent to the ditch and Lost Lake. The M-Area hazardous waste management facility comprises the settling basin, overflow ditch, seepage area, and Lost Lake. A closure cap was completed on the basin during 1989/1990.

Since the beginning of a full-scale recovery system for groundwater remediation in April 1985, groundwater flow has changed markedly near this facility, and changes over time in concentrations of analytes are difficult to interpret. See the **Plume Monitoring** section of this chapter for more information on remediation.

### **Metallurgical Laboratory Seepage Basin**

The Metallurgical Laboratory seepage basin received wastewater effluent from the Metallurgical Laboratory building from 1956 until 1985. Wastewater released to the basin consisted of small quantities (5 to 10 gallons per day) of laboratory wastes—mostly rinse water—from metallographic sample preparation (degreasing, cleaning, etching) and corrosion testing of stainless steel and nickel-based alloys. Noncontact cooling water (approximately 900 gallons per day) also was discharged. The basin has been dewatered, backfilled, and capped with low-permeability clay.

### **New T-Area (TNX) Seepage Basin**

The new TNX seepage basin replaced the old TNX seepage basin and operated from 1980 to 1988.



### **Old F-Area Seepage Basin**

The old F-Area seepage basin, the first seepage basin constructed in F Area, was used for disposal of wastewater from the canyon building from November 1954 until May 1955, when it was abandoned. During operation, the seepage basin received a variety of wastewaters, including evaporator overheads, laundry wastewater, and an unknown amount of chemicals. For three months in 1969, spent nitric acid solutions used to etch depleted uranium were discharged to the basin. In 1984, low-level contaminated water was released to the basin.

### **Old T-Area (TNX) Seepage Basin**

The old TNX seepage basin received waste from pilot-scale tests conducted at TNX from 1958 to 1980. In 1981, the basin wall was breached and the impounded water was drained into the adjacent wetlands. The basin then was backfilled with a sand and clay mixture, and the top was capped with clay.

### **P-Area Reactor Seepage Basins**

These basins have received low-level radioactive purge water from the P-Area disassembly basin since 1957.

### **R-Area Reactor Seepage Basins**

On November 8, 1957, an experimental fuel element failed during a calorimeter test in the emergency section of the R-Area disassembly basin. Following this incident, the original seepage basin received approximately 2,700 Ci of nonvolatile beta activity, including strontium-90 and cesium-137, each of which has a half-life of about 30 years. Much of the released radioactivity was contained in that basin, which was backfilled in December 1957. Five more basins were put into operation in 1957 and 1958 to assist in containing the radioactivity.

In 1960, Basins 2 through 5 were closed and backfilled. The ground surface above Basins 1 through 5 was treated with herbicide and covered with asphalt. In addition, a kaolinite cap and dike were constructed over and around Basin 1 and the northwest end of Basin 3 to minimize lateral movement of the radioactive contamination. Basin 6, which received water directly from the disassembly basin from 1960 until 1964, was backfilled in 1977.

### **Savannah River Laboratory Seepage Basins**

The Savannah River Laboratory seepage basins received low-level radioactive laboratory wastewater through underground drains until they were taken out of service in October 1982. Two basins were put into operation in 1954; one more was added in 1958 and another in 1960 to provide additional holding capacity.

An exception to the practice of discharging only low-level alpha or beta-gamma wastewater was made in 1971, when 0.68 Ci of curium from a leaking separator pit in the Savannah River Laboratory radioactive waste tanks was disposed of in the basins. Approximately 34 million gallons of wastewater were discharged to the basins during their operating life.

## **Operating Buildings and Facilities**

### **Defense Waste Processing Facility (S-Area Vitrification Building)**

The DWPF, also known as the S-Area vitrification building or S-Area canyon, contains the process and auxiliary equipment to incorporate high-level radioactive waste into leach-resistant glass. The facility began radioactive operations in 1996.

### **F-Area Canyon Building and A-Line Uranium Recovery Facility**

At the canyon building, irradiated product from the reactors is dissolved using nitric acid, and the desired radionuclides are separated from fission products. At the A-Line uranium recovery facility, adjacent to the canyon building, uranium oxide is produced from uranyl nitrate.



### **F-Area Effluent Treatment Cooling Water Basin**

The F-Area effluent treatment cooling water basin receives diverted cooling water from the separations processes. The cooling water is sent from the basin to the F-Area and H-Area effluent treatment facility (ETF) if contaminated or to a permitted outfall if uncontaminated. The ETF, on the south side of H Area, was placed in service in 1988 to treat wastewater formerly sent to the F-Area and H-Area seepage basins. In addition to cooling water, it also receives separations area stormwater runoff and condensed overheads from the evaporators in the tank farms. The treatment facility removes hazardous and radioactive contaminants from these low-level liquid wastes and concentrates them for immobilization as saltstone.

### **H-Area Auxiliary Pump Pit**

The H-Area auxiliary pump pit facility will pump high-level radioactive sludge and precipitate from the H-Area tank farm to the S-Area low-point pump pit en route to the vitrification facility. When the pumps are shut down, this facility will collect the solution in a temporary holding tank via gravity flow lines.

### **H-Area Canyon Building**

As in F Area, materials from the reactors are dissolved at the canyon building, and the desired radionuclides are separated from waste products.

### **H-Area Effluent Treatment Cooling Water Basin**

For more information, see the **F-Area Effluent Treatment Cooling Water Basin** section.

### **K-Area Tritium Sump**

A single well, installed in 1992, monitors the water table just west of the K-Area reactor. The well was placed near the K-Area process water storage tank, which stores water collected in sumps within the K-Area reactor building. Tritium activity in this sump water has been reported at greater than 5 Ci/mL.

### **N-Area Hazardous Waste Storage Facility**

Building 645-N of the hazardous waste storage facility has been in service since 1983, 645-2N since 1987, and 645-4N since 1984. Buildings 645-N and 645-4N contain hazardous waste, and building 645-2N contains mixed waste (a mixture of low-level radioactive waste and hazardous waste). Wastes are stored inside the buildings in drums placed on diked concrete floors designed to contain liquid spills.

### **Naval Fuel Material Facility**

The Naval Fuel Material Facility was used to produce HEU (highly enriched uranium) for naval reactors until shutdown in 1989. Monitoring wells in the NBG series are located between the canyon building and the Naval Fuel Material Facility.

### **S-Area Facilities**

S-Area contains several facilities for processing high-level radioactive waste from the F-Area and H-Area tank farms into borosilicate glass solidified within stainless steel canisters. The glass is stored temporarily in specially designed storage buildings within S Area. Eventual permanent disposal is expected to be in an offsite federal geologic repository.

### **S-Area Low-Point Pump Pit**

The S-Area low-point pump pit receives high-level radioactive sludge and precipitate from the H-Area tank farm and pumps it to the defense waste processing facility (DWPF) vitrification building; it also receives waste being recycled from the vitrification building back to the tank farm. As at the H-Area auxiliary pump pit, when the pumps are shut down, the sludge and precipitate remaining in the line drain back into a temporary holding tank via gravity flow lines.



### **Z-Area Low-Point Drain Tank**

The Z-Area low-point drain tank facility receives low-level radioactive salt solution from the H-Area tank farm and pumps it to the Z-Area salt solution holding tank. When the H-Area pump is shut down, the low-point drain tank can collect the solution remaining in the lines via gravity flow.

### **Z-Area Saltstone Manufacturing and Disposal Facility**

The Z-Area saltstone manufacturing and disposal facility processes and permanently disposes of low-level radioactive salt solution supernatant from the underground storage tanks at F Area and H Area and from ETF concentrate.

The facility began radioactive operations in June 1990. In November 1992, a tank in the Z-Area saltstone manufacturing and disposal facility overflowed, and a portion of the liquid leaked from the building into a storm drain. Approximately 2 gallons of solution reached a drainage pipe that flows into a series of sedimentation basins and eventually into McQueen Branch. Sediment samples showed small amounts of cesium-137 exceeding those amounts observed in the Savannah River, but within the activity ranges in site streams.

## **Plume Monitoring**

### **A Area and M Area**

In addition to the groundwater monitoring conducted at specific locations in A Area and M Area, numerous plume definition wells also monitor a 5-square-mile area to assess the extent of volatile organic contamination. The first plume definition wells were installed soon after discovery of the contamination in June 1981.

The plume definition well network extends from the region north of SRTC, between Road 1 and the SRS boundary, south to wells near the miscellaneous chemical basin and the metals burning pit, and from Tims Branch in the east toward the Silverton Road waste site in the west. The plume encompasses approximately three square miles and consists primarily of trichloroethylene, tetrachloroethylene, and 1,1,1-trichloroethane.

### **Separations and Waste Management Areas**

A number of wells were installed in the separations areas in 1951 and 1952. These wells, which range from approximately 15 to 90 feet in depth, are used to measure water table elevations and monitor for radioactive constituents (gross alpha, nonvolatile beta, and tritium) in the groundwater in and around F Area and H Area. They have steel casings that could affect the metal concentrations in the water.

## **Radioactive Waste Storage and Disposal Facilities**

### **Burial Grounds**

The burial grounds have been used for storage and disposal of radioactive solid waste produced at SRS or shipped from other facilities since 1952. The original area, known as the old burial ground, contains low-level alpha and beta-gamma trenches, intermediate-level beta-gamma trenches, and alpha waste trenches. As the trenches were filled, they were covered with soil. When the old burial ground was filled in 1974, operations moved to the adjacent low-level radioactive waste disposal facility (LLRWDF).

The sections of the LLRWDF currently being operated, known as the Solid Waste Disposal Facility (SWDF), contain trenches for only radioactive waste. Concrete vaults, known as the E-Area vaults, have been constructed east and north of the LLRWDF for disposal of solid radioactive waste. The first waste was placed there in September 1994.

Mixed waste storage building 643/29E, within the boundaries of the LLRWDF, has been in use since March 1987. The adjacent mixed waste storage building, 643/43E, was completed in July 1995, and the facility began receiving waste later that same month.

Until 1965, transuranic (TRU) waste was placed in plastic bags and cardboard boxes and buried in earthen trenches. Between 1965 and 1974, lower level TRU waste was buried unencapsulated in trenches, and higher level TRU waste was buried in retrievable concrete containers or encapsulated in concrete. Since 1974, TRU



wastes contaminated with greater than 0.01 Ci/g have been stored in watertight containers on concrete pads with monitoring sumps. TRU waste storage pads 1–19 are on the FFA's list of RCRA-regulated units.

Since mid-1984, newly generated low-level beta-gamma waste has been placed in metal boxes or metal drums. Currently, it is disposed of in engineered trenches and covered with at least 4 feet of soil. Some wastes that do not have forms that are easily placed in containers are disposed of in shallow land-burial slit trenches.

Mixed wastes stored or disposed of within the old burial ground and portions of the LLRWDF include cadmium, lead, mercury, and tritiated pump oil. Some of the waste is contained in welded stainless steel containers or metal drums and stored within concrete cylinders. Degraded radioactive organic solvents and tritiated pump oil have been stored in 22 underground storage tanks in the old burial ground. In addition, two areas of the old burial ground were used for incineration of solvents.

The burial ground complex, comprising the old burial ground, solvent storage tanks S01–S22, and portions of the LLRWDF, is monitored by the following:

**Burial Ground Expansion (E-Area Vaults)**—This site is located in the northern section of E Area and is monitored by the BGX well series.

**Hazardous Waste/Mixed Waste Disposal Facility**—This site is northwest of the burial ground expansion and is monitored by the HMD well series.

**Old Burial Ground**—The old burial ground is in the southern portion of E Area and is monitored by wells in the BG and BGO well series.

**Radioactive Waste Burial Ground**—The LLRWDF, which includes the mixed waste management facility (MWMF), is monitored by wells in the BGO well series.

### **Tank Farms**

Liquid radioactive wastes are stored and processed at the tank farms, which comprise subsurface tanks containing high-level aqueous radioactive wastes in the form of sludges, supernatant liquid of varying salt concentrations, and saltcake. Approximately 129 million liters of waste are stored in the tanks.

The high-level liquid waste volume is reduced in the tank farm evaporators. Certain tanks are used for pretreatment of the wastes before they are processed at the DWPF into saltstone (low-level waste) or a glass form (high-level waste). As described earlier, saltstone manufacturing and disposal is ongoing; vitrification was tested during 1995, and the DWPF began production operations in 1996. Pretreatment processes at the tank farms include in-tank precipitation and extended sludge processing.

More information about the function of the tank farms may be found in previous sections of this chapter, including the discussions of the F-Area effluent treatment cooling water basin, the H-Area auxiliary pump pit, S Area, the S-Area low-point pump pit, the DWPF, the Z-Area low-point drain tank, and the Z-Area saltstone manufacturing and disposal facility.

Because of restrictions on the disposal of purge water, monitoring wells at the tank farms are bailed and not purged.

**F-Area Tank Farm**—The F-Area tank farm comprises 22 subsurface tanks. In 1961, Tank 8 was overfilled, causing soil and possible groundwater contamination.

**H-Area Tank Farm**—The H-Area tank farm comprises 29 subsurface tanks. In 1960, Tank 16 leaked an unknown quantity (a few tens of gallons to a few hundred gallons) of waste into the soil. The tank's remaining waste was removed by 1972.

Several other releases of waste from H-Area tanks have occurred, including a spill of approximately 100 gallons at Tank 13 in 1983. In 1989, approximately 500 pounds of volume-reduced waste leaked from a transfer line at



Tank 37. The leak sites have been cleaned up or stabilized to prevent the spread of contamination. Both the F-Area and H-Area sites are being monitored for gross alpha, nonvolatile beta, and tritium.

## **Sanitary Landfill and Interim Sanitary Landfill**

The sanitary landfill began receiving waste from office, cafeteria, and industrial activities during 1974. Materials such as paper, plastics, rubber, wood, cardboard, rags, metal debris, pesticide bags, empty cans, carcasses, asbestos in bags, and sludge from the site's wastewater treatment plant are placed in unlined trenches and covered daily with soil or a fabric substitute. The original section of the landfill and its southern expansion, with a total area of approximately 54 acres, have been filled. Operations at the portion of approximately 16 acres known as the northern expansion, or the interim sanitary landfill, were discontinued in November 1994.

Sanitary landfills are intended to receive only nonradioactive, nonhazardous waste. However, until October 1992, some hazardous wastes (specifically, solvent-laden rags and wipes used for cleaning, decontamination, and instrument calibration) were buried in portions of the original 32-acre landfill and its southern expansion.

## **Sludge Application Sites**

These sites originally were the subject of a research program using domestic sewage sludge to reclaim borrow pits and to enhance forest productivity at SRS. In 1980, sludge was applied to the following application sites: K Area, Kato Road, Lower Kato Road, Orangeburg, PAR Pond, Road F, Sandy (Lucy), Second PAR Pond Borrow Pit, and 40-Acre Hardwood. After sludge was applied to the sites, hardwoods and pines were planted to quantify the effectiveness of the sludge as a fertilizer and soil conditioner.

Sludge from Aiken and Augusta municipal wastewater treatment plants was applied to the following sites: F Area, H Area, Kato Road, Lower Kato Road, Orangeburg, Road F, Sandy (Lucy), Second PAR Pond Borrow Pit, and 40-Acre Hardwood. Wastewater sludge was applied to the K Area and PAR Pond sites in 1981 and 1988. Revegetating of the sites is continuing.

In November 1993, groundwater monitoring was discontinued at the Kato Road, Lower Kato Road, Orangeburg, Road F, Sandy (Lucy), and 40-Acre Hardwood sites because they have not received applications of sewage sludge since 1981, and historical monitoring results show no impact from sludge applications. Monitoring was canceled after first quarter 1994.

## **H-Area Sanitary Sludge Land Application Site**

Sewage sludge from SRS sanitary wastewater treatment plants was disposed of at this 13-acre site southeast of H Area from November 1990 to May 1992.

## **K-Area and PAR Pond Sludge Land Application Sites (Formerly K-Area Borrow Pit and PAR Pond Borrow Pit Sites)**

In 1981, sludge from Aiken and Augusta municipal wastewater treatment plants was applied to the K-Area and PAR Pond borrow pits. In 1988, the N-Area sanitary sewage sludge lagoon was closed, and the lagoon sludge was applied to the K Area and PAR Pond borrow pits. In 1989, the K-Area location (now called the K-Area sludge land application site) was declared a RCRA/CERCLA unit because of the presence of chlordane in the lagoon sludge applied to the site.

## **Other Sites**

### **B-Area Gas Station**

Elevated benzene, which could be the result of old underground gasoline or diesel storage tanks, has been detected near B Area. EMS has inspected the area and believes there may be two underground storage tanks southeast of B Area. The first suspected tank appears to be at an abandoned gas station between Kato Road and Road C-2. The second appears to be an old diesel tank in front of a storage and laboratory facility.



### **Baseline Hydrogeologic Investigation Observation Well Clusters**

Wells in the P series that provide baseline hydrogeologic investigation data are located in numerous locations across SRS.

### **Chemicals, Metals, and Pesticides Pits**

The chemicals, metals, and pesticides pits were used from 1971 to 1979 to dispose of oil in drums, organic solvents, and small amounts of pesticides and metals. In 1984, the pits were excavated to form two trenches, backfilled, and capped. During excavation, most of the contaminated material (liquid in original drums, free liquid placed in drums during excavation, and contaminated soil) was moved to the hazardous waste storage facility.

### **D-Area Oil Disposal Basin**

The D-Area oil disposal basin was constructed in 1952 and received waste oil products from D Area that were unacceptable for incineration in the powerhouse boilers. These waste oils may have contained hydrogen sulfide, chlorinated organics, or other chemicals. In 1975, the oil basin was removed from service and backfilled with soil.

### **Interim Waste Technology Site Characterization Wells**

Characterization wells monitor interim waste technology sites B, L, Q, and P.

### **K-Area Diesel Tank Spill**

Following the discovery in 1989 of a leaking buried diesel supply line, most of the diesel-contaminated soil was removed from this area except where continued excavation would have jeopardized the structural integrity of an underground storage tank.

### **L-Area Acid/Caustic Basin and L-Area Oil and Chemical Basin**

From 1961 to 1979, the L-Area oil and chemical basin received small quantities of radioactive oil and chemical waste that could not be discharged to effluent streams, regular seepage basins, or the 200 Areas' waste management systems. The waste came from throughout SRS, primarily from the reactor areas and the contaminated-equipment workshop through a pipeline known to have leaked. The basin has been inactive since 1979.

### **M-Area Recovery Wells**

The RWM well series identifies the M-Area recovery wells. The first wells were installed in 1982 and 1983, with pumps added in 1985. Additional wells were installed in 1985, 1990, 1993, and 1996. The RWM wells pump contaminated groundwater to air strippers, which remove volatile organic compounds from the water before it is returned to the ground.

### **Miscellaneous Chemical Basin**

The miscellaneous chemical basin, in operation by 1956, was closed and graded in 1974. No records document the materials disposed of at this location. However, soil gas investigations revealed volatile organics in the near-surface soils at the basin. It is assumed that the site was used for disposal of waste solvents, liquid chemical wastes, and possibly waste oil. The basin is inactive.

### **Motor Shop Oil Basin**

This unlined basin was placed in service in 1977 to receive liquid effluent from the Motor Shop, including trace quantities of engine oil, grease, kerosene, ethylene glycol, and soap. All waste passed through an oil skimmer prior to discharge into the basin. All discharges to the basin were terminated in August 1983. The basin is inactive but collects rainwater during periods of heavy precipitation.

### **N-Area Diesel Spill Hazardous Waste Storage Facility**

The tanks have been filled with inert material, and the pipelines have been disconnected at this site.



### **N-Area Fire Department Training Facility**

The fire department training facility, also known as the N-Area burnable-oil basin, is a shallow pit surrounded by an 18-inch-high asphalt dike. It was used from 1979 to 1982 by the SRS Fire Department to train personnel in the use of firefighting equipment. After this time, the area was excavated and backfilled.

### **N-Area Hydrofluoric Acid Spill**

It is uncertain whether a spill occurred at the hydrofluoric acid spill area or if contaminated soil or containers were buried there. The spill or burial occurred prior to 1970, and an identification sign is the only evidence that material was released.

### **Production Wells**

The PW series wells are production wells scattered across SRS.

### **Road A (Baxley Road) Chemical Basin**

The Road A chemical basin is reported to have received miscellaneous radioactive and chemical aqueous waste, but no records of the materials disposed of at the basin are available. The basin was closed and backfilled in 1973. The BRD well series is being monitored for environmental-screening constituents only.

### **Silverton Road Waste Site**

The Silverton Road waste site, south of Silverton Road, was used for disposal of metal shavings, construction debris, tires, drums, tanks, and miscellaneous other items. The startup date is unknown, and no records of waste disposal activities were kept. Operations at this location ended in 1974, and the waste material is covered with soil and vegetation.

### **TNX Burying Ground**

The TNX burying ground was created to dispose of debris from an experimental evaporator that exploded at T Area in 1953. The buried material included contaminated conduit, tin, drums, structural steel, and depleted uranium. Although most of this material was excavated and sent to the LLRWDF between 1980 and 1984, an estimated 27 kg of uranyl nitrate remains buried at this location. See the **New TNX Seepage Basin** section for more information on the unit.



# Glossary

Also see p. B-1 for abbreviations and qualifiers used in the results tables in **Appendix B**.

**2,4-D.** 2,4-Dichlorophenoxyacetic acid.

**absolute difference.** The unsigned result of the subtraction of any two numbers.

**accuracy.** The degree of agreement between an observed value and an accepted reference value or a measure of the over- or underestimation of reported concentrations.

**advisory range.** A range of acceptable analytical results established by the provider of known samples.

**aerated sample.** Groundwater sample supplied or charged with air. Aeration can occur naturally or during well pumping.

**aliquot.** A portion of a sample being used for analysis.

**analyte.** Analyzed constituent.

**analytical detection limit.** The lowest reasonably accurate concentration of an analyte that can be detected. This value varies depending on the method, instrument, and dilution used.

**APHA.** American Public Health Association.

**Appendix IX.** A list of constituents specified by Appendix IX in the *Code of Federal Regulations*, Title 40, Part 264 (EPA, 1991d). Analysis for Appendix IX constituents is required by the Resource Conservation and Recovery Act (RCRA) under specified conditions.

**associated samples.** Samples analyzed by a laboratory in the same batch with field or laboratory blanks.

**ASTM.** American Society for Testing and Materials.

**ball.** To remove water from a well by lowering a container into the water, allowing it to fill with water, and removing it from the well.

**blank.** Aliquot of deionized water generated by laboratory or sampling personnel and analyzed like a groundwater sample. See **equipment blank**, **field blank**, **laboratory blank**, and **trip blank**.

**blank spike.** An organic-free water sample spiked with target analytes, extracted, and analyzed with the regular samples for organic parameters to monitor the performance of all steps in the analysis process.

**blind replicate.** A second sample taken from a well at the same time as the primary sample and sent to the laboratory for analysis as an unknown.

**BNA.** Base/neutral and acid extractables. Groups of organic compounds analyzed as part of the Appendix IX and Priority Pollutants suites; also, a group of compounds that can be analyzed by EPA Method 8270.

**Bq/L.** Becquerels per liter. A measurement of radioactivity.

**cation.** Positively charged ion.

**CERCLA.** Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund.



**certified value.** The known concentration of an analyte in a referenced sample.

**CFR.** *Code of Federal Regulations.* Sections of this annual document contain EPA standards and regulations for environmental monitoring.

**chain-of-custody record.** A form that documents the collection, transport, analysis, and disposal of well samples.

**common analyses.** Common parameters tested for, and generally found, in drinking water.

**comparability.** An evaluation made by confirming that the laboratories used the same standardized procedures for sample preparation and analysis, that the reporting units are the same, and that similar detection and quantitation limits were obtained.

**completeness.** An evaluation based on a comparison of the wells scheduled for sampling to the wells sampled, also a comparison of the requested analyses to the analytical data received.

**deionized water.** Water from which all charged species or ionizable organic and inorganic salts have been removed.

**detection limit.** See **analytical detection limit.**

**dilution factor.** The mathematical factor by which a sample is diluted to bring the concentration of an analyte in the sample within the analytical range of an instrument (e.g., 1 mL sample + 9 mL solvent = 1:10 dilution, or a dilution factor of 10).

**DL.** See **analytical detection limit.**

**DNAPL.** Dense nonaqueous phase liquid.

**DOE.** U.S. Department of Energy.

**drinking water standards.** Federal primary and secondary drinking water standards, as set forth by the EPA.

**duplicate.** Duplicate sample; an aliquot of a primary sample.

**duplicate result.** A result obtained from identical analyses performed on more than one aliquot of a primary sample.

**DWS.** See **drinking water standards.**

**E.** A code letter used in the analytical data tables that signifies exponential notation (e.g.,  $3.4\text{E}+03 = 3.4 \times 10^3 = 3,400$ ).

**EM.** EPD/EMS Laboratory at SRS.

**EMAX Laboratories.** EMAX Laboratories, Inc., of Torrance, CA.

**EMS.** The Environmental Monitoring Section of the Environmental Protection Department at SRS.

**EMS code.** See **qualifier.**

**Environmental Physics.** Environmental Physics, Inc., of Charleston, SC (subcontractor for General Engineering).

**environmental-screening analyses.** A group of analyses that forms the core of the EPD/EMS Groundwater Monitoring Program each quarter. See the **Sample Scheduling** section of this report for a complete list of constituents.

---

## **Glossary**



**EPA.** U.S. Environmental Protection Agency.

**EPD.** Environmental Protection Department at SRS.

**EPD/EMS.** Environmental Protection Department's Environmental Monitoring Section at SRS.

**EQL.** See **estimated quantitation limit**.

**equipment blank.** A sample of deionized water that is opened at the sampling location and poured or pumped through the sampling device. Equipment blanks are used to identify possible contaminants in the sampling equipment.

**ES.** See **QST Environmental**.

**estimated quantitation limit (EQL).** The lowest concentration reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. The EQL is generally 5x to 10x the method detection limit (MDL); however, it may be nominally chosen within these guidelines to simplify data reporting. For many analytes, the EQL analyte concentration is selected as the lowest nonzero standard in the calibration curve.

**EX.** See **EMAX Laboratories**.

**Fibers/L.** Fibers per liter. A unit of measurement for asbestos.

**field blank.** A sample container of deionized water sent to a laboratory under an alias as a quality control check.

**field qualifier.** See **sample interference field qualifier**. Due to space limitations, sample interference field qualifiers are referred to as *field qualifiers* in the analytical results tables in **Appendix B**.

**flagging criteria.** Criteria established to help determine the relative concentration and testing frequency for analytes. See the **Flagging Criteria** section of this report for further information.

**functional guideline code.** See **qualifier**.

**gamma PHA.** A group of analyses performed to determine activities of gamma-emitting radionuclides.

**GC.** See Gulf Coast.

**GC VOA.** Gas chromatographic volatile organics analyses. Also used to refer to a group of volatile organic compounds that can be analyzed by gas chromatography.

**GCMS VOA.** Gas chromatograph/mass spectrometer volatile organics analyses. Also used to refer to a group of volatile organic compounds analyzed by gas chromatography and mass spectrometry methods.

**GE.** See **General Engineering**.

**General Engineering.** General Engineering Laboratories of Charleston, SC.

**General Engineering Laboratories Mobile Laboratory.** The Mobile Laboratory, associated with General Engineering Laboratories of Charleston, SC.

**GP.** See **Environmental Physics**.

**Gulf Coast.** Gulf Coast of Chicago, IL (owned by Recra).

**halogen.** Any of the elements of the halogen family, which consists of fluorine, chlorine, bromine, iodine, and astatine.

---

## **Glossary**



**herbicides/pesticides.** A suite of analyses. See the **Sample Scheduling** section of this report for further information.

**holding time.** The length of time during which an analysis of a sample can be reliably performed. Holding times vary depending on which constituents are being analyzed.

**interlaboratory comparisons.** Comparisons conducted between two or more laboratories.

**intralaboratory comparisons.** Comparisons conducted within a single laboratory.

**ion.** An isolated electron or positron or an atom or molecule that has acquired a net electric charge by the loss or gain of one or more electrons.

**laboratory blank.** Deionized water or solvent sample generated by the laboratory. One blank is analyzed with each batch of samples as an in-house check of analytical procedures and equipment.

**laboratory control sample.** A deionized water sample that is spiked with the target analyte, digested, and analyzed with the regular samples for inorganic parameters to monitor the performance of all steps in the analysis process.

**MA.** See **Microanalytical Laboratories.**

**major ions.** A group of analyses performed in the EPD/EMS Groundwater Monitoring Program to determine the concentrations of calcium, magnesium, potassium, and silica ions and the alkalinity of a sample.

**matrix spike.** A known quantity of a target analyte added to at least 5% of the samples prior to sample preparation to evaluate the effect of the sample matrix on the analytical procedure.

**MDL.** See **method detection limit.**

**mean.** The arithmetic mean; a single number that typifies a set of numbers.

**method detection limit (MDL).** A reproducible analyte- and method-specific detection limit: the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.

**mg/L.** Milligrams per liter.

**μCi.** Microcurie; unit of radioactivity equivalent to  $3.7 \times 10^4$  disintegrations per second.

**μCi/mL.** Microcuries per milliliter.

**μg/L.** Micrograms per liter.

**μS/cm.** Microsiemens per centimeter, equivalent to micromhos per centimeter. The unit of conductance across two points, used as the measure of specific conductance in analytical data tables.

**Microanalytical Laboratories.** Microanalytical Laboratories, Inc., of Gainesville, FL (subcontractor for QST Environmental ).

**ML.** See **General Engineering Laboratories Mobile Laboratory.**

**modifier.** See **qualifier.**

**MRD.** Mean relative difference. See the **Quality Control Samples** section of this report for further information.

---

## **Glossary**



**msl.** Mean sea level.

**NTU.** Nephelometric turbidity units. The standard unit of turbidity measurement.

**null hypothesis.** A statement, which can be tested statistically, of no difference in a characteristic of a population or distribution.

**organic.** A chemical compound based on carbon chains or rings and containing hydrogen with or without oxygen, nitrogen, or other elements.

**PCB.** Polychlorinated biphenyl.

**pCi.** Picocurie; a unit of radioactivity equivalent to  $3.7 \times 10^{-2}$  disintegrations per second.

**pCi/L.** Picocuries per liter.

**pCi/mL.** Picocuries per milliliter.

**piezometer.** An instrument used to measure the potentiometric surface of groundwater. Also, a well designed for this purpose.

**plume.** A volume of contaminated air or water originating at a point-source emission (e.g., a smokestack) or a waste source (e.g., a hazardous-waste disposal site).

**potentiometric surface.** The surface to which water in an aquifer would rise by hydrostatic pressure if unconfined.

**precision.** A measure of the repeatability of a measurement, evaluated from the results of duplicate samples and splits.

**primary laboratory.** A laboratory having a contract with EPD/EMS to perform a specific set of analyses; a primary laboratory may subcontract this work to other laboratories.

**purge.** To remove water from a well prior to sampling, generally by pumping or bailing. Under the EPD/EMS Groundwater Monitoring Program, two well volumes generally are purged before sampling.

**QA.** Quality assurance.

**QC.** Quality control.

**QST Environmental.** QST Environmental, of Gainesville, FL.

**qualifier.** A code used to convey additional information about an analytical result. Also called a modifier. Specific types include functional guideline codes, STORET codes, and EMS codes. See **Appendix B** for additional information.

**radioisotopes.** Radioactive isotopes.

**radionuclide.** A nuclide at an unstable, high-energy level that seeks a more stable, low-energy level by emitting particles of energy. Through these emissions, the nuclear configuration decays to simpler nuclides.

**RCRA.** See **Resource Conservation and Recovery Act**.

**RCRA site.** Solid-waste management unit under RCRA regulation.

**RDL.** See **reference detection limit**.

---

## **Glossary**



**Recra LabNet Philadelphia.** Recra LabNet Philadelphia, of Lionville, PA.

**reference detection limit (RDL).** The detection limit chosen to allow comparison of several analyses with different detection limits. For the purposes of this report, the individual detection limits of at least 90% of the analyses are less than the reference detection limit. See the **Quality Control Samples** section of this report for further information.

**relative percent difference (RPD).** A commonly used estimate of precision when only two samples are available. Precision is the agreement among a set of replicate measurements without assumption of the true value. Precision is estimated by means of duplicate analyses.

**replicate.** Replicate sample. Used in this report to mean only those duplicate samples sent to the laboratory as unknowns. See **blind replicate**.

**representativeness.** The quality of exhibiting the average properties of the population being sampled.

**Resource Conservation and Recovery Act (RCRA).** Federal legislation that regulates the transport, treatment, and disposal of solid and hazardous wastes.

**RFI Program.** RCRA Facility Investigation Program. EPA-regulated investigation of a solid-waste management unit with regard to its potential impact on the environment.

**RFI/RI Program.** RCRA Facility Investigation/Remedial Investigation Program. At SRS, an expansion of the RFI Program that includes CERCLA and hazardous-substance regulations.

**RPD.** See **relative percent difference**.

**run date.** The calendar date denoting when an analysis is performed.

**sample interference field qualifier.** See also **field qualifier**. This describes interferences encountered during sample collection that could affect analytical results. It is used to qualify analytical data based on field condition.

**sample quantitation limit (SQL).** The sample-specific EQL, which is the EQL multiplied by factors of concentration, dilution, aliquot size, and percent solids.

**sample-specific EQL (ssEQL).** The EQL multiplied by factors of concentration, dilution, aliquot size, and percent solids. Also called the **SQL**.

**sample-specific MDL (ssMDL).** The MDL multiplied by factors of concentration, dilution, aliquot size, and percent solids. For radiological analyses it is known as the sample-specific minimum detectable concentration.

**sampling device.** Anything used in sampling, especially portable (nondedicated) pumps and bailers. Possible source of sample contamination if not cleaned thoroughly between uses.

**SCDHEC.** South Carolina Department of Health and Environmental Control.

**seepage basin.** An excavation that receives wastewater. Designed to prevent overflow or surface runoff.

**settling basin.** A temporary holding basin (excavation) that receives wastewater.

**significance of probability.** The probability of observing a statistical value as significant as, or more significant than, the value actually observed.

**site custodian.** WSRC employee responsible for a site being monitored.

**SQL.** See **sample quantitation limit**.

---

## **Glossary**



**SRL.** Savannah River Laboratory at SRS; now Savannah River Technology Center (SRTC).

**SRP.** Savannah River Plant; now Savannah River Site (SRS).

**SRS.** Savannah River Site.

**SRTC.** Savannah River Technology Center.

**STORET.** EPA national database for storage and retrieval of water quality information and monitoring data; some of the qualifiers listed in the **Analytical Results** section of this report (**Appendix B**) are based on STORET codes.

**STORET code.** See **qualifier**.

**surrogate.** An organic compound similar in composition and test performance to one of the analytes of interest; known quantities are used in an analysis as a quality assurance measure.

**tank farm.** An installation of interconnected underground tanks used for storage of high-level radioactive liquid wastes.

**Thermo NUtech.** Thermo NUtech, of Oak Ridge, TM (subcontractor for Recra LabNet Philadelphia and QST Environmental).

**TL.** See **Triangle Laboratories**.

**TM.** See Thermo NUtech.

**TOC.** Top of casing. The elevation of the casing at the top of a well; used as a reference for water-level measurements.

**Triangle Laboratories.** Triangle Laboratories, Inc., of Durham, NC (subcontractor for Environmental Science & Engineering).

**trip blank.** A sample container of deionized water that is transported to the well sample location, treated as a well sample, and sent to the laboratory for analysis; trip blanks are used to check for contamination resulting from transport, shipping, and site conditions.

**t-test.** Statistical method used to determine if the means of groups of observations are equal.

**turbidity.** A measure of the concentration of sediment or suspended particles in solution.

**U.** Unclassified.

**USDWS.** U.S. Public Health Service drinking water standard.

**volatile organic compounds.** A broad range of organic compounds, commonly halogenated, that vaporize at ambient, or relatively low, temperatures (e.g., acetone, benzene, chloroform, and methyl alcohol).

**WA.** See **Recra LabNet Philadelphia**.

**well volume.** The volume of water between the well water surface and the bottom of the screen; the volume of water standing inside the well casing.

**wellhead.** The top of a well.

**WSRC.** Westinghouse Savannah River Company.

---

## **Glossary**



## References

- American Public Health Association, American Water Works Association, and Water Pollution Control Federation. 1985. *Standard Methods for the Examination of Water and Wastewater*, 16th edition. Washington, DC.
- American Society for Testing and Materials. 1992. *Annual Book of ASTM Standards*, Volume 11.02. Philadelphia, PA.
- Environmental Protection Agency. 1977. *National Interim Primary Drinking Water Regulations*, EPA-570/9-76-003. Washington, DC.
- Environmental Protection Agency. 1980. *Prescribed Procedures for Measurement of Radioactivity in Drinking Water*, EPA-600/4-80-032 (method 901.1). Cincinnati, OH.
- Environmental Protection Agency. 1982. *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater*, PB83-201798 (method 625). Cincinnati, OH.
- Environmental Protection Agency. 1983. *Methods for Chemical Analysis of Water and Wastes*, PB84-128677 (methods 200.7, 282.2, 310.1, 350.1, 351.2, 413.1, 418.1, and 420.1). Cincinnati, OH.
- Environmental Protection Agency. 1986a. *RCRA Ground-Water Monitoring Technical Enforcement Guidance Document*, OSWER-9950.1. Washington, DC: Office of Waste Programs Enforcement.
- Environmental Protection Agency. 1986b. *Test Methods for Evaluating Solid Waste*, Volumes 1A, 1B, and 1C, third edition, SW-846 (methods 6010, 8080, 8150, 8240, 8270, 8280, 9020, 9030, and 9060). Washington, DC.
- Environmental Protection Agency. 1988a. *Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses*. Washington, DC: Office of Solid Waste and Emergency Response.
- Environmental Protection Agency. 1988b. *Laboratory Data Validation Functional Guidelines for Inorganics Analyses*, Draft. Washington, DC: Office of Solid Waste and Emergency Response.
- Environmental Protection Agency. 1990. "National Primary and Secondary Drinking Water Regulations; Synthetic Organic Chemicals and Inorganic Chemicals; Proposed Rule" in *Federal Register*, July 25, 1990, pp. 30369-30448. Washington, DC.
- Environmental Protection Agency. 1991a. "Guidelines Establishing Test Procedures for the Analysis of Pollutants" in *Code of Federal Regulations*, Title 40, Part 136, pp. 293-575. Washington, DC.
- Environmental Protection Agency. 1991b. *National Functional Guidelines for Organic Data Review*, Draft. Washington, DC: Office of Solid Waste and Emergency Response.
- Environmental Protection Agency. 1991c. "National Primary Drinking Water Regulations; Radionuclides; Proposed Rule" in *Federal Register*, July 18, 1991, pp. 33052-33127. Washington, DC.
- Environmental Protection Agency. 1991d. "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities" in *Code of Federal Regulations*, Title 40, Part 264, App. IX, pp. 310-316. Washington, DC.
- Environmental Protection Agency. 1991e. *Test Method: The Determination of Inorganic Anions in Water by Ion Chromatography Method 300.0*, Revised August 1991. Cincinnati, OH.
- Environmental Protection Agency. 1991f. *USEPA Contract Laboratory Program, Statement of Work (CLP SOW) for Organics Analysis, Multi-Media, Multi-Concentration*, ILM03.0. Washington, DC.

---

## References



Environmental Protection Agency. 1997a. "National Primary Drinking Water Regulations" in *Code of Federal Regulations*, pp. 288-432. Washington, DC.

Environmental Protection Agency. 1997b. "National Secondary Drinking Water Regulations" in *Code of Federal Regulations*, pp. 473-474. Washington, DC.

Keith, L.H. 1991. *Environmental Sampling and Analysis: A Practical Guide*. Chelsea, MI: Lewis Publishers.

South Carolina Department of Health and Environmental Control. 1981. *State Primary Drinking Water Regulations*, R.61-58.5. Columbia, SC.

U.S. Department of Energy. 1986. *Savannah River Plant Environmental Report for 1985*, Volumes I and II, DPSPU-86-30-1. Aiken, SC.

U.S. Department of Energy. 1987. *Savannah River Plant Environmental Report for 1986*, Volumes I and II, DPSPU-87-30-1. Aiken, SC.

U.S. Department of Energy. 1988a. *Geohydrology Program Report*. Aiken, SC: Environmental Division, Savannah River Operations Office.

U.S. Department of Energy. 1988b. *Savannah River Plant Environmental Report for 1987*, Volumes I and II, DPSPU-88-30-1. Aiken, SC.

U.S. Department of Energy. 1989a. *Geoscience Implementation Plan*. Aiken, SC: Environmental Division, Savannah River Operations Office.

U.S. Department of Energy. 1989b. *Savannah River Site Environmental Report for 1988*, Volumes I and II, WSRC-RP-89-59-1. Aiken, SC.

Westinghouse Savannah River Company. *Environmental Geochemistry Group Operating Handbook*, Section 1.800, "Analytical Data Qualification," October 19, 1998. ESH-EMS-970437. Aiken, SC.

---

## References



# ***Appendix A. Water-Level Data***

During first quarter 1999, water-level measurements were obtained for hydrogeologic projects. Most of the data presented on the following pages were obtained as concurrent data for hydrogeologic interpretation in the A/M and F/H areas. Only water levels were measured for this project; no field tests of water characteristics were conducted. RCS Corporation of Aiken, SC, collected the data.



## **NOTES**



**WELL ABP 1A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 135.4 ft (41.27m) below TOC  
Water elevation: 224.5 ft (68.43m) msl

Time: 12:31

**WELL ABP 1DD**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 134.2 ft (40.90m) below TOC  
Water elevation: 225.9 ft (68.86m) msl

Time: 12:32

**WELL ABP 2A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 149.76 ft (45.34m) below TOC  
Water elevation: 223.14 ft (68.01m) msl

Time: 12:20

**WELL ABP 2DD**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 147.4 ft (44.93m) below TOC  
Water elevation: 223.2 ft (68.03m) msl

Time: 12:20

**WELL ABP 3**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 128.25 ft (39.09m) below TOC  
Water elevation: 225.45 ft (68.72m) msl

Time: 12:26

**WELL ABP 3C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 156.6 ft (47.73m) below TOC  
Water elevation: 197.9 ft (60.32m) msl

Time: 12:26

**WELL ABP 4**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 141.6 ft (43.16m) below TOC  
Water elevation: 222.7 ft (67.88m) msl

Time: 12:06

**WELL ABP 4DD**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 140.83 ft (42.93m) below TOC  
Water elevation: 224.17 ft (68.33m) msl

Time: 12:07

**WELL ABP 6D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 142.11 ft (43.32m) below TOC  
Water elevation: 223.19 ft (68.03m) msl

Time: 12:17

**WELL ABP 7D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 140.15 ft (42.72m) below TOC  
Water elevation: 224.05 ft (68.29m) msl

Time: 11:57

**WELL ABP 8C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 174.82 ft (53.29m) below TOC  
Water elevation: 197.28 ft (60.13m) msl

Time: 12:11

**WELL ABP 8D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 148.1 ft (45.14m) below TOC  
Water elevation: 222.8 ft (67.91m) msl

Time: 12:12

**WELL ABP 9B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 160.35 ft (48.88m) below TOC  
Water elevation: 191.85 ft (58.48m) msl

Time: 12:01

**WELL ABP 9C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 161.52 ft (49.23m) below TOC  
Water elevation: 190.86 ft (58.18m) msl

Time: 12:02



# WATER-LEVEL DATA

## WELL ABP 9D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 139.54 ft (40.39m) below TOC  
Water elevation: 220.6 ft (67.24m) msl

Time: 12:03

## WELL ABP 10D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 136.15 ft (41.50m) below TOC  
Water elevation: 217.25 ft (66.22m) msl

Time: 11:38

## WELL ABW 1

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 125.95 ft (38.39m) below TOC  
Water elevation: 198.85 ft (60.61m) msl

Time: 12:19

## WELL AC 1A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 48.27 ft (14.71m) below TOC  
Water elevation: 213.83 ft (65.18m) msl

Time: 10:54

## WELL AC 1B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 48.25 ft (14.71m) below TOC  
Water elevation: 213.75 ft (65.15m) msl

Time: 10:53

## WELL AC 2A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 124.35 ft (37.90m) below TOC  
Water elevation: 220.35 ft (67.16m) msl

Time: 10:21

## WELL AC 2B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 117.92 ft (35.94m) below TOC  
Water elevation: 226.88 ft (69.15m) msl

Time: 10:21

## WELL AC 3A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 91.85 ft (28.00m) below TOC  
Water elevation: 210.45 ft (64.15m) msl

Time: 11:00

## WELL AC 3B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 89.98 ft (27.43m) below TOC  
Water elevation: 212.52 ft (64.78m) msl

Time: 11:00

## WELL ACB 1A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 122.36 ft (37.30m) below TOC  
Water elevation: 237.24 ft (72.31m) msl

Time: 14:00

## WELL ACB 2A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 115.42 ft (35.18m) below TOC  
Water elevation: 234.38 ft (71.44m) msl

Time: 13:57

## WELL ACB 3A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 113.38 ft (34.56m) below TOC  
Water elevation: 234.32 ft (71.60m) msl

Time: 14:10

## WELL ACB 4A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 123.72 ft (37.71m) below TOC  
Water elevation: 235.38 ft (71.74m) msl

Time: 14:09

## WELL AMB 4A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 163.25 ft (49.76m) below TOC  
Water elevation: 217.25 ft (66.22m) msl

Time: 12:35

ESH-EMS-990520

A-4

First Quarter 1999



**WELL AMB 4B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 156.5 ft (47.70m) below TOC  
 Water elevation: 223.9 ft (68.25m) msl

Time: 12:36

**WELL AMB 8D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 138.14 ft (42.11m) below TOC  
 Water elevation: 231.46 ft (70.55m) msl

Time: 13:32

**WELL AMB 4D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 147.95 ft (45.10m) below TOC  
 Water elevation: 232.35 ft (70.82m) msl

Time: 12:37

**WELL AMB 9D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 136.4 ft (41.58m) below TOC  
 Water elevation: 231.5 ft (70.56m) msl

Time: 13:34

**WELL AMB 5**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 146.7 ft (44.71m) below TOC  
 Water elevation: 232.9 ft (70.99m) msl

Time: 12:37

**WELL AMB 10A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 148.98 ft (45.41m) below TOC  
 Water elevation: 217.52 ft (66.30m) msl

Time: 13:38

**WELL AMB 6**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 145.2 ft (44.26m) below TOC  
 Water elevation: 232.9 ft (70.71m) msl

Time: 12:38

**WELL AMB 10B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 144.31 ft (43.99m) below TOC  
 Water elevation: 222.09 ft (67.69m) msl

Time: 13:38

**WELL AMB 7**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 138.02 ft (42.07m) below TOC  
 Water elevation: 231.88 ft (70.68m) msl

Time: 13:24

**WELL AMB 10D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 133.2 ft (40.60m) below TOC  
 Water elevation: 232.3 ft (70.81m) msl

Time: 13:38

**WELL AMB 7A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 155.36 ft (47.35m) below TOC  
 Water elevation: 216.24 ft (66.32m) msl

Time: 13:26

**WELL AMB 10DD**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 10.6 ft (3.23m) below TOC  
 Water elevation: 354.8 ft (108.14m) msl

Time: 13:39

**WELL AMB 7B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 149.28 ft (45.50m) below TOC  
 Water elevation: 223.72 ft (68.19m) msl

Time: 13:26

**WELL AMB 11B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 142.42 ft (43.41m) below TOC  
 Water elevation: 222.18 ft (67.72m) msl

Time: 13:13



# WATER-LEVEL DATA

## WELL AMB 11D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 130.97 ft (39.92m) below TOC  
Water elevation: 233.03 ft (71.03m) msl

Time: 13:12

## WELL AMB 12D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 137.45 ft (41.90m) below TOC  
Water elevation: 232.35 ft (70.82m) msl

Time: 13:10

## WELL AMB 13AR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 146.88 ft (44.77m) below TOC  
Water elevation: 218.22 ft (66.51m) msl

Time: 13:44

## WELL AMB 14D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 152.6 ft (46.51m) below TOC  
Water elevation: 229.8 ft (70.04m) msl

Time: 11:10

## WELL AMB 15D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 151.5 ft (46.18m) below TOC  
Water elevation: 231.9 ft (70.68m) msl

Time: 11:12

## WELL AMB 16D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 149 ft (45.42m) below TOC  
Water elevation: 231.4 ft (70.53m) msl

Time: 11:07

## WELL AMB 17A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 161.41 ft (49.20m) below TOC  
Water elevation: 217.69 ft (66.35m) msl

Time: 12:39

## WELL AMB 18A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 159.2 ft (48.52m) below TOC  
Water elevation: 218.1 ft (66.48m) msl

Time: 13:30

## WELL AMB 18C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 144.75 ft (44.12m) below TOC  
Water elevation: 231.25 ft (70.49m) msl

Time: 13:30

## WELL AMB 19C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 134.86 ft (41.11m) below TOC  
Water elevation: 228.84 ft (69.75m) msl

Time: 13:46

## WELL AOB 1

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 106.84 ft (32.57m) below TOC  
Water elevation: 234.26 ft (71.40m) msl

Time: 14:24

## WELL AOB 2

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 110.7 ft (33.74m) below TOC  
Water elevation: 234.7 ft (71.54m) msl

Time: 14:21

## WELL AOB 3

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 117.55 ft (35.83m) below TOC  
Water elevation: 235.05 ft (71.64m) msl

Time: 14:13

## WELL ARP 1A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 138.4 ft (42.18m) below TOC  
Water elevation: 216.7 ft (66.05m) msl

Time: 11:47



**WELL ARP 2**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 117.7 ft (35.88m) below TOC  
 Water elevation: 219.6 ft (66.93m) msl

Time: 11:50

**WELL ARP 3**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 118.06 ft (35.99m) below TOC  
 Water elevation: 221.74 ft (67.59m) msl

Time: 11:54

**WELL ARP 4**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 129.05 ft (39.33m) below TOC  
 Water elevation: 219.35 ft (66.86m) msl

Time: 11:43

**WELL ASB 1A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 112 ft (34.14m) below TOC  
 Water elevation: 237.1 ft (72.27m) msl

Time: 11:54

**WELL ASB 2AR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 119.8 ft (35.94m) below TOC  
 Water elevation: 238 ft (72.54m) msl

Time: 12:09

**WELL ASB 2CR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 134.2 ft (40.90m) below TOC  
 Water elevation: 221.4 ft (67.48m) msl

Time: 12:08

**WELL ASB 3AR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 120.88 ft (31.36m) below TOC  
 Water elevation: 238.72 ft (72.76m) msl

Time: 12:05

**WELL ASB 3CR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 120.7 ft (36.79m) below TOC  
 Water elevation: 220.8 ft (67.30m) msl

Time: 12:05

**WELL ASB 4**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 97.42 ft (29.69m) below TOC  
 Water elevation: 238.18 ft (72.60m) msl

Time: 11:41

**WELL ASB 5AR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 110.7 ft (33.74m) below TOC  
 Water elevation: 236.3 ft (72.03m) msl

Time: 11:45

**WELL ASB 5C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 126.27 ft (38.49m) below TOC  
 Water elevation: 221.03 ft (67.37m) msl

Time: 11:45

**WELL ASB 6A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 121.6 ft (37.06m) below TOC  
 Water elevation: 228.6 ft (69.68m) msl

Time: 11:53

**WELL ASB 6AA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 137.26 ft (41.84m) below TOC  
 Water elevation: 216.94 ft (66.12m) msl

Time: 11:51

**WELL ASB 6C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 131.28 ft (40.01m) below TOC  
 Water elevation: 222.32 ft (67.76m) msl

Time: 11:50



# WATER-LEVEL DATA

## WELL ASB 6TA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 140.08 ft (42.70m) below TOC  
Water elevation: 212.82 ft (64.87m) msl

Time: 11:50

## WELL ASB 8

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 115.33 ft (35.15m) below TOC  
Water elevation: 233.67 ft (71.22m) msl

Time: 10:25

## WELL ASB 8A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 131.44 ft (40.06m) below TOC  
Water elevation: 217.86 ft (66.40m) msl

Time: 10:26

## WELL ASB 8B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 132.9 ft (40.51m) below TOC  
Water elevation: 216.9 ft (66.11m) msl

Time: 10:27

## WELL ASB 8C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 130.3 ft (39.72m) below TOC  
Water elevation: 219.4 ft (66.87m) msl

Time: 10:28

## WELL ASB 8TA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 134.71 ft (41.06m) below TOC  
Water elevation: 214.89 ft (65.50m) msl

Time: 10:26

## WELL ASB 9

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 67.25 ft (20.50m) below TOC  
Water elevation: 241.75 ft (73.69m) msl

Time: 12:42

## WELL ASB 9B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 98.96 ft (27.12m) below TOC  
Water elevation: 220.04 ft (67.07m) msl

Time: 12:42

## WELL ASB 9C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 89.8 ft (27.37m) below TOC  
Water elevation: 220.1 ft (67.09m) msl

Time: 12:41

## WELL ASB 10CR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 128.11 ft (39.05m) below TOC  
Water elevation: 221.09 ft (67.39m) msl

Time: 12:01

## WELL BGO 1D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 55.52 ft (16.92m) below TOC  
Water elevation: 239.58 ft (73.02m) msl

Time: 20:28

## WELL BGO 2D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 54.82 ft (16.71m) below TOC  
Water elevation: 242.08 ft (73.79m) msl

Time: 17:57

## WELL BGO 3A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 128.66 ft (39.22m) below TOC  
Water elevation: 163.24 ft (49.76m) msl

Time: 18:03

## WELL BGO 3C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 66.57 ft (20.29m) below TOC  
Water elevation: 225.33 ft (68.68m) msl

Time: 18:03



**WELL BGO 3DR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 60.07 ft (18.31m) below TOC  
Water elevation: 231.43 ft (70.54m) msl

Time: 18:04

**WELL BGO 4D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 67.2 ft (20.46m) below TOC  
Water elevation: 230.3 ft (70.20m) msl

Time: 18:19

**WELL BGO 5C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 81.25 ft (24.77m) below TOC  
Water elevation: 214.85 ft (65.49m) msl

Time: 18:11

**WELL BGO 5D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 66.41 ft (20.24m) below TOC  
Water elevation: 229.89 ft (70.07m) msl

Time: 18:11

**WELL BGO 6A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 126.22 ft (38.47m) below TOC  
Water elevation: 159.38 ft (48.58m) msl

Time: 18:16

**WELL BGO 6B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 68.67 ft (20.93m) below TOC  
Water elevation: 218.13 ft (66.49m) msl

Time: 18:17

**WELL BGO 6C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 65.93 ft (20.21m) below TOC  
Water elevation: 219.28 ft (66.84m) msl

Time: 18:16

**WELL BGO 6D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 55.16 ft (16.81m) below TOC  
Water elevation: 230.34 ft (70.21m) msl

Time: 18:17

**WELL BGO 7D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 56.12 ft (17.11m) below TOC  
Water elevation: 230.88 ft (70.37m) msl

Time: 20:58

**WELL BGO 8AR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 126.16 ft (38.45m) below TOC  
Water elevation: 160.44 ft (48.90m) msl

Time: 21:00

**WELL BGO 8C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 65.35 ft (19.92m) below TOC  
Water elevation: 222.55 ft (67.83m) msl

Time: 21:03

**WELL BGO 8D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 56.8 ft (17.31m) below TOC  
Water elevation: 231 ft (70.41m) msl

Time: 21:01

**WELL BGO 9AA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 126.86 ft (38.67m) below TOC  
Water elevation: 157.94 ft (48.14m) msl

Time: 16:30

**WELL BGO 9D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 56.4 ft (17.19m) below TOC  
Water elevation: 228.7 ft (69.71m) msl

Time: 16:27



# WATER-LEVEL DATA

## WELL BGO 10AA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 142.9 ft (43.56m) below TOC  
Water elevation: 157.8 ft (48.10m) msl

Time: 16:32

## WELL BGO 10AR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 142.1 ft (43.31m) below TOC  
Water elevation: 158.4 ft (48.28m) msl

Time: 16:22

## WELL BGO 10B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 81.88 ft (24.95m) below TOC  
Water elevation: 219.12 ft (66.79m) msl

Time: 16:33

## WELL BGO 10C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 81.4 ft (24.81m) below TOC  
Water elevation: 219.9 ft (67.03m) msl

Time: 16:23

## WELL BGO 10DR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 69.42 ft (21.16m) below TOC  
Water elevation: 230.98 ft (70.40m) msl

Time: 16:24

## WELL BGO 11DR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 74.4 ft (22.68m) below TOC  
Water elevation: 230.8 ft (70.35m) msl

Time: 16:19

## WELL BGO 12AX

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 155.45 ft (47.38m) below TOC  
Water elevation: 157.35 ft (47.96m) msl

Time: 16:16

ESH-EMS-990520

A-10

First Quarter 1999

## WELL BGO 12CX

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 92.6 ft (28.18m) below TOC  
Water elevation: 230.7 ft (70.32m) msl

Time: 16:17

## WELL BGO 12DR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 93.38 ft (28.46m) below TOC  
Water elevation: 220.22 ft (67.12m) msl

Time: 16:17

## WELL BGO 13DR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 88.63 ft (27.01m) below TOC  
Water elevation: 230.67 ft (70.31m) msl

Time: 16:11

## WELL BGO 14AR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 141.81 ft (43.22m) below TOC  
Water elevation: 158.89 ft (48.43m) msl

Time: 16:05

## WELL BGO 14CR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 77.58 ft (23.64m) below TOC  
Water elevation: 222.94 ft (67.95m) msl

Time: 16:05

## WELL BGO 14DR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 70.22 ft (21.40m) below TOC  
Water elevation: 230.08 ft (70.13m) msl

Time: 16:06

## WELL BGO 15D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 69.13 ft (21.07m) below TOC  
Water elevation: 229.57 ft (69.97m) msl

Time: 15:56



**WELL BGO 16AR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 142.51 ft (43.44m) below TOC  
 Water elevation: 161.19 ft (49.13m) msl

Time: 18:51

**WELL BGO 16B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 87.49 ft (26.67m) below TOC  
 Water elevation: 217.61 ft (66.33m) msl

Time: 18:54

**WELL BGO 16D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 74.88 ft (22.87m) below TOC  
 Water elevation: 230.22 ft (70.17m) msl

Time: 18:52

**WELL BGO 17DR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 68.37 ft (20.84m) below TOC  
 Water elevation: 230.83 ft (70.36m) msl

Time: 18:49

**WELL BGO 18A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 133.72 ft (40.76m) below TOC  
 Water elevation: 161.46 ft (49.22m) msl

Time: 18:46

**WELL BGO 18D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 63.65 ft (19.40m) below TOC  
 Water elevation: 231.25 ft (70.49m) msl

Time: 18:47

**WELL BGO 19DR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 62.76 ft (19.13m) below TOC  
 Water elevation: 231.04 ft (70.42m) msl

Time: 18:44

**WELL BGO 20A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 120.7 ft (36.79m) below TOC  
 Water elevation: 165.2 ft (49.74m) msl

Time: 17:47

**WELL BGO 20AA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 121.85 ft (37.14m) below TOC  
 Water elevation: 161.75 ft (49.30m) msl

Time: 17:45

**WELL BGO 20B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 56.14 ft (17.11m) below TOC  
 Water elevation: 227.36 ft (69.30m) msl

Time: 17:46

**WELL BGO 20C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 54.79 ft (16.70m) below TOC  
 Water elevation: 228.71 ft (69.71m) msl

Time: 17:48

**WELL BGO 20D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 50.89 ft (15.51m) below TOC  
 Water elevation: 232.81 ft (70.96m) msl

Time: 17:48

**WELL BGO 21D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 51.86 ft (15.81m) below TOC  
 Water elevation: 233.54 ft (71.18m) msl

Time: 17:51

**WELL BGO 22DX**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 51.71 ft (15.76m) below TOC  
 Water elevation: 233.99 ft (71.32m) msl

Time: 18:42



# WATER-LEVEL DATA

## WELL BGO 23D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 53.91 ft (16.43m) below TOC  
Water elevation: 235.29 ft (71.72m) msl

Time: 18:40

## WELL BGO 24D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 56.54 ft (17.23m) below TOC  
Water elevation: 236.66 ft (72.13m) msl

Time: 17:54

## WELL BGO 25A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 135.2 ft (41.21m) below TOC  
Water elevation: 161.3 ft (49.16m) msl

Time: 16:01

## WELL BGO 26A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 127.76 ft (38.94m) below TOC  
Water elevation: 159.44 ft (48.60m) msl

Time: 15:44

## WELL BGO 26D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 58.43 ft (17.81m) below TOC  
Water elevation: 227.07 ft (69.21m) msl

Time: 15:45

## WELL BGO 27C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 55.66 ft (16.97m) below TOC  
Water elevation: 220.34 ft (67.16m) msl

Time: 15:41

## WELL BGO 27D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 49.7 ft (15.15m) below TOC  
Water elevation: 226.6 ft (69.07m) msl

Time: 15:41

ESH-EMS-990520

A-12

First Quarter 1999

## WELL BGO 28D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 52.2 ft (15.91m) below TOC  
Water elevation: 225.2 ft (68.64m) msl

Time: 15:39

## WELL BGO 29A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 104.3 ft (31.79m) below TOC  
Water elevation: 159.3 ft (48.74m) msl

Time: 15:34

## WELL BGO 29C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 46.79 ft (13.94m) below TOC  
Water elevation: 222.01 ft (67.87m) msl

Time: 15:35

## WELL BGO 29D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 40.1 ft (12.22m) below TOC  
Water elevation: 225.4 ft (68.70m) msl

Time: 15:35

## WELL BGO 30C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 55.73 ft (16.99m) below TOC  
Water elevation: 216.77 ft (66.86m) msl

Time: 21:28

## WELL BGO 30D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 50.1 ft (15.27m) below TOC  
Water elevation: 224.7 ft (68.49m) msl

Time: 21:26

## WELL BGO 31C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 46.7 ft (14.84m) below TOC  
Water elevation: 224.4 ft (68.40m) msl

Time: 20:03



**WELL BGO 31D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 49.2 ft (14.69m) below TOC  
 Water elevation: 225.5 ft (68.73m) msl

Time: 20:03

**WELL BGO 32D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 55.47 ft (16.91m) below TOC  
 Water elevation: 226.23 ft (68.96m) msl

Time: 20:06

**WELL BGO 33C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 55.54 ft (16.93m) below TOC  
 Water elevation: 223.86 ft (68.23m) msl

Time: 20:08

**WELL BGO 33D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 51.82 ft (15.79m) below TOC  
 Water elevation: 228.48 ft (69.64m) msl

Time: 20:09

**WELL BGO 34D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 44.3 ft (13.50m) below TOC  
 Water elevation: 230.6 ft (70.29m) msl

Time: 20:11

**WELL BGO 35C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 45.04 ft (13.73m) below TOC  
 Water elevation: 228.36 ft (69.60m) msl

Time: 20:14

**WELL BGO 35D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 40.91 ft (12.47m) below TOC  
 Water elevation: 232.59 ft (70.89m) msl

Time: 20:14

**WELL BGO 36D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 39.99 ft (12.19m) below TOC  
 Water elevation: 235.41 ft (71.75m) msl

Time: 20:20

**WELL BGO 37C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 55.38 ft (16.88m) below TOC  
 Water elevation: 230.92 ft (70.39m) msl

Time: 20:21

**WELL BGO 37D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 49.2 ft (15.00m) below TOC  
 Water elevation: 238.1 ft (72.57m) msl

Time: 20:23

**WELL BGO 38D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 55.01 ft (16.77m) below TOC  
 Water elevation: 236.59 ft (72.11m) msl

Time: 20:24

**WELL BGO 39A****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 128.48 ft (39.16m) below TOC  
 Water elevation: 167.42 ft (51.03m) msl

Time: 20:26

**WELL BGO 39C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 64.9 ft (19.78m) below TOC  
 Water elevation: 231.5 ft (70.56m) msl

Time: 20:27

**WELL BGO 39D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 60.08 ft (18.31m) below TOC  
 Water elevation: 235.62 ft (71.82m) msl

Time: 20:26



# **WATER-LEVEL DATA**

## **WELL BGO 40D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 66.04 ft (20.31 m) below TOC  
Water elevation: 221.76 ft (67.59m) msl

Time: 15:48

## **WELL BGO 41A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 140.68 ft (42.88m) below TOC  
Water elevation: 159.62 ft (48.65m) msl

Time: 15:58

## **WELL BGO 42C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 76.3 ft (22.95m) below TOC  
Water elevation: 222.6 ft (67.85m) msl

Time: 16:09

## **WELL BGO 43A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 157.45 ft (47.99m) below TOC  
Water elevation: 157.45 ft (47.99m) msl

Time: 16:51

## **WELL BGO 43AA**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 157.67 ft (48.09m) below TOC  
Water elevation: 156.55 ft (47.71m) msl

Time: 16:49

## **WELL BGO 43CR**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 90.75 ft (27.66m) below TOC  
Water elevation: 224.55 ft (68.44m) msl

Time: 16:51

## **WELL BGO 43D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 84.28 ft (25.69m) below TOC  
Water elevation: 231.02 ft (70.42m) msl

Time: 16:52

## **WELL BGO 44A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
Depth to water: 126.68 ft (38.61m) below TOC  
Water elevation: 156.62 ft (48.35m) msl

Time: 21:18

## **WELL BGO 44AA**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
Depth to water: 126.7 ft (38.62m) below TOC  
Water elevation: 156.6 ft (48.34m) msl

Time: 21:08

## **WELL BGO 44B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
Depth to water: 64.87 ft (19.76m) below TOC  
Water elevation: 220.38 ft (67.17m) msl

Time: 21:17

## **WELL BGO 44C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
Depth to water: 65.47 ft (19.96m) below TOC  
Water elevation: 220.13 ft (67.10m) msl

Time: 21:07

## **WELL BGO 44D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
Depth to water: 54.28 ft (16.54m) below TOC  
Water elevation: 231.12 ft (70.45m) msl

Time: 21:05

## **WELL BGO 45A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 118.18 ft (36.02m) below TOC  
Water elevation: 160.72 ft (48.99m) msl

Time: 15:51

## **WELL BGO 45B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 60.05 ft (18.30m) below TOC  
Water elevation: 219.55 ft (66.61m) msl

Time: 15:52

**ESH-EMS-990520**

**A-14**

**First Quarter 1999**



**WELL BGO 45C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 56.34 ft (17.17m) below TOC  
 Water elevation: 222.26 ft (67.75m) msl

Time: 15:52

**WELL BGO 45D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 51.9 ft (15.82m) below TOC  
 Water elevation: 226.7 ft (69.10m) msl

Time: 15:53

**WELL BGO 46B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 48.31 ft (14.73m) below TOC  
 Water elevation: 217.09 ft (66.17m) msl

Time: 19:50

**WELL BGO 46C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 46.46 ft (14.16m) below TOC  
 Water elevation: 218.64 ft (66.64m) msl

Time: 19:52

**WELL BGO 46D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 41.07 ft (12.52m) below TOC  
 Water elevation: 224.03 ft (68.29m) msl

Time: 19:53

**WELL BGO 47A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 104.32 ft (31.80m) below TOC  
 Water elevation: 162.58 ft (49.55m) msl

Time: 19:48

**WELL BGO 47C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 45.87 ft (13.98m) below TOC  
 Water elevation: 221.73 ft (67.58m) msl

Time: 19:47

**WELL BGO 47D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 42.57 ft (12.98m) below TOC  
 Water elevation: 224.63 ft (68.53m) msl

Time: 19:47

**WELL BGO 48C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 54.25 ft (16.54m) below TOC  
 Water elevation: 222.35 ft (67.77m) msl

Time: 19:59

**WELL BGO 48D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 51.74 ft (15.77m) below TOC  
 Water elevation: 225.16 ft (68.63m) msl

Time: 20:00

**WELL BGO 49A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 105.76 ft (32.24m) below TOC  
 Water elevation: 165.44 ft (50.43m) msl

Time: 20:16

**WELL BGO 49C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 43.43 ft (13.24m) below TOC  
 Water elevation: 227.67 ft (69.39m) msl

Time: 20:17

**WELL BGO 49D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 40.1 ft (12.22m) below TOC  
 Water elevation: 231.4 ft (70.53m) msl

Time: 20:17

**WELL BGO 50A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
 Depth to water: 94.86 ft (28.91m) below TOC  
 Water elevation: 160.54 ft (48.93m) msl

Time: 19:54



# WATER-LEVEL DATA

## WELL BGO 50C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 37.6 ft (11.46m) below TOC  
Water elevation: 217.9 ft (66.42m) msl

Time: 19:55

## WELL BGO 50D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 32.11 ft (9.79m) below TOC  
Water elevation: 223.89 ft (68.24m) msl

Time: 19:57

## WELL BGO 51A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 123.58 ft (37.67m) below TOC  
Water elevation: 165.72 ft (50.51m) msl

Time: 17:16

## WELL BGO 51AA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 120.94 ft (36.86m) below TOC  
Water elevation: 168.26 ft (51.28m) msl

Time: 17:20

## WELL BGO 51B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 59 ft (17.98m) below TOC  
Water elevation: 230.1 ft (70.14m) msl

Time: 17:17

## WELL BGO 51C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 58.05 ft (17.69m) below TOC  
Water elevation: 231.05 ft (70.42m) msl

Time: 17:18

## WELL BGO 51D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 54.34 ft (16.56m) below TOC  
Water elevation: 234.96 ft (71.62m) msl

Time: 17:19

## WELL BGO 52A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 120.34 ft (36.68m) below TOC  
Water elevation: 164.06 ft (50.01m) msl

Time: 17:38

## WELL BGO 52AA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 121.17 ft (36.93m) below TOC  
Water elevation: 163.33 ft (49.78m) msl

Time: 17:38

## WELL BGO 52B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 56.27 ft (17.15m) below TOC  
Water elevation: 228.13 ft (69.53m) msl

Time: 17:39

## WELL BGO 52B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 56.27 ft (17.15m) below TOC  
Water elevation: 228.13 ft (69.53m) msl

Time: 17:40

## WELL BGO 52C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 55.12 ft (16.80m) below TOC  
Water elevation: 229.38 ft (69.92m) msl

Time: 17:41

## WELL BGO 52D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 51.6 ft (15.73m) below TOC  
Water elevation: 233.2 ft (71.08m) msl

Time: 17:41

## WELL BGO 53A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 132.17 ft (40.29m) below TOC  
Water elevation: 159.23 ft (48.53m) msl

Time: 17:30

ESH-EMS-990520

A-16

First Quarter 1999



**WELL BGO 53AA****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 133 ft (40.54m) below TOC  
 Water elevation: 158.7 ft (48.37m) msl

Time: 17:28

**WELL BGO 53B****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 70.04 ft (21.35m) below TOC  
 Water elevation: 221.06 ft (67.38m) msl

Time: 17:31

**WELL BGO 53C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 68.55 ft (20.89m) below TOC  
 Water elevation: 222.35 ft (67.77m) msl

Time: 17:31

**WELL BGO 53D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 62.32 ft (19.00m) below TOC  
 Water elevation: 229.28 ft (69.89m) msl

Time: 17:32

**WELL BGX 1A****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 133.04 ft (40.55m) below TOC  
 Water elevation: 158.16 ft (48.21m) msl

Time: 20:54

**WELL BGX 1C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 76.46 ft (23.31m) below TOC  
 Water elevation: 214.84 ft (65.48m) msl

Time: 20:55

**WELL BGX 1D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 65.11 ft (19.05m) below TOC  
 Water elevation: 228.79 ft (69.74m) msl

Time: 20:56

**WELL BGX 2B****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 75.49 ft (24.23m) below TOC  
 Water elevation: 211.81 ft (64.56m) msl

Time: 20:49

**WELL BGX 2D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 76.65 ft (23.36m) below TOC  
 Water elevation: 214.45 ft (65.37m) msl

Time: 20:50

**WELL BGX 3D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 76.9 ft (23.44m) below TOC  
 Water elevation: 214.3 ft (65.32m) msl

Time: 20:47

**WELL BGX 4A****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 135.62 ft (41.34m) below TOC  
 Water elevation: 155.28 ft (47.33m) msl

Time: 20:41

**WELL BGX 4C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 76.95 ft (23.45m) below TOC  
 Water elevation: 213.85 ft (65.18m) msl

Time: 20:42

**WELL BGX 4D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 75.87 ft (23.13m) below TOC  
 Water elevation: 215.03 ft (65.54m) msl

Time: 20:45

**WELL BGX 5D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/24/99  
 Depth to water: 76.65 ft (23.36m) below TOC  
 Water elevation: 208.35 ft (63.51m) msl

Time: 20:39



# WATER-LEVEL DATA

## WELL BGX 6D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 71.91 ft (21.92m) below TOC  
Water elevation: 205.09 ft (62.51m) msl

Time: 18:23

## WELL BGX 7D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 74.28 ft (22.64m) below TOC  
Water elevation: 204.92 ft (62.48m) msl

Time: 18:27

## WELL BGX 8DR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 73.9 ft (22.52m) below TOC  
Water elevation: 204.3 ft (62.27m) msl

Time: 18:30

## WELL BGX 9D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 53.52 ft (16.31m) below TOC  
Water elevation: 225.88 ft (68.85m) msl

Time: 18:32

## WELL BGX 10D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 51.9 ft (15.82m) below TOC  
Water elevation: 225 ft (68.58m) msl

Time: 18:34

## WELL BGX 11D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 46.47 ft (12.95m) below TOC  
Water elevation: 233.83 ft (71.27m) msl

Time: 18:37

## WELL BGX 12C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 41.28 ft (12.58m) below TOC  
Water elevation: 233.82 ft (71.27m) msl

Time: 20:33

## WELL BGX 12D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 37.97 ft (11.57m) below TOC  
Water elevation: 237.23 ft (72.31m) msl

Time: 20:34

## WELL DBP 5

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 17.59 ft (5.36m) below TOC  
Water elevation: 117.02 ft (35.67m) msl

Time: 13:35

## WELL DCB 6

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 17.7 ft (5.40m) below TOC  
Water elevation: 115.5 ft (35.20m) msl

Time: 13:36

## WELL DCB 7

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 15.45 ft (4.71m) below TOC  
Water elevation: 117.35 ft (35.77m) msl

Time: 13:36

## WELL DCB 8

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 12.5 ft (3.81m) below TOC  
Water elevation: 124.3 ft (37.89m) msl

Time: 13:36

## WELL DCB 8C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 12.6 ft (3.84m) below TOC  
Water elevation: Not available

Time: 13:36

## WELL DCB 10

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 9.78 ft (2.98m) below TOC  
Water elevation: 114.12 ft (34.78m) msl

Time: 13:36

ESH-EMS-990520

A-18

First Quarter 1999



**WELL DCB 11****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 8.03 ft (2.44m) below TOC  
Water elevation: 121.95 ft (37.17m) msl

Time: 13:37

**WELL DCB 17B****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 11.06 ft (3.37m) below TOC  
Water elevation: Not available

Time: 13:51

**WELL DCB 12****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 7.92 ft (2.41m) below TOC  
Water elevation: 108.98 ft (33.22m) msl

Time: 13:37

**WELL DCB 17C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 11.98 ft (3.65m) below TOC  
Water elevation: Not available

Time: 13:51

**WELL DCB 15****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 14.28 ft (4.34m) below TOC  
Water elevation: 112.72 ft (34.36m) msl

Time: 13:37

**WELL DCB 18A****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 8.98 ft (2.74m) below TOC  
Water elevation: Not available

Time: 13:51

**WELL DCB 15R****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 19.66 ft (5.99m) below TOC  
Water elevation: Not available

Time: 13:37

**WELL DCB 18B****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 12.02 ft (3.66m) below TOC  
Water elevation: Not available

Time: 13:51

**WELL DCB 16****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 16.95 ft (5.05m) below TOC  
Water elevation: 111.34 ft (33.94m) msl

Time: 13:37

**WELL DCB 18C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 12.85 ft (3.92m) below TOC  
Water elevation: Not available

Time: 13:52

**WELL DCB 16R****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 20.18 ft (6.15m) below TOC  
Water elevation: Not available

Time: 13:38

**WELL DCB 19A****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 10.08 ft (3.07m) below TOC  
Water elevation: 120.32 ft (36.67m) msl

Time: 13:38

**WELL DCB 17A****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 11.13 ft (3.39m) below TOC  
Water elevation: Not available

Time: 13:38

**WELL DCB 19B****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 12.76 ft (3.89m) below TOC  
Water elevation: 116.94 ft (35.64m) msl

Time: 13:38

ESH-EMS-990520

A-19

First Quarter 1999



# **WATER-LEVEL DATA**

## **WELL DCB 19C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 13.82 ft (4.21m) below TOC  
Water elevation: 115.78 ft (35.29m) msl

Time: 13:39

## **WELL DCB 20A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 14.12 ft (4.30m) below TOC  
Water elevation: Not available

Time: 13:52

## **WELL DCB 20B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 14.87 ft (4.53m) below TOC  
Water elevation: Not available

Time: 13:52

## **WELL DCB 20C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 14.94 ft (4.55m) below TOC  
Water elevation: Not available

Time: 13:52

## **WELL DCB 20D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 15.55 ft (4.74m) below TOC  
Water elevation: Not available

Time: 13:53

## **WELL DCB 21A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 10.4 ft (3.17m) below TOC  
Water elevation: Not available

Time: 13:53

## **WELL DCB 21B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 13.88 ft (4.23m) below TOC  
Water elevation: Not available

Time: 13:53

## **WELL DCB 21C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 14.22 ft (4.33m) below TOC  
Water elevation: Not available

Time: 13:53

## **WELL DCB 22A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 12.74 ft (3.88m) below TOC  
Water elevation: Not available

Time: 13:53

## **WELL DCB 22B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 13.03 ft (3.97m) below TOC  
Water elevation: Not available

Time: 13:54

## **WELL DCB 22C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 13.5 ft (4.11m) below TOC  
Water elevation: Not available

Time: 13:54

## **WELL DCB 23A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 7.5 ft (2.29m) below TOC  
Water elevation: Not available

Time: 13:54

## **WELL DCB 23B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 10.47 ft (3.19m) below TOC  
Water elevation: Not available

Time: 13:54

## **WELL DCB 23C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 10.36 ft (3.16m) below TOC  
Water elevation: Not available

Time: 13:39

**ESH-EMS-990520**

**A-20**

**First Quarter 1999**



**WELL DCB 23D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 6.9 ft (2.10m) below TOC  
Water elevation: Not available

Time: 13:55

**WELL DCB 24A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 7.05 ft (2.15m) below TOC  
Water elevation: Not available

Time: 13:55

**WELL DCB 24B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 7.07 ft (2.15m) below TOC  
Water elevation: Not available

Time: 13:55

**WELL DCB 24C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/12/99  
Depth to water: 6.06 ft (1.85m) below TOC  
Water elevation: Not available

Time: 13:55

**WELL DCB 26C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 13.2 ft (4.02m) below TOC  
Water elevation: Not available

Time: 13:39

**WELL DCB 27**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 9.86 ft (3.01m) below TOC  
Water elevation: Not available

Time: 13:39

**WELL DCB 28**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 6.52 ft (1.99m) below TOC  
Water elevation: Not available

Time: 13:40

**WELL DCB 30**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 11.9 ft (3.63m) below TOC  
Water elevation: Not available

Time: 13:40

**WELL DCB 31**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 10.45 ft (3.19m) below TOC  
Water elevation: Not available

Time: 13:40

**WELL DCB 32A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 21.6 ft (6.58m) below TOC  
Water elevation: Not available

Time: 13:40

**WELL DCB 34A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 12.5 ft (3.81m) below TOC  
Water elevation: Not available

Time: 13:40

**WELL DCB 34C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 12.23 ft (3.73m) below TOC  
Water elevation: Not available

Time: 13:41

**WELL DCB 35A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 6.76 ft (2.07m) below TOC  
Water elevation: Not available

Time: 13:41

**WELL DCB 35C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/08/99  
Depth to water: 6.78 ft (2.07m) below TOC  
Water elevation: Not available

Time: 13:41



# WATER-LEVEL DATA

## WELL DCB 36A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 11.3 ft (3.44m) below TOC  
Water elevation: Not available

Time: 13:41

Time: 13:43

## WELL DCB 36C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 11.59 ft (3.53m) below TOC  
Water elevation: Not available

Time: 13:41

Time: 13:43

## WELL DCB 37A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 12.25 ft (3.73m) below TOC  
Water elevation: Not available

Time: 13:42

Time: 13:43

## WELL DCB 37C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 13.16 ft (4.01m) below TOC  
Water elevation: Not available

Time: 13:42

Time: 13:43

## WELL DCB 38C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 23.64 ft (7.21m) below TOC  
Water elevation: Not available

Time: 13:42

Time: 13:43

## WELL DCB 39A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 13.31 ft (4.06m) below TOC  
Water elevation: Not available

Time: 13:42

Time: 13:44

## WELL DCB 39C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 16.45 ft (5.01m) below TOC  
Water elevation: Not available

Time: 13:42

Time: 13:44

ESH-EMS-990520

A-22

First Quarter 1999



**WELL DCB 45A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 14.0 ft (4.45m) below TOC  
Water elevation: Not available

Time: 13:44

**WELL DCB 45C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 14.57 ft (4.44m) below TOC  
Water elevation: Not available

Time: 13:44

**WELL DCB 46C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 21.98 ft (6.70m) below TOC  
Water elevation: Not available

Time: 13:44

**WELL DCB 47C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 22.55 ft (6.87m) below TOC  
Water elevation: Not available

Time: 13:45

**WELL DCB 48D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/08/99  
Depth to water: 14.32 ft (4.36m) below TOC  
Water elevation: Not available

Time: 13:45

**WELL FIW 11D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 74.86 ft (22.82m) below TOC  
Water elevation: 219.04 ft (66.76m) msl

Time: 14:30

**WELL FIW 1MC**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 79.63 ft (24.28m) below TOC  
Water elevation: 214.05 ft (65.24m) msl

Time: 14:28

**WELL FIW 21C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 76.95 ft (23.45m) below TOC  
Water elevation: 213.55 ft (65.08m) msl

Time: 14:23

**WELL FIW 2MA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 140.7 ft (42.89m) below TOC  
Water elevation: 152 ft (46.33m) msl

Time: 14:20

**WELL FIW 2MC**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 72.46 ft (22.09m) below TOC  
Water elevation: 213.34 ft (65.03m) msl

Time: 13:12

**WELL FIW 2MD**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 73.23 ft (22.32m) below TOC  
Water elevation: 217.57 ft (66.32m) msl

Time: 14:23

**WELL FOB 5C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 60.75 ft (18.52m) below TOC  
Water elevation: 197.75 ft (60.27m) msl

Time: 11:12

**WELL FOB 7A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 146.75 ft (44.73m) below TOC  
Water elevation: 150.75 ft (45.95m) msl

Time: 14:11

**WELL FOB 7C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 87.06 ft (26.54m) below TOC  
Water elevation: 210.84 ft (64.26m) msl

Time: 14:12



# WATER-LEVEL DATA

## WELL FOB 9C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 81.49 ft (24.84m) below TOC  
Water elevation: 213.31 ft (65.02m) msl

Time: 14:17

## WELL FOB 11C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 48.24 ft (14.70m) below TOC  
Water elevation: 215.46 ft (65.67m) msl

Time: 13:09

## WELL FSB 50PD

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 50.25 ft (15.32m) below TOC  
Water elevation: 207.75 ft (63.32m) msl

Time: 11:14

## WELL FSB 76

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 75.52 ft (23.02m) below TOC  
Water elevation: 218.68 ft (66.65m) msl

Time: 13:00

## WELL FSB 76A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 138.19 ft (42.12m) below TOC  
Water elevation: 155.71 ft (47.46m) msl

Time: 13:01

## WELL FSB 76B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 141.88 ft (43.25m) below TOC  
Water elevation: 151.92 ft (46.31m) msl

Time: 13:02

## WELL FSB 76C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 79.9 ft (24.35m) below TOC  
Water elevation: 213.7 ft (65.14m) msl

Time: 13:05

## WELL FSB 77

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 60.44 ft (18.42m) below TOC  
Water elevation: 212.86 ft (64.88m) msl

Time: 12:15

## WELL FSB 78

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 63.85 ft (19.46m) below TOC  
Water elevation: 208.75 ft (63.63m) msl

Time: 10:38

## WELL FSB 78A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 116.08 ft (35.38m) below TOC  
Water elevation: 156.52 ft (47.71m) msl

Time: 10:39

## WELL FSB 78B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 117.83 ft (35.92m) below TOC  
Water elevation: 154.97 ft (47.24m) msl

Time: 10:44

## WELL FSB 78C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 68.4 ft (20.85m) below TOC  
Water elevation: 205.1 ft (62.52m) msl

Time: 10:44

## WELL FSB 79

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 16.51 ft (5.03m) below TOC  
Water elevation: 201.29 ft (61.35m) msl

Time: 11:19

## WELL FSB 79A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 59.57 ft (18.16m) below TOC  
Water elevation: 156.53 ft (48.32m) msl

Time: 11:19

ESH-EMS-990520

A-24

First Quarter 1999



**WELL FSB 79B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 39.5 ft (18.12m) below TOC  
 Water elevation: 158.75 ft (48.39m) msl

Time: 11:21

Time: 12:41

**WELL FSB 79C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 21.76 ft (6.63m) below TOC  
 Water elevation: 196.64 ft (59.94m) msl

Time: 11:24

Time: 12:36

**WELL FSB 87A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 133.5 ft (40.69m) below TOC  
 Water elevation: 154.3 ft (47.03m) msl

Time: 9:32

Time: 12:37

**WELL FSB 87B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 136.5 ft (41.61m) below TOC  
 Water elevation: 151 ft (46.03m) msl

Time: 9:38

Time: 12:22

**WELL FSB 87C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 82.1 ft (25.02m) below TOC  
 Water elevation: 205.4 ft (62.61m) msl

Time: 9:39

Time: 12:23

**WELL FSB 87D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 74.95 ft (22.85m) below TOC  
 Water elevation: 212.35 ft (64.73m) msl

Time: 9:42

Time: 12:19

**WELL FSB 88C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 69.36 ft (21.14m) below TOC  
 Water elevation: 213.64 ft (65.12m) msl

Time: 12:41

Time: 12:19

**WELL FSB 88D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 65.4 ft (19.93m) below TOC  
 Water elevation: 217 ft (66.14m) msl

**WELL FSB 89C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 68.32 ft (20.82m) below TOC  
 Water elevation: 212.98 ft (64.92m) msl

**WELL FSB 89D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 65.05 ft (19.83m) below TOC  
 Water elevation: 216.15 ft (65.88m) msl

**WELL FSB 90C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 67 ft (20.42m) below TOC  
 Water elevation: 211.4 ft (64.44m) msl

**WELL FSB 90D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: Not available  
 Water elevation: Not available

**WELL FSB 91C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 68.1 ft (20.76m) below TOC  
 Water elevation: 211.2 ft (64.37m) msl

**WELL FSB 91D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 65.4 ft (19.93m) below TOC  
 Water elevation: 213.6 ft (65.17m) msl



# **WATER-LEVEL DATA**

## **WELL FSB 92C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 66.48 ft (20.26m) below TOC  
Water elevation: 209.22 ft (63.77m) msl

Time: 12:11

## **WELL FSB 92D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 63.95 ft (19.49m) below TOC  
Water elevation: 211.95 ft (64.60m) msl

Time: 12:12

## **WELL FSB 93C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 68.9 ft (21.00m) below TOC  
Water elevation: 207.3 ft (63.19m) msl

Time: 12:07

## **WELL FSB 93D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 65.55 ft (19.98m) below TOC  
Water elevation: 210.55 ft (64.18m) msl

Time: 12:07

## **WELL FSB 94C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 70.55 ft (22.73m) below TOC  
Water elevation: 206.54 ft (62.95m) msl

Time: 10:33

## **WELL FSB 94DR**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 70.81 ft (21.58m) below TOC  
Water elevation: 209.69 ft (63.91m) msl

Time: 10:35

## **WELL FSB 95CR**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 76.33 ft (23.28m) below TOC  
Water elevation: 203.67 ft (62.69m) msl

Time: 10:30

**ESH-EMS-990520**

**A-26**

**First Quarter 1999**

## **WELL FSB 95DR**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 74.3 ft (22.65m) below TOC  
Water elevation: 209.8 ft (63.95m) msl

Time: 10:31

## **WELL FSB 96AR**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 127.73 ft (38.93m) below TOC  
Water elevation: 153.47 ft (46.78m) msl

Time: 10:25

## **WELL FSB 97A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 133.62 ft (40.73m) below TOC  
Water elevation: 152.48 ft (46.48m) msl

Time: 9:54

## **WELL FSB 97C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 78.19 ft (23.83m) below TOC  
Water elevation: 207.91 ft (63.37m) msl

Time: 9:54

## **WELL FSB 97D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 75.14 ft (22.90m) below TOC  
Water elevation: 210.88 ft (64.27m) msl

Time: 9:56

## **WELL FSB 98AR**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 132.18 ft (40.29m) below TOC  
Water elevation: 151.82 ft (46.28m) msl

Time: 9:46

## **WELL FSB 98C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 78.38 ft (23.88m) below TOC  
Water elevation: 206.14 ft (62.83m) msl

Time: 9:48



**WELL FSB 98D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 74.97 ft (22.85m) below TOC  
 Water elevation: 209.53 ft (63.87m) msl

Time: 9:51

**WELL FSB 99A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 136.7 ft (41.67m) below TOC  
 Water elevation: 150.9 ft (45.99m) msl

Time: 9:24

**WELL FSB 99C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 76.75 ft (23.39m) below TOC  
 Water elevation: 210.95 ft (64.30m) msl

Time: 9:26

**WELL FSB 99D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 73.68 ft (22.46m) below TOC  
 Water elevation: 213.92 ft (65.20m) msl

Time: 9:27

**WELL FSB100A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 134.22 ft (40.91m) below TOC  
 Water elevation: 151.78 ft (46.26m) msl

Time: 13:18

**WELL FSB101A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 133.16 ft (40.59m) below TOC  
 Water elevation: 152.04 ft (46.34m) msl

Time: 13:15

**WELL FSB102C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 5.88 ft (1.79m) below TOC  
 Water elevation: 195.22 ft (59.50m) msl

Time: 11:37

**WELL FSB103C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 43.05 ft (13.12m) below TOC  
 Water elevation: 199.35 ft (60.78m) msl

Time: 11:05

**WELL FSB104C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 19.28 ft (5.88m) below TOC  
 Water elevation: 199.82 ft (60.91m) msl

Time: 11:01

**WELL FSB104D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 14.9 ft (4.54m) below TOC  
 Water elevation: 204.3 ft (62.27m) msl

Time: 11:01

**WELL FSB105C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 79.17 ft (24.13m) below TOC  
 Water elevation: 206.63 ft (62.98m) msl

Time: 10:19

**WELL FSB105DR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 74.82 ft (22.81m) below TOC  
 Water elevation: 210.78 ft (64.25m) msl

Time: 10:22

**WELL FSB106C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 34.1 ft (10.39m) below TOC  
 Water elevation: 201 ft (61.27m) msl

Time: 11:42

**WELL FSB106D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 29.36 ft (8.95m) below TOC  
 Water elevation: 205.54 ft (62.65m) msl

Time: 11:43



# **WATER-LEVEL DATA**

## **WELL FSB107C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 59.8 ft (18.23m) below TOC  
Water elevation: 211.1 ft (64.34m) msl

Time: 12:27

## **WELL FSB107D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 56.75 ft (17.30m) below TOC  
Water elevation: 214.25 ft (65.30m) msl

Time: 12:30

## **WELL FSB108D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 79.41 ft (24.20m) below TOC  
Water elevation: 218.59 ft (66.63m) msl

Time: 9:19

## **WELL FSB109D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 78.34 ft (23.88m) below TOC  
Water elevation: 214.76 ft (65.46m) msl

Time: 9:21

## **WELL FSB110C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 34.95 ft (10.67m) below TOC  
Water elevation: 199.51 ft (60.81m) msl

Time: 11:29

## **WELL FSB110D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 29.47 ft (8.98m) below TOC  
Water elevation: 205.03 ft (62.49m) msl

Time: 11:30

## **WELL FSB111C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 63.29 ft (19.29m) below TOC  
Water elevation: 213.01 ft (64.93m) msl

Time: 12:46

## **WELL FSB111D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 50.7 ft (15.50m) below TOC  
Water elevation: 215.9 ft (65.81m) msl

Time: 12:46

## **WELL FSB112A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 75.61 ft (23.05m) below TOC  
Water elevation: 153.49 ft (46.78m) msl

Time: 10:49

## **WELL FSB112C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 27.98 ft (8.53m) below TOC  
Water elevation: 201.12 ft (61.30m) msl

Time: 10:50

## **WELL FSB112D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 24.2 ft (7.38m) below TOC  
Water elevation: 205.4 ft (62.61m) msl

Time: 10:51

## **WELL FSB113A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 62.7 ft (19.11m) below TOC  
Water elevation: 160.5 ft (48.92m) msl

Time: 11:58

## **WELL FSB113C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 20.6 ft (6.28m) below TOC  
Water elevation: 202.3 ft (61.66m) msl

Time: 12:00

## **WELL FSB113D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 15.7 ft (4.79m) below TOC  
Water elevation: 206.8 ft (63.03m) msl

Time: 12:00

**ESH-EMS-990520**

**A-28**

**First Quarter 1999**



**WELL FSB114A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 96.21 ft (29.33m) below TOC  
 Water elevation: 155.79 ft (47.49m) msl

Time: 12:50

**WELL FSB114C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 38.3 ft (11.67m) below TOC  
 Water elevation: 213.9 ft (65.20m) msl

Time: 12:51

**WELL FSB114D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 35.35 ft (10.79m) below TOC  
 Water elevation: 216.81 ft (66.08m) msl

Time: 12:51

**WELL FSB115C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 23.25 ft (7.09m) below TOC  
 Water elevation: 184.55 ft (56.25m) msl

Time: 15:06

**WELL FSB115D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 17.27 ft (5.26m) below TOC  
 Water elevation: 191.23 ft (58.29m) msl

Time: 15:07

**WELL FSB116C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 12.97 ft (3.95m) below TOC  
 Water elevation: 189.53 ft (57.77m) msl

Time: 15:01

**WELL FSB116D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 10.95 ft (3.34m) below TOC  
 Water elevation: 191.95 ft (58.51m) msl

Time: 15:02

**WELL FSB117D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 26.35 ft (8.03m) below TOC  
 Water elevation: 204.35 ft (62.29m) msl

Time: 11:34

**WELL FSB118D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 31.95 ft (9.74m) below TOC  
 Water elevation: 211.35 ft (64.42m) msl

Time: 11:54

**WELL FSB119D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 46.25 ft (14.10m) below TOC  
 Water elevation: 207.85 ft (63.35m) msl

Time: 12:03

**WELL FSB120A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 99.5 ft (30.33m) below TOC  
 Water elevation: 180.6 ft (55.05m) msl

Time: 14:06

**WELL FSB120C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 73.9 ft (22.52m) below TOC  
 Water elevation: 205.8 ft (62.73m) msl

Time: 14:06

**WELL FSB120D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 70.85 ft (21.60m) below TOC  
 Water elevation: 209.65 ft (63.90m) msl

Time: 14:07

**WELL FSB121C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 52.4 ft (15.97m) below TOC  
 Water elevation: 204.1 ft (62.21m) msl

Time: 13:57



# WATER-LEVEL DATA

## WELL FSB121DR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 48.32 ft (14.73m) below TOC  
Water elevation: 207.18 ft (63.15m) msl

Time: 14:00

## WELL FSB122C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 18.72 ft (5.71m) below TOC  
Water elevation: 199.28 ft (60.74m) msl

Time: 10:55

## WELL FSB122D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 14.77 ft (4.50m) below TOC  
Water elevation: 202.83 ft (61.82m) msl

Time: 10:56

## WELL FSB123C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 27.89 ft (8.50m) below TOC  
Water elevation: 210.21 ft (64.07m) msl

Time: 11:48

## WELL FSB123D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 26.46 ft (8.07m) below TOC  
Water elevation: 211.64 ft (64.51m) msl

Time: 11:49

## WELL FSB150PC

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 39.2 ft (11.95m) below TOC  
Water elevation: 197.8 ft (60.23m) msl

Time: 11:26

## WELL FSB150PD

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 51.7 ft (15.76m) below TOC  
Water elevation: 207.7 ft (63.31m) msl

Time: 11:10

ESH-EMS-990520

A-30

First Quarter 1999

## WELL FSL 2D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 90.55 ft (24.55m) below TOC  
Water elevation: 225.25 ft (68.68m) msl

Time: 14:48

## WELL FSL 3D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 78.92 ft (24.06m) below TOC  
Water elevation: 223.08 ft (68.00m) msl

Time: 14:45

## WELL FSL 4D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 76.8 ft (23.35m) below TOC  
Water elevation: 217.5 ft (66.29m) msl

Time: 14:43

## WELL FSL 5D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 70.55 ft (21.50m) below TOC  
Water elevation: 221.25 ft (67.44m) msl

Time: 14:41

## WELL FSL 6D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 65.81 ft (20.06m) below TOC  
Water elevation: 220.39 ft (67.18m) msl

Time: 14:36

## WELL FSL 7D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 68.6 ft (20.91m) below TOC  
Water elevation: 219 ft (66.75m) msl

Time: 12:57

## WELL FSL 8D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
Depth to water: 72.65 ft (22.14m) below TOC  
Water elevation: 218.15 ft (66.49m) msl

Time: 13:05



**WELL FSL 9D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 68.85 ft (20.99m) below TOC  
Water elevation: 217.05 ft (66.18m) msl

Time: 12:55

**WELL FSS 1D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 43.21 ft (13.17m) below TOC  
Water elevation: 222.79 ft (67.91m) msl

Time: 15:20

**WELL FSS 2D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 39.41 ft (12.01m) below TOC  
Water elevation: 222.19 ft (67.72m) msl

Time: 15:17

**WELL FSS 3D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 38.15 ft (11.63m) below TOC  
Water elevation: 220.05 ft (67.07m) msl

Time: 15:16

**WELL FSS 4D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/23/99  
Depth to water: 79.25 ft (22.10m) below TOC  
Water elevation: 219.28 ft (66.84m) msl

Time: 15:27

**WELL HAA 4D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 32.7 ft (9.97m) below TOC  
Water elevation: 268 ft (81.69m) msl

Time: 10:10

**WELL HAA 5A****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 121.9 ft (37.16m) below TOC  
Water elevation: 179.2 ft (54.62m) msl

Time: 13:20

**WELL HAA 5A****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/05/99  
Depth to water: 118.9 ft (36.55m) below TOC  
Water elevation: 161.2 ft (55.23m) msl

Time: 9:20

**WELL HAA 5BR****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 54.2 ft (16.52m) below TOC  
Water elevation: Not available

Time: 13:25

**WELL HAA 5BR****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/05/99  
Depth to water: 52 ft (15.85m) below TOC  
Water elevation: Not available

Time: 9:30

**WELL HAA 5C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 28 ft (8.53m) below TOC  
Water elevation: 272.7 ft (83.12m) msl

Time: 13:30

**WELL HAA 5C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/05/99  
Depth to water: 28.2 ft (7.99m) below TOC  
Water elevation: 274.5 ft (83.67m) msl

Time: 9:25

**WELL HAA 5D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 26.15 ft (7.97m) below TOC  
Water elevation: Not available

Time: 13:35

**WELL HAA 5D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/05/99  
Depth to water: 24.9 ft (7.59m) below TOC  
Water elevation: Not available

Time: 9:35



# WATER-LEVEL DATA

## WELL HAA 7A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 114.17 ft (34.80m) below TOC  
Water elevation: Not available

Time: 10:36

## WELL HAA 7A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 114.1 ft (34.76m) below TOC  
Water elevation: Not available

Time: 12:20

## WELL HAA 7B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 39.2 ft (11.95m) below TOC  
Water elevation: Not available

Time: 10:36

## WELL HAA 7B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 38.09 ft (11.61m) below TOC  
Water elevation: Not available

Time: 12:20

## WELL HAA 7C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 37.21 ft (11.34m) below TOC  
Water elevation: Not available

Time: 10:36

## WELL HAA 7C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 36.07 ft (10.99m) below TOC  
Water elevation: Not available

Time: 12:21

## WELL HAA 7D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 21.71 ft (6.62m) below TOC  
Water elevation: Not available

Time: 10:36

ESH-EMS-990520

A-32

First Quarter 1999

## WELL HAA 7D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 19.94 ft (6.08m) below TOC  
Water elevation: Not available

Time: 12:21

## WELL HAA 8A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 115.36 ft (35.16m) below TOC  
Water elevation: Not available

Time: 10:35

## WELL HAA 8A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 115.3 ft (35.14m) below TOC  
Water elevation: Not available

Time: 12:21

## WELL HAA 8B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 39.91 ft (12.16m) below TOC  
Water elevation: Not available

Time: 10:35

## WELL HAA 8B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 38.84 ft (11.84m) below TOC  
Water elevation: Not available

Time: 12:21

## WELL HAA 8C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 39.26 ft (11.97m) below TOC  
Water elevation: Not available

Time: 10:35

## WELL HAA 8C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 36.12 ft (11.62m) below TOC  
Water elevation: Not available

Time: 12:22



**WELL HAA 8D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
 Depth to water: 24.17 ft (7.37m) below TOC  
 Water elevation: Not available

Time: 10:36

**WELL HAA 9C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
 Depth to water: 32.8 ft (10.00m) below TOC  
 Water elevation: Not available

Time: 12:26

**WELL HAA 8D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
 Depth to water: 22.28 ft (6.79m) below TOC  
 Water elevation: Not available

Time: 12:22

**WELL HAA 9D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
 Depth to water: 23.7 ft (7.22m) below TOC  
 Water elevation: Not available

Time: 10:37

**WELL HAA 9AR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
 Depth to water: 109.68 ft (33.43m) below TOC  
 Water elevation: Not available

Time: 10:37

**WELL HAA 9D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
 Depth to water: 22.22 ft (6.77m) below TOC  
 Water elevation: Not available

Time: 12:26

**WELL HAA 9AR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
 Depth to water: 109.6 ft (33.41m) below TOC  
 Water elevation: Not available

Time: 12:25

**WELL HAA 10AR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
 Depth to water: 114.35 ft (35.04m) below TOC  
 Water elevation: Not available

Time: 10:38

**WELL HAA 9B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
 Depth to water: 31.08 ft (10.39m) below TOC  
 Water elevation: Not available

Time: 10:37

**WELL HAA 10AR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
 Depth to water: 114.92 ft (35.03m) below TOC  
 Water elevation: Not available

Time: 12:22

**WELL HAA 9B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
 Depth to water: 33.4 ft (10.18m) below TOC  
 Water elevation: Not available

Time: 12:26

**WELL HAA 10B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
 Depth to water: 36.98 ft (11.27m) below TOC  
 Water elevation: Not available

Time: 10:38

**WELL HAA 9C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
 Depth to water: 33.5 ft (10.21m) below TOC  
 Water elevation: Not available

Time: 10:37

**WELL HAA 10B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
 Depth to water: 36.5 ft (11.13m) below TOC  
 Water elevation: Not available

Time: 12:22

**ESH-EMS-990520****A-33****First Quarter 1999**



# WATER-LEVEL DATA

## WELL HAA 10C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 35.53 ft (10.92m) below TOC  
Water elevation: Not available

Time: 10:38

## WELL HAA 10C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 35.28 ft (10.75m) below TOC  
Water elevation: Not available

Time: 12:22

## WELL HAA 10D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 22.34 ft (6.99m) below TOC  
Water elevation: Not available

Time: 10:38

## WELL HAA 10D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 22.11 ft (6.74m) below TOC  
Water elevation: Not available

Time: 12:23

## WELL HAA 11A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 118.65 ft (36.16m) below TOC  
Water elevation: Not available

Time: 10:40

## WELL HAA 11A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 118.61 ft (36.15m) below TOC  
Water elevation: Not available

Time: 12:25

## WELL HAA 11B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 42.48 ft (12.95m) below TOC  
Water elevation: Not available

Time: 10:40

## WELL HAA 11B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 42.29 ft (12.89m) below TOC  
Water elevation: Not available

Time: 12:25

## WELL HAA 11C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 42.63 ft (12.99m) below TOC  
Water elevation: Not available

Time: 10:41

## WELL HAA 11C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 42.59 ft (12.98m) below TOC  
Water elevation: Not available

Time: 12:25

## WELL HAA 11D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 28.48 ft (8.68m) below TOC  
Water elevation: Not available

Time: 10:41

## WELL HAA 11D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 28.2 ft (8.60m) below TOC  
Water elevation: Not available

Time: 12:25

## WELL HAA 12A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 126.87 ft (38.67m) below TOC  
Water elevation: Not available

Time: 10:39

## WELL HAA 12A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99  
Depth to water: 126.8 ft (38.65m) below TOC  
Water elevation: Not available

Time: 12:24

ESH-EMS-990520

A-34

First Quarter 1999



# **WATER-LEVEL DATA**

## **WELL HAA 12B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/12/99  
Depth to water: 51.75 ft (15.77m) below TOC  
Water elevation: Not available

Time: 10:40

## **WELL HAA 12B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 02/23/99  
Depth to water: 51.72 ft (15.76m) below TOC  
Water elevation: Not available

Time: 12:24

## **WELL HAA 12C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/12/99  
Depth to water: 51.61 ft (15.73m) below TOC  
Water elevation: Not available

Time: 10:40

## **WELL HAA 12C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 02/23/99  
Depth to water: 51.6 ft (15.73m) below TOC  
Water elevation: Not available

Time: 12:24

## **WELL HAA 12D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/12/99  
Depth to water: 34.71 ft (10.58m) below TOC  
Water elevation: Not available

Time: 10:40

## **WELL HAA 12D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 02/23/99  
Depth to water: 34.95 ft (10.65m) below TOC  
Water elevation: Not available

Time: 12:24

## **WELL HAA 13A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/12/99  
Depth to water: 131.3 ft (40.02m) below TOC  
Water elevation: Not available

Time: 10:39

## **WELL HAA 13A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 02/23/99  
Depth to water: 131.08 ft (39.95m) below TOC  
Water elevation: Not available

Time: 12:23

## **WELL HAA 13B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/12/99  
Depth to water: 57.56 ft (17.54m) below TOC  
Water elevation: Not available

Time: 10:39

## **WELL HAA 13B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 02/23/99  
Depth to water: 57.52 ft (17.53m) below TOC  
Water elevation: Not available

Time: 12:23

## **WELL HAA 13C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/12/99  
Depth to water: 56.88 ft (17.34m) below TOC  
Water elevation: Not available

Time: 10:39

## **WELL HAA 13C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 02/23/99  
Depth to water: 56.88 ft (17.34m) below TOC  
Water elevation: Not available

Time: 12:23

## **WELL HAA 13D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/12/99  
Depth to water: 38.21 ft (11.65m) below TOC  
Water elevation: Not available

Time: 10:39

## **WELL HAA 13D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 02/23/99  
Depth to water: 38.5 ft (11.73m) below TOC  
Water elevation: Not available

Time: 12:23



# WATER-LEVEL DATA

## WELL HAA 14A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
Depth to water: 133 ft (40.54m) below TOC  
Water elevation: Not available

Time: 13:45

## WELL HAA 14B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
Depth to water: 60.2 ft (18.35m) below TOC  
Water elevation: Not available

Time: 13:50

## WELL HAA 14C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
Depth to water: 60 ft (18.29m) below TOC  
Water elevation: Not available

Time: 13:55

## WELL HAA 14D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
Depth to water: 39 ft (11.89m) below TOC  
Water elevation: Not available

Time: 14:00

## WELL HAA 15A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
Depth to water: 130 ft (39.62m) below TOC  
Water elevation: Not available

Time: 14:15

## WELL HAA 15B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
Depth to water: 64.3 ft (19.60m) below TOC  
Water elevation: Not available

Time: 14:20

## WELL HAA 15C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
Depth to water: 63.9 ft (19.48m) below TOC  
Water elevation: Not available

Time: 14:25

## WELL HAA 15D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
Depth to water: 41 ft (12.50m) below TOC  
Water elevation: Not available

Time: 14:30

## WELL HCB 1

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 16.85 ft (5.14m) below TOC  
Water elevation: 262.45 ft (80.00m) msl

Time: 10:41

## WELL HIW 1MD

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 37.91 ft (11.56m) below TOC  
Water elevation: 236.69 ft (72.14m) msl

Time: 12:51

## WELL HIW 1PD

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 41.1 ft (12.53m) below TOC  
Water elevation: 235.3 ft (71.72m) msl

Time: 12:50

## WELL HIW 2A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 110.22 ft (33.60m) below TOC  
Water elevation: 167.78 ft (51.14m) msl

Time: 12:37

## WELL HIW 2D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 45 ft (13.72m) below TOC  
Water elevation: 232.8 ft (70.96m) msl

Time: 12:38

## WELL HIW 2MC

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 41.42 ft (12.62m) below TOC  
Water elevation: 223.48 ft (68.95m) msl

Time: 12:40

ESH-EMS-990520

A-36

First Quarter 1999



**WELL HIW 3MC**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 44.12 ft (13.45m) below TOC  
 Water elevation: 229.88 ft (70.07m) msl

Time: 12:36

**WELL HIW 5MC**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 39.3 ft (11.98m) below TOC  
 Water elevation: 228.9 ft (69.77m) msl

Time: 15:09

**WELL HMD 1D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 56 ft (17.07m) below TOC  
 Water elevation: 208.5 ft (63.55m) msl

Time: 16:16

**WELL HMD 2D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 61.74 ft (18.82m) below TOC  
 Water elevation: 199.36 ft (60.77m) msl

Time: 16:11

**WELL HMD 3D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 60.47 ft (18.43m) below TOC  
 Water elevation: 199.03 ft (60.67m) msl

Time: 16:04

**WELL HMD 4D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 51.45 ft (15.68m) below TOC  
 Water elevation: 199.45 ft (60.79m) msl

Time: 16:06

**WELL HSB 50PC**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 18.11 ft (5.52m) below TOC  
 Water elevation: 213.59 ft (65.10m) msl

Time: 14:33

**WELL HSB 65**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 38.54 ft (11.75m) below TOC  
 Water elevation: 233.46 ft (71.16m) msl

Time: 12:46

**WELL HSB 65A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 101.75 ft (31.01m) below TOC  
 Water elevation: 171.85 ft (52.38m) msl

Time: 12:44

**WELL HSB 65B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 49.25 ft (15.01m) below TOC  
 Water elevation: 224.45 ft (68.41m) msl

Time: 12:44

**WELL HSB 65C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 39.08 ft (11.91m) below TOC  
 Water elevation: 234.52 ft (71.48m) msl

Time: 12:45

**WELL HSB 66**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 69.77 ft (21.27m) below TOC  
 Water elevation: 210.43 ft (64.14m) msl

Time: 12:32

**WELL HSB 67**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 15.2 ft (4.63m) below TOC  
 Water elevation: 222.9 ft (67.85m) msl

Time: 13:36

**WELL HSB 68**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 30.75 ft (9.37m) below TOC  
 Water elevation: 219.35 ft (66.86m) msl

Time: 14:09



# **WATER-LEVEL DATA**

## **WELL HSB 68A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 77 ft (23.47m) below TOC  
Water elevation: 172.4 ft (52.55m) msl

Time: 14:10

## **WELL HSB 68B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 33.98 ft (10.36m) below TOC  
Water elevation: 216.02 ft (65.84m) msl

Time: 14:11

## **WELL HSB 68C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 33.35 ft (10.17m) below TOC  
Water elevation: 216.75 ft (66.07m) msl

Time: 14:11

## **WELL HSB 69**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 19.21 ft (5.86m) below TOC  
Water elevation: 216.79 ft (66.08m) msl

Time: 14:13

## **WELL HSB 69A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 63.9 ft (19.48m) below TOC  
Water elevation: 172.7 ft (52.64m) msl

Time: 14:14

## **WELL HSB 70**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 22.27 ft (6.79m) below TOC  
Water elevation: 220.53 ft (67.22m) msl

Time: 14:31

## **WELL HSB 70C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 23.03 ft (7.02m) below TOC  
Water elevation: 220.07 ft (67.08m) msl

Time: 14:30

## **WELL HSB 71**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 23 ft (7.02m) below TOC  
Water elevation: 216.4 ft (65.96m) msl

Time: 14:46

## **WELL HSB 71C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 21.78 ft (6.64m) below TOC  
Water elevation: 219.82 ft (67.00m) msl

Time: 14:47

## **WELL HSB 83A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 63.4 ft (19.32m) below TOC  
Water elevation: 173.3 ft (53.01m) msl

Time: 13:30

## **WELL HSB 83B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 14.32 ft (4.36m) below TOC  
Water elevation: 222.68 ft (67.87m) msl

Time: 13:30

## **WELL HSB 83C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 12.55 ft (3.83m) below TOC  
Water elevation: 224.55 ft (68.44m) msl

Time: 13:30

## **WELL HSB 83D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 12.92 ft (3.94m) below TOC  
Water elevation: 224.08 ft (68.30m) msl

Time: 13:31

## **WELL HSB 84A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 56.2 ft (17.13m) below TOC  
Water elevation: 172.5 ft (52.58m) msl

Time: 14:21

**ESH-EMS-990520**

**A-38**

**First Quarter 1999**



**WELL HSB 84B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 19.38 ft (5.91m) below TOC  
Water elevation: 209.52 ft (63.86m) msl

Time: 14:21

**WELL HSB 84C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 17.03 ft (5.19m) below TOC  
Water elevation: 212.07 ft (64.64m) msl

Time: 14:21

**WELL HSB 84D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 12.49 ft (3.81m) below TOC  
Water elevation: 216.31 ft (65.93m) msl

Time: 14:21

**WELL HSB 85A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 125.1 ft (38.13m) below TOC  
Water elevation: 169.3 ft (51.60m) msl

Time: 15:15

**WELL HSB 85B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 61.45 ft (18.73m) below TOC  
Water elevation: 233.05 ft (71.03m) msl

Time: 15:16

**WELL HSB 85C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 55 ft (16.76m) below TOC  
Water elevation: 239.1 ft (72.88m) msl

Time: 15:17

**WELL HSB 86A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 93.15 ft (28.39m) below TOC  
Water elevation: 169.25 ft (51.58m) msl

Time: 11:32

**WELL HSB 86B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 43 ft (13.11m) below TOC  
Water elevation: 218.9 ft (66.72m) msl

Time: 11:33

**WELL HSB 86C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 42.9 ft (13.08m) below TOC  
Water elevation: 220 ft (67.06m) msl

Time: 11:34

**WELL HSB 86D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 43.07 ft (13.13m) below TOC  
Water elevation: 219.93 ft (67.04m) msl

Time: 11:34

**WELL HSB100C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 33.8 ft (10.24m) below TOC  
Water elevation: 226.8 ft (69.07m) msl

Time: 12:20

**WELL HSB100D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 26.07 ft (7.95m) below TOC  
Water elevation: 234.03 ft (71.33m) msl

Time: 12:20

**WELL HSB100PC**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 18.63 ft (5.68m) below TOC  
Water elevation: 211.37 ft (64.43m) msl

Time: 14:34

**WELL HSB100PD**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 10.21 ft (3.11m) below TOC  
Water elevation: 215.79 ft (65.77m) msl

Time: 14:18



# WATER-LEVEL DATA

## WELL HSB101C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 27.83 ft (8.48m) below TOC  
Water elevation: 230.67 ft (70.31m) msl

Time: 12:17

## WELL HSB101D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 33.1 ft (10.09m) below TOC  
Water elevation: 225.6 ft (68.76m) msl

Time: 12:17

## WELL HSB102C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 34.5 ft (10.52m) below TOC  
Water elevation: 224.5 ft (68.43m) msl

Time: 12:15

## WELL HSB102D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 30.33 ft (9.24m) below TOC  
Water elevation: 228.27 ft (69.58m) msl

Time: 12:15

## WELL HSB103C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 24.04 ft (7.34m) below TOC  
Water elevation: 223.32 ft (68.07m) msl

Time: 12:13

## WELL HSB103D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 23.05 ft (7.03m) below TOC  
Water elevation: 224.55 ft (68.44m) msl

Time: 12:13

## WELL HSB104C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 27.72 ft (8.45m) below TOC  
Water elevation: 220.18 ft (67.11m) msl

Time: 12:11

## WELL HSB104D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 33.95 ft (10.35m) below TOC  
Water elevation: 223.65 ft (68.23m) msl

Time: 12:11

## WELL HSB105C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 30.42 ft (9.27m) below TOC  
Water elevation: 219.08 ft (66.78m) msl

Time: 12:09

## WELL HSB105D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 25.38 ft (7.74m) below TOC  
Water elevation: 224.12 ft (68.31m) msl

Time: 12:09

## WELL HSB106C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 31.75 ft (9.68m) below TOC  
Water elevation: 221.15 ft (67.41m) msl

Time: 12:06

## WELL HSB106D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 28.22 ft (8.60m) below TOC  
Water elevation: 224.68 ft (68.48m) msl

Time: 12:07

## WELL HSB107C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 42.21 ft (12.87m) below TOC  
Water elevation: 219.39 ft (66.87m) msl

Time: 12:03

## WELL HSB107D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 39.31 ft (11.98m) below TOC  
Water elevation: 222.99 ft (67.97m) msl

Time: 12:04

ESH-EMS-990520

A-40

First Quarter 1999



**WELL HSB108C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 49.71 ft (14.85m) below TOC  
 Water elevation: 217.49 ft (66.29m) msl

Time: 12:01

**WELL HSB108D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 44.95 ft (13.70m) below TOC  
 Water elevation: 221.35 ft (67.47m) msl

Time: 12:02

**WELL HSB109C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 43.91 ft (13.38m) below TOC  
 Water elevation: 217.69 ft (66.35m) msl

Time: 11:56

**WELL HSB109D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 41.15 ft (12.54m) below TOC  
 Water elevation: 220.05 ft (67.07m) msl

Time: 11:57

**WELL HSB110C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 37.94 ft (11.56m) below TOC  
 Water elevation: 217.75 ft (66.37m) msl

Time: 11:55

**WELL HSB110D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 36.45 ft (11.11m) below TOC  
 Water elevation: 219.15 ft (66.80m) msl

Time: 11:56

**WELL HSB111C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 37.73 ft (11.50m) below TOC  
 Water elevation: 218.27 ft (66.53m) msl

Time: 11:52

**WELL HSB111D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 38.2 ft (11.64m) below TOC  
 Water elevation: 217.8 ft (66.39m) msl

Time: 11:52

**WELL HSB111E**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 37.81 ft (11.52m) below TOC  
 Water elevation: 218.09 ft (66.47m) msl

Time: 11:53

**WELL HSB112C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 35.95 ft (10.87m) below TOC  
 Water elevation: 219.25 ft (66.83m) msl

Time: 11:43

**WELL HSB112D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 35.85 ft (10.93m) below TOC  
 Water elevation: 219.25 ft (66.83m) msl

Time: 11:44

**WELL HSB112E**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 35.45 ft (10.81m) below TOC  
 Water elevation: 219.65 ft (66.95m) msl

Time: 11:45

**WELL HSB113C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 41.81 ft (12.74m) below TOC  
 Water elevation: 219.19 ft (66.81m) msl

Time: 11:40

**WELL HSB113D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
 Depth to water: 41.95 ft (12.79m) below TOC  
 Water elevation: 218.95 ft (66.74m) msl

Time: 11:41



# **WATER-LEVEL DATA**

## **WELL HSB114C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 42.8 ft (13.05m) below TOC  
Water elevation: 221 ft (67.36m) msl

Time: 11:37

## **WELL HSB114D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 44.35 ft (13.52m) below TOC  
Water elevation: 219.65 ft (66.95m) msl

Time: 11:38

## **WELL HSB115C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 46.48 ft (14.28m) below TOC  
Water elevation: 220.82 ft (67.31m) msl

Time: 11:29

## **WELL HSB115D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 48.46 ft (14.77m) below TOC  
Water elevation: 220.64 ft (67.25m) msl

Time: 11:29

## **WELL HSB116C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 35.16 ft (10.72m) below TOC  
Water elevation: 222.34 ft (67.77m) msl

Time: 11:26

## **WELL HSB116D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 34.54 ft (10.53m) below TOC  
Water elevation: 222.26 ft (67.75m) msl

Time: 11:26

## **WELL HSB117A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 70.55 ft (21.50m) below TOC  
Water elevation: 166.75 ft (50.83m) msl

Time: 14:43

## **WELL HSB117C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 18.95 ft (5.78m) below TOC  
Water elevation: 218.45 ft (66.58m) msl

Time: 14:43

## **WELL HSB117D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 17.61 ft (5.37m) below TOC  
Water elevation: 219.99 ft (67.05m) msl

Time: 14:44

## **WELL HSB118A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 79.1 ft (24.11m) below TOC  
Water elevation: 168.2 ft (51.27m) msl

Time: 14:28

## **WELL HSB119A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 89.65 ft (27.33m) below TOC  
Water elevation: 167.45 ft (51.04m) msl

Time: 11:23

## **WELL HSB120A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 101.4 ft (30.91m) below TOC  
Water elevation: 166.8 ft (50.84m) msl

Time: 11:20

## **WELL HSB121A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 102.4 ft (31.21m) below TOC  
Water elevation: 172.2 ft (52.49m) msl

Time: 12:30

## **WELL HSB122A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 98.6 ft (30.36m) below TOC  
Water elevation: 172 ft (52.43m) msl

Time: 12:28



**WELL HSB123A****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 92.9 ft (28.32m) below TOC  
 Water elevation: 172.8 ft (52.67m) msl

Time: 12:26

**WELL HSB127D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 11.72 ft (3.57m) below TOC  
 Water elevation: 214.38 ft (65.34m) msl

Time: 14:06

**WELL HSB124AR****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 84.31 ft (25.75m) below TOC  
 Water elevation: 172.49 ft (52.58m) msl

Time: 12:24

**WELL HSB129C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 10.22 ft (3.12m) below TOC  
 Water elevation: 204.88 ft (62.45m) msl

Time: 14:38

**WELL HSB125C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 8.92 ft (2.72m) below TOC  
 Water elevation: 222.96 ft (67.97m) msl

Time: 13:34

**WELL HSB129D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 7.08 ft (2.16m) below TOC  
 Water elevation: 207.62 ft (63.28m) msl

Time: 14:39

**WELL HSB125D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 11.5 ft (3.51m) below TOC  
 Water elevation: 220.2 ft (67.12m) msl

Time: 13:34

**WELL HSB130C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 18.32 ft (5.58m) below TOC  
 Water elevation: 199.98 ft (60.95m) msl

Time: 15:39

**WELL HSB126C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 8.4 ft (2.56m) below TOC  
 Water elevation: 204.2 ft (62.24m) msl

Time: 13:44

**WELL HSB130D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 18.5 ft (5.64m) below TOC  
 Water elevation: 200.1 ft (60.95m) msl

Time: 15:40

**WELL HSB126D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 7.79 ft (2.37m) below TOC  
 Water elevation: 204.91 ft (62.48m) msl

Time: 13:44

**WELL HSB131C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 7.79 ft (2.37m) below TOC  
 Water elevation: 203.91 ft (62.15m) msl

Time: 15:48

**WELL HSB127C****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 15.85 ft (4.83m) below TOC  
 Water elevation: 209.85 ft (63.96m) msl

Time: 14:05

**WELL HSB131D****MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
 Depth to water: 6.91 ft (2.11m) below TOC  
 Water elevation: 205.19 ft (62.54m) msl

Time: 15:49



# WATER-LEVEL DATA

## WELL HSB132C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 19.85 ft (6.05m) below TOC  
Water elevation: 220.65 ft (67.23m) msl

Time: 13:20

Time: 14:16

## WELL HSB132D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 20.61 ft (6.28m) below TOC  
Water elevation: 220.09 ft (67.08m) msl

Time: 13:21

Time: 14:25

## WELL HSB133C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 25.21 ft (7.68m) below TOC  
Water elevation: 230.39 ft (70.22m) msl

Time: 13:09

Time: 14:26

## WELL HSB133D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 20.09 ft (6.12m) below TOC  
Water elevation: 235.21 ft (71.69m) msl

Time: 13:10

Time: 14:36

## WELL HSB134C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 17.9 ft (5.46m) below TOC  
Water elevation: 220.5 ft (67.21m) msl

Time: 13:38

Time: 14:36

## WELL HSB134D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 17.2 ft (5.24m) below TOC  
Water elevation: 220.8 ft (67.33m) msl

Time: 13:39

Time: 15:04

## WELL HSB135C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 25.46 ft (7.76m) below TOC  
Water elevation: 206.54 ft (62.95m) msl

Time: 14:16

Time: 14:01

## WELL HSB135D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 15.24 ft (4.95m) below TOC  
Water elevation: 216.06 ft (65.86m) msl

## WELL HSB136C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 14.52 ft (4.43m) below TOC  
Water elevation: 213.38 ft (65.04m) msl

## WELL HSB136D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 10.82 ft (3.30m) below TOC  
Water elevation: 217.18 ft (66.20m) msl

## WELL HSB137C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 20.02 ft (6.10m) below TOC  
Water elevation: 215.98 ft (65.83m) msl

## WELL HSB137D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 18.01 ft (5.49m) below TOC  
Water elevation: 218.59 ft (66.63m) msl

## WELL HSB138D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 31.05 ft (9.46m) below TOC  
Water elevation: 221.35 ft (67.47m) msl

## WELL HSB139A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 58.42 ft (18.11m) below TOC  
Water elevation: 174.28 ft (53.12m) msl



**WELL HSB139C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 20.15 ft (6.14m) below TOC  
Water elevation: 213.65 ft (65.12m) msl

Time: 14:02

**WELL HSB141D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 16.31 ft (4.97m) below TOC  
Water elevation: 238.49 ft (72.69m) msl

Time: 13:18

**WELL HSB139D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 13.7 ft (4.18m) below TOC  
Water elevation: 220.1 ft (67.09m) msl

Time: 14:03

**WELL HSB142C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 5.75 ft (1.75m) below TOC  
Water elevation: 198.25 ft (60.43m) msl

Time: 14:54

**WELL HSB140A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 59.87 ft (18.25m) below TOC  
Water elevation: 176.03 ft (53.65m) msl

Time: 15:44

**WELL HSB142D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 6.68 ft (2.04m) below TOC  
Water elevation: 197.52 ft (60.20m) msl

Time: 14:54

**WELL HSB140C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 29.86 ft (9.10m) below TOC  
Water elevation: 205.74 ft (62.71m) msl

Time: 15:45

**WELL HSB143C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 13.8 ft (4.21m) below TOC  
Water elevation: 206.4 ft (63.52m) msl

Time: 15:29

**WELL HSB140D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 22.8 ft (6.95m) below TOC  
Water elevation: 213.4 ft (65.05m) msl

Time: 15:45

**WELL HSB143D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 10.85 ft (3.31m) below TOC  
Water elevation: 212.05 ft (64.63m) msl

Time: 15:30

**WELL HSB141A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 79.22 ft (24.15m) below TOC  
Water elevation: 175.38 ft (53.46m) msl

Time: 13:17

**WELL HSB144A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 64.46 ft (19.65m) below TOC  
Water elevation: 171.14 ft (52.16m) msl

Time: 14:23

**WELL HSB141CR**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 26.5 ft (8.08m) below TOC  
Water elevation: 227.8 ft (69.43m) msl

Time: 13:18

**WELL HSB145C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 22.74 ft (6.93m) below TOC  
Water elevation: 212.96 ft (64.91m) msl

Time: 13:42



# WATER-LEVEL DATA

## WELL HSB145D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 17.88 ft (5.45m) below TOC  
Water elevation: 218.32 ft (66.54m) msl

Time: 13:42

Time: 14:07

## WELL HSB146A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 75.21 ft (22.92m) below TOC  
Water elevation: 176.39 ft (53.76m) msl

Time: 13:13

Time: 13:27

## WELL HSB146C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 42.7 ft (13.02m) below TOC  
Water elevation: 209.6 ft (63.89m) msl

Time: 13:13

Time: 14:41

## WELL HSB146D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 31.58 ft (9.63m) below TOC  
Water elevation: 221.52 ft (67.52m) msl

Time: 13:14

Time: 14:51

## WELL HSB147D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 39.65 ft (12.09m) below TOC  
Water elevation: 227.65 ft (69.39m) msl

Time: 15:11

Time: 14:52

## WELL HSB148C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 49.44 ft (15.07m) below TOC  
Water elevation: 201.46 ft (61.41m) msl

Time: 15:35

Time: 14:59

## WELL HSB148D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: 38.5 ft (11.73m) below TOC  
Water elevation: 212.6 ft (64.80m) msl

Time: 15:36

Time: 14:59

ESH-EMS-990520

A-46

First Quarter 1999



**WELL HSL 1D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 29.03 ft (8.85m) below TOC  
Water elevation: 234.97 ft (71.82m) msl

Time: 12:22

**WELL HSL 2D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 24.7 ft (7.53m) below TOC  
Water elevation: 240.8 ft (73.40m) msl

Time: 12:54

**WELL HSL 3D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 19.35 ft (5.87m) below TOC  
Water elevation: 248.35 ft (75.70m) msl

Time: 12:55

**WELL HSL 4D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 13.57 ft (4.14m) below TOC  
Water elevation: 259.63 ft (79.14m) msl

Time: 13:05

**WELL HSL 5D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 11.58 ft (3.53m) below TOC  
Water elevation: 265.02 ft (80.76m) msl

Time: 13:03

**WELL HSL 6D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 22.34 ft (6.81m) below TOC  
Water elevation: 257.66 ft (78.54m) msl

Time: 12:58

**WELL HSL 7D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 26.16 ft (7.97m) below TOC  
Water elevation: 257.64 ft (78.53m) msl

Time: 12:59

**WELL HSL 8D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/22/99  
Depth to water: 25.9 ft (7.88m) below TOC  
Water elevation: 256.8 ft (78.05m) msl

Time: 13:00

**WELL HTF 1**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 10.5 ft (3.20m) below TOC  
Water elevation: 271.5 ft (82.75m) msl

Time: 9:00

**WELL HTF 2**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 8.9 ft (2.71m) below TOC  
Water elevation: 272.5 ft (83.16m) msl

Time: 9:20

**WELL HTF 3**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 9.5 ft (2.90m) below TOC  
Water elevation: 271.2 ft (82.66m) msl

Time: 9:30

**WELL HTF 5**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 31.8 ft (9.69m) below TOC  
Water elevation: 274 ft (83.52m) msl

Time: 9:40

**WELL HTF 6**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 31 ft (9.45m) below TOC  
Water elevation: 274.4 ft (83.64m) msl

Time: 9:50

**WELL HTF 7**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 31.6 ft (9.63m) below TOC  
Water elevation: 273.7 ft (83.42m) msl

Time: 9:50



# **WATER-LEVEL DATA**

## **WELL HTF 9**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 52.9 ft (16.12m) below TOC  
Water elevation: 271.1 ft (82.63m) msl

Time: 10:55

## **WELL HTF 10**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 51.3 ft (15.64m) below TOC  
Water elevation: 271.4 ft (82.72m) msl

Time: 10:40

## **WELL HTF 11**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 51.1 ft (15.58m) below TOC  
Water elevation: 271.7 ft (82.82m) msl

Time: 10:25

## **WELL HTF 12D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 52.9 ft (16.12m) below TOC  
Water elevation: Not available

Time: 10:30

## **WELL HTF 12D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/05/99  
Depth to water: 50.98 ft (15.54m) below TOC  
Water elevation: Not available

Time: 9:00

## **WELL HTF 13**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 52 ft (15.85m) below TOC  
Water elevation: 272.4 ft (83.03m) msl

Time: 11:10

## **WELL HTF 14**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 57 ft (17.37m) below TOC  
Water elevation: 266.9 ft (81.35m) msl

Time: 11:20

## **WELL HTF 15D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 52.3 ft (15.94m) below TOC  
Water elevation: Not available

Time: 12:10

## **WELL HTF 15D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/05/99  
Depth to water: 51 ft (15.54m) below TOC  
Water elevation: Not available

Time: 9:10

## **WELL HTF 18**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 53.4 ft (16.28m) below TOC  
Water elevation: 270.3 ft (82.39m) msl

Time: 12:00

## **WELL HTF 19**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 57.9 ft (17.65m) below TOC  
Water elevation: 266.9 ft (81.35m) msl

Time: 11:50

## **WELL HTF 20**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 58.6 ft (17.98m) below TOC  
Water elevation: 266.3 ft (81.17m) msl

Time: 11:40

## **WELL HTF 21**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 56.2 ft (17.13m) below TOC  
Water elevation: 268.5 ft (81.84m) msl

Time: 11:30

## **WELL HTF 34**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 01/13/99  
Depth to water: 53.8 ft (16.40m) below TOC  
Water elevation: 251.7 ft (76.72m) msl

Time: 10:20

**ESH-EMS-990520**

**A-48**

**First Quarter 1999**



**WELL MCB 2**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 102.35 ft (31.20m) below TOC  
 Water elevation: 226.05 ft (68.90m) msl

Time: 14:27

**WELL MCB 8D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 114.14 ft (34.79m) below TOC  
 Water elevation: 226.56 ft (69.06m) msl

Time: 14:22

**WELL MCB 4**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 124.65 ft (37.99m) below TOC  
 Water elevation: 225.75 ft (68.81m) msl

Time: 14:24

**WELL MCB 9D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 118.41 ft (36.09m) below TOC  
 Water elevation: 224.49 ft (68.43m) msl

Time: 14:09

**WELL MCB 5**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 113.34 ft (34.55m) below TOC  
 Water elevation: 226.26 ft (68.96m) msl

Time: 14:17

**WELL MSB 1B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 142.87 ft (43.55m) below TOC  
 Water elevation: 211.93 ft (64.50m) msl

Time: 11:46

**WELL MCB 5C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 143.41 ft (43.71m) below TOC  
 Water elevation: 195.69 ft (59.63m) msl

Time: 14:17

**WELL MSB 1C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 138.96 ft (42.36m) below TOC  
 Water elevation: 216.14 ft (65.86m) msl

Time: 11:45

**WELL MCB 6**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 101.55 ft (33.70m) below TOC  
 Water elevation: 221.55 ft (67.53m) msl

Time: 14:07

**WELL MSB 1CC**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 137 ft (41.76m) below TOC  
 Water elevation: 217.9 ft (66.42m) msl

Time: 11:45

**WELL MCB 6C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 135.71 ft (41.36m) below TOC  
 Water elevation: 196.39 ft (59.86m) msl

Time: 14:07

**WELL MSB 1D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 124.88 ft (38.06m) below TOC  
 Water elevation: 229.32 ft (70.08m) msl

Time: 11:47

**WELL MCB 7C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 142.82 ft (43.53m) below TOC  
 Water elevation: 194.86 ft (59.40m) msl

Time: 14:20

**WELL MSB 2B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 142.95 ft (43.57m) below TOC  
 Water elevation: 211.65 ft (64.51m) msl

Time: 11:39



# WATER-LEVEL DATA

## WELL MSB 2C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 137.75 ft (41.99m) below TOC  
Water elevation: 216.95 ft (66.13m) msl

Time: 11:40

## WELL MSB 2D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 123.28 ft (37.59m) below TOC  
Water elevation: 230.52 ft (70.26m) msl

Time: 11:39

## WELL MSB 3B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: Not available  
Water elevation: 361 ft (110.03m) msl

Time: 11:33

## WELL MSB 3C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 142.45 ft (43.42m) below TOC  
Water elevation: 218.35 ft (66.55m) msl

Time: 11:34

## WELL MSB 4B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 143 ft (43.59m) below TOC  
Water elevation: 212.3 ft (64.71m) msl

Time: 11:56

## WELL MSB 4C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 138.95 ft (42.35m) below TOC  
Water elevation: 216.25 ft (65.91m) msl

Time: 11:56

## WELL MSB 4D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 126.48 ft (38.55m) below TOC  
Water elevation: 229.02 ft (69.81m) msl

Time: 11:58

## WELL MSB 5A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 117.56 ft (35.83m) below TOC  
Water elevation: 227.04 ft (69.20m) msl

Time: 12:17

## WELL MSB 5B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 135.95 ft (41.44m) below TOC  
Water elevation: 209.05 ft (63.72m) msl

Time: 12:17

## WELL MSB 5C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 122.45 ft (37.32m) below TOC  
Water elevation: 222.75 ft (67.90m) msl

Time: 12:18

## WELL MSB 6A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 116.8 ft (35.60m) below TOC  
Water elevation: 227 ft (69.19m) msl

Time: 12:26

## WELL MSB 6B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 137.29 ft (41.85m) below TOC  
Water elevation: 206.61 ft (62.98m) msl

Time: 12:27

## WELL MSB 6C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 120.71 ft (36.79m) below TOC  
Water elevation: 223.09 ft (68.00m) msl

Time: 12:27

## WELL MSB 7A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 116.38 ft (35.47m) below TOC  
Water elevation: 227.92 ft (69.47m) msl

Time: 12:30

ESH-EMS-990520

A-50

First Quarter 1999



**WELL MSB 7B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 137.06 ft (41.78m) below TOC  
Water elevation: 207.04 ft (63.11m) msl

Time: 12:31

**WELL MSB 7C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 122.04 ft (37.20m) below TOC  
Water elevation: 222.46 ft (67.81m) msl

Time: 12:32

**WELL MSB 8A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 115.15 ft (35.10m) below TOC  
Water elevation: 229.05 ft (69.82m) msl

Time: 13:45

**WELL MSB 8B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 135.1 ft (41.18m) below TOC  
Water elevation: 208.8 ft (63.64m) msl

Time: 13:46

**WELL MSB 8C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 124.21 ft (37.85m) below TOC  
Water elevation: 219.8 ft (67.00m) msl

Time: 13:47

**WELL MSB 9A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 147 ft (44.81m) below TOC  
Water elevation: 212.1 ft (64.65m) msl

Time: 12:01

**WELL MSB 9B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 130.21 ft (39.68m) below TOC  
Water elevation: 229.1 ft (69.83m) msl

Time: 12:03

**WELL MSB 9C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: Not available  
Water elevation: 359.6 ft (109.61m) msl

Time: 12:04

**WELL MSB 10A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 145.8 ft (44.44m) below TOC  
Water elevation: 211.4 ft (64.44m) msl

Time: 11:11

**WELL MSB 10B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 144.98 ft (44.19m) below TOC  
Water elevation: 212.92 ft (64.81m) msl

Time: 11:12

**WELL MSB 10C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 128.58 ft (39.19m) below TOC  
Water elevation: 228.52 ft (69.65m) msl

Time: 11:11

**WELL MSB 10D**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: Not available  
Water elevation: Not available

Time: 11:12

**WELL MSB 11A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 152.88 ft (46.60m) below TOC  
Water elevation: 212.52 ft (64.78m) msl

Time: 11:27

**WELL MSB 11B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 147.05 ft (44.82m) below TOC  
Water elevation: 218.35 ft (66.55m) msl

Time: 11:26



# WATER-LEVEL DATA

**WELL MSB 11C**  
MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/29/99  
Depth to water: 145.1 ft (44.23m) below TOC  
Water elevation: 220.4 ft (67.18m) msl

Time: 11:25

Time: 15:51

**WELL MSB 11D**  
MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/29/99  
Depth to water: 136.48 ft (41.60m) below TOC  
Water elevation: 229.32 ft (69.90m) msl

Time: 11:25

Time: 15:50

**WELL MSB 11E**  
MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/29/99  
Depth to water: 125.45 ft (38.24m) below TOC  
Water elevation: 239.75 ft (73.08m) msl

Time: 11:24

Time: 15:50

**WELL MSB 11F**  
MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/29/99  
Depth to water: Not available  
Water elevation: Not available

Time: 11:28

Time: 12:12

**WELL MSB 12A**  
MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/29/99  
Depth to water: 143.21 ft (43.04m) below TOC  
Water elevation: 206.5 ft (63.55m) msl

Time: 14:41

Time: 12:12

**WELL MSB 12B**  
MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/29/99  
Depth to water: 132.05 ft (40.25m) below TOC  
Water elevation: 218.25 ft (66.52m) msl

Time: 15:50

Time: 12:13

**WELL MSB 12C**  
MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/29/99  
Depth to water: 126.51 ft (38.56m) below TOC  
Water elevation: 223.3 ft (68.06m) msl

Time: 14:40

Time: 12:12

## WELL MSB 12D

MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/26/99  
Depth to water: Not available  
Water elevation: 350.1 ft (106.71m) msl

## WELL MSB 12TA

MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/26/99  
Depth to water: 156.58 ft (47.73m) below TOC  
Water elevation: 193.42 ft (58.96m) msl

## WELL MSB 12TB

MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/26/99  
Depth to water: 156.84 ft (47.81m) below TOC  
Water elevation: 193.46 ft (58.97m) msl

## WELL MSB 13A

MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/29/99  
Depth to water: 137.3 ft (41.85m) below TOC  
Water elevation: 209.4 ft (63.83m) msl

## WELL MSB 13B

MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/29/99  
Depth to water: 120.44 ft (36.71m) below TOC  
Water elevation: 226.66 ft (69.09m) msl

## WELL MSB 13C

MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/29/99  
Depth to water: 119.5 ft (36.42m) below TOC  
Water elevation: 227.8 ft (69.43m) msl

## WELL MSB 13CC

MEASUREMENTS CONDUCTED IN THE FIELD  
Sample date: 03/29/99  
Depth to water: 122.73 ft (37.41m) below TOC  
Water elevation: 224.17 ft (68.33m) msl



**WELL MSB 13D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 119.9 ft (36.55m) below TOC  
 Water elevation: 227.7 ft (69.40m) msl

Time: 12:14

**WELL MSB 15D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: Not available  
 Water elevation: Not available

Time: 11:17

**WELL MSB 14A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 133.2 ft (40.60m) below TOC  
 Water elevation: 215.5 ft (65.69m) msl

Time: 11:49

**WELL MSB 16A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 146.65 ft (44.70m) below TOC  
 Water elevation: 220.85 ft (67.32m) msl

Time: 9:52

**WELL MSB 14B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 131.85 ft (40.19m) below TOC  
 Water elevation: 217.05 ft (66.16m) msl

Time: 11:50

**WELL MSB 16C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 137.54 ft (41.92m) below TOC  
 Water elevation: 230.06 ft (70.12m) msl

Time: 9:53

**WELL MSB 14C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: Not available  
 Water elevation: 349.2 ft (106.44m) msl

Time: 11:51

**WELL MSB 17A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/28/99  
 Depth to water: 143 ft (43.59m) below TOC  
 Water elevation: 216.3 ft (65.93m) msl

Time: 15:44

**WELL MSB 15A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 148.09 ft (45.14m) below TOC  
 Water elevation: 219.61 ft (66.94m) msl

Time: 11:18

**WELL MSB 17B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 134.03 ft (40.85m) below TOC  
 Water elevation: 225.17 ft (68.63m) msl

Time: 15:43

**WELL MSB 15AA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 155.59 ft (47.42m) below TOC  
 Water elevation: 213.61 ft (65.11m) msl

Time: 11:17

**WELL MSB 17BB**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 146.65 ft (44.76m) below TOC  
 Water elevation: 212.15 ft (64.66m) msl

Time: 15:43

**WELL MSB 15C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 122.15 ft (37.23m) below TOC  
 Water elevation: 244.55 ft (74.54m) msl

Time: 11:19

**WELL MSB 17C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: Not available  
 Water elevation: 358.2 ft (109.18m) msl

Time: 15:43



# WATER-LEVEL DATA

## WELL MSB 17D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 133.8 ft (40.78m) below TOC  
Water elevation: 226.1 ft (68.92m) msl

Time: 15:44

## WELL MSB 18A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 129.45 ft (39.46m) below TOC  
Water elevation: 212.45 ft (64.76m) msl

Time: 13:39

## WELL MSB 18B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 150.26 ft (45.80m) below TOC  
Water elevation: 221.84 ft (67.82m) msl

Time: 13:40

## WELL MSB 18C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 114.12 ft (34.78m) below TOC  
Water elevation: 228.38 ft (69.61m) msl

Time: 13:41

## WELL MSB 20A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 137.09 ft (41.79m) below TOC  
Water elevation: 218.21 ft (66.51m) msl

Time: 10:36

## WELL MSB 20C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 128.3 ft (39.11m) below TOC  
Water elevation: 226.4 ft (69.01m) msl

Time: 10:36

## WELL MSB 21A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 154.88 ft (47.10m) below TOC  
Water elevation: 220.12 ft (67.09m) msl

Time: 10:30

## WELL MSB 21B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 135.5 ft (41.30m) below TOC  
Water elevation: 219.5 ft (66.90m) msl

Time: 10:32

## WELL MSB 21C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 126.2 ft (38.47m) below TOC  
Water elevation: 228.6 ft (69.68m) msl

Time: 10:31

## WELL MSB 21TA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 160.93 ft (49.05m) below TOC  
Water elevation: 193.67 ft (59.03m) msl

Time: 10:30

## WELL MSB 23

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: Not available  
Water elevation: Not available

Time: 9:32

## WELL MSB 23B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 148.81 ft (45.36m) below TOC  
Water elevation: 222.79 ft (67.91m) msl

Time: 9:33

## WELL MSB 23TA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 173.1 ft (52.78m) below TOC  
Water elevation: 199.8 ft (60.90m) msl

Time: 9:34

## WELL MSB 23TR

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 174.85 ft (53.29m) below TOC  
Water elevation: 197.85 ft (60.31m) msl

Time: 9:54



**WELL MSB 24**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 145.4 ft (44.32m) below TOC  
Water elevation: 234.8 ft (71.57m) msl

Time: 9:40

**WELL MSB 24A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 155.05 ft (47.50m) below TOC  
Water elevation: 225.75 ft (68.81m) msl

Time: 9:39

**WELL MSB 25**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: Not available  
Water elevation: 366.9 ft (111.83m) msl

Time: 9:26

**WELL MSB 25A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 145.78 ft (44.55m) below TOC  
Water elevation: 216.62 ft (66.03m) msl

Time: 9:27

**WELL MSB 26**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: Not available  
Water elevation: 361.7 ft (110.25m) msl

Time: 9:59

**WELL MSB 26A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 137.03 ft (41.76m) below TOC  
Water elevation: 224.79 ft (68.52m) msl

Time: 9:59

**WELL MSB 26B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 145.01 ft (44.20m) below TOC  
Water elevation: 217.79 ft (66.38m) msl

Time: 10:00

**WELL MSB 27**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 139.2 ft (42.43m) below TOC  
Water elevation: 236.3 ft (72.03m) msl

Time: 9:45

**WELL MSB 27A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 146.75 ft (44.73m) below TOC  
Water elevation: 226.45 ft (68.93m) msl

Time: 9:45

**WELL MSB 27B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 151.15 ft (46.07m) below TOC  
Water elevation: 225.65 ft (68.78m) msl

Time: 9:46

**WELL MSB 27TA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 177.28 ft (54.04m) below TOC  
Water elevation: 199.32 ft (60.75m) msl

Time: 9:45

**WELL MSB 28**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 124.95 ft (38.09m) below TOC  
Water elevation: 229.65 ft (70.06m) msl

Time: 10:05

**WELL MSB 28A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 132.1 ft (40.23m) below TOC  
Water elevation: 223 ft (67.91m) msl

Time: 10:05

**WELL MSB 29A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 146.28 ft (44.59m) below TOC  
Water elevation: 218.92 ft (66.73m) msl

Time: 9:17



# WATER-LEVEL DATA

## WELL MSB 29B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 141.52 ft (43.14m) below TOC  
Water elevation: 223.48 ft (68.12m) msl

Time: 9:13

## WELL MSB 29C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 135.28 ft (41.23m) below TOC  
Water elevation: 229.72 ft (70.02m) msl

Time: 9:13

## WELL MSB 29D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 133.2 ft (40.60m) below TOC  
Water elevation: 231.7 ft (70.62m) msl

Time: 9:17

## WELL MSB 29DD

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 132.4 ft (40.36m) below TOC  
Water elevation: 232 ft (70.71m) msl

Time: 9:13

## WELL MSB 29TA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 153.82 ft (46.88m) below TOC  
Water elevation: 211.18 ft (64.37m) msl

Time: 9:18

## WELL MSB 30A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 157.45 ft (47.99m) below TOC  
Water elevation: 197.55 ft (60.21m) msl

Time: 10:15

## WELL MSB 30AA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 129.59 ft (39.50m) below TOC  
Water elevation: 223.41 ft (68.10m) msl

Time: 10:13

## WELL MSB 30B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 128.7 ft (39.23m) below TOC  
Water elevation: 224.8 ft (68.52m) msl

Time: 10:13

## WELL MSB 30C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 124.35 ft (37.90m) below TOC  
Water elevation: 230.25 ft (70.18m) msl

Time: 10:14

## WELL MSB 30CC

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 129.4 ft (39.44m) below TOC  
Water elevation: 224.8 ft (68.46m) msl

Time: 10:13

## WELL MSB 31A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 150.45 ft (45.86m) below TOC  
Water elevation: 197.65 ft (60.24m) msl

Time: 14:30

## WELL MSB 31B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 136.6 ft (41.64m) below TOC  
Water elevation: 211.7 ft (64.53m) msl

Time: 14:30

## WELL MSB 31C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 115.18 ft (35.11m) below TOC  
Water elevation: 232.92 ft (70.99m) msl

Time: 14:30

## WELL MSB 31CC

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 136.74 ft (41.69m) below TOC  
Water elevation: 211.86 ft (64.58m) msl

Time: 14:29

ESH-EMS-990520

A-56

First Quarter 1999



**WELL MSB 32**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 31.82 ft (9.70m) below TOC  
Water elevation: 223.28 ft (68.06m) msl

Time: 13:51

**WELL MSB 32B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 44.02 ft (13.42m) below TOC  
Water elevation: 211.38 ft (64.43m) msl

Time: 13:51

**WELL MSB 32C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 39.48 ft (12.03m) below TOC  
Water elevation: 216.22 ft (65.90m) msl

Time: 13:51

**WELL MSB 33**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 38.68 ft (11.79m) below TOC  
Water elevation: 217.22 ft (66.21m) msl

Time: 14:39

**WELL MSB 33A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 50.2 ft (15.30m) below TOC  
Water elevation: 205.2 ft (62.55m) msl

Time: 14:40

**WELL MSB 33B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 47.25 ft (14.40m) below TOC  
Water elevation: 207.75 ft (63.32m) msl

Time: 14:40

**WELL MSB 33C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 44.45 ft (13.55m) below TOC  
Water elevation: 210.85 ft (64.27m) msl

Time: 14:40

**WELL MSB 33TA**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 59.27 ft (18.17m) below TOC  
Water elevation: 195.68 ft (59.70m) msl

Time: 14:39

**WELL MSB 34A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 169.58 ft (51.69m) below TOC  
Water elevation: 214.42 ft (65.36m) msl

Time: 10:51

**WELL MSB 34B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 156.6 ft (47.73m) below TOC  
Water elevation: 227.4 ft (69.31m) msl

Time: 10:51

**WELL MSB 34C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 155.03 ft (47.25m) below TOC  
Water elevation: 228.87 ft (69.76m) msl

Time: 10:53

**WELL MSB 34TA**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 188.9 ft (57.58m) below TOC  
Water elevation: 194.5 ft (59.28m) msl

Time: 10:53

**WELL MSB 34TB**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 184 ft (56.08m) below TOC  
Water elevation: 199.6 ft (60.84m) msl

Time: 10:55

**WELL MSB 35A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 134.75 ft (41.08m) below TOC  
Water elevation: 216.14 ft (65.88m) msl

Time: 14:16



# WATER-LEVEL DATA

## WELL MSB 35B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 132.87 ft (40.50m) below TOC  
Water elevation: 218.73 ft (66.67m) msl

Time: 14:16

## WELL MSB 35D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: Not available  
Water elevation: 351.5 ft (107.26m) msl

Time: 14:17

## WELL MSB 35TA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 150.68 ft (45.93m) below TOC  
Water elevation: 199.62 ft (60.84m) msl

Time: 14:18

## WELL MSB 36A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 130.82 ft (39.87m) below TOC  
Water elevation: 209.78 ft (63.94m) msl

Time: 14:50

## WELL MSB 36B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 126.82 ft (38.66m) below TOC  
Water elevation: 213.98 ft (65.22m) msl

Time: 14:50

## WELL MSB 36C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 126.9 ft (38.68m) below TOC  
Water elevation: 214 ft (65.23m) msl

Time: 14:51

## WELL MSB 36D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 106.49 ft (32.46m) below TOC  
Water elevation: 235.11 ft (71.66m) msl

Time: 14:52

## WELL MSB 36TA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 145.55 ft (44.36m) below TOC  
Water elevation: 195.05 ft (59.45m) msl

Time: 14:50

## WELL MSB 37A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 178.47 ft (54.40m) below TOC  
Water elevation: 204.53 ft (62.34m) msl

Time: 11:00

## WELL MSB 37B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 164.25 ft (50.06m) below TOC  
Water elevation: 218.45 ft (66.58m) msl

Time: 11:02

## WELL MSB 37C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 155.73 ft (47.47m) below TOC  
Water elevation: 227.27 ft (69.27m) msl

Time: 11:00

## WELL MSB 37D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 152.05 ft (46.35m) below TOC  
Water elevation: 230.65 ft (70.30m) msl

Time: 11:01

## WELL MSB 37TA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 178.05 ft (54.27m) below TOC  
Water elevation: 204.25 ft (62.26m) msl

Time: 11:03

## WELL MSB 38B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 145.2 ft (44.26m) below TOC  
Water elevation: 213.8 ft (65.17m) msl

Time: 9:20

ESH-EMS-990520

A-58

First Quarter 1999



**WELL MSB 38C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 141.55 ft (43.14m) below TOC  
 Water elevation: 217.25 ft (66.22m) msl

Time: 9:19

**WELL MSB 38D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 126.48 ft (38.55m) below TOC  
 Water elevation: 232.02 ft (70.72m) msl

Time: 9:17

**WELL MSB 38TA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 161.45 ft (49.21m) below TOC  
 Water elevation: 197.65 ft (60.24m) msl

Time: 9:17

**WELL MSB 39A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 132.82 ft (40.48m) below TOC  
 Water elevation: 208.78 ft (63.64m) msl

Time: 15:17

**WELL MSB 39B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 130.38 ft (39.74m) below TOC  
 Water elevation: 211.42 ft (64.44m) msl

Time: 15:17

**WELL MSB 39C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 126.51 ft (38.56m) below TOC  
 Water elevation: 214.99 ft (65.53m) msl

Time: 15:18

**WELL MSB 39D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 109.93 ft (33.51m) below TOC  
 Water elevation: 231.87 ft (70.67m) msl

Time: 15:18

**WELL MSB 39TA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 148.9 ft (45.39m) below TOC  
 Water elevation: 192.9 ft (58.80m) msl

Time: 15:16

**WELL MSB 40A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 117.75 ft (35.88m) below TOC  
 Water elevation: 203.45 ft (62.01m) msl

Time: 15:11

**WELL MSB 40B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 116.6 ft (35.54m) below TOC  
 Water elevation: 205.1 ft (62.52m) msl

Time: 15:11

**WELL MSB 40C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 116.92 ft (35.64m) below TOC  
 Water elevation: 205.08 ft (62.51m) msl

Time: 15:11

**WELL MSB 40D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 95.3 ft (29.05m) below TOC  
 Water elevation: 227.6 ft (69.37m) msl

Time: 15:12

**WELL MSB 40TA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 130.85 ft (39.82m) below TOC  
 Water elevation: 190.25 ft (57.99m) msl

Time: 15:11

**WELL MSB 41A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 106.6 ft (32.49m) below TOC  
 Water elevation: 217.2 ft (66.20m) msl

Time: 12:49



# WATER-LEVEL DATA

## WELL MSB 41B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 106.7 ft (32.52m) below TOC  
Water elevation: 217.3 ft (66.23m) msl

Time: 12:49

## WELL MSB 41C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 106.7 ft (32.52m) below TOC  
Water elevation: 217.3 ft (66.23m) msl

Time: 12:50

## WELL MSB 41D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 84.01 ft (25.61m) below TOC  
Water elevation: 240.99 ft (73.45m) msl

Time: 12:50

## WELL MSB 41TA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 117.05 ft (35.68m) below TOC  
Water elevation: 206.65 ft (62.99m) msl

Time: 12:49

## WELL MSB 42A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 157.95 ft (48.14m) below TOC  
Water elevation: 218.55 ft (66.61m) msl

Time: 11:33

## WELL MSB 42B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 157.41 ft (48.15m) below TOC  
Water elevation: 224.99 ft (68.56m) msl

Time: 11:33

## WELL MSB 42C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 146.3 ft (44.59m) below TOC  
Water elevation: 230.1 ft (70.14m) msl

Time: 11:33

ESH-EMS-990520

A-60

First Quarter 1999

## WELL MSB 42D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 145.18 ft (44.25m) below TOC  
Water elevation: 231.22 ft (70.48m) msl

Time: 11:34

## WELL MSB 42TA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 173.28 ft (52.82m) below TOC  
Water elevation: 203.32 ft (61.97m) msl

Time: 11:32

## WELL MSB 43A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 128.81 ft (39.26m) below TOC  
Water elevation: 228.89 ft (69.77m) msl

Time: 9:08

## WELL MSB 43B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 128.86 ft (39.26m) below TOC  
Water elevation: 228.94 ft (69.78m) msl

Time: 9:08

## WELL MSB 43D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 126.95 ft (38.69m) below TOC  
Water elevation: 231.05 ft (70.42m) msl

Time: 9:09

## WELL MSB 43DD

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 126.8 ft (38.65m) below TOC  
Water elevation: 231.1 ft (70.44m) msl

Time: 9:09

## WELL MSB 43TA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 155.48 ft (47.39m) below TOC  
Water elevation: 202.02 ft (61.58m) msl

Time: 9:08



**WELL MSB 44A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 159.8 ft (48.71m) below TOC  
 Water elevation: 217.1 ft (66.17m) msl

Time: 11:17

**WELL MSB 44B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 153.44 ft (46.77m) below TOC  
 Water elevation: 223.56 ft (68.14m) msl

Time: 11:18

**WELL MSB 44C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 144.75 ft (44.12m) below TOC  
 Water elevation: 232.05 ft (70.73m) msl

Time: 11:17

**WELL MSB 45A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 164.61 ft (50.17m) below TOC  
 Water elevation: 216.19 ft (65.90m) msl

Time: 13:58

**WELL MSB 45B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 154.23 ft (47.01m) below TOC  
 Water elevation: 226.67 ft (69.09m) msl

Time: 14:00

**WELL MSB 45C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: Not available  
 Water elevation: 380.8 ft (116.07m) msl

Time: 13:59

**WELL MSB 46A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 158.01 ft (48.16m) below TOC  
 Water elevation: 214.59 ft (65.41m) msl

Time: 11:23

**WELL MSB 46B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 147.75 ft (45.04m) below TOC  
 Water elevation: 225.84 ft (68.84m) msl

Time: 11:24

**WELL MSB 46C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 133.43 ft (40.68m) below TOC  
 Water elevation: 239.15 ft (72.89m) msl

Time: 11:23

**WELL MSB 47B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 144.65 ft (44.09m) below TOC  
 Water elevation: 224.05 ft (68.29m) msl

Time: 10:34

**WELL MSB 47BB**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 150.39 ft (45.84m) below TOC  
 Water elevation: 218.41 ft (66.57m) msl

Time: 10:33

**WELL MSB 47C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 137.24 ft (41.83m) below TOC  
 Water elevation: 231.76 ft (70.64m) msl

Time: 10:35

**WELL MSB 47D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 135.95 ft (41.44m) below TOC  
 Water elevation: 232.85 ft (70.97m) msl

Time: 10:37

**WELL MSB 47TA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 153.16 ft (46.68m) below TOC  
 Water elevation: 215.54 ft (65.70m) msl

Time: 10:34



# WATER-LEVEL DATA

## WELL MSB 48A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 137.92 ft (42.57m) below TOC  
Water elevation: 221.93 ft (67.65m) msl

Time: 10:19

## WELL MSB 48B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 137.92 ft (42.04m) below TOC  
Water elevation: 223.48 ft (68.12m) msl

Time: 10:20

## WELL MSB 48C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 139.34 ft (42.15m) below TOC  
Water elevation: 224 ft (68.28m) msl

Time: 10:18

## WELL MSB 48D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 129.92 ft (39.60m) below TOC  
Water elevation: 232.68 ft (70.92m) msl

Time: 10:17

## WELL MSB 48TA

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 140.05 ft (42.69m) below TOC  
Water elevation: 221.85 ft (67.62m) msl

Time: 10:18

## WELL MSB 49A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 137.1 ft (41.79m) below TOC  
Water elevation: 197.6 ft (60.23m) msl

Time: 15:36

## WELL MSB 49B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 139.1 ft (39.93m) below TOC  
Water elevation: 203.1 ft (61.91m) msl

Time: 15:36

## WELL MSB 49D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 104.12 ft (31.74m) below TOC  
Water elevation: 230.18 ft (70.16m) msl

Time: 15:36

## WELL MSB 50B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 21.12 ft (6.44m) below TOC  
Water elevation: 202.58 ft (61.75m) msl

Time: 14:37

## WELL MSB 50D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 20.45 ft (6.23m) below TOC  
Water elevation: 202.75 ft (61.80m) msl

Time: 14:38

## WELL MSB 51B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 58.02 ft (17.68m) below TOC  
Water elevation: 205.18 ft (62.54m) msl

Time: 14:52

## WELL MSB 51D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 51.2 ft (15.61m) below TOC  
Water elevation: 211 ft (64.31m) msl

Time: 14:55

## WELL MSB 51DD

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 51.87 ft (15.81m) below TOC  
Water elevation: 211.33 ft (64.41m) msl

Time: 14:54

## WELL MSB 52B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 102.71 ft (31.31m) below TOC  
Water elevation: 218.99 ft (66.75m) msl

Time: 13:07

ESH-EMS-990520

A-62

First Quarter 1999



**WELL MSB 52D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 84 ft (25.60m) below TOC  
 Water elevation: 237.6 ft (72.42m) msl

Time: 13:06

**WELL MSB 53B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 122.8 ft (37.43m) below TOC  
 Water elevation: 221.5 ft (67.51m) msl

Time: 12:23

**WELL MSB 53C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 122.8 ft (37.43m) below TOC  
 Water elevation: 222.4 ft (67.79m) msl

Time: 12:24

**WELL MSB 53D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 111.2 ft (33.99m) below TOC  
 Water elevation: 233.6 ft (71.20m) msl

Time: 12:24

**WELL MSB 54B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 129.67 ft (46.53m) below TOC  
 Water elevation: 220.73 ft (67.28m) msl

Time: 9:41

**WELL MSB 54C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 147.13 ft (44.85m) below TOC  
 Water elevation: 226.27 ft (68.97m) msl

Time: 9:41

**WELL MSB 54D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 120.75 ft (43.90m) below TOC  
 Water elevation: 232.85 ft (70.97m) msl

Time: 9:43

**WELL MSB 54TA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 154.5 ft (47.03m) below TOC  
 Water elevation: 219.2 ft (66.81m) msl

Time: 9:42

**WELL MSB 55B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 147.4 ft (44.93m) below TOC  
 Water elevation: 221.3 ft (67.45m) msl

Time: 9:30

**WELL MSB 55C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 149.6 ft (42.86m) below TOC  
 Water elevation: 228.8 ft (69.74m) msl

Time: 9:28

**WELL MSB 55D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 134.98 ft (41.14m) below TOC  
 Water elevation: 232.72 ft (70.93m) msl

Time: 9:32

**WELL MSB 55HC**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 136.26 ft (41.53m) below TOC  
 Water elevation: 232.44 ft (70.85m) msl

Time: 9:29

**WELL MSB 55TA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 155.13 ft (47.28m) below TOC  
 Water elevation: 213.57 ft (65.10m) msl

Time: 9:28

**WELL MSB 56D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 158.59 ft (47.86m) below TOC  
 Water elevation: 220.91 ft (67.33m) msl

Time: 8:57



# WATER-LEVEL DATA

## WELL MSB 57D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 125.52 ft (38.26m) below TOC  
Water elevation: 230.68 ft (70.31m) msl

Time: 11:43

## WELL MSB 58D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 127.6 ft (38.89m) below TOC  
Water elevation: 230.3 ft (70.20m) msl

Time: 11:36

## WELL MSB 59D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 129.98 ft (39.62m) below TOC  
Water elevation: 229.32 ft (69.90m) msl

Time: 11:59

## WELL MSB 60D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 124.82 ft (38.05m) below TOC  
Water elevation: 229.68 ft (70.01m) msl

Time: 11:53

## WELL MSB 61C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 93.79 ft (28.59m) below TOC  
Water elevation: 223.51 ft (68.13m) msl

Time: 12:16

## WELL MSB 61D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 92.25 ft (28.12m) below TOC  
Water elevation: 225.55 ft (68.75m) msl

Time: 12:15

## WELL MSB 62B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 138.5 ft (42.22m) below TOC  
Water elevation: 210.6 ft (64.19m) msl

Time: 12:06

## WELL MSB 62C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 126.26 ft (38.48m) below TOC  
Water elevation: 222.84 ft (67.92m) msl

Time: 12:07

## WELL MSB 62D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 120.95 ft (36.87m) below TOC  
Water elevation: 228.55 ft (69.66m) msl

Time: 12:07

## WELL MSB 63B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 137.06 ft (41.78m) below TOC  
Water elevation: 209.84 ft (63.96m) msl

Time: 13:49

## WELL MSB 63C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 127.02 ft (38.72m) below TOC  
Water elevation: 219.98 ft (66.75m) msl

Time: 13:51

## WELL MSB 63D

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 117.63 ft (35.85m) below TOC  
Water elevation: 229.17 ft (69.85m) msl

Time: 13:51

## WELL MSB 64B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 140.15 ft (42.72m) below TOC  
Water elevation: 208.15 ft (63.44m) msl

Time: 12:21

## WELL MSB 64C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 126.12 ft (38.44m) below TOC  
Water elevation: 222.28 ft (67.75m) msl

Time: 12:22

ESH-EMS-990520

A-64

First Quarter 1999



**WELL MSB 64D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 122.1 ft (37.22m) below TOC  
 Water elevation: 226.5 ft (69.04m) msl

Time: 12:23

**WELL MSB 69C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 155.03 ft (47.25m) below TOC  
 Water elevation: 226.57 ft (69.06m) msl

Time: 9:58

**WELL MSB 65D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 116.8 ft (35.60m) below TOC  
 Water elevation: 232.4 ft (70.84m) msl

Time: 13:55

**WELL MSB 69D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 149.16 ft (45.46m) below TOC  
 Water elevation: 232.84 ft (70.97m) msl

Time: 10:00

**WELL MSB 66B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 165.03 ft (50.30m) below TOC  
 Water elevation: 218.37 ft (66.56m) msl

Time: 10:44

**WELL MSB 69TA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 186.91 ft (50.87m) below TOC  
 Water elevation: 214.49 ft (65.38m) msl

Time: 9:57

**WELL MSB 66C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 155.8 ft (47.49m) below TOC  
 Water elevation: 227.6 ft (69.37m) msl

Time: 10:44

**WELL MSB 70C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 144.39 ft (44.01m) below TOC  
 Water elevation: 217.41 ft (66.27m) msl

Time: 11:05

**WELL MSB 66D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 153.12 ft (46.67m) below TOC  
 Water elevation: 230.08 ft (70.13m) msl

Time: 10:43

**WELL MSB 70D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 141.45 ft (43.11m) below TOC  
 Water elevation: 220.75 ft (67.29m) msl

Time: 11:05

**WELL MSB 66TA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 176.68 ft (54.48m) below TOC  
 Water elevation: 204.02 ft (62.19m) msl

Time: 10:45

**WELL MSB 71B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
 Depth to water: 127.55 ft (38.88m) below TOC  
 Water elevation: 217.15 ft (66.19m) msl

Time: 10:46

**WELL MSB 69B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 161.5 ft (49.23m) below TOC  
 Water elevation: 220 ft (67.06m) msl

Time: 9:58

**WELL MSB 72B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
 Depth to water: 127.59 ft (38.89m) below TOC  
 Water elevation: 200.61 ft (61.15m) msl

Time: 15:06



# **WATER-LEVEL DATA**

## **WELL MSB 73B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 137.58 ft (41.93m) below TOC  
Water elevation: 202.02 ft (61.58m) msl

Time: 14:45

## **WELL MSB 74B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 103.71 ft (31.61m) below TOC  
Water elevation: 210.79 ft (64.25m) msl

Time: 14:44

## **WELL MSB 74C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 104.1 ft (31.73m) below TOC  
Water elevation: 210.9 ft (64.28m) msl

Time: 14:44

## **WELL MSB 74D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 82.72 ft (25.21m) below TOC  
Water elevation: 232.38 ft (70.83m) msl

Time: 14:45

## **WELL MSB 75B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 116.9 ft (35.63m) below TOC  
Water elevation: 209.8 ft (63.95m) msl

Time: 14:56

## **WELL MSB 75C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 117.93 ft (35.95m) below TOC  
Water elevation: 209.57 ft (63.88m) msl

Time: 14:56

## **WELL MSB 76C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 131.9 ft (40.21m) below TOC  
Water elevation: 220.49 ft (67.21m) msl

Time: 10:42

**ESH-EMS-990520**

**A-66**

**First Quarter 1999**

## **WELL MSB 77B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 136.3 ft (41.54m) below TOC  
Water elevation: 220.9 ft (67.33m) msl

Time: 12:29

## **WELL MSB 77C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 133.95 ft (40.83m) below TOC  
Water elevation: 223.25 ft (68.05m) msl

Time: 12:30

## **WELL MSB 77D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 123.2 ft (37.55m) below TOC  
Water elevation: 234.2 ft (71.39m) msl

Time: 12:30

## **WELL MSB 77TA**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 136.2 ft (41.51m) below TOC  
Water elevation: 220.7 ft (67.27m) msl

Time: 12:28

## **WELL MSB 78DR**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 140.7 ft (42.89m) below TOC  
Water elevation: 223 ft (67.97m) msl

Time: 10:39

## **WELL MSB 79B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 140.35 ft (42.76m) below TOC  
Water elevation: 207.55 ft (63.26m) msl

Time: 15:22

## **WELL MSB 79C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 137.93 ft (42.04m) below TOC  
Water elevation: 209.87 ft (63.97m) msl

Time: 15:22



**WELL MSB 81B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 46.78 ft (14.26m) below TOC  
Water elevation: 220.22 ft (67.12m) msl

Time: 12:34

**WELL MSB 82A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 156.41 ft (47.67m) below TOC  
Water elevation: 217.89 ft (66.41m) msl

Time: 9:23

**WELL MSB 82B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 154.88 ft (47.21m) below TOC  
Water elevation: 219.32 ft (66.85m) msl

Time: 9:24

**WELL MSB 82C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 146.65 ft (44.70m) below TOC  
Water elevation: 227.25 ft (69.27m) msl

Time: 9:23

**WELL MSB 82D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 141.13 ft (43.02m) below TOC  
Water elevation: 232.47 ft (70.86m) msl

Time: 9:23

**WELL MSB 82TA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 160.06 ft (48.79m) below TOC  
Water elevation: 213.64 ft (65.12m) msl

Time: 9:52

**WELL MSB 83B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 150.5 ft (45.87m) below TOC  
Water elevation: 221.3 ft (67.45m) msl

Time: 9:52

**WELL MSB 83C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 144.2 ft (43.95m) below TOC  
Water elevation: 227.3 ft (69.43m) msl

Time: 9:52

**WELL MSB 83D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 138.7 ft (42.28m) below TOC  
Water elevation: 232.9 ft (70.99m) msl

Time: 9:53

**WELL MSB 83TA**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 156.48 ft (47.70m) below TOC  
Water elevation: 215.22 ft (65.60m) msl

Time: 9:53

**WELL MSB 84A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 192.61 ft (58.71m) below TOC  
Water elevation: 168.89 ft (51.48m) msl

Time: 9:36

**WELL MSB 84C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 132.4 ft (40.36m) below TOC  
Water elevation: 229.5 ft (69.95m) msl

Time: 9:35

**WELL MSB 85B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 159.61 ft (48.65m) below TOC  
Water elevation: 220.69 ft (67.27m) msl

Time: 10:06

**WELL MSB 85C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/26/99  
Depth to water: 156.9 ft (47.82m) below TOC  
Water elevation: 224 ft (68.28m) msl

Time: 10:04



# **WATER-LEVEL DATA**

## **WELL MSB 85D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 148.2 ft (45.17m) below TOC  
Water elevation: 232.6 ft (70.90m) msl

Time: 10:07

## **WELL MSB 85TA**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 160.18 ft (48.82m) below TOC  
Water elevation: 220.22 ft (67.12m) msl

Time: 10:05

## **WELL MSB 86C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 132.21 ft (40.30m) below TOC  
Water elevation: 224.79 ft (68.52m) msl

Time: 10:11

## **WELL MSB 87B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 118.37 ft (36.08m) below TOC  
Water elevation: 217.63 ft (66.33m) msl

Time: 13:55

## **WELL MSB 87C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 96.64 ft (29.46m) below TOC  
Water elevation: 239.96 ft (73.14m) msl

Time: 13:55

## **WELL MSB 88B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 36.5 ft (11.13m) below TOC  
Water elevation: 201.6 ft (61.49m) msl

Time: 15:00

## **WELL MSB 88C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 33.3 ft (10.15m) below TOC  
Water elevation: 203.9 ft (62.15m) msl

Time: 15:01

## **WELL MSB 88D**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 33.15 ft (9.80m) below TOC  
Water elevation: 204.75 ft (62.41m) msl

Time: 15:02

## **WELL MSB 89B**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 132.22 ft (40.30m) below TOC  
Water elevation: 207.18 ft (63.15m) msl

Time: 15:28

## **WELL MSB 89C**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/26/99  
Depth to water: 105.52 ft (33.69m) below TOC  
Water elevation: 229.26 ft (69.89m) msl

Time: 15:28

## **WELL SRW 1**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 102.25 ft (31.17m) below TOC  
Water elevation: 212.35 ft (64.91m) msl

Time: 7:54

## **WELL SRW 1BB**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 106.35 ft (33.03m) below TOC  
Water elevation: 207.35 ft (63.36m) msl

Time: 7:54

## **WELL SRW 2**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 105.03 ft (32.01m) below TOC  
Water elevation: 215.57 ft (65.71m) msl

Time: 7:44

## **WELL SRW 2A**

### **MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 114.73 ft (34.97m) below TOC  
Water elevation: 205.87 ft (62.75m) msl

Time: 7:44

**ESH-EMS-990520**

**A-68**

**First Quarter 1999**



**WELL SRW 2B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 112.49 ft (34.29m) below TOC  
Water elevation: 208.11 ft (63.43m) msl

Time: 7:52

**WELL SRW 3A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 119.3 ft (36.36m) below TOC  
Water elevation: 212.8 ft (64.86m) msl

Time: 7:33

**WELL SRW 3BB**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 123.31 ft (37.59m) below TOC  
Water elevation: 208.99 ft (63.70m) msl

Time: 7:40

**WELL SRW 4**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 106.7 ft (32.52m) below TOC  
Water elevation: 213.4 ft (65.05m) msl

Time: 8:34

**WELL SRW 4BB**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 112.92 ft (34.42m) below TOC  
Water elevation: 207.68 ft (63.30m) msl

Time: 8:35

**WELL SRW 5**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 98.7 ft (30.08m) below TOC  
Water elevation: 210.7 ft (64.22m) msl

Time: 8:29

**WELL SRW 6**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 95.01 ft (28.96m) below TOC  
Water elevation: 212.69 ft (64.83m) msl

Time: 8:02

**WELL SRW 7**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: Not available  
Water elevation: 299.1 ft (91.17m) msl

Time: 8:13

**WELL SRW 8**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 79.45 ft (24.22m) below TOC  
Water elevation: 208.65 ft (63.60m) msl

Time: 9:05

**WELL SRW 8BB**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 84.9 ft (25.88m) below TOC  
Water elevation: 204.6 ft (62.36m) msl

Time: 9:05

**WELL SRW 9**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 55.25 ft (16.84m) below TOC  
Water elevation: 198.15 ft (60.40m) msl

Time: 9:01

**WELL SRW 9A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 56.45 ft (17.21m) below TOC  
Water elevation: 196.85 ft (60.00m) msl

Time: 9:01

**WELL SRW 9B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: 55.55 ft (16.93m) below TOC  
Water elevation: 197.85 ft (60.31m) msl

Time: 9:02

**WELL SRW 10**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
Depth to water: Not available  
Water elevation: 303.4 ft (92.48m) msl

Time: 8:17



# WATER-LEVEL DATA

## WELL SRW 10BB

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 91 ft (29.57m) below TOC  
Water elevation: 205.8 ft (62.73m) msl

Time: 8:23

## WELL SRW 11

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 87.5 ft (26.67m) below TOC  
Water elevation: 208.3 ft (63.49m) msl

Time: 8:05

## WELL SRW 11BB

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 90.3 ft (27.53m) below TOC  
Water elevation: 206.19 ft (62.85m) msl

Time: 8:10

## WELL SRW 12A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 41.9 ft (12.77m) below TOC  
Water elevation: 194.4 ft (59.25m) msl

Time: 8:55

## WELL SRW 12B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 47.15 ft (14.37m) below TOC  
Water elevation: 189.15 ft (57.65m) msl

Time: 8:56

## WELL SRW 12C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 40.4 ft (12.31m) below TOC  
Water elevation: 195.9 ft (59.71m) msl

Time: 8:56

## WELL SRW 13A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 95.9 ft (29.23m) below TOC  
Water elevation: 201.8 ft (61.51m) msl

Time: 8:48

## WELL SRW 13B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 93.85 ft (28.61m) below TOC  
Water elevation: 203.95 ft (62.13m) msl

Time: 8:49

## WELL SRW 13C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 87.65 ft (26.72m) below TOC  
Water elevation: 210.05 ft (64.02m) msl

Time: 8:51

## WELL SRW 14A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 123.18 ft (37.54m) below TOC  
Water elevation: 203.84 ft (62.13m) msl

Time: 8:42

## WELL SRW 14B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 121.3 ft (36.97m) below TOC  
Water elevation: 205.6 ft (62.67m) msl

Time: 8:42

## WELL SRW 14C

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 109.91 ft (33.50m) below TOC  
Water elevation: 216.99 ft (66.14m) msl

Time: 8:43

## WELL SRW 15A

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 109.38 ft (33.34m) below TOC  
Water elevation: 209.72 ft (63.92m) msl

Time: 7:30

## WELL SRW 15B

### MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/29/99  
Depth to water: 109.2 ft (33.28m) below TOC  
Water elevation: 209.9 ft (63.96m) msl

Time: 7:31

ESH-EMS-990520

A-70

First Quarter 1999



**WELL SRW 15C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
 Depth to water: 130.1 ft (39.62m) below TOC  
 Water elevation: 189.1 ft (57.64m) msl  
 Time: 7:30

**WELL SRW 16A**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
 Depth to water: 132.7 ft (40.45m) below TOC  
 Water elevation: 214.1 ft (65.25m) msl  
 Time: 9:13

**WELL SRW 16B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
 Depth to water: 132.05 ft (40.25m) below TOC  
 Water elevation: 214.75 ft (65.46m) msl  
 Time: 9:13

**WELL SRW 16C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
 Depth to water: 131.4 ft (40.05m) below TOC  
 Water elevation: 215.2 ft (65.59m) msl  
 Time: 9:15

**WELL SRW 17B**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
 Depth to water: 120.91 ft (36.85m) below TOC  
 Water elevation: 212.49 ft (64.77m) msl  
 Time: 9:22

**WELL SRW 17C**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
 Depth to water: 120.88 ft (36.84m) below TOC  
 Water elevation: 212.72 ft (64.84m) msl  
 Time: 9:28

**WELL SRW 17DR**

**MEASUREMENTS CONDUCTED IN THE FIELD**

Sample date: 03/29/99  
 Depth to water: 119.1 ft (36.30m) below TOC  
 Water elevation: Not available  
 Time: 9:29



**WATER-LEVEL DATA**

**NOTES**

**ESH-EMS-990520**

**A-72**

**First Quarter 1999**



## Appendix B. Analytical Results

This section presents the field and analytical results for samples collected during first quarter 1999. The results tables are presented in alphabetical order by well series and in numerical order within each series. The **Site Index** section of this report contains the area name(s) for each series.

The tabular data contain all field and analytical results for well samples collected during this quarter. Results of laboratory analyses on sampling blanks are in **Appendix C** of this report.

Due to space limitations, the following abbreviations are used in the analytical and sampling blanks results tables.

<i>Method or Analyte</i>	<i>Abbreviation</i>
EICHROMTC1M	EICHROM
MMES16009MOD	MMES16009
ASTMD888-92B	ASTMD888
EICHROMSRW01M	EICHROMS
5-day biochemical oxygen demand	5-day biochem oxygen demand
ESESOPM008	ESOPM008
ESESOPM017	ESOPM017
ESESOPM020	ESOPM020
ESESOPM022	ESOPM022
ESESOPM029	ESOPM029
ESESOPM030	ESOPM030
ESESOPM031	ESOPM031
ESESOPM032	ESOPM032

The **Field Notes** section of this report contains information about the inability to collect samples, unusual conditions during sample collection, and samplers' observations.

Properly defined and used modifiers or qualifiers can be a key component in assessing data usability. Modifiers designated by EPD/EMS and provided to the primary laboratories are defined below.

<i>Key to the Tables</i>	
E	exponential notation (e.g., $1.1\text{E}-09 = 1.1 \times 10^{-9} = 0.0000000011$ )
EMS	EMS codes
F	Flag
FG	EPA functional guideline codes
Fibers/L	fibers per liter

## Appendix B. Analytical Results



---

**Key to the Tables**

---

μCi/mL	microcuries per milliliter
μg/L	micrograms per liter
μS/cm	Microsiemens per centimeter
mg/L	milligrams per liter
msl	mean sea level
NTU	Nephelometric turbidity units
S	EPA STORET codes
SQL	sample quantitation limit
TOC	top of casing

---

---

<b>EPA Functional Guideline Codes</b>	<b>Definition</b>
---	-------------------

---

(Blank)	Data not remarked. The analytical result is acceptable for use as reported.
J	The analyte was positively identified; the associated numerical value is an estimated concentration of the analyte in the sample.
N	<i>The analysis indicated the presence of an analyte for which there is presumptive evidence to make a tentative identification. Use for all TIC results.</i>
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified. Assignment of <i>R</i> requires approval by the appropriate WSRC data validation coordinator.
U	The analyte was analyzed for but was not detected above the reported sample quantitation limit.
NJ	The analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. The reported quantitation limit is approximate, and may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

---

---

<b>EPA STORET Codes</b>	<b>Definition</b>
-------------------------	-------------------

---

(Blank)	Data not remarked.
A	The result is the mean of two or more results.
B†	The result is based on colony counts outside the acceptance range.
C	The result is calculated.

---

---

**Appendix B. Analytical Results**



---

**EPA STORET Codes    Definition**

---

D	Field measurement.
E†	Extra samples were taken at composite stations.
F	Indicates female of the species.
G	The result reported is the maximum of two or more results.
H	The result is from a field kit determination and may not be accurate.
I	The result is less than the ssEQL, but equal to or greater than the MDL.
J◆	The result is estimated.
K	The actual concentration is known to be less than the reported result.
L	The actual concentration is known to be greater than the reported result.
M	Indicates male of the species.
N◆	There is presumptive evidence of the presence of the analyte.
O	The sample was received by the laboratory, but the analysis was lost or not found.
P†	Too numerous to count.
Q	The sample was held beyond the normal holding time prior to analysis.
R†	There was significant rain in the past 48 hours.
S	Laboratory test.
T†	The result is less than the criteria of detection.
U	Undetermined sex of the species.
V	The analyte was detected in both the method blank and the sample.
W†	The result is less than the lowest reportable under <i>T</i> STORET code.
X†	The value is from a quasi-vertically integrated sample.
Y	The result is from an unpreserved or incorrectly preserved sample; the data may not be accurate.
Z†	There were too many colonies present to count (TNTC); the numeric value represents the filtration volume.

---

† The code is not currently used for EMS/EGG programs, but may be used in the future or in some other SRS programs.

◆ Indicated STORET code or secondary code definition is redundant to a Functional Guideline code and will not be used at this time.

---

**EMS Codes    Definition**

---

(Blank)	Data not remarked. The analytical result is acceptable for use as reported.
A	Compound identification criteria were not met.

---

---

**Appendix B. Analytical Results**



<i>EMS Codes</i>	<i>Definition</i>
B	Not currently used.
C	LCS or BS criteria were not met.
D	ICP serial dilution criteria were not met.
E	Not currently used.
F	Not currently used.
G	Not currently used.
H	Internal standard criteria were not met when the IS was used for quantitation.
I	Matrix spike recovery was not within the control limits.
K	A tentatively identified compound is a suspected aldol-condensation product.
L	Initial or continuing calibration criteria were not met.
M	Not currently used.
N	Not currently used.
O	Surrogate or tracer spike recovery is out of specification.
P	Graphite furnace atomic absorption QC <ul style="list-style-type: none"> <li>a. Duplication injection criteria were not met.</li> <li>b. Post-digestion spike recovery was not within control limits and the sample absorbance is &gt;50% of the post-digestion spike absorbance.</li> </ul>
Q	Not currently used.
R	Not currently used.
S	The sample was analyzed by the method of standard additions.
T	Not currently used.
U	Not currently used.
V	Not currently used.
W	Graphite furnace atomic absorption QC: the post-digestion spike recovery is not within control limits and the sample absorbance is <50% of the post-digestion spike absorbance.
X	The laboratory duplicate RPD or MS/MSD RPD was not within control limits.
Y	Not currently used.
Z	Not currently used.
4	Matrix interference is present.
6	The analyte was detected in both the sample and associated field blank.
7	The analyte was detected in both the sample and associated rinsate.
8	The analyte was detected in both the sample and associated trip blank.
9	The field duplicate RPD was not within control limits.

## **Appendix B. Analytical Results**



## Field Qualifiers

Sample interference field qualifiers were added to the field data in the analytical results tables beginning fourth quarter 1996. The qualifiers describe sampling interferences encountered during sample collection that could affect analytical results. They are used to qualify analytical data based on field conditions. Due to space limitations, the sample interference field qualifiers are referred to as *field qualifiers* in the following table and in the field data section of the analytical results tables.

<i>Field Qualifiers</i>	<i>Definition</i>
A	The pump was surging excessively. Aeration could cause oxidation reactions and loss of volatiles (low results). Analytical results may be of poor precision (high variability) due to sampling bias. The sample qualifier shall include an <i>A</i> if the site code is an <i>A</i> .
B	If the method code for a sample is <i>B</i> , then the sample qualifier shall include a <i>B</i> . This indicates that an open bucket bailer was used to collect the sample, which typically agitates the sample, increasing aeration and suspended solids. All analytical results may be of poor precision, volatile organic results may be biased low, and some metal and radionuclide results may be biased high.
C	Analytical results may be unrepresentative of true values due to reactions with metal well casing. This value will be automatically filled in if the casing type in the well inventory table is <i>Al</i> , <i>CS</i> , <i>Iron</i> , <i>SS</i> , or <i>Steel</i> . Analytical results for some metals and radionuclides may be higher or lower than actual groundwater concentrations.
G	If the method code for a sample is <i>G</i> , then the sample qualifier shall include a <i>G</i> . This indicates that an open bucket bailer was used to collect the sample without purging the well to attain stabilized field parameters. The grab sample method collects water that has undergone chemical reactions with the atmosphere and typically agitates the sample, increasing aeration and suspended solids. All analytical results may be of poor precision, volatile organic results may be biased low, and some metal and radionuclide results may be biased high. Analytical results may differ significantly for actual groundwater concentrations.
H	Analytical results may be unrepresentative of actual groundwater concentrations due to an elevated pH, possibly due to well installation materials (drilling mud, grout). Results for some inorganic constituents (i.e., sodium, metals, radionuclides) may be affected. If the pH for a sample is greater than eight, then the sample qualifier shall include an <i>H</i> .
N	Analytical results may be unrepresentative of actual groundwater concentrations due to well installation or formation interferences causing elevated turbidity. Results for particle reactive constituents (i.e., metals, radionuclides) may be elevated. If the turbidity for a sample is greater than 15 NTU, then the sample qualifier shall include an <i>N</i> .
S	If the sample method is an <i>S</i> , then the sample qualifier shall include an <i>S</i> . Single-speed centrifugal submersible pump flow rates vary from 1 to 15 gpm, and agitation of the sample may occur at higher flow rates, causing poor precision, low volatile organic results, or elevated metal or radionuclide results.
U	One or more of the field parameters (i.e., pH, conductivity, turbidity) did not stabilize prior to sample collection. The results may be of poor precision (high variability) due to sampling bias. The sample qualifier shall be a <i>U</i> if the stabilized field is <i>N</i> or the method code is <i>G</i> .
V	If the method code is a <i>V</i> , then the sample qualifier shall include a <i>V</i> . Sample collection with variable-speed pumps indicates that flow rates were less than one liter per minute. Sample collection at low flow rates provides the best estimates of actual groundwater concentrations due to reduced sampling bias.
X	If the site code is an <i>X</i> , then the sample qualifier shall include an <i>X</i> . Analytical results may be of poor precision for many constituents, and volatile organic results may be biased low because the well went dry during purging.

## Appendix B. Analytical Results



## Calculation of Alkalinity Relationships

The results obtained from the phenolphthalein and total alkalinity determinations offer a means for stoichiometric classification of the three principal forms of alkalinity present in many waters. The classification ascribes the entire alkalinity to bicarbonate, carbonate, and hydroxide, and assumes the absence of other (weak) inorganic or organic acids, such as silicic, phosphoric, and boric acids. It further presupposes the incompatibility of hydroxide and bicarbonate alkalities. Because the calculations are made on a stoichiometric basis, ion concentrations in the strictest sense are not represented in the results, which may differ significantly from actual concentrations, especially at pH > 10. According to this scheme:

(1) Carbonate ( $\text{CO}_3^{2-}$ ) alkalinity is present when phenolphthalein alkalinity is not zero but is less than total alkalinity.

(2) Hydroxide ( $\text{OH}^-$ ) alkalinity is present if phenolphthalein alkalinity is more than half the total alkalinity.

(3) Bicarbonate ( $\text{HCO}_3^-$ ) alkalinity is present if phenolphthalein alkalinity is less than half the total alkalinity. These relationships may be calculated by the following scheme, where  $P$  is phenolphthalein alkalinity and  $T$  is total alkalinity:

Select the smaller value of  $P$  or  $(T - P)$ . Then, carbonate alkalinity equals twice the smaller value. When the smaller value is  $P$ , the balance  $(T - 2P)$  is bicarbonate. When the smaller value is  $(T - P)$ , the balance  $(2P - T)$  is hydroxide. All results are expressed as  $\text{CaCO}_3$ .

<i>If Phenolphthalein Alkalinity Result =</i>	<i>then Hydroxide Alkalinity =</i>	<i>then Carbonate Alkalinity =</i>	<i>then Bicarbonate Alkalinity =</i>
0	0	0	Total Alk
<½ Total Alk	0	2(Phen Alk)	Total Alk – 2(Phen Alk)
=½ Total Alk	0	2(Phen Alk)	0
>½ Total Alk	2(Phen Alk) – Total Alk	2(Total Alk – Phen Alk)	0
Phen Alk = Total Alk	Total Alk	0	0

## Appendix B. Analytical Results







## ANALYTICAL RESULTS

Well ABP 3 collected on 01/07/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Carbon tetrachloride	<1.00	U		1.00	1.00	µg/L	WA	EPA8010B
0 Carbon tetrachloride	<1.00	U		1.00	1.00	µg/L	WA	EPA8010B
0 Chloroform	<1.00	U		1.00	1.00	µg/L	WA	EPA8010B
0 Chloroform	<1.00	U		1.00	1.00	µg/L	WA	EPA8010B
0 cis-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 cis-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
1 Iron, total recoverable	187	U		74.0	74.0	µg/L	WA	EPA8010B
0 Manganese, total recoverable	12.7	U		7.80	7.80	µg/L	WA	EPA8010B
0 Tetrahydrofuran	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 Tetrahydrofuran	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 Total organic carbon	574	J		1.000	1.000	µg/L	WA	EPA8010B
0 1,1,1-Trichloroethane	<1.00	U		1.00	1.00	µg/L	WA	EPA8010B
0 1,1,1-Trichloroethane	<1.00	U		1.00	1.00	µg/L	WA	EPA8010B
2 Trichloroethylene	6.17	U		1.00	1.00	µg/L	WA	EPA8010B
2 Trichloroethylene	5.88	U		1.00	1.00	µg/L	WA	EPA8010B

## WELL ABP 3C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/09/99  
 Depth to water: 158.62 ft (47.74 m) below TOC  
 Water elevation: 197.88 ft (60.31 m) msl  
 pH: 9.1  
 Sp. conductivity: 130 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 70 gal

Time: 8:17  
 Water temperature: 19.2°C  
 Air temperature: 9.8°C  
 Total alkalinity (as CaCO<sub>3</sub>): 25 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2 Aluminum, total recoverable	264	JU		146	146	µg/L	WA	EPA8010B
0 Barium, total recoverable	28.3	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Benzene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Bromodichloromethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Bromodichloromethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Bromoform	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Bromoform	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Bromomethane	<10.0	JU		10.0	10.0	µg/L	WA	EPA8010B
0 Bromomethane	<10.0	JU		10.0	10.0	µg/L	WA	EPA8010B
0 Carbon tetrachloride	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Carbon tetrachloride	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Chlorobenzene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Chlorobenzene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Chloroethane	<10.0	JU		10.0	10.0	µg/L	WA	EPA8010B
0 Chloroethane	<10.0	JU		10.0	10.0	µg/L	WA	EPA8010B
0 Chloroethane (Vinyl chloride)	<10.0	JU		10.0	10.0	µg/L	WA	EPA8010B
0 Chloroethane (Vinyl chloride)	<10.0	JU		10.0	10.0	µg/L	WA	EPA8010B
0 2-Chloroethyl vinyl ether	<10.0	JU		10.0	10.0	µg/L	WA	EPA8010B
0 Chloroform	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Chloroform	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Chloromethane	<10.0	JU		10.0	10.0	µg/L	WA	EPA8010B
0 Chloromethane	<10.0	JU		10.0	10.0	µg/L	WA	EPA8010B
0 Cyanide	<15.2	JU		15.2	15.2	µg/L	WA	EPA8010B
0 Dibromochloromethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Dibromochloromethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 1,1-Dichloroethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 1,2-Dichloroethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 1,2-Dichloroethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 1,1-Dichloroethylene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 1,1-Dichloroethylene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 trans-1,2-Dichloroethylene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 trans-1,2-Dichloroethylene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Dichloromethane	<4.42	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Dichloromethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 cis-1,3-Dichloropropene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 cis-1,3-Dichloropropene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 trans-1,3-Dichloropropene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 trans-1,3-Dichloropropene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Ethylbenzene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Ethylbenzene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Iron, total recoverable	<45.6	JU		74.0	74.0	µg/L	WA	EPA8010B

ESH-EMS-990520

B-8

First Quarter 1999

Well ABP 3C collected on 02/09/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Lead, total recoverable	<47.0	U		47.0	47.0	µg/L	WA	EPA8010B
0 Nickel, total recoverable	<66.0	U		26.0	26.0	µg/L	WA	EPA8010B
0 Selenium, total recoverable	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 1,1,2,2-Tetrachloroethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 1,1,2,2-Tetrachloroethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
2 Tetrahydrofuran	30.9	J		5.00	5.00	µg/L	WA	EPA8010B
2 Tetrahydrofuran	29.6	J		5.00	5.00	µg/L	WA	EPA8010B
0 Toluene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Toluene	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 1,1,1-Trichloroethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 1,1,1-Trichloroethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 1,1,2-Trichloroethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 1,1,2-Trichloroethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
2 Trichloroethylene	32.4	J		5.00	5.00	µg/L	WA	EPA8010B
2 Trichloroethylene	31.4	J		5.00	5.00	µg/L	WA	EPA8010B
0 Trichlorofluoromethane	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Xylenes	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B
0 Xylenes	<5.00	JU		5.00	5.00	µg/L	WA	EPA8010B

## WELL ABP 8C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/11/99  
 Depth to water: 174.52 ft (53.19 m) below TOC  
 Water elevation: 197.58 ft (60.22 m) msl  
 pH: 11.1  
 Sp. conductivity: 1,700 µS/cm  
 Turbidity: 15 NTU  
 Water evacuated from the well prior to sampling: 6 gal  
 The well went dry during purging.

Time: 8:30  
 Water temperature: 18.8°C  
 Air temperature: 2.8°C  
 Total alkalinity (as CaCO<sub>3</sub>): 304 mg/L  
 Phenolphthalein alkalinity: 290 mg/L  
 Field Qualifier(s): VX

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2 Aluminum, total recoverable	3,080	U		146	146	µg/L	WA	EPA8010B
0 Barium, total recoverable	316	U		5.00	5.00	µg/L	WA	EPA8010B
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 Bromoform	<10.0	U		10.0	10.0	µg/L	WA	EPA8010B
0 Bromomethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 Carbon tetrachloride	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 Chlorobenzene	<10.0	U		10.0	10.0	µg/L	WA	EPA8010B
0 Chloroethane	<10.0	U		10.0	10.0	µg/L	WA	EPA8010B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0	10.0	µg/L	WA	EPA8010B
0 Chloroform	<15.2	U		15.2	15.2	µg/L	WA	EPA8010B
0 Chloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 1,1-Dichloroethylene	<4.36	U		5.00	5.00	µg/L	WA	EPA8010B
0 1,1-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 Iron, total recoverable	410	U		74.0	74.0	µg/L	WA	EPA8010B
2 Lead, total recoverable	142	J		47.0	47.0	µg/L	WA	EPA8010B
0 Nickel, total recoverable	<66.0	J		26.0	26.0	µg/L	WA	EPA8010B
0 Selenium, total recoverable	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 Tetrahydrofuran	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
2 Trichloroethylene	10.2	U		5.00	5.00	µg/L	WA	EPA8010B
2 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPA8010B



## WELL ABP 10D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/89  
Depth to water: 136.88 ft (41.72 m) below TOC  
Water temperature: 18.2°C  
Air temperature: 6.5°C  
pH: 5.1  
Total alkalinity (as CaCO<sub>3</sub>): 1 mg/L  
Sp. conductance: 17 µS/cm  
Turbidity: 23 NTU  
Water evacuated from the well prior to sampling: 38 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	301			146		µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U		4.70		µg/L	WA	EPA6010B
2	Iron, total recoverable	784			74.0		µg/L	WA	EPA6010B
1	Manganese, total recoverable	25.8			7.80E-10		µg/L	WA	EPA6010B
0	Gross alpha	3.59E-09±0.70E-10			8.50E-10		µCi/mL	TM	EPA900.0M
0	Gross alpha	4.41E-09±1.08E-09			8.50E-10		µCi/mL	TM	EPA900.0M

## WELL AC 1A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/26/89  
Depth to water: 18.1 ft (14.66 m) below TOC  
Water temperature: 18.1°C  
Air temperature: 14.7°C  
pH: 5.6  
Total alkalinity (as CaCO<sub>3</sub>): 5 mg/L  
Sp. conductance: 20 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling: 114 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1	Aluminum, total recoverable	33.4	J	I	146		µg/L	WA	EPA6010B
0	Barium, total recoverable	4.10			1.80		µg/L	WA	EPA6010B
0	Benzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromodichloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromodorm	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromomethane	<10.0	U		5.00		µg/L	WA	EPA8260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Chlorobenzene	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Chloroethane (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Chloroethane	<10.0	U		10.0		µg/L	WA	EPA8260B
0	2-Chloroethyl vinyl ether	<10.0	U		5.00		µg/L	WA	EPA8260B
0	Chloroform	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Chloromethane	2.16	J	I	15.2		µg/L	WA	EPA9014
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	trans-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Dichloromethane	<5.38	U		5.00		µg/L	WA	EPA8260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
2	Iron, total recoverable	6.50			74.0		µg/L	WA	EPA6010B
0	Nickel, total recoverable	<26.0	U		47.0		µg/L	WA	EPA6010B
0	Selenium, total recoverable	<66.0	U		66.0		µg/L	WA	EPA8260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPA8260B

ESH-EMS-990520

## WELL AC 1B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/26/89  
Depth to water: 48.1 ft (14.66 m) below TOC  
Water temperature: 18.1°C  
Air temperature: 14.7°C  
pH: 5.6  
Total alkalinity (as CaCO<sub>3</sub>): 5 mg/L  
Sp. conductance: 29 µS/cm  
Turbidity: 4 NTU  
Water evacuated from the well prior to sampling: 45 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	22.1	J	I	146		µg/L	WA	EPA6010B
0	Barium, total recoverable	9.50			1.80		µg/L	WA	EPA6010B
0	Benzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromodichloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromodorm	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromomethane	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Chlorobenzene	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Chloroethane (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPA8260B
0	2-Chloroethyl vinyl ether	<10.0	U		5.00		µg/L	WA	EPA8260B
0	Chloroform	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Chloromethane	2.16	J	I	15.2		µg/L	WA	EPA9014
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	trans-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Dichloromethane	<5.17	U		5.00		µg/L	WA	EPA8260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
1	Iron, total recoverable	212			74.0		µg/L	WA	EPA6010B
0	Nickel, total recoverable	<26.0	U		47.0		µg/L	WA	EPA6010B
0	Selenium, total recoverable	<66.0	U		66.0		µg/L	WA	EPA8260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPA8260B

## WELL AC 3A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/03/89  
Depth to water: 51.8 ft (27.98 m) below TOC  
Water temperature: 18°C  
Air temperature: 18°C  
pH: 5.4  
Total alkalinity (as CaCO<sub>3</sub>): 12 mg/L  
Sp. conductance: 43 µS/cm  
Turbidity: 2 NTU  
Water evacuated from the well prior to sampling: 107 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	24.9	J	I	146		µg/L	WA	EPA6010B
0	Barium, total recoverable	12.6			1.80		µg/L	WA	EPA6010B
0	Benzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromodichloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromodorm	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromomethane	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Chlorobenzene	<5.00	U		10.0		µg/L	WA	EPA8260B
0	Chloroethane (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPA8260B
0	2-Chloroethyl vinyl ether	<10.0	U		5.00		µg/L	WA	EPA8260B
0	Chloroform	<5.00	U		10.0		µg/L	WA	EPA8260B
0	Chloromethane	<10.0	U		10.0		µg/L	WA	EPA8260B

B-9

First Quarter 1999



## ANALYTICAL RESULTS

Well AC 3A collected on 02/03/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Cyanide	<15.2	U		15.2	µg/L	µg/L	WA	EPA9014
0 Dibromochloromethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 Dichloromethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 Iron, total recoverable	<35.3	U		74.0	µg/L	µg/L	WA	EPA6010B
0 Lead, total recoverable	<47.0	U		47.0	µg/L	µg/L	WA	EPA6010B
0 Nickel, total recoverable	<26.0	U		26.0	µg/L	µg/L	WA	EPA6010B
0 Selenium, total recoverable	<66.0	U		66.0	µg/L	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 Tetrachloroethene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 Toluene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 Trichloroethene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B

## WELL ACB 1A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/06/99  
Depth to water: 121.21 ft (36.95 m) below TOC  
Water elevation: 238.35 ft (72.66 m) msl  
pH: 5.3  
Sp. conductance: 74 µS/cm  
Turbidity: 3 NTU  
Water evacuated from the well prior to sampling: 82 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<146	U		146	µg/L	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	<4.70	U		4.70	µg/L	µg/L	WA	EPA6010B
2 Iron, total recoverable	956			74.0	µg/L	µg/L	WA	EPA6010B

## WELL ACB 2A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/06/99  
Depth to water: 134.88 ft (35.02 m) below TOC  
Water elevation: 234.92 ft (71.6 m) msl  
pH: 5.3  
Sp. conductance: 44 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling: 82 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<146	U		146	µg/L	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	<4.70	U		4.70	µg/L	µg/L	WA	EPA6010B
0 Calcium, total recoverable	116	U		1.00	µg/L	µg/L	WA	EPA8021B
0 Carbon tetrachloride	<1.00	U		1.00	µg/L	µg/L	WA	EPA8021B
0 Chloride	2,430	U		2.00	µg/L	µg/L	WA	EPA8021B
0 Chloroform	<1.00	U		1.00	µg/L	µg/L	WA	EPA8021B
0 cis-1,2-Dichloroethene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8021B
0 Fluoride	<49.2	U		40.0	µg/L	µg/L	WA	EPA8021B
0 Iron, total recoverable	121	U		74.0	µg/L	µg/L	WA	EPA6010B
0 Manganese, total recoverable	52.2	U		40.0	µg/L	µg/L	WA	EPA6010B
0 Nitrate-nitrite as nitrogen	66.0	U		20.0	µg/L	µg/L	WA	EPA353.2
0 Potassium, total recoverable	67.1	U		187	µg/L	µg/L	WA	EPA6010B
0 Silica, total recoverable	5,490	U		285	µg/L	µg/L	WA	EPA6010B
0 Sodium, total recoverable	9,200	U		5.00	µg/L	µg/L	WA	EPA6010B
0 Tetrachloroethene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 Total dissolved solids	309,000	U		50,000	µg/L	µg/L	WA	EPA160.1
0 Total dissolved solids	347,000	U		50,000	µg/L	µg/L	WA	EPA160.1

ESH-EMS-990520

B-10

First Quarter 1999

Well ACB 2A collected on 01/06/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Total organic carbon	486	J		1,000	µg/L	µg/L	WA	EPA9060
0 Total phosphates (as P)	35.3	J		67.0	µg/L	µg/L	WA	EPA365.2
0 1,1,1-Trichloroethane	<1.00	U		1.00	µg/L	µg/L	WA	EPA8010
0 Trichloroethene	<1.00	U		1.00	µg/L	µg/L	WA	EPA8010
0 Tritium	2,90E-07±3.40E-07	U		5.70E-07	µCi/mL	µCi/mL	TM	EPA908.0M
0 Tritium	4.60E-07±3.60E-07	U		5.80E-07	µCi/mL	µCi/mL	TM	EPA908.0M

## WELL ACB 3A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/06/99  
Depth to water: 112.74 ft (34.36 m) below TOC  
Water elevation: 235.56 ft (71.8 m) msl  
pH: 4.5  
Sp. conductance: 200 µS/cm  
Turbidity: 2 NTU  
Water evacuated from the well prior to sampling: 67 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	902			146	µg/L	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	0.860	J		4.70	µg/L	µg/L	WA	EPA6010B
0 Carbon tetrachloride	<1.00	U		1.00	µg/L	µg/L	WA	EPA8010
0 Chloroform	<5.00	U		5.00	µg/L	µg/L	WA	EPA8010
0 cis-1,2-Dichloroethene	98.9	U		74.0	µg/L	µg/L	WA	EPA6010B
0 Iron, total recoverable	494	U		7.80	µg/L	µg/L	WA	EPA6010B
2 Manganese, total recoverable	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0 Tetrachloroethene	35.3	J		67.0	µg/L	µg/L	WA	EPA365.2
0 Total phosphates (as P)	32.0	J		1.00	µg/L	µg/L	WA	EPA365.2
0 Total phosphates (as P)	<1.00	U		1.00	µg/L	µg/L	WA	EPA8010
0 Trichloroethene	1.98E-08±2.68E-09	U		1.25E-09	µCi/mL	µCi/mL	TM	EPA908.0M
2 Gross alpha	2.43E-08±2.93E-09			1.37E-09	µCi/mL	µCi/mL	TM	EPA908.0M

## WELL ACB 4A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/09/99  
Depth to water: 123.54 ft (37.64 m) below TOC  
Water elevation: 235.6 ft (71.8 m) msl  
pH: 3.6  
Sp. conductance: 310 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling: 52 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	11,700			146	µg/L	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	1.40	J		4.70	µg/L	µg/L	WA	EPA6010B
0 Carbon tetrachloride	<1.00	U		1.00	µg/L	µg/L	WA	EPA8021B
0 Chloroform	<5.00	U		5.00	µg/L	µg/L	WA	EPA8021B
0 cis-1,2-Dichloroethene	1,410	U		40.0	µg/L	µg/L	WA	EPA340.2
0 Fluoride	67.8	J		7.80	µg/L	µg/L	WA	EPA6010B
0 Iron, total recoverable	416,000			17,000	µg/L	µg/L	WA	EPA6010B
2 Manganese, total recoverable	185,000			5.00	µg/L	µg/L	WA	EPA8260B
0 Sulfate	<120	U		120	µg/L	µg/L	WA	EPA340.2
0 Tetrachloroethene	<1.00	U		1.00	µg/L	µg/L	WA	EPA8021B
0 Total organic halogens	25.4	U		2.22E-09	µCi/mL	µCi/mL	TM	EPA908.0M
2 Trichloroethene	7.03E-08±2.62E-09			2.01E-09	µCi/mL	µCi/mL	TM	EPA908.0M
2 Gross alpha	5.91E-08±4.91E-09			2.05E-09	µCi/mL	µCi/mL	TM	EPA908.0M
2 Gross beta	2.63E-08±2.16E-09			2.02E-09	µCi/mL	µCi/mL	TM	EPA908.0M
1 Nonvolatile beta	2.44E-08±2.08E-09							







## ANALYTICAL RESULTS

Well AMB 4B collected on 03/11/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQ	Unit	Lab	Method
0	Isobutyl alcohol	<100			100		µg/L	WA	EPAS2608
0	Lead, total recoverable	<47.0			47.0		µg/L	WA	EPAS2608
0	Lindane	<0.0510			0.0510		µg/L	WA	EPAS2608
0	Manganese, total recoverable	3.70			7.80		µg/L	WA	EPAS2608
0	Mercury, total recoverable	<0.450			0.450		µg/L	WA	EPAS2608
0	Methacrylonitrile	<10.0			10.0		µg/L	WA	EPAS2608
0	Methyl ethyl ketone	<10.0			10.0		µg/L	WA	EPAS2608
0	Methyl isobutyl ketone	<10.0			10.0		µg/L	WA	EPAS2608
0	Nickel, total recoverable	<28.0			28.0		µg/L	WA	EPAS2608
0	Nitrate-nitrite as nitrogen	445			20.0		µg/L	WA	EPAS2608
0	Phenol	<10.2			10.2		µg/L	WA	EPAS2608
0	Selenium, total recoverable	<50.0			50.0		µg/L	WA	EPAS2608
0	Silver, total recoverable	<50.0			50.0		µg/L	WA	EPAS2608
0	Sodium, total recoverable	2.870			285		µg/L	WA	EPAS2608
0	Sulfate	<5.00			5.00		µg/L	WA	EPAS2608
0	Toluene	451			340		µg/L	WA	EPAS2608
0	1,1,2-Tetrachloroethane	<5.00			5.00		µg/L	WA	EPAS2608
0	1,1,2,2-Tetrachloroethane	<5.00			5.00		µg/L	WA	EPAS2608
0	Tetrachloroethylene	<5.00			5.00		µg/L	WA	EPAS2608
0	Total organic carbon	589			120		µg/L	WA	EPAS2608
0	Total organic halogens	<120			67.0		µg/L	WA	EPAS2608
0	Total phosphates (as P)	9.66			5.00		µg/L	WA	EPAS2608
0	1,1,1-Trichloroethane	<5.00			5.00		µg/L	WA	EPAS2608
0	1,1,2-Trichloroethane	2.82			5.00		µg/L	WA	EPAS2608
0	Trichloroethene	<5.00			5.00		µg/L	WA	EPAS2608
0	Trichloroethane	<5.00			5.00		µg/L	WA	EPAS2608
0	1,2,3-Trichloropropane	<10.0			10.0		µg/L	WA	EPAS2608
0	Vinyl acetate	<5.00			5.00		µg/L	WA	EPAS2608
0	Xylenes	<5.00			5.00		µg/L	WA	EPAS2608
1	Gross alpha	1.38E-09			1.38E-09		µCi/mL	TM	EPAS2608
0	Gross beta	3.31E-09			3.31E-09		µCi/mL	TM	EPAS2608
0	Nonvolatile beta	3.39E-09			3.39E-09		µCi/mL	TM	EPAS2608
0	Radon	1.59E-09			3.81E-09		µCi/mL	TM	EPAS2608
0	Radium, total alpha-emitting	1.97E-09			1.22E-09		µCi/mL	TM	EPAS2608

## WELL AMB 4D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/16/99  
 Depth to water: 149.18 ft (45.47 m) below TOC  
 Water elevation: 231.12 ft (70.45 m) msl  
 pH: 4.9  
 Sp. conductance: 33 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 26 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQ	Unit	Lab	Method
0	Acetone	6.06			10.0		µg/L	WA	EPAS2608
0	Acetonitrile (Methyl cyanide)	<20.0			20.0		µg/L	WA	EPAS2608
0	Acrolein	<5.00			5.00		µg/L	WA	EPAS2608
0	Acrylonitrile	<10.0			10.0		µg/L	WA	EPAS2608
2	Aminomethane	85.0			146		µg/L	WA	EPAS2608
0	Barium, total recoverable	<40.0			40.0		µg/L	WA	EPAS2608
0	Benzene	<5.00			5.00		µg/L	WA	EPAS2608
0	Bromodichloromethane	<5.00			5.00		µg/L	WA	EPAS2608
0	Bromochloromethane	<5.00			5.00		µg/L	WA	EPAS2608
0	Bromomethane	<10.0			10.0		µg/L	WA	EPAS2608
0	Carbon disulfide	<5.00			5.00		µg/L	WA	EPAS2608
0	Carbon tetrachloride	<5.00			5.00		µg/L	WA	EPAS2608
0	Chloride	2.230			210		µg/L	WA	EPAS2608
0	Chlorobenzene	<5.00			5.00		µg/L	WA	EPAS2608
0	Chloroethane (Vinyl chloride)	<10.0			10.0		µg/L	WA	EPAS2608
0	Chloroform	<5.00			5.00		µg/L	WA	EPAS2608
0	Chloromethane	<10.0			10.0		µg/L	WA	EPAS2608
0	Chloroprene	<10.0			10.0		µg/L	WA	EPAS2608
0	Chromium, total recoverable	<0.920			7.00		µg/L	WA	EPAS2608
0	Cyanide	2.16			15.2		µg/L	WA	EPAS2608
0	Dibromochloromethane	<5.00			5.00		µg/L	WA	EPAS2608

## ESH-EMS-990520

Well AMB 4D collected on 03/16/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQ	Unit	Lab	Method
0	1,2-Dibromo-3-chloropropane	<5.00			5.00		µg/L	WA	EPAS2608
0	1,2-Dibromomethane	<5.00			5.00		µg/L	WA	EPAS2608
0	Dibromomethane	<5.00			5.00		µg/L	WA	EPAS2608
0	trans-1,4-Dichloro-2-butene	<20.0			20.0		µg/L	WA	EPAS2608
0	Dichlorodifluoromethane	<10.0			10.0		µg/L	WA	EPAS2608
0	1,1-Dichloroethane	<5.00			5.00		µg/L	WA	EPAS2608
0	1,2-Dichloroethane	<5.00			5.00		µg/L	WA	EPAS2608
0	cis-1,2-Dichloroethene	<5.00			5.00		µg/L	WA	EPAS2608
0	trans-1,2-Dichloroethene	<5.00			5.00		µg/L	WA	EPAS2608
0	2,4-Dichloropentanoic acid	<1.00			1.00		µg/L	WA	EPAS2608
0	2,4-Dichloropentanoic acid	<1.00			1.00		µg/L	WA	EPAS2608
0	1,2-Dichloropropane	<5.00			5.00		µg/L	WA	EPAS2608
0	cis-1,3-Dichloropropene	<5.00			5.00		µg/L	WA	EPAS2608
0	trans-1,3-Dichloropropene	<5.00			5.00		µg/L	WA	EPAS2608
0	Ethylbenzene	<20.5			40.0		µg/L	WA	EPAS2608
0	Fluoride	<10.0			10.0		µg/L	WA	EPAS2608
0	Iodomethane (Methyl iodide)	<5.00			5.00		µg/L	WA	EPAS2608
1	Iron, total recoverable	275			74.0		µg/L	WA	EPAS2608
0	Isobutyl alcohol	<100			100		µg/L	WA	EPAS2608
0	Lead, total recoverable	<47.0			47.0		µg/L	WA	EPAS2608
0	Lindane	<0.0510			0.0510		µg/L	WA	EPAS2608
0	Manganese, total recoverable	22.1			7.80		µg/L	WA	EPAS2608
0	Mercury, total recoverable	<0.450			0.450		µg/L	WA	EPAS2608
0	Methacrylonitrile	<10.0			10.0		µg/L	WA	EPAS2608
0	Methyl ethyl ketone	<10.0			10.0		µg/L	WA	EPAS2608
0	Methyl isobutyl ketone	<10.0			10.0		µg/L	WA	EPAS2608
0	Nickel, total recoverable	<28.0			28.0		µg/L	WA	EPAS2608
0	Nitrate-nitrite as nitrogen	1,630			100		µg/L	WA	EPAS2608
0	Phenol	<10.2			10.2		µg/L	WA	EPAS2608
0	Propionitrile	<5.00			5.00		µg/L	WA	EPAS2608
0	Selenium, total recoverable	<66.0			66.0		µg/L	WA	EPAS2608
0	Silver, total recoverable	4.310			5.00		µg/L	WA	EPAS2608
0	Sodium, total recoverable	<5.00			5.00		µg/L	WA	EPAS2608
0	Styrene	1.400			340		µg/L	WA	EPAS2608
0	Sulfate	<5.00			5.00		µg/L	WA	EPAS2608
0	1,1,1,2-Tetrachloroethane	<5.00			5.00		µg/L	WA	EPAS2608
0	1,1,2,2-Tetrachloroethane	<5.00			5.00		µg/L	WA	EPAS2608
0	Toluene	<5.00			5.00		µg/L	WA	EPAS2608
0	Total organic carbon	371			1,000		µg/L	WA	EPAS2608
0	Total organic halogens	<120			67.0		µg/L	WA	EPAS2608
0	Total phosphates (as P)	<5.00			5.00		µg/L	WA	EPAS2608
0	1,1,1-Trichloroethane	<5.00			5.00		µg/L	WA	EPAS2608
0	1,1,2-Trichloroethane	24.9			5.00		µg/L	WA	EPAS2608
0	Trichloroethylene	<5.00			5.00		µg/L	WA	EPAS2608
0	Trichloroethane	<5.00			5.00		µg/L	WA	EPAS2608
0	1,2,3-Trichloropropane	<10.0			10.0		µg/L	WA	EPAS2608
0	Vinyl acetate	<5.00			5.00		µg/L	WA	EPAS2608
0	Xylenes	<5.00			5.00		µg/L	WA	EPAS2608
0	Gross alpha	7.28E-09			5.40E-10		µCi/mL	TM	EPAS2608
0	Gross beta	2.60E-09			1.13E-09		µCi/mL	TM	EPAS2608
0	Nonvolatile beta	5.13E-09			9.90E-10		µCi/mL	TM	EPAS2608
1	Radium, total alpha-emitting	3.81E-09			9.80E-10		µCi/mL	TM	EPAS2608

## WELL AMB 5

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/16/99  
 Depth to water: 148.16 ft (45.16 m) below TOC  
 Water elevation: 231.44 ft (70.54 m) msl  
 pH: 5.1  
 Sp. conductance: 44 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 30 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQ	Unit	Lab	Method
0	Acetone	<10.0			10.0		µg/L	WA	EPAS2608
0	Acetonitrile (Methyl cyanide)	<20.0			20.0		µg/L	WA	EPAS2608
0	Acrolein	<5.00			5.00		µg/L	WA	EPAS2608
0	Acrylonitrile	<10.0			10.0		µg/L	WA	EPAS2608

## B-12

First Quarter 1999

Time: 14:45

Water temperature: 19.2°C

Air temperature: 23°C

Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L

Phenolphthalein alkalinity: 0 mg/L

Field Qualifier(s): S



## ANALYTICAL RESULTS

Well AMB 5 collected on 03/18/99 (cont.)

## WELL AMB 6

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/11/99  
 Depth to water: 145.55 ft (44.36 m) below TOC  
 Water elevation: 231.65 ft (70.61 m) msl  
 pH: 5.4  
 Sp. conductance: 33 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 20 gal

Time: 9:40  
 Water temperature: 19.1°C  
 Air temperature: 9.5°C  
 Total alkalinity (as CaCO<sub>3</sub>): 4 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Allyl chloride	<10.0	U			10.0	µg/L	WA	EPAS260B
2	Aluminum, total recoverable	106	U			146	µg/L	WA	EPAS260B
0	Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPAS260B
0	Barium, total recoverable	6.70	U			1.80	µg/L	WA	EPAS260B
0	Benzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Bromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Bromomethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Carbon disulfide	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Chlorobenzene	2.850	U			210	µg/L	WA	EPAS260B
0	Chloroethane	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Chloroform	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Chloromethane	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Chloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Chromium, total recoverable	<0.920	U			7.00	µg/L	WA	EPAS260B
0	Cyanide	<15.2	U			15.2	µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,2-Dibromo-3-chloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Dibromomethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	trans-1,4-Dichloro-2-butene	<20.0	U			20.0	µg/L	WA	EPAS260B
0	Dichlorodifluoromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,1-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Diethylbenzene	<19.5	U			15.2	µg/L	WA	EPAS260B
0	Fluoride	<10.0	U			10.0	µg/L	WA	EPAS260B
0	2-Hexanone	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Iodomethane (Methyl iodide)	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Iron, total recoverable	128	U			74.0	µg/L	WA	EPAS260B
0	Isobutyl alcohol	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Lead, total recoverable	<47.0	U			47.0	µg/L	WA	EPAS260B
0	Lindane	<0.0510	U			0.0510	µg/L	WA	EPAS260B
0	Manganese, total recoverable	8.70	U			7.80	µg/L	WA	EPAS260B
0	Mercury, total recoverable	<0.450	U			0.450	µg/L	WA	EPAS260B
0	Methacrylonitrile	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Methyl isobutyl ketone	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Nickel, total recoverable	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Nitrate-nitrite as nitrogen	<26.0	U			26.0	µg/L	WA	EPAS260B
0	Phenol	1.700	U			10.0	µg/L	WA	EPAS260B
0	Propionitrile	<10.2	U			10.2	µg/L	WA	EPAS260B
0	Selenium, total recoverable	<66.0	U			66.0	µg/L	WA	EPAS260B
0	Silver, total recoverable	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Sodium, total recoverable	7.280	U			285	µg/L	WA	EPAS260B
0	Styrene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Sulfate	4.570	U			340	µg/L	WA	EPAS260B
0	1,1,1,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Tetrachloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Toluene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Total organic carbon	1.300	U			2.000	µg/L	WA	EPAS260B
0	Total organic halogens	12.5	U			67.0	µg/L	WA	EPAS260B
0	Total phosphates (as P)	<6.0	U			5.00	µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Trichloroethylene	18.2	U			5.00	µg/L	WA	EPAS260B
0	Trichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,2,3-Trichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Vinyl acetate	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Gross alpha	4.61E-09±0.80E-10	U			6.00E-10	µCi/mL	TM	EPAS260B
0	Nonvolatile beta	1.56E-09±7.80E-10	U			1.23E-09	µCi/mL	TM	EPAS260B
0	Radium, total alpha-emitting	2.15E-09±1.01E-09	U			9.70E-10	µCi/mL	TM	EPAS260B

ESH-EMS-990520

B-13

First Quarter 1999



## ANALYTICAL RESULTS

Well AMB 6 collected on 03/11/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Total organic carbon	1,360				1,000	µg/L	WA	EPA8060
0 Total organic carbon	1,480				1,000	µg/L	WA	EPA8060
0 Total organic carbon	<120				120	µg/L	WA	EPA8060
0 Total organic carbon	9.66				67.0	µg/L	WA	EPA8060
0 Total organic carbon	<5.00				5.00	µg/L	WA	EPA8060
0 1,1,1-Trichloroethane	<5.00				5.00	µg/L	WA	EPA8060
0 1,1,2-Trichloroethane	<5.00				5.00	µg/L	WA	EPA8060
0 Trichloroethylene	<5.00				5.00	µg/L	WA	EPA8060
0 Trichlorofluoromethane	<5.00				5.00	µg/L	WA	EPA8060
0 1,2,3-Trichloropropane	<5.00				5.00	µg/L	WA	EPA8060
0 Vinyl acetate	<5.00				5.00	µg/L	WA	EPA8060
0 Xylenes	2,08E-09±7.60E-10				7.30E-10	µCi/mL	WA	EPA8060
0 Gross alpha	9.30E-10±1.07E-09				1.80E-09	µCi/mL	WA	EPA8060
0 Nonradioactive beta	8.90E-10±7.50E-10				1.07E-09	µCi/mL	WA	EPA8060
0 Radium, total alpha-emitting	2.50E-10±6.00E-10				1.14E-09	µCi/mL	WA	EPA8060

## WELL AMB 7

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/08/99  
 Depth to water: 138.06 ft (42.08 m) below TOC  
 Water elevation: Not available  
 pH: 5.8  
 Sp. conductivity: 51 µS/cm  
 Turbidity: 13.2 NTU  
 Water evacuated from the well prior to sampling: 10 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Acetone	<10.0				10.0	µg/L	WA	EPA8260B
0 Acetonitrile (Methyl cyanide)	<20.0				20.0	µg/L	WA	EPA8260B
0 Acrolein	<20.0				20.0	µg/L	WA	EPA8260B
0 Acrylonitrile	<5.00				5.00	µg/L	WA	EPA8260B
0 Allyl chloride	<10.0				10.0	µg/L	WA	EPA8260B
2 Aluminum, total recoverable	189				189	µg/L	WA	EPA8260B
0 Arsenic, total recoverable	<5.00				5.00	µg/L	WA	EPA8260B
0 Barium, total recoverable	<5.00				5.00	µg/L	WA	EPA8260B
0 Benzene	<5.00				5.00	µg/L	WA	EPA8260B
0 Bromochloromethane	<5.00				5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00				5.00	µg/L	WA	EPA8260B
0 Bromomethane	<5.00				5.00	µg/L	WA	EPA8260B
0 Carbon disulfide	<5.00				5.00	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00				5.00	µg/L	WA	EPA8260B
0 Chloride	2,300				210	µg/L	WA	EPA8056
0 Chlorobenzene	<5.00				5.00	µg/L	WA	EPA8260B
0 Chloroethane	<10.0				10.0	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0				10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00				5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0				10.0	µg/L	WA	EPA8260B
0 Chloroprene	<5.00				5.00	µg/L	WA	EPA8260B
0 Chromium, total recoverable	<5.00				5.00	µg/L	WA	EPA8260B
0 Cyanide	2.41				15.2	µg/L	WA	EPA8014
0 Dibromochloromethane	<5.00				5.00	µg/L	WA	EPA8260B
0 1,2-Dibromo-3-chloropropane	<5.00				5.00	µg/L	WA	EPA8260B
0 1,2-Dibromodichloromethane	<5.00				5.00	µg/L	WA	EPA8260B
0 1,2-Dibromodichloroethane	<5.00				5.00	µg/L	WA	EPA8260B
0 Dichlorodibromomethane	<5.00				5.00	µg/L	WA	EPA8260B
0 Dichlorodibromopropane	<5.00				5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00				5.00	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00				5.00	µg/L	WA	EPA8260B
0 cis-1,2-Dichloroethane	<5.00				5.00	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethane	<5.00				5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<5.00				5.00	µg/L	WA	EPA8260B
0 2,4-Dichlorophenoxyacetic acid	<1.02				1.02	µg/L	WA	EPA8151A
0 2,4-Dichlorophenoxyacetic acid	<2.04				2.04	µg/L	WA	EPA8151A
0 1,2-Dichloropropane	<5.00				5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00				5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00				5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00				5.00	µg/L	WA	EPA8260B
0 Fluoride	<34.2				40.0	µg/L	WA	EPA8260B
0 2-Hexanone	<10.0				10.0	µg/L	WA	EPA8260B
0 Iodomethane (Methyl iodide)	<5.00				5.00	µg/L	WA	EPA8260B

## ESH-EMS-990520

B-14

Well AMB 7 collected on 02/08/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Iron, total recoverable	568				74.0	µg/L	WA	EPA8010B
0 Isobutyl alcohol	<100				100	µg/L	WA	EPA8260B
0 Lead, total recoverable	9.40				47.0	µg/L	WA	EPA8010B
0 Lindane	<0.0525				0.0525	µg/L	WA	EPA8010B
0 Manganese, total recoverable	4.40				7.80	µg/L	WA	EPA8010B
0 Mercury, total recoverable	<0.450				0.450	µg/L	WA	EPA8010B
0 Methacrylonitrile	<10.0				10.0	µg/L	WA	EPA8260B
0 Methyl ethyl ketone	<10.0				10.0	µg/L	WA	EPA8260B
0 Methyl isobutyl ketone	<10.0				10.0	µg/L	WA	EPA8260B
0 Nickel, total recoverable	3.80				26.0	µg/L	WA	EPA8010B
0 Nitrate-nitrite as nitrogen	357				20.0	µg/L	WA	EPA8260B
0 Phenol	<10.6				10.6	µg/L	WA	EPA8260B
0 Propionitrile	<20.0				20.0	µg/L	WA	EPA8260B
0 Silica, total recoverable	68.0				68.0	µg/L	WA	EPA8010B
0 Silver, total recoverable	<1.30				1.30	µg/L	WA	EPA8010B
0 Sodium, total recoverable	9,230				285	µg/L	WA	EPA8010B
0 Styrene	<5.00				5.00	µg/L	WA	EPA8260B
0 Sulfate	3,800				340	µg/L	WA	EPA8056
0 1,1,1,2-Tetrachloroethane	<5.00				5.00	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00				5.00	µg/L	WA	EPA8260B
0 Tetrachloroethylene	<5.00				5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00				5.00	µg/L	WA	EPA8260B
0 Total organic carbon	686				1,000	µg/L	WA	EPA8060
0 Total organic halogens	<120				120	µg/L	WA	EPA8060
0 Total phosphates (as P)	42.8				67.0	µg/L	WA	EPA8060
0 Total phosphates (as P)	46.2				67.0	µg/L	WA	EPA8060
0 1,1,1-Trichloroethane	<5.00				5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00				5.00	µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00				5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00				5.00	µg/L	WA	EPA8260B
0 1,2,3-Trichloropropane	<10.0				10.0	µg/L	WA	EPA8260B
0 Vinyl acetate	<5.00				5.00	µg/L	WA	EPA8260B
0 Gross alpha	2,11E-09±7.80E-10				2.30E-10	µCi/mL	WA	EPA8000M
0 Gross alpha	1,57E-09±4.90E-10				2.30E-10	µCi/mL	WA	EPA8000M
0 Nonradioactive beta	9.00E-11±3.30E-10				2.50E-10	µCi/mL	WA	EPA8000M
0 Nonradioactive beta	7.10E-10±3.80E-10				2.50E-10	µCi/mL	WA	EPA8000M
0 Radium, total alpha-emitting	1.30E-10±3.80E-10				8.20E-10	µCi/mL	WA	EPA8000M

## WELL AMB 7A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/11/99  
 Depth to water: 154.55 ft (47.11 m) below TOC  
 Water elevation: 219.05 ft (66.77 m) msl  
 pH: 5.2  
 Sp. conductivity: 27 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 180 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Acetone	<10.0				10.0	µg/L	WA	EPA8260B
0 Acetonitrile (Methyl cyanide)	<20.0				20.0	µg/L	WA	EPA8260B
0 Acrolein	<20.0				20.0	µg/L	WA	EPA8260B
0 Acrylonitrile	<5.00				5.00	µg/L	WA	EPA8260B
0 Allyl chloride	<10.0				10.0	µg/L	WA	EPA8260B
0 Aluminum, total recoverable	18.4				146	µg/L	WA	EPA8010B
0 Arsenic, total recoverable	<40.0				40.0	µg/L	WA	EPA8010B
0 Barium, total recoverable	4.60				1.80	µg/L	WA	EPA8010B
0 Benzene	<5.00				5.00	µg/L	WA	EPA8260B
0 Bromochloromethane	<5.00				5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00				5.00	µg/L	WA	EPA8260B
0 Bromomethane	<5.00				5.00	µg/L	WA	EPA8260B
0 Carbon disulfide	<5.00				5.00	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00				5.00	µg/L	WA	EPA8260B
0 Chloride	1,740				210	µg/L	WA	EPA8056
0 Chlorobenzene	<5.00				5.00	µg/L	WA	EPA8260B
0 Chloroethane	<10.0				10.0	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0				10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00				5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0				10.0	µg/L	WA	EPA8260B
0 Chloroprene	<5.00				5.00	µg/L	WA	EPA8260B
0 Chromium, total recoverable	<7.00				7.00	µg/L	WA	EPA8010B

First Quarter 1999



Well AMB 7A collected on 03/11/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
Cyanide	<15.2	U			15.2	µg/L	WA	EPA8014
Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
1,2-Dibromo-3-chloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
1,2-Dibromomethane	<5.00	U			5.00	µg/L	WA	EPA8260B
Dibromomethane	<5.00	U			5.00	µg/L	WA	EPA8260B
trans-1,4-Dichloro-2-butene	<20.0	U			20.0	µg/L	WA	EPA8260B
Dichlorodifluoromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
1,1-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
cis-1,2-Dichloroethylene	3.80	U	I		25.0	µg/L	WA	EPA8260B
trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
1,2-Dichloropropane	<10.0	U			10.0	µg/L	WA	EPA8151A
cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
Ethylbenzene	<5.00	U	Y		5.00	µg/L	WA	EPA8260B
Fluorobenzene	<23.5	U			40.0	µg/L	WA	EPA340.2
Hexanone	<10.0	U			10.0	µg/L	WA	EPA8260B
Iodomethane (Methyl iodide)	<5.00	U			5.00	µg/L	WA	EPA8260B
Iron, total recoverable	<74.0	U			74.0	µg/L	WA	EPA6010B
Isobutyl alcohol	<10.0	U			10.0	µg/L	WA	EPA8260B
Lead, total recoverable	<43.0	U			43.0	µg/L	WA	EPA8260B
Manganese, total recoverable	<0.0510	U			0.0510	µg/L	WA	EPA8081A
Mercury, total recoverable	5.00	U	I		7.80	µg/L	WA	EPA8010B
Methylacetylonitrile	<0.450	U			0.450	µg/L	WA	EPA7470A
Methyl ethyl ketone	<10.0	U			10.0	µg/L	WA	EPA8260B
Methyl isobutyl ketone	<10.0	U			10.0	µg/L	WA	EPA8260B
Nickel, total recoverable	<26.0	U			26.0	µg/L	WA	EPA6010B
Nitrate-nitrite as nitrogen	872	U			28.0	µg/L	WA	EPA353.2
Phenol	<10.2	U			10.2	µg/L	WA	EPA8270C
Propionitrile	<50.0	U			50.0	µg/L	WA	EPA8260B
Selenium, total recoverable	<86.0	U			86.0	µg/L	WA	EPA6010B
Silver, total recoverable	<5.00	U			5.00	µg/L	WA	EPA6010B
Sodium, total recoverable	<1,700	U			565	µg/L	WA	EPA8260B
Styrene	5.47	U			340	µg/L	WA	EPA8260B
1,1,1,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
Tetrachloroethylene	34.5	U			5.00	µg/L	WA	EPA8260B
Toluene	<5.00	U			1,000	µg/L	WA	EPA9060
Total organic carbon	1,080	U	I		120	µg/L	WA	EPA9020B
Total organic halogens	105	U	I		67.0	µg/L	WA	EPA385.2
Total phosphates (as P)	7.97	U			5.00	µg/L	WA	EPA8260B
1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
Trichloroethylene	102	U			5.00	µg/L	WA	EPA8260B
Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
2,3,5-Trichloropropene	<10.0	U			10.0	µg/L	WA	EPA8260B
Vinyl acetate	<5.00	U			5.00	µg/L	WA	EPA8260B
Xylenes	9.50E-10±5.70E-10	U	I		7.20E-10	µg/L	TM	EPA8260B
Gross alpha	1.40E-10±1.03E-09	U			1.79E-09	µCi/mL	TM	EPA900.0M
Nonvolatiles beta	4.49E-10±6.50E-10	U			1.13E-09	µCi/mL	TM	EPA903.0M
Radium, total alpha-emitting		U						

Time: 11:16  
Water temperature: 19.7°C  
Air temperature: 11.8°C  
Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): S

**WELL AMB 7B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/11/99  
Depth to water: 148.7 ft (45.32 m) below TOC  
Water elevation: 224.3 ft (68.37 m) msl  
pH: 4.7  
Sp. conductance: 25 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 159 gal

## ANALYSES

F	Analyte	Result	FG	\$	EMS	SQL	Unit	Lab	Method
0	Acetone	<10.0	U			10.0	µg/L	EX	EPA8260B
0	Acetone	<10.0	U			100	µg/L	WA	EPA8260B
0	Acetonitrile (Methyl cyanide)	<500	U			500	µg/L	EX	EPA8260B
0	Acetonitrile (Methyl cyanide)	<500	U			500	µg/L	WA	EPA8260B
0	Acrolein	<20.0	U			20.0	µg/L	EX	EPA8260B

**ESH-EMS-990520**

**B-15**



## ANALYTICAL RESULTS

Well AMB 7B collected on 03/11/99 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Ethylbenzene	<5.00				5.00	µg/L	EX	EPA8260B
0	Ethylbenzene	<5.00				5.00	µg/L	EX	EPA8260B
0	Fluoride	<2.5				200	µg/L	WA	EPA300.0
0	Fluoride	<2.5				40.0	µg/L	WA	EPA340.2
0	Fluoride	<5.00				5.00	µg/L	WA	EPA8260B
0	Hexanone	<10.0				10.0	µg/L	WA	EPA8260B
0	Iodomethane (Methyl iodide)	<5.00				5.00	µg/L	EX	EPA8260B
0	Iodomethane (Methyl iodide)	<5.00				5.00	µg/L	WA	EPA8260B
0	Iron, total recoverable	12.6				200	µg/L	EX	EPA8260B
0	Iron, total recoverable	18.8				74.0	µg/L	EX	EPA8260B
0	Isobutyl alcohol	<1.00				100	µg/L	WA	EPA8260B
0	Lead, total recoverable	<100				47.0	µg/L	EX	EPA8260B
0	Lead, total recoverable	<47.0				10.0	µg/L	EX	EPA8260B
0	Lindane	<0.100				0.0510	µg/L	EX	EPA8260B
0	Lindane	<0.0510				10.0	µg/L	EX	EPA8260B
0	Manganese, total recoverable	1.90				7.80	µg/L	EX	EPA8260B
0	Manganese, total recoverable	0.190				0.350	µg/L	EX	EPA8260B
0	Mercury, total recoverable	<0.190				500	µg/L	EX	EPA8260B
0	Mercury, total recoverable	<0.190				500	µg/L	EX	EPA8260B
0	Methacrylonitrile	<10.0				10.0	µg/L	EX	EPA8260B
0	Methyl ethyl ketone	<10.0				10.0	µg/L	EX	EPA8260B
0	Methyl isobutyl ketone	<5.00				5.00	µg/L	EX	EPA8260B
0	Methyl isobutyl ketone	<5.00				5.00	µg/L	EX	EPA8260B
0	Nickel, total recoverable	<50.0				50.0	µg/L	EX	EPA8260B
0	Nickel, total recoverable	<50.0				50.0	µg/L	EX	EPA8260B
0	Nitrate-nitrite as nitrogen	778				500	µg/L	EX	EPA300.0
0	Nitrate-nitrite as nitrogen	620				200	µg/L	EX	EPA353.2
0	Pentachloroethane	<200				200	µg/L	EX	EPA8260B
0	Phenol	<10.0				10.0	µg/L	EX	EPA8260B
0	Phenol	<10.0				10.0	µg/L	EX	EPA8260B
0	Propionitrile	<50.0				50.0	µg/L	EX	EPA8260B
0	Selenium, total recoverable	<50.0				50.0	µg/L	EX	EPA8260B
0	Selenium, total recoverable	<50.0				50.0	µg/L	EX	EPA8260B
0	Silver, total recoverable	<20.0				20.0	µg/L	EX	EPA8260B
0	Silver, total recoverable	<20.0				20.0	µg/L	EX	EPA8260B
0	Sodium, total recoverable	3.890				1.000	µg/L	EX	EPA8260B
0	Sodium, total recoverable	3.320				285	µg/L	EX	EPA8260B
0	Sulfate	<5.00				5.00	µg/L	EX	EPA8260B
0	Sulfate	<5.00				5.00	µg/L	EX	EPA8260B
0	Sulfate	767				400	µg/L	EX	EPA300.0
0	Sulfate	895				340	µg/L	EX	EPA905.6
0	1,1,1,2-Tetrachloroethane	<5.00				5.00	µg/L	EX	EPA8260B
0	1,1,1,2-Tetrachloroethane	<5.00				5.00	µg/L	EX	EPA8260B
0	1,1,2,2-Tetrachloroethane	<5.00				5.00	µg/L	EX	EPA8260B
0	1,1,2,2-Tetrachloroethane	<5.00				5.00	µg/L	EX	EPA8260B
0	Tetrachloroethylene	<5.00				5.00	µg/L	EX	EPA8260B
0	Toluene	<5.00				5.00	µg/L	EX	EPA8260B
0	Toluene	<5.00				5.00	µg/L	EX	EPA8260B
0	Total organic carbon	6.100				5.000	µg/L	EX	EPA8260B
0	Total organic carbon	1.140				1.000	µg/L	EX	EPA8260B
0	Total organic carbon	<120				120	µg/L	EX	EPA8260B
0	Total organic carbon	<120				120	µg/L	EX	EPA8260B
0	Total phosphates (as P)	<2.500				2.500	µg/L	EX	EPA365.2
0	Total phosphates (as P)	16.4				67.0	µg/L	EX	EPA365.2
0	1,1,1-Trichloroethane	<5.00				5.00	µg/L	EX	EPA8260B
0	1,1,1-Trichloroethane	<5.00				5.00	µg/L	EX	EPA8260B
0	1,1,2-Trichloroethane	<5.00				5.00	µg/L	EX	EPA8260B
0	1,1,2-Trichloroethane	<5.00				5.00	µg/L	EX	EPA8260B
2	Trichloroethylene	6.25				5.00	µg/L	EX	EPA8260B
0	Trichloroethylene	5.97				5.00	µg/L	EX	EPA8260B
0	Trichlorofluoromethane	<5.00				5.00	µg/L	EX	EPA8260B
0	Trichlorofluoromethane	<5.00				5.00	µg/L	EX	EPA8260B
0	1,2,3-Trichloropropane	<5.00				5.00	µg/L	EX	EPA8260B
0	1,2,3-Trichloropropane	<5.00				5.00	µg/L	EX	EPA8260B
0	Vinyl acetate	<40.0				10.0	µg/L	EX	EPA8260B
0	Xylenes	<10.0				10.0	µg/L	EX	EPA8260B
0	Xylenes	<10.0				10.0	µg/L	EX	EPA8260B
0	Gross alpha	3.98E-10+3.30E-10				5.59E-10	µCi/mL	GP	EPA-001
0	Gross alpha	4.05E-10+3.38E-10				5.84E-10	µCi/mL	GP	EPA-001
0	Gross alpha	1.70E-09+7.00E-10				7.20E-10	µCi/mL	TM	EPA900.0M

ESH-EMS-990520

B-16

Well AMB 7B collected on 03/11/99 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Nonvolatile beta	6.62E-10+5.40E-10				1.10E-09	µCi/mL	GP	EPA-001
0	Nonvolatile beta	2.36E-10+5.33E-10				1.15E-09	µCi/mL	GP	EPA-001
0	Nonvolatile beta	9.00E-11+1.01E-09				1.79E-09	µCi/mL	TM	EPA900.0M
0	Radium, total alpha-emitting	2.00E-10+5.00E-10				8.74E-10	µCi/mL	GP	EPA-010
0	Radium, total alpha-emitting	2.00E-10+5.00E-10				8.72E-10	µCi/mL	GP	EPA-010
0	Radium, total alpha-emitting	3.50E-10+6.40E-10				1.14E-09	µCi/mL	TM	EPA900.0M

## WELL AMB 7B Replicate

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/11/99

Depth to water: 148.7 ft (45.32 m) below TOC

Water elevation: 224.3 ft (68.37 m) msl

pH: 4.7

Sp. conductance: 25 µS/cm

Turbidity: 0 NTU

Water evacuated from the well prior to sampling: 159 gal

Time: 11:16

Air temperature: 11.8°C

Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L

Phenolphthalein alkalinity: 0 mg/L

Field Qualifier(s): S

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Acetone	<10.0				10.0	µg/L	WA	EPA8260B
0	Acetonitrile (Methyl cyanide)	<20.0				20.0	µg/L	WA	EPA8260B
0	Acrolein	<20.0				20.0	µg/L	WA	EPA8260B
0	Acrylonitrile	<5.00				5.00	µg/L	WA	EPA8260B
0	Allyl chloride	<10.0				10.0	µg/L	WA	EPA8260B
0	Aluminum, total recoverable	22.5				146	µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0				40.0	µg/L	WA	EPA6010B
0	Barium, total recoverable	2.60				1.80	µg/L	WA	EPA6010B
0	Benzene	<5.00				5.00	µg/L	WA	EPA8260B
0	Bromodichloromethane	<5.00				5.00	µg/L	WA	EPA8260B
0	Bromomethane	<5.00				5.00	µg/L	WA	EPA8260B
0	Carbon disulfide	<10.0				10.0	µg/L	WA	EPA8260B
0	Carbon tetrachloride	<5.00				5.00	µg/L	WA	EPA8260B
0	Chloride	2.870				21.00	µg/L	WA	EPA8260B
0	Chlorobenzene	<10.0				10.0	µg/L	WA	EPA8260B
0	Chloroethane (Vinyl chloride)	<10.0				10.0	µg/L	WA	EPA8260B
0	Chloroethane	<5.00				5.00	µg/L	WA	EPA8260B
0	Chloroform	<10.0				10.0	µg/L	WA	EPA8260B
0	Chloromethane	<5.00				5.00	µg/L	WA	EPA8260B
0	Chloroprene	<5.00				5.00	µg/L	WA	EPA8260B
0	Chromium, total recoverable	<15.2				15.2	µg/L	WA	EPA901.4
0	Cyanide	<5.00				5.00	µg/L	WA	EPA8260B
0	Dibromochloromethane	<5.00				5.00	µg/L	WA	EPA8260B
0	1,2-Dibromo-3-chloropropane	<5.00				5.00	µg/L	WA	EPA8260B
0	1,2-Dibromomethane	<5.00				5.00	µg/L	WA	EPA8260B
0	Dibromomethane	<5.00				5.00	µg/L	WA	EPA8260B
0	trans-1,4-Dichloro-2-butene	<20.0				20.0	µg/L	WA	EPA8260B
0	Dichlorodifluoromethane	<10.0				10.0	µg/L	WA	EPA8260B
0	1,1-Dichloroethane	<5.00				5.00	µg/L	WA	EPA8260B
0	1,2-Dichloroethane	<5.00				5.00	µg/L	WA	EPA8260B
0	1,1-Dichloroethylene	<5.00				5.00	µg/L	WA	EPA8260B
0	trans-1,2-Dichloroethylene	<5.00				5.00	µg/L	WA	EPA8260B
0	Dichloromethane	<5.00				5.00	µg/L	WA	EPA8260B
0	1,2-Dichloropropane	<5.00				5.00	µg/L	WA	EPA8260B
0	1,2-Dichloropropane	<5.00				5.00	µg/L	WA	EPA8260B
0	cis-1,3-Dichloropropane	<5.00				5.00	µg/L	WA	EPA8260B
0	trans-1,3-Dichloropropane	<5.00				5.00	µg/L	WA	EPA8260B
0	Ethylbenzene	<22.1				40.0	µg/L	WA	EPA8260B
0	Fluoride	<10.0				10.0	µg/L	WA	EPA340.2
0	Iodomethane (Methyl iodide)	<5.00				5.00	µg/L	WA	EPA8260B
0	Iron, total recoverable	<16.0				74.0	µg/L	WA	EPA8260B
0	Isobutyl alcohol	<100				100	µg/L	WA	EPA8260B
0	Lead, total recoverable	<47.0				47.0	µg/L	WA	EPA8260B
0	Lindane	<0.0510				0.0510	µg/L	WA	EPA8260B
0	Manganese, total recoverable	2.20				7.80	µg/L	WA	EPA8260B
0	Mercury, total recoverable	<0.450				0.450	µg/L	WA	EPA8260B
0	Methacrylonitrile	<10.0				10.0	µg/L	WA	EPA8260B
0	Methyl ethyl ketone	<10.0				10.0	µg/L	WA	EPA8260B
0	Methyl isobutyl ketone	<10.0				10.0	µg/L	WA	EPA8260B
0	Nickel, total recoverable	<26.0				26.0	µg/L	WA	EPA8260B
0	Nitrate-nitrite as nitrogen	616				20.0	µg/L	WA	EPA8260B
0	Phenol	<10.2				10.2	µg/L	WA	EPA8260B

First Quarter 1999



## ANALYTICAL RESULTS

Well AMB 7B collected on 03/11/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Propionitrile	<5.00	U		50.0		µg/L	WA	EPAS260B
0 Silver, total recoverable	<68.0	U		66.0		µg/L	WA	EPAS260B
0 Silver, total recoverable	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Sodium, total recoverable	3.340	U		285		µg/L	WA	EPAS260B
0 Styrene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Sulfate	895			340		µg/L	WA	EPAS260B
0 1,1,1,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Toluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Total organic carbon	1.260			1.000		µg/L	WA	EPAS260B
0 Total organic halogens	<120	U		120		µg/L	WA	EPAS260B
0 Total phosphates (as P)	21.5			67.0		µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 1,2,3-Trichloropropane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Vinyl acetate	<10.0	U		10.0		µg/L	WA	EPAS260B
0 Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Gross alpha	4.90E-10±4.90E-10	U		7.70E-10		µCi/mL	TM	EPAS260B
0 Nonvolatile beta	5.25E-09±1.36E-09	U		1.99E-09		µCi/mL	TM	EPAS260B
0 Radium, total alpha-emitting	6.90E-10±7.80E-10	U		1.21E-09		µCi/mL	TM	EPAS260B

## WELL AMB 8D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/05/99  
 Depth to water: 136.56 ft (42.23 m) below TOC  
 Water elevation: 231.04 ft (70.42 m) msl  
 pH: 5.8  
 Sp. conductance: 29 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 127 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Acetone	<10.0	U		10.0		µg/L	WA	EPAS260B
0 Acetonitrile (Methyl cyanide)	<20.0	U		20.0		µg/L	WA	EPAS260B
0 Acrolein	<20.0	U		20.0		µg/L	WA	EPAS260B
0 Acrylonitrile	<10.0	U		10.0		µg/L	WA	EPAS260B
0 Allyl chloride	<10.0	U		10.0		µg/L	WA	EPAS260B
0 Aluminum, total recoverable	55.0	U		146		µg/L	WA	EPAS260B
0 Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EPAS260B
0 Barium, total recoverable	3.60	U		5.00		µg/L	WA	EPAS260B
0 Benzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Bromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Bromoform	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Bromomethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Carbon disulfide	<10.0	U		10.0		µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Chloride	2.300			210		µg/L	WA	EPAS260B
0 Chloride	2.340			210		µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPAS260B
0 Chloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Chloroethane	<10.0	U		10.0		µg/L	WA	EPAS260B
0 Chloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Chloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Chromium, total recoverable	1.54	U		7.00		µg/L	WA	EPAS260B
0 Cyanide	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 1,2-Dibromo-3-chloropropane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 1,2-Dibromomethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Dibromomethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 trans-1,4-Dichloro-2-butene	<20.0	U		20.0		µg/L	WA	EPAS260B
0 Dichlorodifluoromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 cis-1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Dichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 2,4-Dichlorophenoxyacetic acid	<10.0	U		10.0		µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPAS260B

## ESH-EMS-990520

Well AMB 8D collected on 02/05/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Ethylbenzene	<32.0	U		40.0		µg/L	WA	EPAS260B
0 Fluoride	<10.0	U		10.0		µg/L	WA	EPAS260B
0 2-Hexanone	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Iodomethane (Methyl iodide)	<53.8	U		74.0		µg/L	WA	EPAS260B
0 Iron, total recoverable	<100	U		100		µg/L	WA	EPAS260B
0 Isobutyl alcohol	<47.0	U		47.0		µg/L	WA	EPAS260B
0 Lead, total recoverable	<0.0525	U		0.0525		µg/L	WA	EPAS260B
0 Lindane	<0.106	U		0.106		µg/L	WA	EPAS260B
0 Manganese, total recoverable	1.40	U		7.80		µg/L	WA	EPAS260B
0 Mercury, total recoverable	<0.450	U		0.450		µg/L	WA	EPAS260B
0 Methylcyclopentadiene	<10.0	U		10.0		µg/L	WA	EPAS260B
0 Methyl ethyl ketone	<10.0	U		10.0		µg/L	WA	EPAS260B
0 Methyl isobutyl ketone	<10.0	U		10.0		µg/L	WA	EPAS260B
0 Nickel, total recoverable	<26.0	U		26.0		µg/L	WA	EPAS260B
0 Nitrate-nitrite as nitrogen	700			20.0		µg/L	WA	EPAS260B
0 Phenol	<10.2	U		10.2		µg/L	WA	EPAS260B
0 Propionitrile	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Selenium, total recoverable	<66.0	U		66.0		µg/L	WA	EPAS260B
0 Silver, total recoverable	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Sodium, total recoverable	4.070	U		285		µg/L	WA	EPAS260B
0 Styrene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Sulfate	1.500			340		µg/L	WA	EPAS260B
0 1,1,1,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Toluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Total organic carbon	<10.0	U		10.0		µg/L	WA	EPAS260B
0 Total organic halogens	<26.0	U		26.0		µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0 1,2,3-Trichloropropane	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Vinyl acetate	<10.0	U		10.0		µg/L	WA	EPAS260B
0 Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B
0 Gross alpha	6.02E-09±1.29E-09	U		9.00E-10		µCi/mL	TM	EPAS260B
0 Gross alpha	4.54E-09±1.29E-09	U		1.38E-09		µCi/mL	TM	EPAS260B
0 Nonvolatile beta	2.72E-09±1.00E-09	U		1.48E-09		µCi/mL	TM	EPAS260B
0 Nonvolatile beta	4.03E-09±9.80E-10	U		1.28E-09		µCi/mL	TM	EPAS260B
0 Radium, total alpha-emitting	2.34E-09±1.04E-09	U		7.90E-10		µCi/mL	TM	EPAS260B
0 Radium, total alpha-emitting	1.66E-09±8.90E-10	U		7.80E-10		µCi/mL	TM	EPAS260B

Time: 9:20  
 Water temperature: 17.9°C  
 Air temperature: 6.8°C  
 Total alkalinity (as CaCO<sub>3</sub>): 29 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

## WELL AMB 9D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/05/99  
 Depth to water: 136.78 ft (41.69 m) below TOC  
 Water elevation: 231.12 ft (70.45 m) msl  
 pH: 5.8  
 Sp. conductance: 42 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 125 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Hexachlorodibenzo-p-dioxins	<5.20	U		5.20		ng/L	WA	EPAS280A
0 Hexachlorodibenzo-p-dioxins	<10.0	U		10.0		ng/L	WA	EPAS280A
0 Hexachlorodibenzo-p-furans	<5.20	U		5.20		ng/L	WA	EPAS280A
0 Hexachlorodibenzo-p-furans	<10.0	U		10.0		ng/L	WA	EPAS280A
0 Pentachlorodibenzo-p-dioxins	<5.20	U		5.20		ng/L	WA	EPAS280A
0 Pentachlorodibenzo-p-dioxins	<10.0	U		10.0		ng/L	WA	EPAS280A
0 Pentachlorodibenzo-p-furans	<5.20	U		5.20		ng/L	WA	EPAS280A
0 Pentachlorodibenzo-p-furans	<10.0	U		10.0		ng/L	WA	EPAS280A
0 2,3,7,8-TCDD	<5.20	U		5.20		ng/L	WA	EPAS280A
0 2,3,7,8-TCDD	<10.0	U		10.0		ng/L	WA	EPAS280A
0 Tetrachlorodibenzo-p-dioxins	<5.20	U		5.20		ng/L	WA	EPAS280A
0 Tetrachlorodibenzo-p-dioxins	<10.0	U		10.0		ng/L	WA	EPAS280A
0 Tetrachlorodibenzo-p-furans	<5.20	U		5.20		ng/L	WA	EPAS280A
0 Tetrachlorodibenzo-p-furans	<10.0	U		10.0		ng/L	WA	EPAS280A
0 Acenaphthene	<10.2	U		10.2		µg/L	WA	EPAS270C

## B-17

First Quarter 1999



## ANALYTICAL RESULTS

Well AMB 9D collected on 02/05/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method	F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Acenaphthene	<10.4	JU	Q		10.4	µg/L	WA	EPA8270C	0	Beryllium, total recoverable	<1.60	U		1.60	µg/L	WA	EPA8010B	
0	Acenaphthene	<20.0	JU	L	Cl	20.0	µg/L	WA	EPA8270C	0	Beryllium, total recoverable	<1.60	U		1.60	µg/L	WA	EPA8010B	
0	Acenaphthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Bis(2-chloroethoxy) methane	<10.2	U		10.2	µg/L	WA	EPA8270C	
0	Acenaphthylene	<10.4	JU	Q		10.4	µg/L	WA	EPA8270C	0	Bis(2-chloroethoxy) methane	<10.4	U	Q		10.4	µg/L	WA	EPA8270C
0	Acenaphthylene	<10.4	JU	Q		10.4	µg/L	WA	EPA8270C	0	Bis(2-chloroethoxy) methane	<20.0	U		20.0	µg/L	WA	EPA8270C	
0	Acenaphthylene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Bis(2-chloroethoxy) methane	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Acenaphthylene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Bis(2-chloroethoxy) ether	<10.2	U		10.2	µg/L	WA	EPA8270C	
0	Acetone	<10.0	U			10.0	µg/L	WA	EPA8260B	0	Bis(2-chloroethoxy) ether	<10.4	U		10.4	µg/L	WA	EPA8270C	
0	Acetonitrile (Methyl cyanide)	<20.0	U			20.0	µg/L	WA	EPA8260B	0	Bis(2-chloroethoxy) ether	<20.0	U		20.0	µg/L	WA	EPA8270C	
0	Acetophenone	<10.2	U			10.2	µg/L	WA	EPA8270C	0	Bis(2-chloroethoxy) ether	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Acetophenone	<10.4	JU	Q		10.4	µg/L	WA	EPA8270C	0	Bis(2-chloroethoxy) ether	<10.2	U		10.2	µg/L	WA	EPA8270C	
0	Acetophenone	<20.0	JU			20.0	µg/L	WA	EPA8270C	0	Bis(2-chloroethoxy) ether	<10.4	U		10.4	µg/L	WA	EPA8270C	
0	2-Acetylaminofluorene	<10.2	JU	Q		10.2	µg/L	WA	EPA8270C	0	Bis(2-chloroisopropyl) ether	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	2-Acetylaminofluorene	<10.4	JU	Q		10.4	µg/L	WA	EPA8270C	0	Bis(2-chloroisopropyl) ether	<10.2	U		10.2	µg/L	WA	EPA8270C	
0	2-Acetylaminofluorene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Bis(2-ethylhexyl) phthalate	<10.4	U	Q		10.4	µg/L	WA	EPA8270C
0	2-Acetylaminofluorene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Bis(2-ethylhexyl) phthalate	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Acrolein	<20.0	JU	Q		20.0	µg/L	WA	EPA8260B	0	Bis(2-ethylhexyl) phthalate	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Acrylonitrile	<5.00	U			5.00	µg/L	WA	EPA8260B	0	Bromodichloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Aldrin	<0.0525	U			0.0525	µg/L	WA	EPA8081A	0	Bromodichloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Allyl chloride	<10.0	U			10.0	µg/L	WA	EPA8260B	0	Bromomethane	<10.0	U		10.0	µg/L	WA	EPA8260B	
0	Aluminum, total recoverable	30.8	J			146	µg/L	WA	EPA8010B	0	Bromomethane	<10.2	U		10.2	µg/L	WA	EPA8270C	
1	Aluminum, total recoverable	27.0	J			146	µg/L	WA	EPA8010B	0	4-Bromophenyl phenyl ether	<10.4	U		10.4	µg/L	WA	EPA8270C	
0	4-Aminobiphenyl	<10.2	JU	Q		10.2	µg/L	WA	EPA8270C	0	4-Bromophenyl phenyl ether	<20.0	U		20.0	µg/L	WA	EPA8270C	
0	4-Aminobiphenyl	<10.4	JU	Q		10.4	µg/L	WA	EPA8270C	0	4-Bromophenyl phenyl ether	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	4-Aminobiphenyl	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	4-Bromophenyl phenyl ether	<10.2	U		10.2	µg/L	WA	EPA8270C	
0	4-Aminobiphenyl	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Butybenzyl phthalate	<10.4	U		10.4	µg/L	WA	EPA8270C	
0	Aniline	<10.2	JU	Q		10.2	µg/L	WA	EPA8270C	0	Butybenzyl phthalate	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Aniline	<10.4	JU	Q		10.4	µg/L	WA	EPA8270C	0	Butybenzyl phthalate	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Aniline	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	2-sec-Butyl-4,6-dinitrophenol	<1.0	U		1.0	µg/L	WA	EPA8270C	
0	Aniline	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	2-sec-Butyl-4,6-dinitrophenol	<2.0	U		2.0	µg/L	WA	EPA8270C	
0	Anthracene	<10.2	JU	Q		10.2	µg/L	WA	EPA8270C	0	2-sec-Butyl-4,6-dinitrophenol	<5.00	U	Q		5.00	µg/L	WA	EPA8270C
0	Anthracene	<10.4	JU	Q		10.4	µg/L	WA	EPA8270C	0	2-sec-Butyl-4,6-dinitrophenol	<10.0	U	Q		10.0	µg/L	WA	EPA8270C
0	Anthracene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Cadmium, total recoverable	<4.70	U		4.70	µg/L	WA	EPA8010B	
0	Anthracene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Cadmium, total recoverable	<4.70	U		4.70	µg/L	WA	EPA8010B	
0	Antimony, total recoverable	<27.0	U			27.0	µg/L	WA	EPA8010B	0	Carbon disulfide	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Antimony, total recoverable	<27.0	U			27.0	µg/L	WA	EPA8010B	0	Carbon tetrachloride	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Avantia	<20.4	U			20.4	µg/L	WA	EPA8010B	0	Carbon tetrachloride	<0.0525	U		0.0525	µg/L	WA	EPA8081A	
0	Avantia	<20.8	U			20.8	µg/L	WA	EPA8010B	0	gamma-Chlordane	<0.0525	U		0.0525	µg/L	WA	EPA8081A	
0	Avantia	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlordane	2.840	U		2.840	µg/L	WA	EPA8056	
0	Avantia	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlordane	<10.2	U		10.2	µg/L	WA	EPA8270C	
0	Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPA8010B	0	4-Chloroaniline	<10.4	U	Q		10.4	µg/L	WA	EPA8270C
0	Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPA8010B	0	4-Chloroaniline	<20.0	U		20.0	µg/L	WA	EPA8270C	
0	Barium, total recoverable	2.60	U			1.80	µg/L	WA	EPA8010B	0	4-Chloroaniline	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Barium, total recoverable	2.10	U			1.80	µg/L	WA	EPA8010B	0	4-Chloroaniline	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B	0	Chlorobenzene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	alpha-Benzene hexachloride	<0.0525	U			0.0525	µg/L	WA	EPA8260B	0	Chlorobenzene	<10.2	U		10.2	µg/L	WA	EPA8260B	
0	beta-Benzene hexachloride	<0.0525	U			0.0525	µg/L	WA	EPA8081A	0	Chlorobenzene	<10.4	U		10.4	µg/L	WA	EPA8260B	
0	delta-Benzene hexachloride	<0.0525	U			0.0525	µg/L	WA	EPA8081A	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8260B
0	Benzofluoranthene	<10.2	U			10.2	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8260B
0	Benzofluoranthene	<10.4	JU	Q		10.4	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8260B
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8260B
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8260B
0	Benzofluoranthene	<10.2	JU	Q		10.2	µg/L	WA	EPA8270C	0	Chlorobenzene	<10.4	U	Q		10.4	µg/L	WA	EPA8270C
0	Benzofluoranthene	<10.4	JU	Q		10.4	µg/L	WA	EPA8270C	0	Chlorobenzene	<10.4	U	Q		10.4	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU	Q		20.0	µg/L	WA	EPA8270C	0	Chlorobenzene	<20.0	U	Q		20.0	µg/L	WA	EPA8270C
0	Benzofluoranthene	<20.0	JU																



## ANALYTICAL RESULTS

Well AMB 9D collected on 02/05/99 (cont.)

[illegible]

**ESH-EMS-990520**

Well AMB 9D collected on 02/05/99 (cont.)

F	Analyte	Resid.
0	trans-1,3-Dichloropropene	<5.00
0	cis-1,3-Dichloropropene	<5.00
0	Dieldrin	<0.105
0	Diethyl phthalate	<10.2
0	Diethyl phthalate	<10.4
0	Diethyl phthalate	<10.4
0	Diethyl phthalate	<20.0
0	Dimethoate	<0.525
0	Dimethoate	<10.6
0	2,4-Dimethyl phenol	<10.2
0	2,4-Dimethyl phenol	<10.4
0	2,4-Dimethyl phenol	<20.0
0	2,4-Dimethyl phenol	<20.0
0	Dimethyl phthalate	<10.2
0	Dimethyl phthalate	<10.4
0	Dimethyl phthalate	<20.0
0	p-Dimethylaminoazobenzene	<10.2
0	p-Dimethylaminoazobenzene	<10.4
0	p-Dimethylaminoazobenzene	<20.0
0	7,12-Dimethylbenz(a)anthracene	<10.2
0	7,12-Dimethylbenz(a)anthracene	<10.4
0	7,12-Dimethylbenz(a)anthracene	<20.0
0	3,3'-Dimethylbenzidine	<10.2
0	3,3'-Dimethylbenzidine	<10.4
0	3,3'-Dimethylbenzidine	<20.0
0	1,3-Dinitrobenzene	<10.2
0	1,3-Dinitrobenzene	<10.4
0	1,3-Dinitrobenzene	<20.0
0	2,4-Dinitrophenol	<25.5
0	2,4-Dinitrophenol	<26.0
0	2,4-Dinitrophenol	<50.0
0	2,4-Dinitrotoluene	<10.2
0	2,4-Dinitrotoluene	<10.4
0	2,4-Dinitrotoluene	<20.0
0	2,4-Dinitrotoluene	<20.0
0	2,6-Dinitrotoluene	<10.2
0	2,6-Dinitrotoluene	<10.4
0	2,6-Dinitrotoluene	<20.0
0	Di-n-octyl phthalate	<10.2
0	Di-n-octyl phthalate	<10.4
0	Di-n-octyl phthalate	<20.0
0	Di-n-octyl phthalate	<20.0
0	1,4-Dioxane	<10.2
0	1,4-Dioxane	<10.4
0	1,4-Dioxane	<20.0
0	Diphenylamine	<10.2
0	Diphenylamine	<10.4
0	Diphenylamine	<20.0
0	Diphenylamine	<20.0
0	Disulfoton	<0.525
0	Disulfoton	<10.6
0	Endosulfan sulfate	<0.0522
0	Endosulfan II	<0.105
0	Endrin	<0.105
0	Endrin aldehyde	<10.2
0	Ethyl methacrylate	<10.4
0	Ethyl methacrylate	<20.0
0	Ethyl methanesulfonate	<10.2
0	Ethyl methanesulfonate	<10.4
0	Ethyl methanesulfonate	<20.0
0	Ethylbenzene	<20.0
0	Famphur	<1.36
0	Fluoranthene	<2.74
0	Fluoranthene	<10.4

**B-19**

**First Quarter 1999**



## ANALYTICAL RESULTS

Well AMB 9D collected on 02/05/99 (cont.)[illegible]

**ESH-EMS-990520**

**B-20**

**First Quarter 1999**



## ANALYTICAL RESULTS

F		Analyte	Result
0	0	N-Nitrosomethylethylamine	<10.4
0	0	N-Nitrosomethylethylamine	<10.4
0	0	N-Nitrosomethylethylamine	<20.0
0	0	N-Nitrosomethylethylamine	<20.0
0	0	N-Nitrosomorpholine	<10.2
0	0	N-Nitrosomorpholine	<10.4
0	0	N-Nitrosomorpholine	<20.0
0	0	N-Nitrosomorpholine	<20.0
0	0	N-Nitrosomorpholine	<20.0
0	0	N-Nitrosopiperidine	<51.0
0	0	N-Nitrosopiperidine	<52.0
0	0	N-Nitrosopiperidine	<100
0	0	N-Nitrosopiperidine	<100
0	0	N-Nitrosopyrrolidine	<10.2
0	0	N-Nitrosopyrrolidine	<10.4
0	0	N-Nitrosopyrrolidine	<20.0
0	0	N-Nitrosopyrrolidine	<20.0
0	0	5-Nitro-o-toluidine	<10.0
0	0	5-Nitro-o-toluidine	<10.4
0	0	5-Nitro-o-toluidine	<20.0
0	0	5-Nitro-o-toluidine	<20.0
0	0	5-Nitro-o-toluidine	<20.0
0	0	Parathion ethyl	<0.525
0	0	Parathion ethyl	<1.06
0	0	Parathion methyl	<0.523
0	0	Parathion methyl	<1.06
0	0	PCB 1016	<2.06
0	0	PCB 1016	<2.13
0	0	PCB 1016	<2.04
0	0	PCB 1221	<2.04
0	0	PCB 1221	<4.00
0	0	PCB 1221	<4.26
0	0	PCB 1232	<1.02
0	0	PCB 1232	<2.13
0	0	PCB 1232	<1.02
0	0	PCB 1242	<1.02
0	0	PCB 1242	<2.13
0	0	PCB 1242	<1.02
0	0	PCB 1248	<2.00
0	0	PCB 1248	<2.13
0	0	PCB 1254	<1.02
0	0	PCB 1254	<1.06
0	0	PCB 1260	<2.06
0	0	PCB 1260	<2.13
0	0	PCB 1260	<10.2
0	0	Pentachlorobenzene	<10.4
0	0	Pentachlorobenzene	<20.0
0	0	Pentachlorobenzene	<20.0
0	0	Pentachlorobenzene	<10.2
0	0	Pentachloroethane	<10.4
0	0	Pentachloroethane	<20.0
0	0	Pentachloroethane	<20.0
0	0	Pentachloronitrobenzene	<51.0
0	0	Pentachloronitrobenzene	<52.0
0	0	Pentachloronitrobenzene	<100
0	0	Pentachlorophenol	<25.0
0	0	Pentachlorophenol	<26.0
0	0	Pentachlorophenol	<50.0
0	0	Phenacetin	<10.2
0	0	Phenacetin	<10.4
0	0	Phenacetin	<20.0
0	0	Phenacetin	<20.0
0	0	Phenanthrene	<10.2
0	0	Phenanthrene	<10.4
0	0	Phenanthrene	<20.0
0	0	Phenanthrene	<20.0
0	0	Phenol	<10.2
0	0	Phenol	<10.4
0	0	Phenol	<20.0
0	0	Phenol	<20.0
0	0	p-Phenylenediamine	<10.2
0	0	p-Phenylenediamine	<10.4
0	0	p-Phenylenediamine	<20.0
0	0	p-Phenylenediamine	<20.0
0	0	Phorate	<1.05

**ESH-EMS-990520**

F	Analyte	Result
0	Phorate	<1.1
0	2-Picoline	<2.0
0	2-Picoline	<10.4
0	2-Picoline	<20.0
0	2-Picoline	<20.0
0	Pronamid	<10.2
0	Pronamid	<10.4
0	Pronamid	<20.0
0	Pronamid	<20.0
0	Propionitrile	<10.2
0	Pyrene	<10.4
0	Pyrene	<20.0
0	Pyridine	<10.2
0	Pyridine	<10.4
0	Pyridine	<20.0
0	Pyridine	<20.0
0	Safrole	<10.2
0	Safrole	<10.4
0	Safrole	<20.0
0	Safrole	<20.0
0	Selenium, total recoverable	<86.0
0	Selenium, total recoverable	<95.0
0	Silver, total recoverable	<1.20
0	Sodium, total recoverable	7,820
0	Sodium, total recoverable	8,000
0	Sulfate	<5.00
0	Sulfite	6,490
0	Sulfite	<10,000
0	Sulfite	<1.05
0	Sulfite	<2.11
0	Tin, total recoverable	<0.520
0	Toluene	<10.2
0	1,2,4,5-Tetrachlorobenzene	<10.4
0	1,2,4,5-Tetrachlorobenzene	<20.0
0	1,2,4,5-Tetrachlorobenzene	<20.0
0	1,1,1,2-Tetrachloroethane	<5.00
0	1,1,1,2-Tetrachloroethane	<5.00
0	1,1,1,2-Tetrachloroethane	<10.2
0	2,3,4,6-Tetrachlorophenol	<10.4
0	2,3,4,6-Tetrachlorophenol	<20.0
0	2,3,4,6-Tetrachlorophenol	<20.0
0	Thallium, total recoverable	<55.0
0	Thallium, total recoverable	<55.0
0	Thioazurin	<0.525
0	Tin, total recoverable	<1.06
0	Tin, total recoverable	<70.0
0	Toluene	<5.00
0	o-Tolidine	<10.2
0	o-Tolidine	<20.0
0	o-Tolidine	<20.0
0	Total organic carbon	1,720
0	Total organic phosphorus (as P)	<120
0	Toxaphene	<67.0
0	2,4,5-TP (Silvex)	<25.5
0	1,2,4-Trichlorobenzene	<10.2
0	1,2,4-Trichlorobenzene	<10.4
0	1,2,4-Trichlorobenzene	<20.0
0	1,2,4-Trichlorobenzene	<20.0
0	1,1,1,1-Tetrachloroethane	<5.00
0	1,1,2-Trichloroethane	<5.00
0	Trichloroethylene	<5.00
0	Trichloroethylene	<5.00
0	2,4,6-Trichlorophenol	<25.5
0	2,4,6-Trichlorophenol	<50.0
0	2,4,6-Trichlorophenol	<50.0
0	2,4,6-Trichlorophenol	<10.2
0	2,4,6-Trichlorophenol	<10.4
0	2,4,6-Trichlorophenol	<20.0
0	2,4,6-Trichlorophenol	<20.0

**B-21**

[illegible]**First Quarter 1999**



## ANALYTICAL RESULTS

Well AMB 9D collected on 02/05/99 (cont.)

F	Analyte	Result	PG	S	EMS	SQL	Unit	Lab	Method
1	2,3,7-Trichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
2	O,O-Diethyl Phosphorothioate	<0.525	U		0.525	0.525	µg/L	WA	EPA8141A
3	O,O-Dimethyl Phosphorothioate	<1.06	U		1.06	1.06	µg/L	WA	EPA8141A
4	1,3,5-Trinitrobenzene	<10.2	U		10.2	10.2	µg/L	WA	EPA8270C
5	1,3,5-Trinitrobenzene	<10.4	JU	Q	10.4	10.4	µg/L	WA	EPA8270C
6	1,3,5-Trinitrobenzene	<20.0	JU	Q	20.0	20.0	µg/L	WA	EPA8270C
7	1,3,5-Trinitrobenzene	<20.0	JU	Q	20.0	20.0	µg/L	WA	EPA8270C
8	Vanadium, total recoverable	<6.90	U		6.90	6.90	µg/L	WA	EPA6010B
9	Vanadium, total recoverable	<6.90	U		6.90	6.90	µg/L	WA	EPA6010B
10	Vinyl acetate	<10.0	U		10.0	10.0	µg/L	WA	EPA8260B
11	Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
12	Zinc, total recoverable	<30.7	J	I	53.0	53.0	µg/L	WA	EPA6010B
13	Zinc, total recoverable	23.75	J		53.0	53.0	µg/L	WA	EPA6010B
14	Gross alpha	1.72E+09	J		1.38E+09	1.38E+09	µCi/mL	TM	EPA900.0M
15	Gross alpha	9.59E+08	U		1.38E+09	1.38E+09	µCi/mL	TM	EPA900.0M
16	Nonvolatile beta	5.10E+08	U		1.37E+09	1.37E+09	µCi/mL	TM	EPA900.0M
17	Nonvolatile beta	1.15E+09	U		1.47E+09	1.47E+09	µCi/mL	TM	EPA900.0M
18	Radium, total alpha-emitting	1.24E+09	J		7.40E+10	7.40E+10	µCi/mL	TM	EPA903.0M
19	Radium, total alpha-emitting	1.24E+09	J		7.40E+10	7.40E+10	µCi/mL	TM	EPA903.0M

**WELL AMB 10A**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/09/99  
 Sample time: 14:10  
 Depth: 49.35 ft (45.52 m) below TOC  
 Water temperature: 19.0°C  
 Air temperature: 23.8°C  
 Total alkalinity (as CaCO<sub>3</sub>): 30 mg/L  
 pH: 6.4  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifiers: SX  
 Sp. conductance: 84 µS/cm  
 Turbidity: 3.3 NTU

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
	Acetone	<10.0	JU	Q	Q	10.0	µg/L	WA	EP A8260B
	Acetonitrile (Methyl cyanide)	<20.0	JU	Q	Q	20.0	µg/L	WA	EP A8260B
	Acrylonitrile	<20.0	JU	Q	Q	20.0	µg/L	WA	EP A8260B
	Allyl chloride	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Aluminum, total recoverable	<10.0	JU	Q	Q	10.0	µg/L	WA	EP A8260B
	2 Aluminum, total recoverable	66.7	JU	Q	Q	146	µg/L	WA	EP A6010B
	Arsenic, total recoverable	<40.0	JU	Q	Q	40.0	µg/L	WA	EP A6010B
	Barium, total recoverable	12.9	JU	Q	Q	1.80	µg/L	WA	EP A6010B
	Benzene	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Bromodichloromethane	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Bromofarm	<10.0	JU	Q	Q	10.0	µg/L	WA	EP A8260B
	Bromonaphthalene	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Carbon disulfide	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Carbon tetrachloride	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Chloride	2,170	JU	Q	Q	210	µg/L	WA	EP A9056
	Chlorobenzene	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Chloroethane	<10.0	JU	Q	Q	10.0	µg/L	WA	EP A8260B
	Chloroethene (Vinyl chloride)	<10.0	JU	Q	Q	10.0	µg/L	WA	EP A8260B
	Chloroform	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Chloromethane	<10.0	JU	Q	Q	10.0	µg/L	WA	EP A8260B
	Chloroprene	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Chromium, total recoverable	<190	JU	Q	Q	7.00	µg/L	WA	EP A6010B
	Cyanide	1.54	JU	Q	Q	12.2	µg/L	WA	EP A6010B
	Dibromodichloromethane	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	1,2-Dibromo-2-chloropropane	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	1,2-Dibromochloroethane	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Dichloromethane	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	trans-1,4-Dichloro-2-butene	<20.0	JU	Q	Q	20.0	µg/L	WA	EP A8260B
	Dichlorodifluoromethane	<10.0	JU	Q	Q	10.0	µg/L	WA	EP A8260B
	1,1-Dichloroethane	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	1,2-Dichloroethane	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	1,1-Dichloroethylene	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	trans-1,2-Dichloroethylene	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	trans-1,2-Dichloroethyne	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Dichloromethane	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	2,4-Dichlorophenoxyacetic acid	<1.02	JU	Q	Q	1.02	µg/L	WA	EP A8260B
	1,2-Dichloropropane	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	cis-1,3-Dichloropropene	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	trans-1,3-Dichloropropene	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Ethylbenzene	<5.00	JU	Q	Q	5.00	µg/L	WA	EP A8260B
	Fluoride	<27.5	JU	Q	Q	40.0	µg/L	WA	EP A340.2

**ESH-EMS-990520**

**B-22**

**First Quarter 1999**

Well AMB 10A collected on 02/08/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
	2-Hexanone	<10.0	J	Q	5.00	10.0	µg/L	WA	EPA8260B
	Iodomethanes (Methyl iodide)	<5.00	J	Q	5.00	5.00	µg/L	WA	EPA8260B
	Iodine, total recoverable	<65.5	J	Q	74.0	100	µg/L	WA	EPA6010B
	Isobutyl alcohol	<100	J	Q	100	100	µg/L	WA	EPA8260B
	Lead, total recoverable	<47.0	U		47.0	47.0	µg/L	WA	EPA6010B
	Lindane	<0.0525	U		0.0525	0.0525	µg/L	WA	EPA8081A
	Manganese, total recoverable	5.50	J	I	7.80	7.80	µg/L	WA	EPA6010B
	Mercury, total recoverable	<0.450	J	Q	10.0	0.450	µg/L	WA	EPA7470A
	Methacrylonitrile	<10.0	J	Q	10.0	10.0	µg/L	WA	EPA8260B
	Methyl ethyl ketone	<10.0	J	Q	10.0	10.0	µg/L	WA	EPA8260B
	Methyl isobutyl ketone	<26.0	J	Q	26.0	26.0	µg/L	WA	EPA8260B
	Nickel, total recoverable	268	U		20.0	20.0	µg/L	WA	EPA6010B
	Nitrate-nitrite as nitrogen	<10.4	U		10.4	10.4	µg/L	WA	EPA353.2
	Phenol	<68.0	U	Q	50.0	50.0	µg/L	WA	EPA8270C
	Propionitrile	<50.0	J		50.0	50.0	µg/L	WA	EPA8260B
	Selenium, total recoverable	<8.00	U	V	8.00	8.00	µg/L	WA	EPA8010B
	Silver, total recoverable	<4.760	U		285	285	µg/L	WA	EPA8010B
	Sodium, total recoverable	<5.00	J		5.00	5.00	µg/L	WA	EPA6010B
	Styrene	3.500	J		340	340	µg/L	WA	EPA8260B
	Sulfate	<5.00	J	Q	5.00	5.00	µg/L	WA	EPA3056
	1,1,2-Trichloroethane	<5.00	J	Q	5.00	5.00	µg/L	WA	EPA8260B
	1,1,2,2-Tetrachloroethane	<5.00	J	Q	5.00	5.00	µg/L	WA	EPA8260B
	Tetrachloroethylene	<5.00	J	Q	5.00	5.00	µg/L	WA	EPA8260B
	Toluene	<5.00	J		5.00	5.00	µg/L	WA	EPA8260B
	Total organic carbon	2.200	J		1.000	1.000	µg/L	WA	EPA3060
	Total organic halogens (as P)	<120	J		120	120	µg/L	WA	EPA8020B
	Total phosphates (as P)	20.8	J	I	67.0	67.0	µg/L	WA	EPA365.2
	1,1,1-Trichloroethane	<5.00	J	Q	5.00	5.00	µg/L	WA	EPA8260B
	1,1,2-Trichloroethane	<5.00	J	Q	5.00	5.00	µg/L	WA	EPA8260B
	Trichloroethylene	<5.00	J	Q	5.00	5.00	µg/L	WA	EPA8260B
	Trichlorofluoromethane	<5.00	J	Q	5.00	5.00	µg/L	WA	EPA8260B
	1,2,3-Trichloropropane	<5.00	J	Q	5.00	5.00	µg/L	WA	EPA8260B
	Diethyl acetate	<5.00	J	Q	5.00	5.00	µg/L	WA	EPA8260B
	Xylenes	<4.00	J	Q	5.00	5.00	µg/L	WA	EPA8260B
	Nonhalogenated hydrocarbons	4.10E-10x4.41E-09	U		2.40E-10	2.40E-10	µg/mL	TM	EPA900.0M
	Nonvolatiles beta	2.76E-09x1.11E-09	U		2.50E-10	2.50E-10	µg/mL	TM	EPA900.0M
	Radium, total alpha-emitting	1.00E-11x2.80E-10	J		7.30E-10	7.30E-10	µCi/mL	TM	EPA903.0M
	Radium, total alpha-emitting	1.01E-09x6.80E-10	J		7.10E-10	7.10E-10	µCi/mL	TM	EPA903.0M

**WELL AMB 10B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
Depth to water: 144.05 ft (43.91 m) below TOC  
Water elevation: 222.35 ft (67.77 m) msl  
DIT: 5.4  
Sp. conductivity: 34 µS/cm  
Turbidity: 0 NTU

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
	Hexachlorodibenzo-p-dioxins	<5.10	U		5.10		ng/L	WA	EPAS280A
	Hexachlorodibenzo-p-dioxins	<5.10	U		11.2		ng/L	WA	EPAS280A
	Hexachlorodibenzo-p-furans	<5.10	U		11.2		ng/L	WA	EPAS280A
	Hexachlorodibenzo-p-furans	<5.10	U		5.10		ng/L	WA	EPAS280A
	Pentachlorodibenzo-p-dioxins	<11.2	U		11.2		ng/L	WA	EPAS280A
	Pentachlorodibenzo-p-dioxins	<5.10	U		5.10		ng/L	WA	EPAS280A
	Pentachlorodibenzo-p-furans	<11.2	U		11.2		ng/L	WA	EPAS280A
	Pentachlorodibenzo-p-furans	<5.10	U		5.10		ng/L	WA	EPAS280A
	2,3,7,8-TCDD	<11.2	U		11.2		ng/L	WA	EPAS280A
	2,3,7,8-TCDD	<5.10	U		5.10		ng/L	WA	EPAS280A
	Tetrachlorodibenzo-p-dioxins	<11.2	U		11.2		ng/L	WA	EPAS280A
	Tetrachlorodibenzo-p-dioxins	<5.10	U		5.10		ng/L	WA	EPAS280A
	Tetrachlorodibenzo-p-furans	<5.10	U		5.10		ng/L	WA	EPAS280A
	Tetrachlorodibenzo-p-furans	<11.2	U		11.2		ng/L	WA	EPAS280A
	Acenaphthene	<10.2	U		10.2		µg/L	WA	EPAS280A
	Acenaphthylene	<10.2	U		10.2		µg/L	WA	EPAS277C
	Acenaphthylene	<10.2	U		10.2		µg/L	WA	EPAS277C
	Acenaphthylene (Methyl cyanide)	<20.0	U		20.0		µg/L	WA	EPAS280B
	Acenaphthene	<10.2	U		10.2		µg/L	WA	EPAS280B
	2-Acetylaminofluorene	<10.2	U		10.2		µg/L	WA	EPAS270C
	Acroline	<20.0	U		20.0		µg/L	WA	EPAS270C
	Acrylonitrile	<5.00	U		5.00		µg/L	WA	EPAS260B
	Aldrin	<0.0510	U		0.0510		µg/L	WA	EPAS081A



## ANALYTICAL RESULTS

F	Analyte	Result
0	Allyl chloride	<10.0
0	Aluminum, total recoverable	<18.9
0	Aluminum, total recoverable	<18.9
0	Aluminum, total recoverable	<18.9
0	4-Aminobiphenyl	<10.2
0	Aniline	<10.2
0	Anthracene	<27.0
0	Antimony, total recoverable	<27.0
0	Antimony, total recoverable	<27.0
0	Arsenic, total recoverable	<40.0
0	Arsenic, total recoverable	<40.0
0	Barium, total recoverable	9.47
0	Barium, total recoverable	9.47
0	Benzene	<5.00
0	alpha-Benzene hexachloride	<0.0510
0	beta-Benzene hexachloride	<0.0510
0	delta-Benzene hexachloride	<0.0510
0	Benzo(a)anthracene	<10.2
0	Benzo(b)fluoranthene	<10.2
0	Benzofluoranthene	<10.2
0	Benzothianthrene	<25.5
0	Benzotriazepylene	<10.2
0	Benzotrifluoride	<10.2
0	Benzyl alcohol	<16.0
0	Beryllium, total recoverable	<1.60
0	Beryllium, total recoverable	<1.60
0	Bis(2-chloroethoxy) methane	<10.2
0	Bis(2-chloroethyl) ether	<10.2
0	Bis(2-ethoxypropyl) ether	<10.2
0	Bis(2-ethylhexyl) phthalate	<10.2
0	Bromodichloromethane	<5.00
0	Bromochloromethane	<5.00
0	Bromomethane	<10.0
0	4-Bromophenyl phenyl ether	<10.2
0	n-Butylbenzyl phosphate	<5.00
0	Cadmium, total recoverable	<4.70
0	Cadmium, total recoverable	<4.70
0	Cadmium, total recoverable	<4.70
0	Carbon disulfide	<5.00
0	Carbon tetrachloride	<5.00
0	alpha-Chlordane	<0.0510
0	gamma-Chlordane	<0.0510
0	Chlordane	3.520
0	Chloride	<10.2
0	4-Chloroaniline	<10.2
0	Chlorobenzene	<5.00
0	Chlorobenzilate	<10.2
0	4-Chloro-m-cresol	<10.2
0	Chloroethane	<10.0
0	Chloroform	<10.0
0	Chloroform (Vinyl chloride)	<5.00
0	Chloromethane	<10.0
0	Chloronaphthalene	<10.2
0	2-Chlorophenol	<10.2
0	4-Chlorophenyl ether	<10.2
0	Chlorophene	<5.00
0	Chromium, total recoverable	<7.00
0	Chromium, total recoverable	<7.00
0	Chrysene	<10.2
0	Cobalt, total recoverable	<4.50
0	Cobalt, total recoverable	<4.50
0	Copper, total recoverable	<2.00
0	Copper, total recoverable	<2.00
0	m,p-Cresol (3-Methylphenol)	<10.2
0	m,p-Cresol (2-Methylphenol)	<10.2
0	Cyanide	<15.2
0	p,p'-DDD	<0.102
0	p,p'-DDE	<0.102
0	p,p'-DDT	<0.102
0	Diallate	<10.2
0	Dibenz(a,h)anthracene	<10.2
0	Dibenzofuran	<10.2
0	Dibromochloromethane	<5.00
0	Dibromo-chloropropane	<5.00
0	1,2-Dibromodichloroethane	<5.00
0	Dibromomethane	<5.00
0	Di-n-butyl phthalate	<10.2
0	1,2-Dichlorobenzene	<10.2

Well AMB 10B collected on 02/17/99 (cont.)

F	Analyte	Result
1	1,3-Dichlorobenzene	<10.2
1	1,4-Dichlorobenzene	<10.2
1	1,4-Dichlorobenzene, d4	<10.2
3	3,3'-Dichlorobenzidine	<10.2
trans-1,4	trans-1,4-Dichloro-2-butene	<20.0
1	Dichlorodifluoromethane	<10.0
1	1,1-Dichloroethane	<5.00
1,2	1,2-Dichloroethane	<5.00
1	1,1-Dichloroethylene	<5.00
cis-1,2	cis-1,2-Dichloroethylene	<5.00
trans-1,2	trans-1,2-Dichloroethylene	<5.00
1	Dichloromethane	<5.00
1	Dichloromethane, d2	<10.2
2,4	2,4-Dichlorophenol	<10.2
2,6	2,6-Dichlorophenol	<10.2
2,4,6	2,4,6-Trichlorophenol	<10.2
2,4-Dichlorophenoxyacetic acid		<1.02
1,2	1,2-Dichloropropane	<1.02
cis-1,3	cis-1,3-Dichloropropene	<5.00
trans-1,3	trans-1,3-Dichloropropene	<5.00
1	Dieldrin	<0.02
1	Diethyl phthalate	<0.50
1	Dimethoate	<0.50
1	Dimethoate, d4	<0.50
1	Dimethoate, d5	<1.00
2,4	2,4-Dimethyl phenol	<10.2
1	Dimethyl phthalate	<10.2
p-Dimethylaminobenzene		<10.2
p-Dimethylbenz(a)anthracene		<10.2
3,3'-Dimethylbenzidine		<10.2
1,3	1,3-Dinitrobenzene	<10.2
2,4	2,4-Dinitrophenol	<25.5
2,4	2,4-Dinitrotoluene	<10.2
2,6	2,6-Dinitrotoluene	<10.2
Di-n-octyl phthalate		<10.2
1,4-Dioxane		<10.2
Diphenylamine		<10.2
Disulfoton		<0.50
Disulfoton, d4		<0.50
Disulfoton, d5		<1.00
Endosulfan sulfate		<0.50
Endosulfan I		<0.50
Endosulfan II		<0.50
Endrin		<10.2
Enthrin		<10.2
Enthrin aldehyde		<10.2
Ethyl methacrylate		<10.2
Ethyl methanesulfonate		<5.00
Ethylbenzene		<10.2
Famphur		<1.35
Famphur, d4		<1.35
Famphur, d5		<1.35
Fluoranthene		<10.2
Fluorene		<10.2
Fluoride		<15.1
Heptachlor		<0.0510
Heptachlor epoxide		<0.0510
Hexachlorobenzene		<10.2
Hexachlorobutadiene		<10.2
Hexachlorocyclopentadiene		<10.2
Hexachloroethane		<10.2
Hexachlorophene		<25.5
Hexachloropropene		<10.2
2-Hexanone		<10.2
Indeno(1,2,3-c)pyrene		<10.2
Iodomethane (Methyl iodide)		<5.00
Iron, total recoverable		<3.10
Iron, total recoverable		<3.40
Iron, total recoverable		<10.2
Isobutyl alcohol		<10.2
Isodrin		<10.2
Isoprene		<10.2
Isosulfate		<10.2
Lead, total recoverable		<0.510
Lead, total recoverable		<47.0
Lindane		<0.50
Manganese, total recoverable		4.90
Manganese, total recoverable		4.80
Mercury, total recoverable		<10.0
Methoxyflorite		<45.0

**ESH-EMS-990520**

B-23

**First Quarter 1999**



## ANALYTICAL RESULTS

Well AMB 10B collected on 02/17/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Methacrylonitrile	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Methylchloride	<0.510	U			0.510	µg/L	WA	EPAS270C
0 2-Methyl-4,6-dinitrophenol	<25.5	U			25.5	µg/L	WA	EPAS270C
0 Methyl ethyl ketone	<10.0	U			10.0	µg/L	WA	EPAS270C
0 Methyl isobutyl ketone	<10.0	U			10.0	µg/L	WA	EPAS270C
0 Methyl methacrylate	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Methyl methanesulfonate	<10.2	U			10.2	µg/L	WA	EPAS270C
0 3-Methylcholanthrene	<10.2	U			10.2	µg/L	WA	EPAS270C
0 2-Methylnaphthalene	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Naphthalene	<10.2	U			10.2	µg/L	WA	EPAS270C
0 1,4-Naphthoquinone	<10.2	U			10.2	µg/L	WA	EPAS270C
0 1-Naphthylamine	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Nickel, total recoverable	<28.0	U			28.0	µg/L	WA	EPAS270C
0 Nickel, total recoverable	<28.0	U			28.0	µg/L	WA	EPAS270C
0 Nitrate-nitrite as nitrogen	231	U			231	µg/L	WA	EPAS270C
0 m-Nitroaniline	<25.5	U			25.5	µg/L	WA	EPAS270C
0 o-Nitroaniline	<25.5	U			25.5	µg/L	WA	EPAS270C
0 p-Nitroaniline	<10.2	U			10.2	µg/L	WA	EPAS270C
0 2-Nitrophenol	<10.2	U			10.2	µg/L	WA	EPAS270C
0 4-Nitrophenol	<10.2	U			10.2	µg/L	WA	EPAS270C
0 4-Nitroquinoline-1-oxide	<20.4	U			20.4	µg/L	WA	EPAS270C
0 N-Nitrosodimethylamine	<10.2	U			10.2	µg/L	WA	EPAS270C
0 N-Nitrosodiphenylamine	<10.2	U			10.2	µg/L	WA	EPAS270C
0 N-Nitrosodipropylamine	<10.2	U			10.2	µg/L	WA	EPAS270C
0 N-Nitrosodipropylamine	<10.2	U			10.2	µg/L	WA	EPAS270C
0 N-Nitrosomethylamine	<10.2	U			10.2	µg/L	WA	EPAS270C
0 N-Nitrosomorpholine	<10.2	U			10.2	µg/L	WA	EPAS270C
0 N-Nitrosopiperidine	<51.0	U			51.0	µg/L	WA	EPAS270C
0 N-Nitrosopyrrolidine	<10.2	U			10.2	µg/L	WA	EPAS270C
0 5-Nitro-o-toluidine	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Parathion ethyl	<0.520	U			0.520	µg/L	WA	EPAS270C
0 Parathion methyl	<0.510	U			0.510	µg/L	WA	EPAS270C
0 Parathion methyl	<0.510	U			0.510	µg/L	WA	EPAS270C
0 Parathion methyl	<1.00	U			1.00	µg/L	WA	EPAS270C
0 PCB 1016	<2.04	U			2.04	µg/L	WA	EPAS270C
0 PCB 1221	<2.04	U			2.04	µg/L	WA	EPAS270C
0 PCB 1232	<1.02	U			1.02	µg/L	WA	EPAS270C
0 PCB 1242	<1.02	U			1.02	µg/L	WA	EPAS270C
0 PCB 1248	<1.02	U			1.02	µg/L	WA	EPAS270C
0 PCB 1254	<1.02	U			1.02	µg/L	WA	EPAS270C
0 PCB 1260	<1.02	U			1.02	µg/L	WA	EPAS270C
0 Pentachlorobenzene	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Pentachloroethane	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Pentachloronitrobenzene	<51.0	U			51.0	µg/L	WA	EPAS270C
0 Pentachlorophenol	<25.5	U			25.5	µg/L	WA	EPAS270C
0 Phenacetin	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Phenanthrene	<10.2	U			10.2	µg/L	WA	EPAS270C
0 p-Phenylenediamine	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Phorate	<1.04	U			1.04	µg/L	WA	EPAS270C
0 Phorate	<1.04	U			1.04	µg/L	WA	EPAS270C
0 Phorate	<1.04	U			1.04	µg/L	WA	EPAS270C
0 2-Pyridine	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Propionitrile	<50.0	U			50.0	µg/L	WA	EPAS270C
0 Pyrene	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Saffrole	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Selenium, total recoverable	<68.0	U			68.0	µg/L	WA	EPAS270C
0 Selenium, total recoverable	<68.0	U			68.0	µg/L	WA	EPAS270C
0 Silver, total recoverable	<5.00	U			5.00	µg/L	WA	EPAS270C
0 Silver, total recoverable	<5.00	U			5.00	µg/L	WA	EPAS270C
0 Sodium, total recoverable	4.250	U			4.250	µg/L	WA	EPAS270C
0 Sodium, total recoverable	<5.00	U			5.00	µg/L	WA	EPAS270C
0 Styrene	<10.000	U			10.000	µg/L	WA	EPAS270C
0 Sulfate	<10.000	U			10.000	µg/L	WA	EPAS270C
0 Sulfide	<1.04	U			1.04	µg/L	WA	EPAS270C
0 Sulfite	<1.02	U			1.02	µg/L	WA	EPAS270C
0 Sulfite	<1.02	U			1.02	µg/L	WA	EPAS270C
0 Sulfite	<1.02	U			1.02	µg/L	WA	EPAS270C
0 2,4,5-Tetrachlorobenzene	<0.510	U			0.510	µg/L	WA	EPAS270C

ESH-EMS-990520

B-24

Well AMB 10B collected on 02/17/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 1,1,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Tetrachloroethylene	<10.2	U			10.2	µg/L	WA	EPAS270C
0 2,3,4,6-Tetrachlorophenol	<55.0	U			55.0	µg/L	WA	EPAS270C
0 Thallium, total recoverable	<55.0	U			55.0	µg/L	WA	EPAS270C
0 Thionazin	<0.520	U			0.520	µg/L	WA	EPAS270C
0 Thionazin	<0.510	U			0.510	µg/L	WA	EPAS270C
0 Tin, total recoverable	<70.0	U			70.0	µg/L	WA	EPAS270C
0 Tin, total recoverable	<70.0	U			70.0	µg/L	WA	EPAS270C
0 Toluene	<10.2	U			10.2	µg/L	WA	EPAS270C
0 o-Toluidine	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Total organic carbon	1.050	U			1.050	µg/L	WA	EPAS270C
0 Total organic carbon	<0.510	U			0.510	µg/L	WA	EPAS270C
0 Total phosphates (as P)	0.34	U			0.34	µg/L	WA	EPAS270C
0 2,4,5-TP (Silvex)	<5.10	U			5.10	µg/L	WA	EPAS270C
0 1,1-Trichloroethane	<10.2	U			10.2	µg/L	WA	EPAS270C
0 1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS270C
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS270C
0 Trichlorofluoromethane	<25.5	U			25.5	µg/L	WA	EPAS270C
0 2,4,5-Trichlorophenol	<10.2	U			10.2	µg/L	WA	EPAS270C
0 1,2,3-Trichloropropane	<5.00	U			5.00	µg/L	WA	EPAS270C
0 O,O,O-Triethyl phosphorothioate	<0.520	U			0.520	µg/L	WA	EPAS270C
0 O,O,O-Triethyl phosphorothioate	<0.510	U			0.510	µg/L	WA	EPAS270C
0 1,3,5-Trinitrobenzene	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Vanadium, total recoverable	<6.90	U			6.90	µg/L	WA	EPAS270C
0 Vanadium, total recoverable	<6.90	U			6.90	µg/L	WA	EPAS270C
0 Vinyl acetate	<7.30	U			7.30	µg/L	WA	EPAS270C
0 Zinc, total recoverable	6.80	U			6.80	µg/L	WA	EPAS270C
0 Zinc, total recoverable	3.00E-10	U			3.00E-10	µg/L	WA	EPAS270C
0 Gross alpha	3.00E-10	U			3.00E-10	µg/L	WA	EPAS270C
0 Gross alpha	4.00E-11	U			4.00E-11	µg/L	WA	EPAS270C
0 Nonviable beta	9.00E-11	U			9.00E-11	µg/L	WA	EPAS270C
0 Nonviable beta	2.30E-10	U			2.30E-10	µg/L	WA	EPAS270C
0 Radium, total alpha-emitting	2.30E-10	U			2.30E-10	µg/L	WA	EPAS270C

## WELL AMB 10D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
 Depth to water: 132.93 ft (40.52 m) below TOC  
 Water elevation: 232.57 ft (70.89 m) msl  
 pH: 5.2  
 Sp. conductance: 40 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 43 gal

Time: 12:31  
 Water temperature: 19.8°C  
 Air temperature: 23.4°C  
 Total alkalinity (as CaCO<sub>3</sub>): 8 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Hexachlorobenzene-p-dioxins	<5.10	U			5.10	µg/L	WA	EPAS260A
0 Hexachlorobenzene-p-dioxins	<5.10	U			5.10	µg/L	WA	EPAS260A
0 Hexachlorobenzene-p-dioxins	<5.10	U			5.10	µg/L	WA	EPAS260A
0 2,3,7,8-TCDD	<5.10	U			5.10	µg/L	WA	EPAS260A
0 Tetrachlorodibenzo-p-dioxins	<5.10	U			5.10	µg/L	WA	EPAS260A
0 Tetrachlorodibenzo-p-dioxins	<5.10	U			5.10	µg/L	WA	EPAS260A
0 Acenaphthene	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Acenaphthene	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Acenaphthylene	<20.0	U			20.0	µg/L	WA	EPAS270C
0 Acenaphthylene	<20.0	U			20.0	µg/L	WA	EPAS270C
0 Acetone	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Acetonitrile (Methyl cyanide)	<10.2	U			10.2	µg/L	WA	EPAS270C
0 Acetophenone	<20.0	U			20.0	µg/L	WA	EPAS270C
0 Acetophenone	<20.0	U			20.0	µg/L	WA	EPAS270C
0 Acetylaminofluorene	<10.2	U			10.2	µg/L	WA	EPAS270C
0 2-Acetylaminofluorene	<20.0	U			20.0	µg/L	WA	EPAS270C

First Quarter 1999







**First Quarter 1999**



## ANALYTICAL RESULTS

Well AMB 10D collected on 02/17/99 (cont.)

[illegible]

Well AMB 10D collected on 02/17/99 (cont.)

[illegible]

**B-27**

**First Quarter 1999**



## ANALYTICAL RESULTS

Well AMB 118 collected on 02/23/99 (cont.)

Concentration	Unit	Product
1.70E-10	µCi/mL	TM
1.40E-09	µCi/mL	TM
5.30E-10	µCi/mL	TM
5.10E-10	µCi/mL	TM
		EPA900.0M
		EPA900.0M
		EPA903.0M
		EPA900.0M

**WELL AMB 11B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Time: 12:19  
Water temperature: 18.4°C  
Air temperature: 7.4°C  
Total alkalinity (as CaCO<sub>3</sub>): 7 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): S

## ANALYSES

[illegible]

**B-28**

**First Quarter 1999**



## ANALYTICAL RESULTS

Well AMB 11B collected on 02/23/99 (cont.)

[illegible]

Well AMB 11B collected on 02/23/99 (cont.)

F	Analyte	Residue
0	Silver, total recoverable	<5.00
0	Silver, total recoverable	<5.00
0	Sodium, total recoverable	2.160
0	Sodium, total recoverable	1.870
0	Sodium, total recoverable	<5.00
0	Sulfene	<5.00
0	Sulfene	<5.00
0	Sulfene	<5.00
0	Sulfate	<4.00
0	Sulfate	<4.00
0	Sulfate	561
0	1,1,1,2-Tetrachloroethane	<5.00
0	1,1,1,2-Tetrachloroethane	<5.00
0	1,1,1,2-Tetrachloroethane	<5.00
0	1,1,1,2-Tetrachloroethane	<5.00
0	1,1,2,2-Tetrachloroethane	<5.00
0	1,1,2,2-Tetrachloroethane	<5.00
0	1,1,2,2-Tetrachloroethane	<5.00
0	1,1,2,2-Tetrachloroethane	<5.00
0	Trichloroethylene	<5.00
0	Trichloroethylene	<5.00
0	Trichloroethylene	<5.00
0	Tetrachloroethylene	<5.00
0	Tetrachloroethylene	<5.00
0	Toluene	<5.00
0	Toluene	<5.00
0	Total organic carbon	<5.000
0	Total organic carbon	<5.000
0	Total organic halogen	569
0	Total organic halogens	<120
0	Total organic halogens	<120
0	Total phosphates (as P)	<2.500
0	Total phosphates (as P)	9.34
0	1,1,1-Trichloroethane	<5.00
0	1,1,1-Trichloroethane	<5.00
0	1,1,1-Trichloroethane	<5.00
0	1,1,1-Trichloroethane	<5.00
0	1,1,1-Trichloroethane	<5.00
0	1,1,2-Trichloroethane	<5.00
0	1,1,2-Trichloroethane	<5.00
0	1,1,2-Trichloroethane	<5.00
0	1,1,2-Trichloroethane	<5.00
0	1,1,2-Trichloroethane	<5.00
0	Trichloroethylene	<5.00
0	Trichloroethylene	<5.00
0	Trichloroethylene	<5.00
0	Trichlorofluoromethane	<5.00
0	Trichlorofluoromethane	<5.00
0	Trichlorofluoromethane	<5.00
0	1,2,3-Trichloropropane	<5.00
0	1,2,3-Trichloropropane	<5.00
0	1,2,3-Trichloropropane	<5.00
0	1,2,3-Trichloropropane	<5.00
0	Vinyl acetate	<20.0
0	Vinyl acetate	<10.0
0	Vinyl acetate	<10.0
0	Vinyl acetate	<10.0
0	Xylenes	<10.0
0	Xylenes	<5.00
0	Xylenes	<5.00
0	Gross alpha	4.99E-05
0	Gross alpha	1.13E-05
0	Gross alpha	1.42E-05
0	Gross alpha	7.68E-06
0	Nonvolatile beta	<3.10E
0	Nonvolatile beta	<3.10E
0	Nonvolatile beta	<3.10E
0	Radium, total alpha-emitting	2.00E-05
0	Radium, total alpha-emitting	2.00E-05
0	Radium, total alpha-emitting	6.10E-05

**ESH-EMS-990520**

**B-29**

**First Quarter 1999**



## ANALYTICAL RESULTS

## WELL AMB 11B Replicate

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/23/99

Depth to water: 142.7 ft (43.5 m) below TOC

Water elevation: 221.9 ft (67.64 m) msl

pH: 5.3

Sp. conductance: 38 µS/cm

Turbidity: 0 NTU

Water evacuated from the well prior to sampling: 107 gal

Time: 12:19  
 Water temperature: 18.4°C  
 Air temperature: 7.0°C  
 Total alkalinity (as CaCO<sub>3</sub>): 7 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Acetone	<4.51	U			10.0	µg/L	WA	EPA8260B
0 Acetonitrile (Methyl cyanide)	<20.0	U	V		20.0	µg/L	WA	EPA8260B
0 Acrolein	<20.0	U			20.0	µg/L	WA	EPA8260B
0 Acrylonitrile	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Allyl chloride	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Aluminum, total recoverable	18.1	U			146	µg/L	WA	EPA6010B
0 Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPA6010B
0 Barium, total recoverable	19.1	U			180	µg/L	WA	EPA6010B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Carbon disulfide	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloride	4.190	U			210	µg/L	WA	EPA9056
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chromium, total recoverable	<0.810	U			7.00	µg/L	WA	EPA8260B
0 Cyanide	<15.2	U			15.2	µg/L	WA	EPA9014
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dibromo-3-chloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dibromomethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dichlorodifluoromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,4-Dichloro-2-butene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Fluoride	<22.0	U			40.0	µg/L	WA	EPA340.2
0 Iodomethane (Methyl iodide)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Iron, total recoverable	<100	U			100	µg/L	WA	EPA8260B
0 Isobutyl alcohol	<47.0	U			47.0	µg/L	WA	EPA8260B
0 Lead, total recoverable	<0.0510	U			0.0510	µg/L	WA	EPA8260B
0 Lindane	<7.80	U			7.80	µg/L	WA	EPA8260B
0 Manganese, total recoverable	<1.80	U			1.80	µg/L	WA	EPA8260B
0 Mercury, total recoverable	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Methyl isobutyl ketone	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Nickel, total recoverable	<26.0	U			26.0	µg/L	WA	EPA8260B
0 Nitrate-nitrite as nitrogen	229	U			20.0	µg/L	WA	EPA8260B
0 Phenol	<10.4	U			10.4	µg/L	WA	EPA8260B
0 Propionitrile	<50.0	U			50.0	µg/L	WA	EPA8260B
0 Selenium, total recoverable	<66.0	U			66.0	µg/L	WA	EPA8260B
0 Silver, total recoverable	<0.950	U			0.950	µg/L	WA	EPA8260B
0 Sodium, total recoverable	1.860	U			285	µg/L	WA	EPA8260B
0 Styrene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Sulfate	591	U			340	µg/L	WA	EPA8260B
0 1,1,1,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Tetrachloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPA8260B

ESH-EMS-990520

B-30

Well AMB 11B collected on 02/23/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Total organic carbon	324	U			1,000	µg/L	WA	EPA9060
0 Total organic halogens	<120	U			120	µg/L	WA	EPA9020B
0 Total phosphates (as P)	9.34	U			67.0	µg/L	WA	EPA365.2
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2,3-Trichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Vinyl acetate	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Gross alpha	8.00E-10x5.90E-10	U			8.00E-10	µCi/mL	WA	EPA900.0M
0 Nonradioactive beta	3.90E-10x1.00E-09	U			3.90E-10	µCi/mL	TM	EPA900.0M
0 Radium, total alpha-emitting	6.90E-10x3.40E-10	U			6.90E-10	µCi/mL	TM	EPA900.0M
0 Radium, total alpha-emitting	1.70E-10x3.60E-10	U			1.70E-10	µCi/mL	TM	EPA900.0M

## WELL AMB 11D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/12/99

Depth to water: 130.83 ft (39.88 m) below TOC

Water elevation: 233.17 ft (71.07 m) msl

pH: 5.9

Sp. conductance: 38 µS/cm

Turbidity: 11 NTU

Water evacuated from the well prior to sampling: 125 gal

Time: 11:35  
 Water temperature: 17.8°C  
 Air temperature: 19.6°C  
 Total alkalinity (as CaCO<sub>3</sub>): 12 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Acetone	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Acetonitrile (Methyl cyanide)	<20.0	U			20.0	µg/L	WA	EPA8260B
0 Acrolein	<20.0	U			20.0	µg/L	WA	EPA8260B
0 Acrylonitrile	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Allyl chloride	<10.0	U			10.0	µg/L	WA	EPA8260B
2 Aluminum, total recoverable	117	U			148	µg/L	WA	EPA6010B
2 Arsenic, total recoverable	<4.0	U			4.0	µg/L	WA	EPA6010B
2 Barium, total recoverable	4.70	U			1.80	µg/L	WA	EPA6010B
0 Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Carbon disulfide	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloride	2.750	U			210	µg/L	WA	EPA9056
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chromium, total recoverable	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chromium, total recoverable	<7.00	U			7.00	µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dibromo-3-chloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dibromomethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,4-Dichloro-2-butene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dichlorodifluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 2,4-Dichlorophenoxyacetic acid	<1.02	U			1.02	µg/L	WA	EPA8260B
0 2,4-Dichlorophenoxyacetic acid	<2.04	U			2.04	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Fluoride	<51.4	U			40.0	µg/L	WA	EPA340.2

First Quarter 1999



Well AMB 11D collected on 02/12/99 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	2-Hexanone	<10.0	U			10.0	µg/L	WA	EPA8260B
0	Iodomethane (Methyl iodide)	<5.00	U			5.00	µg/L	WA	EPA8260B
1	Iron, total recoverable	159	U			74.0	µg/L	WA	EPA6010B
1	Iron, total recoverable	151	U			74.0	µg/L	WA	EPA6010B
0	Isobutyl alcohol	<10.0	U			10.0	µg/L	WA	EPA8260B
0	Lead, total recoverable	<47.0	U			47.0	µg/L	WA	EPA6010B
0	Lead, total recoverable	<47.0	U			47.0	µg/L	WA	EPA6010B
0	Lindane	<0.0545	U			0.0545	µg/L	WA	EPA6010B
0	Manganese, total recoverable	2.80	U			7.80	µg/L	WA	EPA6010B
0	Manganese, total recoverable	2.80	U			7.80	µg/L	WA	EPA6010B
0	Methyl isobutyl ketone	<10.0	U			10.0	µg/L	WA	EPA8260B
0	Methyl isobutyl ketone	<10.0	U			10.0	µg/L	WA	EPA8260B
0	Nickel, total recoverable	<26.0	U			26.0	µg/L	WA	EPA6010B
0	Nickel, total recoverable	<26.0	U			26.0	µg/L	WA	EPA6010B
0	Nitrate-nitrite as nitrogen	167	U			10.4	µg/L	WA	EPA8270C
0	Phenol	<10.4	U			10.4	µg/L	WA	EPA8270C
0	Propionitrile	<20.0	U			20.0	µg/L	WA	EPA8260B
0	Selenium, total recoverable	<50.0	U			50.0	µg/L	WA	EPA6010B
0	Selenium, total recoverable	<50.0	U			50.0	µg/L	WA	EPA6010B
0	Silver, total recoverable	<0.730	U			0.66	µg/L	WA	EPA6010B
0	Silver, total recoverable	<0.730	U			0.66	µg/L	WA	EPA6010B
0	Sodium, total recoverable	5.830	U			285	µg/L	WA	EPA6010B
0	Sodium, total recoverable	5.830	U			285	µg/L	WA	EPA6010B
0	Sulfate	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Sulfate	6.540	U			340	µg/L	WA	EPA8260B
0	1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Toluene	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Total organic carbon	1.110	U			1.000	µg/L	WA	EPA8260B
0	Total organic carbon	1.110	U			1.000	µg/L	WA	EPA8260B
0	Total phosphates (as P)	29.5	U			67.0	µg/L	WA	EPA8260B
0	Total phosphates (as P)	31.2	U			67.0	µg/L	WA	EPA8260B
0	1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0	1,2,3-Trichloropropane	<10.0	U			10.0	µg/L	WA	EPA8260B
0	Vinyl acetate	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Xylenes	5.70E-10±6.40E-10	U			5.00	µg/L	WA	EPA8260B
0	Gross alpha	4.20E-10±5.90E-10	U			1.04E-09	µCi/mL	TM	EPA903.0M
0	Nonvolatile beta	1.30E-09	U			1.30E-09	µCi/mL	TM	EPA903.0M
0	Nonvolatile beta	1.50E-09	U			1.50E-09	µCi/mL	TM	EPA903.0M
0	Radium, total alpha-emitting	6.20E-10±9.90E-10	U			1.73E-09	µCi/mL	TM	EPA903.0M

## WELL AMB 12D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/12/99  
 Depth to water: 137.35 ft (41.86 m) below TOC  
 Water elevation: 232.45 ft (70.85 m) msl  
 pH: 6  
 Sp. conductance: 20 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 50 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Acetone	<10.0	U			10.0	µg/L	WA	EPA8260B
0	Acetonitrile (Methyl cyanide)	<20.0	U			20.0	µg/L	WA	EPA8260B
0	Acrolein	<20.0	U			20.0	µg/L	WA	EPA8260B
0	Acrylonitrile	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Allyl chloride	20.7	U			146	µg/L	WA	EPA8260B
1	Aluminum, total recoverable	<40.0	U			40.0	µg/L	WA	EPA6010B
0	Arsenic, total recoverable	6.70	U			1.80	µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Bromochloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Bromomethane	<10.0	U			10.0	µg/L	WA	EPA8260B

## ESH-EMS-990520

Well AMB 12D collected on 02/12/99 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Carbon disulfide	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Chloride	1,500	U			210	µg/L	WA	EPA9056
0	Chloride	1,420	U			210	µg/L	WA	EPA9056
0	Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0	Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0	Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Chloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Chloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Cyanide, total recoverable	<15.2	U			15.2	µg/L	WA	EPA9014
0	Cyanide, total recoverable	<15.2	U			15.2	µg/L	WA	EPA9014
0	Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	1,2-Dibromo-3-chloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	1,2-Dibromomethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Dibromomethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	trans-1,4-Dichloro-2-butene	<20.0	U			20.0	µg/L	WA	EPA8260B
0	Dichlorodifluoromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0	1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	cis-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0	trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Dichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	2,4-Dichlorophenoxyacetic acid	<1.02	U			1.02	µg/L	WA	EPA9151A
0	2,4-Dichlorophenoxyacetic acid	<1.02	U			1.02	µg/L	WA	EPA9151A
0	1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	trans-1,3-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Fluoride	<23.1	U			40.0	µg/L	WA	EPA340.2
0	2-Hexanone	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Iodomethane (Methyl iodide)	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Iodomethane (Methyl iodide)	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Isobutyl alcohol	33.7	U			74.0	µg/L	WA	EPA6010B
0	Lead, total recoverable	<100	U			100	µg/L	WA	EPA8260B
0	Lindane	<0.0525	U			0.0525	µg/L	WA	EPA8260B
0	Manganese, total recoverable	12.4	U			7.80	µg/L	WA	EPA8260B
0	Mercury, total recoverable	<0.450	U			0.450	µg/L	WA	EPA8260B
0	Methacrylonitrile	<10.0	U			10.0	µg/L	WA	EPA8260B
0	Methyl ethyl ketone	<10.0	U			10.0	µg/L	WA	EPA8260B
0	Methyl isobutyl ketone	<10.0	U			10.0	µg/L	WA	EPA8260B
0	Nickel, total recoverable	<26.0	U			26.0	µg/L	WA	EPA8260B
0	Nitrate-nitrite as nitrogen	733	U			10.4	µg/L	WA	EPA8260B
0	Phenol	<10.4	U			10.4	µg/L	WA	EPA8260B
0	Propionitrile	<50.0	U			50.0	µg/L	WA	EPA8260B
0	Selenium, total recoverable	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Silver, total recoverable	<0.730	U			0.66	µg/L	WA	EPA8260B
0	Sodium, total recoverable	1,330	U			285	µg/L	WA	EPA8260B
0	Sulfate	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Sulfate	714	U			340	µg/L	WA	EPA9056
0	Sulfate	672	U			340	µg/L	WA	EPA9056
0	1,1,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	1,1,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Toluene	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Total organic carbon	865	U			1,000	µg/L	WA	EPA9060
0	Total organic carbon	865	U			1,000	µg/L	WA	EPA9060
0	Total phosphates (as P)	21.0	U			120	µg/L	WA	EPA9020B
0	1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0	1,2,3-Trichloropropane	<10.0	U			10.0	µg/L	WA	EPA8260B
0	Vinyl acetate	<5.00	U			5.00	µg/L	WA	EPA8260B
0	Xylenes	6.80E-10±6.30E-10	U			9.70E-10	µCi/mL	TM	EPA903.0M
0	Gross alpha	9.00E-11±8.50E-10	U			1.53E-09	µCi/mL	TM	EPA903.0M
0	Nonvolatile beta	6.70E-10±9.00E-10	U			1.52E-09	µCi/mL	TM	EPA903.0M
0	Radium, total alpha-emitting	6.00E-11±7.30E-10	U			1.61E-09	µCi/mL	TM	EPA903.0M

## B-31



## ANALYTICAL RESULTS

## WELL AMB 13AR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
 Depth to water: 146.63 ft (44.69 m) below TOC  
 Water elevation: Not available  
 pH: 7.6  
 Sp. conductance: 72  $\mu\text{S}/\text{cm}$   
 Turbidity: 2.2 NTU  
 Water evacuated from the well prior to sampling: 87 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Acetone	<10.0	U	U	10.0	20.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Acetonitrile (Methyl cyanide)	<10.0	U	U	20.0	20.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Acrolein	<20.0	U	U	20.0	20.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Acrylonitrile	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Allyl chloride	<10.0	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
2 Aluminum, total recoverable	494	U	U	146	40.0	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Arsenic, total recoverable	<40.0	U	U	40.0	40.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Barium, total recoverable	28.0	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Benzene	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Bromochloromethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Bromomethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Carbon disulfide	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Chlorobenzene	2.800	U	U	210	5.00	$\mu\text{g}/\text{L}$	WA	EPA8056
0 Chloroethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Chloroform	<10.0	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Chloropropane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Chromium, total recoverable	5.30	U	U	7.00	7.00	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Cyanide	<15.2	U	U	15.2	15.2	$\mu\text{g}/\text{L}$	WA	EPA9014
0 Dibromochloromethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 1,2-Dibromo-3-chloropropane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 1,2-Dibromomethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Dibromomethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 trans-1,4-Dichloro-2-butene	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Dichlorodifluoromethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 1,1-Dichloroethene	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 cis-1,2-Dichloroethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 trans-1,2-Dichloroethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 2,4-Dichlorophenoxyacetic acid	<1.02	U	U	1.02	1.02	$\mu\text{g}/\text{L}$	WA	EPA8151A
0 1,2-Dichloropropane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Ethylbenzene	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Fluoride	<24.3	U	U	40.0	40.0	$\mu\text{g}/\text{L}$	WA	EPA340.2
0 2-Hexanone	<10.0	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Iodomethane (Methyl iodide)	<47.0	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Iron, total recoverable	97.2	U	U	14.0	14.0	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Isobutyl alcohol	<10.0	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Lead, total recoverable	<0.0510	U	U	0.0510	0.0510	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Lindane	<0.0510	U	U	0.0510	0.0510	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Manganese, total recoverable	2.10	U	U	7.80	7.80	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Mercury, total recoverable	<0.450	U	U	0.450	0.450	$\mu\text{g}/\text{L}$	WA	EPA7470A
0 Methyl isobutyl ketone	<10.0	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Methyl ethyl ketone	<10.0	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Nickel, total recoverable	<26.0	U	U	26.0	26.0	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Nitrate-nitrite as nitrogen	995	U	U	20.0	20.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Phenol	<10.2	U	U	10.2	10.2	$\mu\text{g}/\text{L}$	WA	EPA8270C
0 Propionitrile	<20.0	U	U	20.0	20.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Selenium, total recoverable	<50.0	U	U	50.0	50.0	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Silver, total recoverable	<86.0	U	U	66.0	66.0	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Sodium, total recoverable	4.010	U	U	285	285	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Styrene	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Sulfate	1.560	U	U	3.00	3.00	$\mu\text{g}/\text{L}$	WA	EPA8056
0 1,1,1,2-Tetrachloroethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B

ESH-EMS-990520

B-32

Well AMB 13AR collected on 02/17/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Tetrachloroethylene	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Toluene	3.140	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8060
0 Total organic carbon	12.3	U	U	120	120	$\mu\text{g}/\text{L}$	WA	EPA8020B
0 Total phosphates (as P)	19.4	U	U	67.0	67.0	$\mu\text{g}/\text{L}$	WA	EPA385.2
0 1,1,1-Trichloroethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Trichloroethylene	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 1,2,3-Trichloropropane	<10.0	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Vinyl acetate	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Xylenes	2.77E-09	U	U	80E-10	80E-10	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Gross alpha	1.75E-09	U	U	20E-10	20E-10	$\mu\text{Ci}/\text{mL}$	TM	EPA900.0M
0 Gross beta	1.84E-09	U	U	10E-10	10E-10	$\mu\text{Ci}/\text{mL}$	TM	EPA900.0M
0 Nitrocellulose beta	1.84E-09	U	U	10E-10	10E-10	$\mu\text{Ci}/\text{mL}$	TM	EPA900.0M
0 Radium, total alpha-emitting	4.40E-10	U	U	1.31E-09	1.31E-09	$\mu\text{Ci}/\text{mL}$	TM	EPA903.0M
0 Radium, total alpha-emitting	3.50E-10	U	U	1.36E-09	1.36E-09	$\mu\text{Ci}/\text{mL}$	TM	EPA903.0M

## WELL AMB 14D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/30/99  
 Depth to water: 152.52 ft (46.48 m) below TOC  
 Water elevation: 229.68 ft (70.07 m) msl  
 pH: 6.1  
 Sp. conductance: 30  $\mu\text{S}/\text{cm}$   
 Turbidity: 11 NTU  
 Water evacuated from the well prior to sampling: 1 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Acetone	<2.73	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Acetonitrile (Methyl cyanide)	<20.0	U	U	20.0	20.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Acrolein	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Acrylonitrile	<10.0	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
2 Aluminum, total recoverable	215	U	U	146	146	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Arsenic, total recoverable	<40.0	U	U	40.0	40.0	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Barium, total recoverable	6.60	U	U	1.80	1.80	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Benzene	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Bromodichloromethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Bromomethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Carbon disulfide	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Chloride	2.070	U	U	210	210	$\mu\text{g}/\text{L}$	WA	EPA8056
0 Chlorobenzene	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Chloroethane	<10.0	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Chloroform	<10.0	U	U	10.0	10.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Chloromethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Chromium, total recoverable	4.20	U	U	7.00	7.00	$\mu\text{g}/\text{L}$	WA	EPA8010B
0 Cyanide	1.20	U	U	15.2	15.2	$\mu\text{g}/\text{L}$	WA	EPA9014
0 Dibromochloromethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 1,2-Dibromo-3-chloropropane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 1,2-Dibromomethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Dibromomethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 trans-1,4-Dichloro-2-butene	<20.0	U	U	20.0	20.0	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 Dichlorodifluoromethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 1,1-Dichloroethene	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 cis-1,2-Dichloroethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 trans-1,2-Dichloroethane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B
0 2,4-Dichlorophenoxyacetic acid	<1.00	U	U	1.00	1.00	$\mu\text{g}/\text{L}$	WA	EPA8151A
0 1,2-Dichloropropane	<5.00	U	U	5.00	5.00	$\mu\text{g}/\text{L}$	WA	EPA8260B

First Quarter 1999



Well AMB 14D collected on 03/30/99 (cont.)

<i>F. Analysis</i>	<i>Residue</i>
cis-1,3-Dichloropropene	<5.00
trans-1,3-Dichloropropene	<5.00
Ethylbenzene	<5.00
Fluoride	<25.1
Fluoride	<24.9
2-Hexanone	<10.0
Iodomethane (Methyl iodide)	<5.00
Iron, total recoverable	680
Iron, total recoverable	<100
Isobutyl alcohol	<47.0
Lead, total recoverable	<47.0
Lead, total recoverable	<0.051
Lignin	<0.102
Lindane	15.9
Manganese, total recoverable	15.7
Manganese, total recoverable	0.160
Mercury, total recoverable	<10.0
Methacrylonitrile	<10.0
Methyl ethyl ketone	<10.0
Methyl isobutyl ketone	<10.0
Nickel, total recoverable	<26.0
Nickel, total recoverable	<26.0
Nitrate-nitrite as nitrogen	1,520
Nitrate-nitrite as nitrogen	1,520
Phenol	<20.0
Phenol	<20.0
Propionitrile	<50.0
Selenium, total recoverable	<66.0
Selenium, total recoverable	<66.0
Silver, total recoverable	0.620
Silver, total recoverable	<5.00
Sodium, total recoverable	3,200
Sodium, total recoverable	3,170
Sulfate	<5.00
Styrene	302
Sulfate	<5.00
1,1,1,2-Tetrachloroethane	<5.00
1,1,2,2-Tetrachloroethane	<5.00
1,2,2,2-Tetrachloroethylene	<11.5
Toluene	<5.00
Total anionic carbon	756
Total organic carbon	865
Total organic halogens	62.1
Total phosphates (as P)	24.2
1,1,1-Trichloroethane	<5.00
1,1,2-Trichloroethane	<5.00
Trichloroethylene	73.1
Trichlorofluoromethane	<5.00
1,2,3-Trichloropropane	<5.00
Vinyl acetate	<10.0
Xylenes	<5.00
Gross alpha	1,345
Gross beta	1,275
Nonvolatile beta	1.36E
Nonvolatile beta	4.20E
Radium, total alpha-emitting	1.40E
Radium, total alpha-emitting	4.20E

**WELL AMB 15D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/16/99  
Depth to water: 151.46 ft (46.17 m) below TOC  
Water elevation: 231.94 ft (70.7 m) msl  
pH: 4.7  
Sp. conductance: 28 µS/cm  
Turbidity: 11 NTU  
Water evacuated from the well prior to sampling: 20 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result
0	Acetone	<10.0
0	Acetone	<10.0
0	Acetone	<10.0
0	Acetonitrile (Methyl cyanide)	<20.0

**ESH-EMS-990520**

Well AMB 15D collected on 03/16/99 (cont.)

F	Analyte	Result
	Acetonitrile (Methyl cyanide)	<20.0
	Acetonitrile (Methyl cyanide)	<20.0
	Acrolein	<20.0
	Azobenzene	<20.0
	Azobenzene	<20.0
	Acrylonitrile	<5.00
	Acrylonitrile	<5.00
	Acrylonitrile	<5.00
	Allyl chloride	<10.0
	Allyl chloride	<10.0
	Allyl chloride	<10.0
	Aluminum, total recoverable	262
	Arsenic, total recoverable	<40.0
	Barium, total recoverable	7.30
	Benzene	<5.00
	Benzene	<5.00
	Bromodichloromethane	<5.00
	Bromodichloromethane	<5.00
	Bromodichloromethane	<5.00
	Bromochloromethane	<5.00
	Bromochloromethane	<5.00
	Bromomethane	<10.0
	Bromomethane	<10.0
	Bromomethane	<10.0
	Carbon disulfide	<5.00
	Carbon disulfide	<5.00
	Carbon tetrachloride	<5.00
	Carbon tetrachloride	<5.00
	Carbon tetrachloride	<5.00
	Chloride	1,790
	Chlorobenzene	<5.00
	Chlorobenzene	<5.00
	Chloroethane	<10.0
	Chloroethane	<10.0
	Chloroethane	<10.0
	Chloroethane (Vinyl chloride)	<10.0
	Chloroethane (Vinyl chloride)	<10.0
	Chloroethane (Vinyl chloride)	<10.0
	Chloroform	<5.00
	Chloroform	<5.00
	Chloroform	<5.00
	Chloromethane	<10.0
	Chloromethane	<10.0
	Chloromethane	<10.0
	Chloroprene	<5.00
	Chloroprene	<5.00
	Chloroprene	<5.00
	Chloroprene, total recoverable	6.10
	Cyanide	<15.2
	Dibromochloromethane	<5.00
	Dibromochloromethane	<5.00
	Dibromochloromethane	<5.00
	1,2-Dibromo-3-chloropropane	<5.00
	1,2-Dibromo-3-chloropropane	<5.00
	1,2-Dibromo-3-chloropropane	<5.00
	1,2-Dibromo-3-chloropropane	<5.00
	1,2-Dibromomethane	<5.00
	1,2-Dibromomethane	<5.00
	1,2-Dibromomethane	<5.00
	Dibromomethane	<5.00
	Dibromomethane	<5.00
	Dibromomethane	<5.00
	trans-1,4-Dichloro-2-butene	<20.0
	trans-1,4-Dichloro-2-butene	<20.0
	trans-1,4-Dichloro-2-butene	<20.0
	Dichlorodifluoromethane	<10.0
	Dichlorodifluoromethane	<10.0
	1,1-Dichloroethane	<5.00
	1,1-Dichloroethane	<5.00
	1,1-Dichloroethane	<5.00
	1,2-Dichloroethane	<5.00
	1,2-Dichloroethane	<5.00
	1,1-Dichloroethylene	<5.00
	1,1-Dichloroethylene	<5.00

**B-33**



## ANALYTICAL RESULTS

Well AMB 15D collected on 03/16/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 cis-1,2-Dichloroethylene	<25.0	U			25.0	µg/L	WA	EPAS260B
0 cis-1,2-Dichloroethylene	<25.0	U			25.0	µg/L	WA	EPAS260B
0 cis-1,2-Dichloroethylene	<25.0	U			25.0	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 2,4-Dichlorophenoxyacetic acid	<1.00	U			1.00	µg/L	WA	EPAS151A
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Fluoride	<19.5	U			40.0	µg/L	WA	EPAS340.2
0 2-Hexanone	<10.0	U			10.0	µg/L	WA	EPAS260B
0 2-Hexanone	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Iodomethane (Methyl iodide)	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Iodomethane (Methyl iodide)	<5.00	U			5.00	µg/L	WA	EPAS260B
2 Iron, total recoverable	823	U			100	µg/L	WA	EPAS260B
0 Isobutyl alcohol	<100	U			100	µg/L	WA	EPAS260B
0 Isobutyl alcohol	<100	U			100	µg/L	WA	EPAS260B
0 Isobutyl alcohol	<100	U			100	µg/L	WA	EPAS260B
0 Lead, total recoverable	<47.0	U			47.0	µg/L	WA	EPAS260B
0 Lead, total recoverable	<0.0510	U			0.0510	µg/L	WA	EPAS260B
0 Lead, total recoverable	<0.100	U			0.100	µg/L	WA	EPAS260B
1 Manganese, total recoverable	25.9	U			7.80	µg/L	WA	EPAS260B
0 Mercury, total recoverable	<0.450	U			0.450	µg/L	WA	EPAS260B
0 Methacrylonitrile	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Methacrylonitrile	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Methyl ethyl ketone	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Methyl ethyl ketone	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Methyl isobutyl ketone	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Methyl isobutyl ketone	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Methyl isobutyl ketone	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Nickel, total recoverable	1.320	U			26.0	µg/L	WA	EPAS260B
0 Nitrate-nitrite as nitrogen	<10.2	U			10.2	µg/L	WA	EPAS260B
0 Propionitrile	<50.0	U			50.0	µg/L	WA	EPAS260B
0 Propionitrile	<50.0	U			50.0	µg/L	WA	EPAS260B
0 Propionitrile	<50.0	U			50.0	µg/L	WA	EPAS260B
0 Selenium, total recoverable	<66.0	U			66.0	µg/L	WA	EPAS260B
0 Silver, total recoverable	2.660	U			285	µg/L	WA	EPAS260B
0 Sodium, total recoverable	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Styrene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Sulfate	1.030	U			340	µg/L	WA	EPAS260B
0 1,1,1,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Tetrachloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Tetrachloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Tetrachloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Total organic carbon	817	U			1,000	µg/L	WA	EPAS260B
0 Total organic halogens	<120	U			120	µg/L	WA	EPAS260B
0 Total phosphates (as P)	91.4	U			67.0	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B

ESH-EMS-990520

B-34

First Quarter 1999

Well AMB 15D collected on 03/16/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,2,3-Trichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,2,3-Trichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Vinyl acetate	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Vinyl acetate	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Gross alpha	7.30E-10±4.80E-10	J			2.20E-10	µCi/mL	TM	EPAS260B
0 Nonvolatile beta	-2.79E-09±1.45E-09	J			2.79E-09	µCi/mL	TM	EPAS260B
0 Radium, total alpha-emitting	1.90E-10±4.90E-10	U			9.80E-10	µCi/mL	TM	EPAS260B

## WELL AMB 16D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/10/99  
 Depth to water: 148.73 ft (45.33 m) below TOC  
 Water elevation: 231.67 ft (70.61 m) msl  
 pH: 4.7  
 Sp. conductance: 21 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 12 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Acetone	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Acetonitrile (Methyl cyanide)	<20.0	U			20.0	µg/L	WA	EPAS260B
0 Acrylonitrile	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Allyl chloride	<10.0	U			10.0	µg/L	WA	EPAS260B
1 Aluminum, total recoverable	25.2	J			146	µg/L	WA	EPAS260B
0 Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPAS260B
0 Barium, total recoverable	4.80	U			1.80	µg/L	WA	EPAS260B
0 Benzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Bromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Carbon disulfide	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chloroacetaldehyde	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	1.770	U			210	µg/L	WA	EPAS260B
0 Chloroethane (Vinyl chloride)	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chloroprene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chromium, total recoverable	1.30	J			15.2	µg/L	WA	EPAS260B
0 Cyanide	<15.2	U			5.00	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,2-Dibromo-3-chloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Dibromomethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Dichlorodifluoromethane	<20.0	U			20.0	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 cis-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 2,4-Dichlorophenoxyacetic acid	<1.05	U			1.05	µg/L	WA	EPAS151A
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Fluoride	<24.1	U			40.0	µg/L	WA	EPAS340.2



## ANALYTICAL RESULTS

Well AMB 16D collected on 03/16/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	2-Hexanone	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Iodomethane (Methyl iodide)	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Iron, total recoverable	18.3	J	I		74.0	µg/L	WA	EPAS010B
0	Isobutyl alcohol	<100	U			100	µg/L	WA	EPAS260B
0	Lead, total recoverable	<47.0	U			47.0	µg/L	WA	EPAS010B
0	Lindane	<0.0510	U			0.0510	µg/L	WA	EPAS081A
0	Manganese, total recoverable	5.00	J	I		7.60	µg/L	WA	EPAS010B
0	Mercury, total recoverable	<0.450	U			0.450	µg/L	WA	EPAS260B
0	Methyl acetate	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Methyl ethyl ketone	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Methyl isobutyl ketone	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Nitrate, total recoverable	<26.0	U			26.0	µg/L	WA	EPAS3532
0	Nitrate-nitrite as nitrogen	903	U			26.0	µg/L	WA	EPAS3532
0	Phenol	<10.4	U			10.4	µg/L	WA	EPAS270C
0	Propionitrile	<20.0	U			20.0	µg/L	WA	EPAS270C
0	Selenium, total recoverable	<60.0	U			60.0	µg/L	WA	EPAS260B
0	Silver, total recoverable	<68.0	U			68.0	µg/L	WA	EPAS010B
0	Sodium, total recoverable	<5.00	U			5.00	µg/L	WA	EPAS010B
0	Sulfate	1,690	U			285	µg/L	WA	EPAS010B
0	Toluene	373	U			340	µg/L	WA	EPAS056
0	1,1,1,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Tetrachloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Total organic carbon	802	J	I		1,000	µg/L	WA	EPAS060
0	Total organic halogens	<120	U			120	µg/L	WA	EPAS260B
0	Total phosphates (as P)	9.66	J	I		87.0	µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Trichloroethylene	1.54	J	I		5.00	µg/L	WA	EPAS260B
0	Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,2,3-Trichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Vinyl acetate	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Gross alpha	6.94E-09±1.25E-09	J			7.50E-10	µCi/mL	TM	EPAS00.0M
0	Gross beta	6.35E-09±1.16E-09	J			6.30E-10	µCi/mL	TM	EPAS00.0M
0	Nonvolatile beta	2.13E-09±1.11E-09	J			1.77E-09	µCi/mL	TM	EPAS00.0M
0	Nonvolatile beta	1.38E-09±1.08E-09	J			1.79E-09	µCi/mL	TM	EPAS00.0M
0	Radium, total alpha-emitting	2.12E-09±1.01E-09	J			9.20E-10	µCi/mL	TM	EPAS03.0M
1	Radium, total alpha-emitting	2.72E-09±1.17E-09	J			9.80E-10	µCi/mL	TM	EPAS03.0M

## WELL AMB 17A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/16/99  
 Depth to water: 160.29 ft (49.86 m) below TOC  
 Water elevation: 218.81 ft (66.69 m) msl  
 pH: 5  
 Sp. conductance: 20 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 151 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<10.4	U			10.4	ng/L	WA	EPAS280A
0	Hexachlorodibenzo-p-dioxins	<5.10	U			5.10	ng/L	WA	EPAS280A



## ANALYTICAL RESULTS

Well AMB 17A collected on 03/16/99 (cont.)

F	Analysis	Residue
0	2-Chlorophenol	<20.0
0	2-Chlorophenol	<10.2
0	4-Chlorophenyl phenyl ether	<20.0
0	4-Chlorophenyl phenyl ether	<20.0
0	Chlorophenol, total recoverable	<10.0
0	Chlorophenol, total recoverable	<7.00
0	Chrysene	<10.2
0	Chrysene	<20.0
0	Cobalt, total recoverable	<4.50
0	Copper, total recoverable	2.80
0	m-Cresol (3-Methylphenol)	<10.2
0	m-Cresol (3-Methylphenol)	<20.0
0	nyp-Cresol	<10.2
0	nyp-Cresol	<20.0
0	o-Cresol (2-Methylphenol)	<10.2
0	o-Cresol (2-Methylphenol)	<20.0
0	Cyanide	<15.2
0	p,p'-DDD	<0.102
0	p,p'-DDE	<0.102
0	p,p'-DDT	<0.102
0	Diallate	<10.2
0	Dibenz(a,h)anthracene	<20.0
0	Dibenz(a,h)anthracene	<10.2
0	Dibenzofuran	<20.0
0	Dibenzofuran	<10.0
0	Dibromochloromethane	<10.0
0	1,2-Dibromo-3-Chloropropane	<10.0
0	1,2-Dibromomethane	<10.0
0	Dibromomethane	<10.0
0	Di-n-butyl phthalate	<10.2
0	Di-n-butyl phthalate	<20.0
0	1,2-Dichlorobenzene	<10.2
0	1,2-Dichlorobenzene	<20.0
0	1,3-Dichlorobenzene	<10.2
0	1,3-Dichlorobenzene	<20.0
0	1,4-Dichlorobenzene	<10.2
0	1,4-Dichlorobenzene	<20.0
0	3,3'-Dichlorobenzidine	<10.2
0	3,3'-Dichlorobenzidine	<20.0
0	trans-1,4-Dichloro-2-Butene	<40.0
0	Dichlorodifluoromethane	<20.0
0	1,1-Dichloroethane	<10.0
0	1,2-Dichloroethane	<10.0
0	1,1-Dichloroethylene	<50.0
0	cis-1,2-Dichloroethylene	<10.0
0	Dichloromethane	<10.0
0	2,4-Dichlorophenol	<10.2
0	2,4-Dichlorophenol	<20.0
0	2,6-Dichlorophenol	<10.2
0	2,6-Dichlorophenol	<20.0
0	2,4-Dichlorophenoxyacetic acid	<1.00
0	trans-1,3-Dichloropropene	<10.0
0	cis-1,3-Dichloropropene	<10.0
0	trans-1,3-Dichloropropene	<0.102
0	Dieldrin	<20.0
0	Diethyl phthalate	<10.2
0	Diethyl phthalate	<20.0
0	Dimethoate	<50.0
0	Dimethoate	<0.510
0	2,4-Dimethyl phenol	<10.2
0	2,4-Dimethyl phenol	<20.0
0	Dimethyl phthalate	<10.2
0	Dimethyl phthalate	<20.0
0	p-Dimethylaminoazobenzene	<10.2
0	p-Dimethylaminoazobenzene	<20.0
0	1,2-Dimethylbenz(a)anthracene	<20.0
0	1,2-Dimethylbenz(a)anthracene	<10.2
0	3,3'-Dimethylbenzidine	<20.0
0	3,3'-Dimethylbenzidine	<20.0
0	a,a-Dimethylphenethylamine	<10.2
0	a,a-Dimethylphenethylamine	<20.0
0	1,3-Dinitrobenzene	<10.2
0	1,3-Dinitrobenzene	<20.0
0	2,4-Dinitrophenol	<25.0
0	2,4-Dinitrophenol	<50.0

**ESH-EMS-990520**

Well AMB 17A collected on 03/16/99 (cont.)

F. Analyte	Reac.
0.2,4-Dinitrotoluene	<10.2
0.2,4-Dinitrotoluene	<20.0
0.2,6-Dinitrotoluene	<10.2
2,6-Dinitrotoluene	<20.0
Di-n-octyl phthalate	<10.2
Di-n-octyl phthalate	<20.0
1,4-Dioxane	<10.2
1,4-Dioxane	<20.0
Diphenylamine	<10.2
Diphenylamine	<20.0
Disulfoton	<0.510
Disulfoton	<0.510
Endosulfan sulfate	<0.102
Endosulfan I	<0.051
Endosulfan II	<0.102
Endrin	<10.2
Endrin aldehyde	<10.2
Ethyl methacrylate	<10.2
Ethyl methanesulfonate	<10.2
Ethyl methanesulfonate	<20.0
Ethylthiophosphate	<10.2
Ethylbenzene	<10.2
Famphur	<1.33
Famphur	<1.33
Fluoranthene	<10.2
Fluoranthene	<20.0
Fluorene	<10.2
Fluorene	<20.0
Fluoride	<22.0
Fluoride	<22.0
Heptachlor	<0.051
Heptachlor epoxide	<0.051
Hexachlorobenzene	<10.2
Hexachlorobenzene	<20.0
Hexachlorobutadiene	<10.2
Hexachlorobutadiene	<20.0
Hexachlorocyclopentadiene	<10.2
Hexachlorocyclopentadiene	<20.0
Hexachloroethane	<10.2
Hexachloroethane	<20.0
Hexachloropentene	<25.0
Hexachloropentene	<25.0
Hexachloropropene	<10.2
Hexachloropropene	<20.0
Hexachlorotoluene	<20.0
Hexachlorotoluene	<20.0
Indene(1,2,3-dibipylene	<10.2
Indene(1,2,3-dibipylene	<20.0
Iodomethane (Methyl iodide)	<10.0
Iron, total recoverable	27.2
Isobutyl alcohol	<20.0
Isodrin	<0.102
Isophorone	<10.2
Isophorone	<20.0
Isosalitrole	<10.2
Isosalitrole	<20.0
Isosalitrole	<20.0
Kepon	<0.510
Kepon	<0.510
Lead, total recoverable	<47.0
Lead, total recoverable	<47.0
Lindane	7.10
Manganese, total recoverable	<0.450
Mercury, total recoverable	<20.0
Methylchloride	<10.2
Methylchloride	<10.2
Methylphenylene	<10.2
Methylphenylene	<10.2
Methylphenylene	<10.2
2-Methyl-4,6-dinitrophenol	<25.5
2-Methyl-4,6-dinitrophenol	<25.5
Methyl ethyl ketone	<20.0
Methyl isobutyl ketone	<20.0
Methyl methacrylate	<10.2
Methyl methacrylate	<20.0
Methyl methanesulfonate	<10.2
Methyl methanesulfonate	<20.0
3-Methylcholanthrene	<10.2
3-Methylcholanthrene	<20.0
2-Methylnaphthalene	<10.2
2-Methylnaphthalene	<20.0
Naphthalene	<10.2
Naphthalene	<20.0

**B-36**

**First Quarter 1999**



## ANALYTICAL RESULTS

F	Analyte	Result	
		Concentration	Unit
0	1-Naphthoquinone	<10.2	<10.2
0	1,4-Naphthoquinone	<10.2	<10.2
0	1-Naphthylamine	<10.2	<10.2
0	1-Naphthylamine	<10.2	<10.2
0	2-Naphthylamine	<10.2	<10.2
0	2-Naphthylamine	<10.2	<10.2
0	Nickel, total recoverable	<26.0	857
0	Nitrate-nitrite as nitrogen	<25.5	<25.5
0	m-Nitroaniline	<25.5	<25.5
0	o-Nitroaniline	<25.5	<25.5
0	p-Nitroaniline	<25.5	<25.5
0	p-Nitroaniline	<25.5	<25.5
0	Nitrobenzene	<10.2	<10.2
0	Nitrobenzene	<10.2	<10.2
0	2-Nitrophenol	<20.0	<20.0
0	2-Nitrophenol	<20.0	<20.0
0	4-Nitrophenol	<25.5	<25.5
0	4-Nitrophenol	<50.0	<50.0
0	4-Nitroquinoline-1-oxide	<20.0	<20.0
0	4-Nitroquinoline-1-oxide	<20.0	<20.0
0	N-Nitrosodi-n-butylamine	<10.2	<10.2
0	N-Nitrosodi-n-butylamine	<10.2	<10.2
0	N-Nitrosodimethylamine	<10.2	<10.2
0	N-Nitrosodimethylamine	<10.2	<10.2
0	N-Nitrosodimethylamine	<10.2	<10.2
0	N-Nitrosodipropylamine	<10.2	<10.2
0	N-Nitrosodipropylamine	<20.0	<20.0
0	N-Nitrosomethylamine	<10.2	<10.2
0	N-Nitrosomethylamine	<20.0	<20.0
0	N-Nitrosomethylamine	<10.2	<10.2
0	N-Nitrosomorpholine	<10.2	<10.2
0	N-Nitrosomorpholine	<10.2	<10.2
0	N-Nitrosopiperidine	<51.0	<51.0
0	N-Nitrosopiperidine	<100	<100
0	N-Nitrosopyrrolidine	<10.2	<10.2
0	N-Nitrosopyrrolidine	<10.2	<10.2
0	5-Nitro-o-toluidine	<10.2	<10.2
0	5-Nitro-o-toluidine	<10.2	<10.2
0	Parathion	<0.510	<0.510
0	Parathion methyl	<0.510	<0.510
0	Parathion methyl	<1.02	<1.02
0	PCB 1016	<2.00	<2.00
0	PCB 1016	<2.08	<2.08
0	PCB 1221	<2.04	<2.04
0	PCB 1221	<4.00	<4.00
0	PCB 1221	<4.16	<4.16
0	PCB 1232	<1.02	<1.02
0	PCB 1232	<2.00	<2.00
0	PCB 1232	<2.08	<2.08
0	PCB 1242	<1.02	<1.02
0	PCB 1242	<2.00	<2.00
0	PCB 1242	<1.02	<1.02
0	PCB 1248	<2.00	<2.00
0	PCB 1248	<2.08	<2.08
0	PCB 1254	<1.02	<1.02
0	PCB 1254	<2.00	<2.00
0	PCB 1260	<1.02	<1.02
0	PCB 1260	<2.00	<2.00
0	PCB 1260	<2.08	<2.08
0	Pentachlorobenzene	<10.2	<10.2
0	Pentachlorobenzene	<20.0	<20.0
0	Pentachlorobenzene	<10.2	<10.2
0	Pentachlorobenzene	<20.0	<20.0
0	Pentachloronitrobenzene	<51.0	<51.0
0	Pentachloronitrobenzene	<55.5	<55.5
0	Pentachlorophenol	<10.2	<10.2
0	Pentachlorophenol	<10.2	<10.2
0	Phenacetyl	<10.2	<10.2
0	Phenacetyl	<10.2	<10.2

Well AMB 17A collected on 03/16/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
Phenanthrene	<20.0	U		20.0	µg/L	WA	EPA8270C	
Phenol	<10.2	U		10.2	µg/L	WA	EPA8270C	
Phenol	<20.0	U		20.0	µg/L	WA	EPA8270C	
p-Phenylenediamine	<10.2	U		10.2	µg/L	WA	EPA8270C	
p-Phenylenediamine	<20.0	U		20.0	µg/L	WA	EPA8270C	
Phorate	<1.02	JU	Q	1.02	µg/L	WA	EPA8141A	
Phorate	<10.2	JU		10.2	µg/L	WA	EPA8141A	
2-Picoline	<10.2	U		10.2	µg/L	WA	EPA8270C	
2-Picoline	<20.0	U		20.0	µg/L	WA	EPA8270C	
Promamid	<10.2	U		10.2	µg/L	WA	EPA8270C	
Promamid	<20.0	U		20.0	µg/L	WA	EPA8270C	
Propionitrile	<100	U		100	µg/L	WA	EPA8260B	
Pyrene	<10.2	U		10.2	µg/L	WA	EPA8270C	
Pyrene	<20.0	U		20.0	µg/L	WA	EPA8270C	
Pyridine	<10.2	U		10.2	µg/L	WA	EPA8270C	
Pyridine	<20.0	U		20.0	µg/L	WA	EPA8270C	
Satrols	<10.2	U		10.2	µg/L	WA	EPA8270C	
Satrols	<20.0	U		20.0	µg/L	WA	EPA8270C	
Selenium, total recoverable	<66.0	U		66.0	µg/L	WA	EPA6010B	
Silver, total recoverable	<3.00	U		3.00	µg/L	WA	EPA6010B	
Sodium, total recoverable	<17.00	U		17.00	µg/L	WA	EPA8260B	
Sulfone	<10.2	U		10.2	µg/L	WA	EPA8260B	
Sulfate	487			340	µg/L	WA	EPA8056	
Sulfate	501			340	µg/L	WA	EPA8056	
Sulfide	<10.000	U		10.000	µg/L	WA	EPA376.2	
Sulfide	<10.000	U		10.000	µg/L	WA	EPA376.2	
Sulfotep	<1.02	JU	Q	1.02	µg/L	WA	EPA8141A	
Sulfotep	<10.2	JU		10.2	µg/L	WA	EPA8141A	
2,4,5-T	<0.500	U		0.500	µg/L	WA	EPA8151A	
1,2,4,5-Tetrachlorobenzene	<10.2	U		10.2	µg/L	WA	EPA8270C	
1,2,4,5-Tetrachlorobenzene	<20.0	U		20.0	µg/L	WA	EPA8270C	
1,1,1,2-Tetrachloroethane	<10.0	U		10.0	µg/L	WA	EPA8260B	
1,1,1,2-Tetrachloroethane	<10.0	U		10.0	µg/L	WA	EPA8260B	
2-Tetrachloroethylene	<26.0	U		10.2	µg/L	WA	EPA8260B	
2,3,4,6-Tetrachlorophenol	<10.2	U		10.2	µg/L	WA	EPA8270C	
2,3,4,6-Tetrachlorophenol	<20.0	U		20.0	µg/L	WA	EPA8270C	
Thallium, total recoverable	<35.0	U		35.0	µg/L	WA	EPA8141A	
Thionazin	<0.510	JU	Q	0.510	µg/L	WA	EPA8141A	
Thionazin	<10.2	JU		10.2	µg/L	WA	EPA8141A	
Tin, total recoverable	<70.0	U		70.0	µg/L	WA	EPA6010B	
Toluene	<10.2	U		10.2	µg/L	WA	EPA8141A	
Toluene	<20.0	U		20.0	µg/L	WA	EPA8260B	
o-Toluidine	<10.2	U		10.2	µg/L	WA	EPA8270C	
o-Toluidine	846	J		120	µg/L	WA	EPA8260B	
Total organic carbon	167			120	µg/L	WA	EPA8260B	
Total organic halogens	8.72			67.0	µg/L	WA	EPA365.2	
Total organics (as P)	5.10	J		5.10	µg/L	WA	EPA365.2	
Triphenyl	<0.500	U		0.500	µg/L	WA	EPA8151A	
2,4-TP (Silver)	<10.2	U		10.2	µg/L	WA	EPA8270C	
1,2,4-Trichlorobenzene	<20.0	U		20.0	µg/L	WA	EPA8260B	
1,2,4-Trichlorobenzene	<10.0	U		10.0	µg/L	WA	EPA8260B	
1,1,1-Trichloroethane	<10.0	U		10.0	µg/L	WA	EPA8260B	
1,1,1-Trichloroethane	<10.0	U		10.0	µg/L	WA	EPA8260B	
Trichloroethylene	208			10.0	µg/L	WA	EPA8260B	
Trichlorofluoromethane	<10.0	U		10.0	µg/L	WA	EPA8260B	
2,4,5-Trichlorophenol	<25.5	U		25.5	µg/L	WA	EPA8270C	
2,4,5-Trichlorophenol	<50.0	U		50.0	µg/L	WA	EPA8270C	
2,4,6-Trichlorophenol	<10.2	U		10.2	µg/L	WA	EPA8270C	
2,4,6-Trichlorophenol	<20.0	U		20.0	µg/L	WA	EPA8270C	
1,2,3-Trichloropropane	<10.0	U		10.0	µg/L	WA	EPA8260B	
0,0,0-Triethyl phosphorothioate	<0.510	JU	Q	0.510	µg/L	WA	EPA8141A	
0,0,0-Triethyl phosphorothioate	<10.2	JU		10.2	µg/L	WA	EPA8141A	
1,3,5-Trinitrobenzene	<20.0	U		20.0	µg/L	WA	EPA8270C	
Vanadium, total recoverable	<3.90	U		3.90	µg/L	WA	EPA6010B	
Vinyl acetate	<20.0	U		20.0	µg/L	WA	EPA8260B	
Xylenes	<10.0	U		10.0	µg/L	WA	EPA8260B	
Xylenes	101E-0948.10E-10	U		53.0E-10	µg/L	WA	EPA8260B	
Gross alpha	3.80E-1044.80E-10	U		2.30E-10	µCi/mL	TM	EPA6010B	
Nonradio beta	7.80E-1043.80E-10	U		2.40E-10	µCi/mL	TM	EPA6010B	
Nonradio beta	4.60E-1043.60E-10	U		2.40E-10	µCi/mL	TM	EPA6010B	
Radium, total alpha-emitting	5.90E-1045.10E-10	U		6.60E-10	µCi/mL	TM	EPA903.0M	
Radium, total alpha-emitting	4.80E-1045.80E-10	U		8.90E-10	µCi/mL	TM	EPA903.0M	

**ESH-EMS-990520**

B-37

**First Quarter 1999**



**First Quarter 1999**



## ANALYTICAL RESULTS

F	Analyte	Result
0	Chromium, total recoverable	<7.00
0	Chromium, total recoverable	<7.00
0	Chrysene	<10.2
0	Chrysene	<20.0
0	Cobalt, total recoverable	<4.50
0	Cobalt, total recoverable	<4.50
0	Copper, total recoverable	2.50
0	Copper, total recoverable	2.40
0	m-Cresol (3-Methylphenol)	<10.2
0	m-Cresol (3-Methylphenol)	<20.0
0	m-Cresol (3-Methylphenol)	<10.2
0	m/p-Cresol	<20.0
0	m/p-Cresol	<20.0
0	o-Cresol (2-Methylphenol)	<10.2
0	o-Cresol (2-Methylphenol)	<20.0
0	o-Cresol (2-Methylphenol)	<20.0
0	Cyanide	<15.2
0	p,p'-DDD	<0.102
0	p,p'-DDD	<0.200
0	p,p'-DDE	<0.208
0	p,p'-DDE	<0.102
0	p,p'-DDE	<0.208
0	p,p'-DDE	<0.208
0	p,p'-DDT	<0.102
0	p,p'-DDT	<0.200
0	p,p'-DDT	<0.200
0	Diallate	<10.2
0	Diallate	<20.0
0	Diallate	<20.0
0	Dibenz[a,h]anthracene	<10.2
0	Dibenz[a,h]anthracene	<20.0
0	Dibenz[a,h]anthracene	<20.0
0	Dibenz[a,h]anthracene	<10.2
0	Dibenzofuran	<20.0
0	Dibenzofuran	<20.0
0	Dibenzofuran	<20.0
0	Dibromochloromethane	<5.00
0	1,2-Dibromo-3-chloropropane	<5.00
0	1,2-Dibromomethane	<5.00
0	1,2-Dibromomethane	<5.00
0	Dibromomethane	<5.00
0	D,n-butyl phthalate	<10.2
0	D,n-butyl phthalate	<20.0
0	D,n-butyl phthalate	<20.0
0	1,2-Dichlorobenzene	<10.2
0	1,2-Dichlorobenzene	<20.0
0	1,2-Dichlorobenzene	<20.0
0	1,3-Dichlorobenzene	<10.2
0	1,3-Dichlorobenzene	<20.0
0	1,3-Dichlorobenzene	<20.0
0	1,4-Dichlorobenzene	<10.2
0	1,4-Dichlorobenzene	<20.0
0	3,3'-Dichlorobenzidine	<10.2
0	3,3'-Dichlorobenzidine	<20.0
0	3,3'-Dichlorobenzidine	<20.0
0	trans-1,1-Dichloro-2-butene	<10.2
0	trans-1,1-Dichloroethane	<20.0
0	1,1-Dichloroethane	<5.00
0	1,1-Dichloroethane	<5.00
0	cis-1,2-Dichloroethylene	<5.00
0	cis-1,2-Dichloroethylene	<5.00
0	Dichloromethane	<5.00
0	Dichloromethane	<5.00
0	2,4-Dichlorophenol	<10.2
0	2,4-Dichlorophenol	<20.0
0	2,4-Dichlorophenol	<20.0
0	2,6-Dichlorophenol	<10.2
0	2,6-Dichlorophenol	<20.0
0	2,6-Dichlorophenol	<20.0
0	2,4-Dichlorophenoxyacetic acid	<20.0
0	2,4-Dichlorophenoxyacetic acid	<1.13
0	1,2-Dichloropropane	<5.00
0	cis-1,3-Dichloropropene	<5.00
0	trans-1,3-Dichloropropene	<5.00
0	Dieldrin	<0.102
0	Dieldrin	<20.0
0	Diethyl phthalate	<10.2
0	Diethyl phthalate	<20.0

Well AMB 18A collected on 03/11/99 (cont.)

[illegible]

**ESH-EMS-990520**

**B-39**

**First Quarter 1999**



## ANALYTICAL RESULTS

Well AMB 18A collected on 03/11/99 (cont.)

[illegible]

Well AMB 18A collected on 03/11/99 (cont.)

F	Analyte	Residue
1	Naphthylamine	<20.0
2	1-Naphthylamine	<20.0
2	2-Naphthylamine	<10.2
2	6-Naphthylamine	<20.0
2	Naphthylamine	<20.0
2	Nickel, total recoverable	<26.0
2	Nickel, total recoverable as nitrogen	<26.0
2	Nitrate-nitrite as nitrogen	790
m	m-Nitroaniline	<25.5
m	m-Nitroaniline	<50.0
o	o-Nitroaniline	<25.5
o	o-Nitroaniline	<50.0
o	o-Nitroaniline	<25.5
p	p-Nitroaniline	<30.0
p	p-Nitroaniline	<50.0
p	p-Nitroaniline	<10.2
p	Nitrobenzene	<20.0
p	Nitrobenzene	<20.0
p	2-Nitrophenol	<10.2
p	2-Nitrophenol	<20.0
p	2-Nitrophenol	<25.5
4	4-Nitrophenol	<50.0
4	4-Nitroquinoline-1-oxide	<20.4
4	4-Nitroquinoline-1-oxide	<20.0
4	4-Nitroquinoline-1-oxide	<20.0
n	N-Nitrosod-n-butylamine	<10.2
n	N-Nitrosod-n-butylamine	<20.0
n	N-Nitrosod-n-butylamine	<20.0
n	N-Nitrosod-n-butylamine	<10.2
n	N-Nitrosodethylamine	<20.0
n	N-Nitrosodethylamine	<20.0
n	N-Nitrosodmethylamine	<10.2
n	N-Nitrosodmethylamine	<20.0
n	N-Nitrosodmethylamine	<20.0
n	N-Nitrosodmethylamine	<10.2
n	N-Nitrosomorpholine	<20.0
n	N-Nitrosomorpholine	<20.0
n	N-Nitrosomorpholine	<20.0
n	N-Nitrosopentidine	<51.0
n	N-Nitrosopentidine	<100
n	N-Nitrosopyridine	<100
n	N-Nitrosopyrrolidine	<10.2
n	N-Nitrosopyrrolidine	<20.0
n	N-Nitrosopyrrolidine	<20.0
n	N-Nitrosopyrrolidine	<10.2
5	5-Nitro-o-toluidine	<20.0
5	5-Nitro-o-toluidine	<20.0
5	5-Nitro-o-toluidine	<20.0
5	5-Nitro-o-toluidine	<51.0
Parathion	Parathion	<1.00
Parathion methyl	Parathion methyl	<0.510
PCB 1016	Parathion methyl	<1.00
PCB 1016	PCB 1016	<1.02
PCB 1016	PCB 1016	<2.00
PCB 1221	PCB 1221	<2.08
PCB 1221	PCB 1221	<2.04
PCB 1221	PCB 1221	<4.00
PCB 1232	PCB 1232	<1.02
PCB 1232	PCB 1232	<1.00
PCB 1232	PCB 1232	<2.08
PCB 1242	PCB 1242	<1.02
PCB 1242	PCB 1242	<2.00
PCB 1242	PCB 1242	<2.08
PCB 1248	PCB 1248	<1.02
PCB 1248	PCB 1248	<2.00
PCB 1248	PCB 1248	<2.00
PCB 1254	PCB 1254	<1.02

**ESH-EMS-990520**

**B-40**

**First Quarter 1999**



Well AMB 18A collected on 03/11/99 (cont.)

F	Analyte	Res
0.00	PCB 1254	<2.00
1.02	PCB 1260	<1.02
2.08	PCB 1260	<2.08
0.00	PCB 1260	<2.08
<10.2	Pentachlorobenzene	<10.2
<20.0	Pentachlorobenzene	<20.0
<10.2	Pentachlorobenzene	<10.2
<20.0	Pentachloroethane	<20.0
<20.0	Pentachloroethane	<20.0
<20.0	Pentachloroethane	<20.0
<51.0	Pentachloronitrobenzene	<51.0
<100	Pentachloronitrobenzene	<100
<25.5	Pentachlorophenol	<25.5
<50.0	Pentachlorophenol	<50.0
<10.2	Phenacolin	<10.2
<20.0	Phenacolin	<20.0
<10.2	Phenacolin	<10.2
<20.0	Phenanthrene	<20.0
<20.0	Phenanthrene	<20.0
<10.2	Phenol	<10.2
<20.0	Phenol	<20.0
<10.2	p-Phenylenediamine	<10.2
<20.0	p-Phenylenediamine	<20.0
<20.0	p-Phenylenediamine	<20.0
<2.00	Phorate	<2.00
<10.2	2-Picoline	<10.2
<20.0	2-Picoline	<20.0
<20.0	2-Picoline	<20.0
<10.2	Pronamid	<10.2
<20.0	Pronamid	<20.0
<50.0	Pronamid	<50.0
<10.2	Propionitrile	<10.2
<20.0	Pyrene	<20.0
<10.2	Pyrene	<10.2
<20.0	Pyridine	<20.0
<20.0	Pyridine	<20.0
<10.2	Pyridine	<10.2
<20.0	Sarole	<20.0
<20.0	Sarole	<20.0
<88.0	Selenium, total recoverable	<88.0
<50.0	Silver, recoverable	<50.0
<5.00	Silver, total recoverable	<5.00
1,920	Sodium, total recoverable	1,920
1,920	Sodium, total recoverable	1,920
<5.00	Styrene	<5.00
442	Sulfate	442
<10,000	Sulfide	<10,000
<10,000	Sulfide	<10,000
<1.02	Sulfitepp	<1.02
<2.00	Sulfitepp	<2.00
<0.525	Sulfitepp	<0.525
<1.06	2,4,5-T	<1.06
<10.2	1,2,4,5-Tetrachlorobenzene	<10.2
<20.0	1,2,4,5-Tetrachlorobenzene	<20.0
<20.0	1,2,4,5-Tetrachlorobenzene	<20.0
<5.00	1,1,1,2-Tetrachloroethane	<5.00
<5.00	1,1,1,2-Tetrachloroethane	<5.00
<5.00	1,1,2,2-Tetrachloroethane	<5.00
<5.00	Tetrachloroethylene	<5.00
<10.2	2,3,4,6-Tetrachlorophenol	<10.2
<20.0	2,3,4,6-Tetrachlorophenol	<20.0
<20.0	2,3,4,6-Tetrachlorophenol	<20.0
<55.0	Thallium, total recoverable	<55.0
<35.0	Thallium, total recoverable	<35.0
<10.0	Thionazin	<10.0
<70.0	Thionazin recoverable	<70.0
<50.0	Tin, total recoverable	<50.0
<7.00	Toluene	<7.00
<10.2	o-Toluidine	<10.2
<20.0	o-Toluidine	<20.0
<20.0	o-Toluidine	<20.0
637	Total organic carbon	637

**ESH-EMS-990520**

Well AMB 18A collected on 03/11/99 (cont.)[illegible]

**B-41**

**WELL AMB 18C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/16/99

Sample date: 02/16/99  
Depth to water: 144.6 ft (44.07 m) below TOC

Water elevation: 231.4 ft (70.53 m) msl

CH: 4.9

Sp. conductance:  $16 \mu\text{S}/\text{cm}$ 

Turbidity: 3 NTU

Water evacuated from the well prior to sampling: 20 gal

## ANALYSES

F Analyte	Residue
Hexachlorodibenzo-p-dioxins	<5.0 <sup>a</sup>
Hexachlorodibenzo-p-dioxins	<10.0 <sup>a</sup>
Hexachlorodibenzo-p-furans	<5.0 <sup>a</sup>
Hexachlorodibenzo-p-furans	<10.0 <sup>a</sup>
Pentachlorodibenzo-p-dioxins	<5.0 <sup>a</sup>
Pentachlorodibenzo-p-dioxins	<10.0 <sup>a</sup>
Pentachlorodibenzo-p-furans	<5.0 <sup>a</sup>
Pentachlorodibenzo-p-furans	<10.0 <sup>a</sup>
2,3,7,8-TCDD	<5.0 <sup>a</sup>
2,3,7,8-TCDF	<10.0 <sup>a</sup>
2,3,7,8-TCDF	<10.0 <sup>a</sup>
Tetrachlorodibenzo-p-dioxins	<5.0 <sup>a</sup>
Tetrachlorodibenzo-p-dioxins	<10.0 <sup>a</sup>
Tetrachlorodibenzo-p-furans	<5.0 <sup>a</sup>
Tetrachlorodibenzo-p-furans	<10.0 <sup>a</sup>
Acenaphthene	<10.2
Acenaphthene	<20.0
Acenaphthylene	<10.2
Acenaphthylene	<20.0
Acenaphthylene	<20.0
Acenaphthylene	<20.0
Acenaphthylene	<10.0
Acenaphthylene (Methyl cyanide)	<10.2
Acenaphthylene	<20.0
Acenaphthylene	<20.0

Time: 14:37  
Water temperature: 19.8°C  
Air temperature: 21.7°C  
Total alkalinity (as CaCO<sub>3</sub>): 2 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): V

<i>MS SQL</i>	<i>Unit</i>	<i>Lab</i>	<i>Method</i>
5.10	ngL	WA	EPAS280A
1.0	ngL	WA	EPAS280B
5.10	ngL	WA	EPAS280A
1.0	ngL	WA	EPAS280B
5.10	ngL	WA	EPAS280A
1.0	ngL	WA	EPAS280B
5.10	ngL	WA	EPAS280A
1.0	ngL	WA	EPAS280B
5.10	ngL	WA	EPAS280A
1.0	ngL	WA	EPAS280B
5.10	ngL	WA	EPAS280A
1.0	ngL	WA	EPAS280B
5.10	ngL	WA	EPAS280A
1.0	ngL	WA	EPAS280B
1.0	ngL	WA	EPAS270C
2.0	ngL	WA	EPAS270C
1.0	ngL	WA	EPAS270C
2.0	ngL	WA	EPAS270C
2.0	ngL	WA	EPAS270C
2.0	ngL	WA	EPAS260B
1.0	ngL	WA	EPAS260B
1.0	ngL	WA	EPAS270C
2.0	ngL	WA	EPAS270C
2.0	ngL	WA	EPAS270C



## ANALYTICAL RESULTS

Well AMB 18C collected on 02/18/99 (cont.)									
Result	FG	S	EMS	SQL	Unit	Lab	Method	F Analyte	Result
<10.2	U			10.2	µg/L	WA	EPAS270C	0 Gamma-Chlordane	<0.0545
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Chlordane	1.700
<20.0	U			20.0	µg/L	WA	EPAS270C	0 4-Chloroaniline	<10.2
<20.0	U			20.0	µg/L	WA	EPAS260B	0 4-Chloroaniline	<20.0
<5.00	U			5.00	µg/L	WA	EPAS260B	0 Chlorobenzene	<20.0
<0.0545	U			0.0545	µg/L	WA	EPAS081A	0 Chlorobenzene	<20.0
<10.0	U			10.0	µg/L	WA	EPAS260B	0 Chlorobenzilate	<10.2
97.7	U	I		146	µg/L	WA	EPAS010B	0 Chlorobenzilate	<20.0
<10.2	U			10.2	µg/L	WA	EPAS270C	0 Chlorobenzilate	<20.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 4-Chloro-m-cresol	<10.2
<20.0	U			20.0	µg/L	WA	EPAS270C	0 4-Chloro-m-cresol	<20.0
<10.2	U			10.2	µg/L	WA	EPAS270C	0 Chloroethane	<10.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Chloroethane (Vinyl chloride)	<20.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Chloroethane	<10.0
<10.2	U			10.2	µg/L	WA	EPAS270C	0 Chloroethane	<5.00
<20.0	U			20.0	µg/L	WA	EPAS270C	0 2-Chloronaphthalene	<10.2
<20.0	U			20.0	µg/L	WA	EPAS270C	0 2-Chloronaphthalene	<20.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 2-Chloronaphthalene	<20.0
<27.0	U			27.0	µg/L	WA	EPAS270C	0 2-Chlorophenol	<10.2
<20.0	U			20.0	µg/L	WA	EPAS270C	0 2-Chlorophenol	<10.2
<20.0	U			20.0	µg/L	WA	EPAS270C	0 4-Chlorophenyl phenyl ether	<10.2
<40.0	U			40.0	µg/L	WA	EPAS010B	0 4-Chlorophenyl phenyl ether	<20.0
1.80	U			1.80	µg/L	WA	EPAS010B	0 4-Chlorophenyl phenyl ether	<20.0
5.00	U			5.00	µg/L	WA	EPAS260B	0 Chloroprene	<5.00
<0.0545	U			0.0545	µg/L	WA	EPAS081A	0 Chromium, total recoverable	<0.850
0.0545	U			0.0545	µg/L	WA	EPAS081A	0 Chrysene	<10.2
<0.0545	U			0.0545	µg/L	WA	EPAS081A	0 Chrysene	<10.2
<10.2	U			10.2	µg/L	WA	EPAS270C	0 Chrysene	<20.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Chrysene	<20.0
<10.2	U			10.2	µg/L	WA	EPAS270C	0 Copier, total recoverable	<4.50
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Copier, total recoverable	<5.00
<10.2	U			10.2	µg/L	WA	EPAS270C	0 m-Cresol (3-Methylphenol)	<10.2
<20.0	U			20.0	µg/L	WA	EPAS270C	0 m-Cresol (3-Methylphenol)	<20.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 m-Cresol (3-Methylphenol)	<20.0
<10.2	U			10.2	µg/L	WA	EPAS270C	0 m/p-Cresol	<10.2
<20.0	U			20.0	µg/L	WA	EPAS270C	0 m/p-Cresol	<20.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 m/p-Cresol	<20.0
<25.5	U			25.5	µg/L	WA	EPAS270C	0 o-Cresol (2-Methylphenol)	<10.2
<50.0	U			50.0	µg/L	WA	EPAS270C	0 o-Cresol (2-Methylphenol)	<20.0
<10.2	U			10.2	µg/L	WA	EPAS270C	0 Cyanides	<15.2
<20.0	U			20.0	µg/L	WA	EPAS270C	0 p,p'-DDT	<0.109
<20.0	U			20.0	µg/L	WA	EPAS270C	0 p,p'-DDE	<0.109
<20.0	U			20.0	µg/L	WA	EPAS270C	0 p,p'-DDT	<0.109
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Diallate	<10.2
<10.2	U			10.2	µg/L	WA	EPAS270C	0 Diallate	<20.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Dibenz(a,h)anthracene	<10.2
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Dibenz(a,h)anthracene	<20.0
<1.80	U			1.80	µg/L	WA	EPAS010B	0 Dibenz(a,h)anthracene	<20.0
<10.2	U			10.2	µg/L	WA	EPAS270C	0 Dibenzoluran	<10.2
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Dibenzoluran	<20.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Dibenzoluran	<20.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Dibromochloromethane	<5.00
<20.0	U			20.0	µg/L	WA	EPAS270C	0 1,2-Dibromo-3-chloropropane	<5.00
<10.2	U			10.2	µg/L	WA	EPAS270C	0 1,2-Dibromomethane	<5.00
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Dibromomethane	<5.00
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Di-n-butyl phthalate	<20.0
<10.2	U			10.2	µg/L	WA	EPAS270C	0 Di-n-butyl phthalate	<20.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 Di-n-butyl phthalate	<20.0
<10.2	U			10.2	µg/L	WA	EPAS270C	0 1,2-Dichlorobenzene	<10.2
<20.0	U			20.0	µg/L	WA	EPAS270C	0 1,2-Dichlorobenzene	<20.0
<5.00	U			5.00	µg/L	WA	EPAS260B	0 1,2-Dichlorobenzene	<20.0
<10.2	U			10.2	µg/L	WA	EPAS260B	0 1,3-Dichlorobenzene	<10.2
<20.0	U			20.0	µg/L	WA	EPAS270C	0 1,3-Dichlorobenzene	<20.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 1,3-Dichlorobenzene	<20.0
<10.2	U			10.2	µg/L	WA	EPAS270C	0 1,4-Dichlorobenzene	<10.2
<20.0	U			20.0	µg/L	WA	EPAS270C	0 1,4-Dichlorobenzene	<20.0
<20.0	U			20.0	µg/L	WA	EPAS270C	0 3,3'-Dichlorobenzidine	<20.0
<10.0	U			10.0	µg/L	WA	EPAS270C	0 3,3'-Dichlorobenzidine	<20.0
<10.0	U			10.0	µg/L	WA	EPAS270C	0 3,3'-Dichlorobenzidine	<20.0
<10.0	U			10.0	µg/L	WA	EPAS270C	0 Dichlorodifluoromethane	<10.0
<5.00	U			5.00	µg/L	WA	EPAS270C	0 1,1-Dichloroethane	<5.00
<5.00	U			5.00	µg/L	WA	EPAS260B	0 1,1-Dichloroethane	<5.00
<5.00	U			5.00	µg/L	WA	EPAS260B	0 1,1-Dichloroethane	<5.00
<5.00	U			5.00	µg/L	WA	EPAS260B	0 cis-1,2-Dichloroethylene	<5.00
<5.00	U			5.00	µg/L	WA	EPAS260B	0 trans-1,2-Dichloroethylene	<5.00
<0.0545	U			0.0545	µg/L	WA	EPAS081A	0 alpha-Chloride	<0.0545

**ESH-EMS-990520**

**B-42**

**First Quarter 1999**



## ANALYTICAL RESULTS

Well AMB 18C collected on 02/16/99 (cont.)																			
Result	F	Analyte	Method	Lab	Unit	SQL	EMS	S	FG	S	FG	EMS	SQL	Unit	Lab	Method	Result		
<5.00	U	Dichloromethane	EPA8260B	WA	µg/L	5.00			U		U			µg/L	WA	EPA8260B	0	Hexachlorobenzene	<10.2
<10.2	U	2,4-Dichlorophenol	EPA8270C	WA	µg/L	10.2			U		U			µg/L	WA	EPA8270C	0	Hexachlorobenzene	<10.2
<20.0	U	2,4-Dichlorophenol	EPA8270C	WA	µg/L	20.0			U		U			µg/L	WA	EPA8270C	0	Hexachlorobenzene	<20.0
<20.0	U	2,4-Dichlorophenol	EPA8270C	WA	µg/L	20.0			U		U			µg/L	WA	EPA8270C	0	Hexachlorobenzene	<20.0
<10.2	U	2,6-Dichlorophenol	EPA8270C	WA	µg/L	10.2			U		U			µg/L	WA	EPA8270C	0	Hexachlorobenzene	<20.0
<20.0	U	2,6-Dichlorophenol	EPA8270C	WA	µg/L	20.0			U		U			µg/L	WA	EPA8270C	0	Hexachlorobenzene	<20.0
<20.0	U	2,6-Dichlorophenol	EPA8270C	WA	µg/L	20.0			U		U			µg/L	WA	EPA8270C	0	Hexachlorobenzene	<20.0
<10.2	U	2,4-Dichlorophenoxyacetic acid	EPA8151A	WA	µg/L	10.2			U		U			µg/L	WA	EPA8151A	0	Hexachlorocyclopentadiene	<10.2
<40.0	U	2,4-Dichlorophenoxyacetic acid	EPA8260B	WA	µg/L	40.0			U		U			µg/L	WA	EPA8260B	0	Hexachlorocyclopentadiene	<40.0
<40.0	U	2,4-Dichlorophenoxyacetic acid	EPA8260B	WA	µg/L	40.0			U		U			µg/L	WA	EPA8260B	0	Hexachlorocyclopentadiene	<40.0
<5.00	U	cis-1,3-Dichloropropene	EPA8260B	WA	µg/L	5.00			U		U			µg/L	WA	EPA8260B	0	Hexachlorocyclopentadiene	<5.00
<5.00	U	cis-1,3-Dichloropropene	EPA8260B	WA	µg/L	5.00			U		U			µg/L	WA	EPA8260B	0	Hexachlorocyclopentadiene	<5.00
<10.2	U	trans-1,3-Dichloropropene	EPA8260B	WA	µg/L	10.2			U		U			µg/L	WA	EPA8260B	0	Hexachlorocyclopentadiene	<10.2
<10.2	U	trans-1,3-Dichloropropene	EPA8260B	WA	µg/L	10.2			U		U			µg/L	WA	EPA8260B	0	Hexachlorocyclopentadiene	<10.2
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L	WA	EPA8081A	0	Hexachlorocyclopentadiene	<20.0
<20.0	U	Diethyl phthalate	EPA8081A	WA	µg/L	20.0			U		U			µg/L					

**ESH-EMS-990520**

**B-43**

**First Quarter 1999**



## ANALYTICAL RESULTS

Well AMB 18C collected on 02/16/99 (cont.)

F	Analyte	Results
1	o-Nitroaniline	<25.5
2	o-Nitroaniline	<40.0
3	o-Nitroaniline	<29.0
4	p-Nitroaniline	<50.0
5	p-Nitroaniline	<50.0
6	Nitrobenzene	<10.2
7	Nitrobenzene	<20.0
8	Nitrobenzene	<10.2
9	2-Nitrophenol	<10.2
10	2-Nitrophenol	<20.0
11	2-Nitrophenol	<20.0
12	4-Nitrophenol	<25.5
13	4-Nitrophenol	<50.0
14	4-Nitroquinoline-1-oxide	<20.4
15	4-Nitroquinoline-1-oxide	<20.0
16	4-Nitroquinoline-1-oxide	<20.0
17	N-Nitrosodi-n-butylamine	<10.2
18	N-Nitrosodi-n-butylamine	<20.0
19	N-Nitrosodi-n-butylamine	<20.0
20	N-Nitrosodimethylamine	<10.2
21	N-Nitrosodimethylamine	<20.0
22	N-Nitrosodimethylamine	<20.0
23	N-Nitrosodimethylamine	<10.2
24	N-Nitrosodiphenylamine	<20.0
25	N-Nitrosodiphenylamine	<20.0
26	N-Nitrosodipropylamine	<10.2
27	N-Nitrosodipropylamine	<20.0
28	N-Nitrosodipropylamine	<10.2
29	N-Nitrosomethyl ethylamine	<20.0
30	N-Nitrosomethyl ethylamine	<20.0
31	N-Nitrosomorpholine	<10.2
32	N-Nitrosomorpholine	<20.0
33	N-Nitrosomorpholine	<20.0
34	N-Nitrosomorpholine	<20.0
35	N-Nitrosopiperidine	<51.0
36	N-Nitrosopiperidine	<100
37	N-Nitrosopiperidine	<100
38	N-Nitrosopyrrolidine	<10.2
39	N-Nitrosopyrrolidine	<20.0
40	N-Nitrosopyrrolidine	<20.0
41	N-Nitrosopyrrolidine	<20.0
42	5-Nitro-o-toluidine	<10.2
43	5-Nitro-o-toluidine	<20.0
44	5-Nitro-o-toluidine	<20.0
45	Parathion ethyl	<0.505
46	Parathion ethyl	<0.505
47	Parathion methyl	<0.510
48	Parathion methyl	<0.510
49	PCB 1016	<1.01
50	PCB 1221	<2.02
51	PCB 1232	<1.01
52	PCB 1242	<1.01
53	PCB 1248	<1.01
54	PCB 1254	<1.01
55	PCB 1260	<1.01
56	Pentachlorobenzene	<10.2
57	Pentachlorobenzene	<20.0
58	Pentachlorobenzene	<20.0
59	Pentachloroethane	<10.2
60	Pentachloroethane	<20.0
61	Pentachloroethane	<20.0
62	Pentachloroethane	<20.0
63	Pentachloronitrobenzene	<51.0
64	Pentachloronitrobenzene	<100
65	Pentachloronitrobenzene	<100
66	Pentachloronitrobenzene	<100
67	Pentachloronitrobenzene	<10.2
68	Pentachlorophenol	<10.2
69	Phenacetyl	<10.2
70	Phenanthrene	<10.2
71	Phenanthrene	<10.2
72	Phenanthrene	<20.0
73	Phenanthrene	<20.0

**ESH-EMS-990520**

Well AMB 18C collected on 02/16/99 (cont.)

[illegible]

B-44

**First Quarter 1999**



## ANALYTICAL RESULTS

Well AMB 18C collected on 02/18/99 (cont.)

F Analyte	Result	FG	S	EMS	SQ	Unit	Lab	Method
0 Nonvolatile beta	8.50E-09	U	I	1.65E-09	µCi/mL	TM	EPA900.0M	
0 Radium, total alpha-emitting	1.44E-09	J	I	8.20E-10	µCi/mL	TM	EPA903.0M	
0 Radium, total alpha-emitting	1.73E-09	J	I	8.00E-10	µCi/mL	TM	EPA903.0M	

## WELL AMB 19C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/09/99  
 Depth to water: 135.07 ft (41.17 m) below TOC  
 Water elevation: 228.63 ft (69.69 m) msl  
 pH: 5.1  
 Sp. conductance: 48 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 44 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQ	Unit	Lab	Method
0 Acetone	<10.0	U		10.0	µg/L	WA	EPA8260B	
0 Acetonitrile (Methyl cyanide)	<20.0	U		20.0	µg/L	WA	EPA8260B	
0 Acrolein	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Acrylonitrile	<10.0	U		10.0	µg/L	WA	EPA8260B	
0 Allyl chloride	44.5	U	I	146	µg/L	WA	EPA8260B	
1 Aluminum, total recoverable	20.1	U	I	146	µg/L	WA	EPA8260B	
0 Arsenic, total recoverable	<40.0	U		40.0	µg/L	WA	EPA8260B	
0 Arsenic, total recoverable	<40.0	U		40.0	µg/L	WA	EPA8260B	
0 Barium, total recoverable	<1.00	U	V	1.80	µg/L	WA	EPA8260B	
0 Barium, total recoverable	<1.00	U	V	1.80	µg/L	WA	EPA8260B	
0 Benzene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Bromochloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Bromoform	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Bromomethane	<10.0	U		10.0	µg/L	WA	EPA8260B	
0 Carbon disulfide	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Carbon tetrachloride	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Chloride	<250	U		210	µg/L	WA	EPA8260B	
0 Chlorobenzene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0	µg/L	WA	EPA8260B	
0 Chloroform	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Chloromethane	<10.0	U		10.0	µg/L	WA	EPA8260B	
0 Chloropropane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Chromium, total recoverable	<7.00	U		7.00	µg/L	WA	EPA8260B	
0 Chromium, total recoverable	<7.00	U		7.00	µg/L	WA	EPA8260B	
0 Cyanide	<15.2	U		15.2	µg/L	WA	EPA8260B	
0 Dibromochloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 1,2-Dibromo-3-chloropropane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 1,2-Dibromoethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Dibromomethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 trans-1,4-Dichloro-2-butene	<20.0	U		20.0	µg/L	WA	EPA8260B	
0 Dichlorodifluoromethane	<10.0	U		10.0	µg/L	WA	EPA8260B	
0 1,1-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 cis-1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 trans-1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Dichloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 2,4-Dichlorophenoxyacetic acid	<1.04	U		1.04	µg/L	WA	EPA8260B	
0 1,2-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 cis-1,3-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 trans-1,3-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Ethylbenzene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Fluoride	<21.8	U		21.8	µg/L	WA	EPA8260B	
0 2-Hexanone	<10.0	U		10.0	µg/L	WA	EPA8260B	
0 Iodomethane (Methyl iodide)	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Iron, total recoverable	<24.7	U	V	74.0	µg/L	WA	EPA8260B	
0 Isobutyl alcohol	<100	U		100	µg/L	WA	EPA8260B	
0 Lead, total recoverable	<47.0	U		47.0	µg/L	WA	EPA8260B	
0 Lead, total recoverable	<47.0	U		47.0	µg/L	WA	EPA8260B	
0 Manganese, total recoverable	<0.305	U		0.305	µg/L	WA	EPA8260B	
0 Manganese, total recoverable	<0.305	U		0.305	µg/L	WA	EPA8260B	
0 Methylchloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Methylchloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Methylchloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0 Nickel, total recoverable	<10.0	U		10.0	µg/L	WA	EPA8260B	
0 Nickel, total recoverable	<26.0	U		26.0	µg/L	WA	EPA8260B	

ESH-EMS-990520

Well AMB 19C collected on 02/09/99 (cont.)

F Analyte	Result	FG	S	EMS	SQ	Unit	Lab	Method
0 Nickel, total recoverable	<26.0	U		26.0	µg/L	WA	EPA6010B	
0 Nitrate-nitrite as nitrogen	68.0	U		20.0	µg/L	WA	EPA8270C	
0 Phenol	<10.2	U		10.2	µg/L	WA	EPA8270C	
0 Propionitrile	<50.0	U		50.0	µg/L	WA	EPA8270C	
0 Selenium, total recoverable	<66.0	U		66.0	µg/L	WA	EPA8270C	
0 Selenium, total recoverable	<66.0	U		66.0	µg/L	WA	EPA8270C	
0 Silver, total recoverable	<5.00	U		5.00	µg/L	WA	EPA8270C	
0 Silver, total recoverable	<5.00	U		5.00	µg/L	WA	EPA8270C	
0 Sodium, total recoverable	8.970	U		285	µg/L	WA	EPA8270C	
0 Sodium, total recoverable	8.970	U		285	µg/L	WA	EPA8270C	
0 Styrene	<3.00	U		3.00	µg/L	WA	EPA8270C	
0 Sulfate	6.750	U		340	µg/L	WA	EPA8270C	
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	µg/L	WA	EPA8270C	
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	µg/L	WA	EPA8270C	
0 Tetrachloroethylene	<5.00	U		5.00	µg/L	WA	EPA8270C	
0 Toluene	<5.00	U		5.00	µg/L	WA	EPA8270C	
0 Total organic carbon	1.130	U		1.000	µg/L	WA	EPA8270C	
0 Total organic carbon	<120	U		120	µg/L	WA	EPA8270C	
0 Total phosphates (as P)	14.1	U	I	87.0	µg/L	WA	EPA8270C	
0 1,1,1-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPA8270C	
0 1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPA8270C	
0 Trichloroethylene	<5.00	U		5.00	µg/L	WA	EPA8270C	
0 Trichlorofluoromethane	<5.00	U		5.00	µg/L	WA	EPA8270C	
0 1,2,3-Trichloropropane	<5.00	U		5.00	µg/L	WA	EPA8270C	
0 Vinyl acetate	<10.0	U		10.0	µg/L	WA	EPA8270C	
0 Xylenes	<5.00	U		5.00	µg/L	WA	EPA8270C	
0 Gross alpha	3.60E-10	U		1.30E-09	µCi/mL	TM	EPA900.0M	
0 Gross alpha	2.40E-10	U		1.07E-09	µCi/mL	TM	EPA900.0M	
0 Nonvolatiles beta	7.00E-10	U		1.44E-09	µCi/mL	TM	EPA900.0M	
0 Nonvolatiles beta	7.00E-10	U		1.44E-09	µCi/mL	TM	EPA900.0M	
0 Radium, total alpha-emitting	1.20E-10	U	V	5.40E-10	µCi/mL	TM	EPA903.0M	
0 Radium, total alpha-emitting	1.20E-10	U	V	5.40E-10	µCi/mL	TM	EPA903.0M	

## WELL AOB 1

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/06/99  
 Depth to water: 106.5 ft (32.46 m) below TOC  
 Water elevation: 234.6 ft (71.51 m) msl  
 pH: 5.1  
 Sp. conductance: 40 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 40 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQ	Unit	Lab	Method
0 Aluminum, total recoverable	15.8	J	I	148	µg/L	WA	EPA6010B	
0 Cadmium, total recoverable	<4.70	U		4.70	µg/L	WA	EPA6010B	
0 Iron, total recoverable	149	U		74.0	µg/L	WA	EPA6010B	
0 Total organic halogens	44.9	J	I	120	µg/L	WA	EPA6020B	

## WELL AOB 1

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/05/99  
 Depth to water: 106.84 ft (32.5 m) below TOC  
 Water elevation: 234.46 ft (71.46 m) msl  
 pH: 5.4  
 Sp. conductance: 48 µS/cm  
 Turbidity: 5 NTU  
 Water evacuated from the well prior to sampling: 98 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQ	Unit	Lab	Method
1 Aluminum, total recoverable	28.7	J	I	146	µg/L	WA	EPA6010B	
0 Barium, total recoverable	9.80	U		1.80	µg/L	WA	EPA6010B	
0 Benzene	<5.00	U		5.00	µg/L	WA	EPA6010B	
0 Bromochloromethane	<5.00	U		5.00	µg/L	WA	EPA6010B	
0 Bromochloromethane	<5.00	U		5.00	µg/L	WA	EPA6010B	
0 Bromochloromethane	<5.00	U		5.00	µg/L	WA	EPA6010B	

B-45

First Quarter 1999



## ANALYTICAL RESULTS

Well AOB 1 collected on 02/05/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Bromoethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Bromomethane	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPAS260B
0 2-Chloroethyl vinyl ether	<10.0	U			10.0	µg/L	WA	EPAS260B
0 2-Chloroethyl vinyl ether	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Cyanide	<15.2	U			15.2	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Iron, total recoverable	<34.1	U			34.1	µg/L	WA	EPAS260B
0 Lead, total recoverable	<26.0	U			26.0	µg/L	WA	EPAS260B
0 Selenium, total recoverable	<68.0	U			68.0	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPAS260B

ESH-EMS-990520

Well AOB 1 collected on 02/05/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
<b>WELL AOB 2</b>								
<b>MEASUREMENTS CONDUCTED IN THE FIELD</b>								
Sample date: 01/06/99								
Depth to water: 116.41 ft (35.48 m) below TOC								
Water elevation: 228.99 ft (69.8 m) msl								
pH: 5.3								
Sp. conductivity: 20 µS/cm								
Turbidity: 3 NTU								
Water evacuated from the well prior to sampling: 13 gal								
<b>ANALYSES</b>								
F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	20.3	J	I		146	µg/L	WA	EPAS010B
0 Barium, total recoverable	<266	U			266	µg/L	WA	EPAS010B
0 Cadmium, total recoverable	<4.70	U			4.70	µg/L	WA	EPAS010B
0 Iron, total recoverable	98.3	U			74.0	µg/L	WA	EPAS010B
0 Lithium, total recoverable	<0.690	U	V		2.70	µg/L	WA	EPAS010B
<b>WELL AOB 2</b>								
<b>MEASUREMENTS CONDUCTED IN THE FIELD</b>								
Sample date: 02/05/99								
Depth to water: 114.1 ft (34.78 m) below TOC								
Water elevation: 231.3 ft (70.5 m) msl								
pH: 5.4								
Sp. conductivity: 20 µS/cm								
Turbidity: 10 NTU								
Water evacuated from the well prior to sampling: 60 gal								
<b>ANALYSES</b>								
F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	58.0	J	I		146	µg/L	WA	EPAS010B
0 Barium, total recoverable	3.60	JU			1.80	µg/L	WA	EPAS010B
0 Benzene	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 Bromoform	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 Bromomethane	<10.0	JU			10.0	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	<10.0	JU			10.0	µg/L	WA	EPAS260B
0 Chloroethane	<10.0	JU			10.0	µg/L	WA	EPAS260B
0 Chloroethane (Vinyl chloride)	<10.0	JU			10.0	µg/L	WA	EPAS260B
0 2-Chloroethyl vinyl ether	<10.0	JU			10.0	µg/L	WA	EPAS260B
0 Chloroform	<10.0	JU			10.0	µg/L	WA	EPAS260B
0 Chloromethane	<15.2	JU			15.2	µg/L	WA	EPAS014
0 Cyanide	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethylene	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropane	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropane	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 Iron, total recoverable	368	JU			74.0	µg/L	WA	EPAS010B
0 Lead, total recoverable	<47.0	JU			26.0	µg/L	WA	EPAS010B
0 Nickel, total recoverable	18.5	JU			68.0	µg/L	WA	EPAS010B
0 Selenium, total recoverable	<68.0	JU			5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 Tetrachloroethylene	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	JU			5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	JU			5.00	µg/L	WA	EPAS260B

B-46

First Quarter 1999



## ANALYTICAL RESULTS

Well AOB 2 collected on 02/05/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Xylenes	<5.00	JU	Q	5.00	5.00	µg/L	WA	EPA8260B

## WELL AOB 3

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/06/99  
 Depth to water: 117.0 ft (35.66 m) below TOC  
 Water temperature: 9.9°C  
 Total alkalinity (as CaCO<sub>3</sub>): 2 mg/L  
 pH: 5.5  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): SX  
 Sp. conductance: 20 µS/cm  
 Turbidity: 11.0 NTU  
 Water evacuated from the well prior to sampling: 19 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	103	J	I	146	146	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	<4.70	U		4.70	4.70	µg/L	WA	EPA6010B
1 Iron, total recoverable	218			74.0	74.0	µg/L	WA	EPA6010B

## WELL ARP 1A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
 Depth to water: 138.9 ft (42.34 m) below TOC  
 Water temperature: 20.7°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 pH: 4.3  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S  
 Sp. conductance: 80 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 42 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<108	U	V	146	146	µg/L	WA	EPA6010B
0 Carbon tetrachloride	1.07			1.00	1.00	µg/L	WA	EPA8010
0 Chloroform	3.58			5.00	5.00	µg/L	WA	EPA8010
0 cis-1,2-Dichloroethylene	<5.00	U		74.0	74.0	µg/L	WA	EPA6010B
1 Iron, total recoverable	201			47.0	47.0	µg/L	WA	EPA6010B
0 Lead, total recoverable	<47.0	J	I	2.70	2.70	µg/L	WA	EPA6010B
0 Lithium, total recoverable	0.840			7.80	7.80	µg/L	WA	EPA6010B
1 Manganese, total recoverable	48.6	JU		5.00	5.00	µg/L	WA	EPA8260B
0 Silver, total recoverable	<0.590	U		120	120	µg/L	WA	EPA8020B
0 Tetrachloroethylene	30.5	J	I	1.00	1.00	µg/L	WA	EPA8010
0 Total organic halogens	<1.00					µg/L		
0 1,1,1-Trichloroethane	12.3					µg/L		
2 Trichloroethylene						µg/L		

## WELL ARP 3

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
 Depth to water: 117.31 ft (35.76 m) below TOC  
 Water temperature: 23.1°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 pH: 4.8  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S  
 Sp. conductance: 21 µS/cm  
 Turbidity: 8 NTU  
 Water evacuated from the well prior to sampling: 67 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	95.2	J	I	146	146	µg/L	WA	EPA6010B
0 Carbon tetrachloride	<5.00	JU	Q	5.00	5.00	µg/L	WA	EPA8021B
0 Chloroform	<5.00	JU	Q	25.0	25.0	µg/L	WA	EPA8260B
0 cis-1,2-Dichloroethylene	<25.0	U		74.0	74.0	µg/L	WA	EPA6010B
2 Iron, total recoverable	325			47.0	47.0	µg/L	WA	EPA6010B
0 Lead, total recoverable	<47.0	J	I	7.80	7.80	µg/L	WA	EPA6010B
0 Manganese, total recoverable	7.00	U		25.0	25.0	µg/L	WA	EPA8260B
0 Tetrachloroethylene	<25.0					µg/L		

ESH-EMS-990520

B-47

Well ARP 3 collected on 02/17/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1 Total organic halogens	67.3	J	I	120	120	µg/L	WA	EPA9020B
0 1,1,1-Trichloroethane	<5.00	JU	Q	5.00	5.00	µg/L	WA	EPA8021B
2 Trichloroethylene	74.0	JU	Q	5.00	5.00	µg/L	WA	EPA8021B

## WELL ASB 1A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/22/99  
 Depth to water: 112.93 ft (34.42 m) below TOC  
 Water temperature: 18.1°C  
 Air temperature: 4.8°C  
 Total alkalinity (as CaCO<sub>3</sub>): 8 mg/L  
 pH: 5.8  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S  
 Sp. conductance: 73 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 31 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<19.4	U	V	146	146	µg/L	WA	EPA6010B
0 Barium, total recoverable	7.60			5.00	5.00	µg/L	WA	EPA8260B
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U		10.0	10.0	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Bromomethane	<10.0	U		5.00	5.00	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U		10.0	10.0	µg/L	WA	EPA8260B
0 Chloroethane	<10.0	U		10.0	10.0	µg/L	WA	EPA8260B
0 Chloroethene (Vinyl chloride)	<10.0	U		10.0	10.0	µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.0	U		5.00	5.00	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U		15.0	15.0	µg/L	WA	EPA8260B
0 Chloromethane	<20.3	U		5.00	5.00	µg/L	WA	EPA8260B
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<7.29	U	V	5.00	5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U		74.0	74.0	µg/L	WA	EPA6010B
0 Iron, total recoverable	<29.1	U	V	47.0	47.0	µg/L	WA	EPA6010B
0 Lead, total recoverable	<26.0	U		28.0	28.0	µg/L	WA	EPA6010B
0 Nickel, total recoverable	<66.0	U		5.00	5.00	µg/L	WA	EPA6010B
0 Selenium, total recoverable	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B

## WELL ASB 2AR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/22/99  
 Depth to water: 117.58 ft (35.84 m) below TOC  
 Water temperature: 6.9°C  
 Air temperature: 18.4°C  
 Total alkalinity (as CaCO<sub>3</sub>): 20 mg/L  
 pH: 6  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S  
 Sp. conductance: 58 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 36 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<21.3	U	V	146	146	µg/L	WA	EPA6010B
0 Barium, total recoverable	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B

First Quarter 1999



## ANALYTICAL RESULTS

Well ASB 2AR collected on 02/22/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Bromomethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethene (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroethene (Vinyl ether)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Cyanide	<15.2	U			15.2	µg/L	WA	EPA9014
0 Dibromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<7.40	U			7.40	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Iron, total recoverable	<11.5	U			11.5	µg/L	WA	EPA8260B
0 Lead, total recoverable	<47.0	U			47.0	µg/L	WA	EPA8260B
0 Nickel, total recoverable	<26.0	U			26.0	µg/L	WA	EPA8260B
0 Selenium, total recoverable	<66.0	U			66.0	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Tetrachloroethene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethene	1.68	U			5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPA8260B

## WELL ASB 2CR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/12/99  
 Depth to water: 134.2 ft (40.9 m) below TOC  
 Water elevation: 221.4 ft (67.48 m) msl  
 pH: 5.8  
 Sp. conductivity: 62 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 67 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<146	U			146	µg/L	WA	EPA6010B
0 Barium, total recoverable	57.4	U			1.80	µg/L	WA	EPA8260B
0 Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromomethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroethene (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroform	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Cyanide	1.72	U			15.2	µg/L	WA	EPA9014
0 Dibromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Dichloroethene	<10.7	U			5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Iron, total recoverable	66.6	U			5.00	µg/L	WA	EPA8260B
0 Lead, total recoverable	<47.0	U			47.0	µg/L	WA	EPA8260B
0 Nickel, total recoverable	<26.0	U			26.0	µg/L	WA	EPA8260B
0 Selenium, total recoverable	<66.0	U			66.0	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Tetrachloroethene	5.46	U			5.00	µg/L	WA	EPA8260B

ESH-EMS-990520

B-48

Well ASB 2CR collected on 02/12/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Toluene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethene	26.8	U			5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPA8260B

## WELL ASB 3AR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/22/99  
 Depth to water: 102.63 ft (31.28 m) below TOC  
 Water elevation: 238.97 ft (72.84 m) msl  
 pH: 6.1  
 Sp. conductivity: 64 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 32 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<38.7	U			146	µg/L	WA	EPA6010B
0 Barium, total recoverable	9.40	U			1.80	µg/L	WA	EPA8260B
0 Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromomethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethene (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Cyanide	<15.2	U			15.2	µg/L	WA	EPA9014
0 Dibromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<7.18	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Iron, total recoverable	<20.4	U			74.0	µg/L	WA	EPA6010B
0 Lead, total recoverable	<47.0	U			26.0	µg/L	WA	EPA6010B
0 Nickel, total recoverable	<26.0	U			66.0	µg/L	WA	EPA6010B
0 Selenium, total recoverable	<66.0	U			5.00	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Tetrachloroethene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPA8260B

## WELL ASB 3CR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/11/99  
 Depth to water: 120.65 ft (36.77 m) below TOC  
 Water elevation: 220.85 ft (67.32 m) msl  
 pH: 5.2  
 Sp. conductivity: 42 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 83 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	30.9	J			146	µg/L	WA	EPA6010B
0 Barium, total recoverable	47.2	J			1.80	µg/L	WA	EPA6010B

First Quarter 1999







## ANALYTICAL RESULTS

Well ASB 5AR collected on 02/11/99 (cont.)

## ANALYSES

F Analyte	Result	Lab	Unit	EMS	SQL	FG	S
2 Aluminum, total recoverable	266	WA	µg/L	146			
0 Barium, total recoverable	3.10	WA	µg/L	1.80			
0 Benzene	<5.00	WA	µg/L	5.00			
0 Bromodichloromethane	<5.00	WA	µg/L	5.00			
0 Bromoform	<5.00	WA	µg/L	5.00			
0 Bromomethane	<10.0	WA	µg/L	10.0			
0 Carbon tetrachloride	<5.00	WA	µg/L	5.00			
0 Chlorobenzene	<5.00	WA	µg/L	5.00			
0 Chloroethane	<10.0	WA	µg/L	10.0			
0 Chloroethane (Vinyl chloride)	<10.0	WA	µg/L	10.0			
0 2-Chloroethyl vinyl ether	<10.0	WA	µg/L	10.0			
0 Chloroform	<10.0	WA	µg/L	10.0			
0 Chloromethane	<15.2	WA	µg/L	15.2			
0 Dibromochloromethane	<5.00	WA	µg/L	5.00			
0 1,1-Dichloroethane	<5.00	WA	µg/L	5.00			
0 1,2-Dichloroethane	<5.00	WA	µg/L	5.00			
0 1,1-Dichloroethylene	<5.00	WA	µg/L	5.00			
0 Dichloromethane	<5.00	WA	µg/L	5.00			
0 1,2-Dichloropropane	<5.00	WA	µg/L	5.00			
0 cis-1,3-Dichloropropene	<5.00	WA	µg/L	5.00			
0 trans-1,3-Dichloropropene	<5.00	WA	µg/L	5.00			
0 Ethylbenzene	<5.00	WA	µg/L	5.00			
2 Iron, total recoverable	1,060	WA	µg/L	74.0			
0 Lead, total recoverable	<47.0	WA	µg/L	47.0			
0 Nickel, total recoverable	2.80	WA	µg/L	26.0			
0 Selenium, total recoverable	<5.00	WA	µg/L	5.00			
0 1,1,2,2-Tetrachloroethane	<5.00	WA	µg/L	5.00			
0 Tetrachloroethylene	<5.00	WA	µg/L	5.00			
0 Toluene	<5.00	WA	µg/L	5.00			
1 Total organic halogens	6.1	WA	µg/L	120			
0 1,1,1-Trichloroethane	<5.00	WA	µg/L	5.00			
0 1,1,2-Trichloroethane	<5.00	WA	µg/L	5.00			
2 Trichloroethylene	79.9	WA	µg/L	5.00			
0 Trichlorofluoromethane	<5.00	WA	µg/L	5.00			
0 Xylenes	<5.00	WA	µg/L	5.00			

## WELL ASB 5C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/11/99  
 Depth to water: 126.28 ft (38.49 m) below TOC  
 Water elevation: 221.02 ft (67.37 m) msl  
 pH: 6  
 Sp. conductivity: 44 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 87 gal

## ANALYSES

F Analyte	Result	Lab	Unit	EMS	SQL	FG	S
0 Aluminum, total recoverable	22.3	WA	µg/L	146			
0 Barium, total recoverable	10.1	WA	µg/L	1.80			
0 Benzene	<5.00	WA	µg/L	5.00			
0 Bromodichloromethane	<5.00	WA	µg/L	5.00			
0 Bromoform	<5.00	WA	µg/L	5.00			
0 Bromomethane	<10.0	WA	µg/L	10.0			
0 Carbon tetrachloride	<5.00	WA	µg/L	5.00			
0 Chlorobenzene	<5.00	WA	µg/L	5.00			
0 Chloroethane	<10.0	WA	µg/L	10.0			
0 Chloroethane (Vinyl chloride)	<10.0	WA	µg/L	10.0			
0 2-Chloroethyl vinyl ether	<10.0	WA	µg/L	10.0			
0 Chloroform	<5.00	WA	µg/L	5.00			
0 Chloromethane	<10.0	WA	µg/L	10.0			
0 Cyanide	<15.2	WA	µg/L	15.2			
0 Dibromochloromethane	<5.00	WA	µg/L	5.00			
0 1,1-Dichloroethane	<5.00	WA	µg/L	5.00			
0 1,2-Dichloroethane	<5.00	WA	µg/L	5.00			
0 1,1-Dichloroethylene	<5.00	WA	µg/L	5.00			
0 trans-1,2-Dichloroethylene	<5.00	WA	µg/L	5.00			
0 Dichloromethane	<5.00	WA	µg/L	5.00			
0 1,2-Dichloropropane	<5.00	WA	µg/L	5.00			
0 cis-1,3-Dichloropropene	<5.00	WA	µg/L	5.00			

ESH-EMS-990520

B-50

First Quarter 1999

Well ASB 5C collected on 02/11/99 (cont.)

F Analyte	Result	Lab	Unit	EMS	SQL	FG	S
0 trans-1,3-Dichloropropene	<5.00	WA	µg/L	5.00			
0 Ethylbenzene	<5.00	WA	µg/L	5.00			
0 Iron, total recoverable	15.9	WA	µg/L	74.0			
0 Lead, total recoverable	<47.0	WA	µg/L	47.0			
0 Nickel, total recoverable	<26.0	WA	µg/L	26.0			
0 Selenium, total recoverable	<66.0	WA	µg/L	66.0			
0 1,1,2,2-Tetrachloroethane	<5.00	WA	µg/L	5.00			
2 Tetrachloroethylene	79.3	WA	µg/L	5.00			
0 Toluene	<5.00	WA	µg/L	5.00			
0 1,1,1-Trichloroethane	<5.00	WA	µg/L	5.00			
0 1,1,2-Trichloroethane	<5.00	WA	µg/L	5.00			
2 Trichloroethylene	167	WA	µg/L	5.00			
0 Trichlorofluoromethane	<5.00	WA	µg/L	5.00			
0 Xylenes	<5.00	WA	µg/L	5.00			

## WELL ASB 6A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/22/99  
 Depth to water: 114.45 ft (34.88 m) below TOC  
 Water elevation: 236.75 ft (71.86 m) msl  
 pH: 5.5  
 Sp. conductivity: 85 µS/cm  
 Turbidity: 3 NTU  
 Water evacuated from the well prior to sampling: 37 gal

Time: 10:25  
 Water temperature: 18.6°C  
 Air temperature: 6.8°C  
 Total alkalinity as CaCO<sub>3</sub>: 7 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

## ANALYSES

F Analyte	Result	Lab	Unit	EMS	SQL	FG	S
0 Aluminum, total recoverable	<73.8	WA	µg/L	146			
0 Barium, total recoverable	3.70	WA	µg/L	1.80			
0 Benzene	<5.00	WA	µg/L	5.00			
0 Bromodichloromethane	<5.00	WA	µg/L	5.00			
0 Bromoform	<5.00	WA	µg/L	5.00			
0 Bromomethane	<10.0	WA	µg/L	10.0			
0 Carbon tetrachloride	<5.00	WA	µg/L	5.00			
0 Chlorobenzene	<5.00	WA	µg/L	5.00			
0 Chloroethane	<10.0	WA	µg/L	10.0			
0 Chloroethane (Vinyl chloride)	<10.0	WA	µg/L	10.0			
0 2-Chloroethyl vinyl ether	<5.00	WA	µg/L	5.00			
0 Chloroform	<5.00	WA	µg/L	5.00			
0 Chloromethane	<10.0	WA	µg/L	10.0			
0 Cyanide	<15.2	WA	µg/L	15.2			
0 Dibromochloromethane	<5.00	WA	µg/L	5.00			
0 1,1-Dichloroethane	<5.00	WA	µg/L	5.00			
0 1,2-Dichloroethane	<5.00	WA	µg/L	5.00			
0 1,1-Dichloroethylene	<5.00	WA	µg/L	5.00			
0 trans-1,2-Dichloroethylene	<5.00	WA	µg/L	5.00			
0 Dichloromethane	<47.47	WA	µg/L	5.00			
0 1,2-Dichloropropane	<5.00	WA	µg/L	5.00			
0 trans-1,3-Dichloropropene	<5.00	WA	µg/L	5.00			
0 Ethylbenzene	<5.00	WA	µg/L	5.00			
0 Iron, total recoverable	268	WA	µg/L	74.0			
0 Lead, total recoverable	<47.0	WA	µg/L	47.0			
0 Nickel, total recoverable	<66.0	WA	µg/L	66.0			
0 Selenium, total recoverable	<5.00	WA	µg/L	5.00			
0 1,1,2,2-Tetrachloroethane	<5.00	WA	µg/L	5.00			
0 Tetrachloroethylene	<5.00	WA	µg/L	5.00			
0 Toluene	<5.00	WA	µg/L	5.00			
0 1,1,1-Trichloroethane	<5.00	WA	µg/L	5.00			
0 1,1,2-Trichloroethane	<5.00	WA	µg/L	5.00			
1 Trichloroethylene	2.75	WA	µg/L	5.00			
0 Trichlorofluoromethane	<5.00	WA	µg/L	5.00			
0 Xylenes	<5.00	WA	µg/L	5.00			



**First Quarter 1999**



**First Quarter 1999**



Well ASB 8B collected on 02/11/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Dichloromethane	<25.0	U			25.0	µg/L	EX	EPA8260B
0 Chloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<25.0	U			25.0	µg/L	EX	EPA8260B
0 1,2-Dichloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<25.0	U			25.0	µg/L	EX	EPA8260B
0 trans-1,3-Dichloropropene	<25.0	U			25.0	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<25.0	U			25.0	µg/L	EX	EPA8260B
0 trans-1,3-Dichloropropene	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Ethylbenzene	<25.0	U			25.0	µg/L	EX	EPA8260B
0 Iron, total recoverable	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Lead, total recoverable	<25.0	U			25.0	µg/L	EX	EPA8260B
0 Nickel, total recoverable	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Nickel, total recoverable	<25.0	U			25.0	µg/L	EX	EPA8260B
0 Selenium, total recoverable	<25.0	U			25.0	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<25.0	U			25.0	µg/L	EX	EPA8260B
0 1,1,2,2-Tetrachloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Tetrachloroethylene	<25.0	U			25.0	µg/L	EX	EPA8260B
0 Toluene	<25.0	U			25.0	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<25.0	U			25.0	µg/L	EX	EPA8260B
0 1,1,1-Trichloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<25.0	U			25.0	µg/L	EX	EPA8260B
0 1,1,2-Trichloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Trichloroethylene	<25.0	U			25.0	µg/L	EX	EPA8260B
0 Trichloroethylene	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Trichloroethylene	<25.0	U			25.0	µg/L	EX	EPA8260B
0 Trichloroethylene	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Xylenes	<25.0	U			25.0	µg/L	EX	EPA8260B

## WELL ASB 8B Replicate

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/11/99  
 Depth to water: 132.9 ft (40.51 m) below TOC  
 Water elevation: 216.9 ft (66.11 m) msl  
 pH: 5  
 Sp. conductivity: 24 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 138 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1 Aluminum, total recoverable	33.7	J			146	µg/L	WA	EPA6010B
0 Barium, total recoverable	<10.0	U			10.0	µg/L	WA	EPA6010B
0 Benzene	<10.0	U			10.0	µg/L	WA	EPA6010B
0 Bromochloromethane	<10.0	U			10.0	µg/L	WA	EPA6010B
0 Bromoform	<10.0	U			10.0	µg/L	WA	EPA6010B
0 Bromomethane	<10.0	U			10.0	µg/L	WA	EPA6010B
0 Carbon tetrachloride	<10.0	U			10.0	µg/L	WA	EPA6010B
0 Chlorobenzene	<10.0	U			10.0	µg/L	WA	EPA6010B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPA6010B
0 2-Chloroethyl vinyl ether	<10.0	U			10.0	µg/L	WA	EPA6010B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA6010B
0 Cyanide	<15.2	U			15.2	µg/L	WA	EPA9014
0 Dibromochloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 cis-1,2-Dichloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<10.0	U			10.0	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Ethylbenzene	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Iron, total recoverable	33.5	J			74.0	µg/L	WA	EPA6010B
0 Lead, total recoverable	<47.0	U			47.0	µg/L	WA	EPA6010B
0 Nickel, total recoverable	<26.0	U			26.0	µg/L	WA	EPA6010B
0 Selenium, total recoverable	<66.0	U			66.0	µg/L	WA	EPA6010B

ESH-EMS-990520

Well ASB 8B collected on 02/11/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 1,1,2,2-Tetrachloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Tetrachloroethylene	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Toluene	<10.0	U			10.0	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Trichloroethylene	316	U			10.0	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Xylenes	<10.0	U			10.0	µg/L	WA	EPA8260B

## WELL ASB 8C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/11/99  
 Depth to water: 130.41 ft (39.75 m) below TOC  
 Water elevation: 215.29 ft (66.84 m) msl  
 pH: 5  
 Sp. conductivity: 32 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 62 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<146	U			146	µg/L	WA	EPA6010B
0 Barium, total recoverable	46.3	U			180	µg/L	WA	EPA6010B
0 Benzene	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Bromochloromethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Bromoform	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Bromomethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Chlorobenzene	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Chloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Chloroform	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Chloromethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Cyanide	<15.2	U			15.2	µg/L	WA	EPA9014
0 Dibromochloromethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Dichloromethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 cis-1,2-Dichloropropene	<25.0	U			25.0	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Ethylbenzene	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Iron, total recoverable	16.7	J			74.0	µg/L	WA	EPA6010B
0 Lead, total recoverable	<47.0	U			47.0	µg/L	WA	EPA6010B
0 Nickel, total recoverable	<26.0	U			26.0	µg/L	WA	EPA6010B
0 Selenium, total recoverable	<66.0	U			66.0	µg/L	WA	EPA6010B
0 1,1,2,2-Tetrachloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Toluene	<25.0	U			25.0	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Trichloroethylene	5.880	U			25.0	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<25.0	U			25.0	µg/L	WA	EPA8260B
0 Xylenes	<25.0	U			25.0	µg/L	WA	EPA8260B

## WELL ASB 8TA

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/22/99  
 Depth to water: 134.54 ft (41.01 m) below TOC  
 Water elevation: 215.06 ft (65.55 m) msl  
 pH: 4.8  
 Sp. conductivity: 22 µS/cm  
 Turbidity: 3 NTU  
 Water evacuated from the well prior to sampling: 325 gal

B-53

First Quarter 1999



## ANALYTICAL RESULTS

Well ASB 8TA collected on 02/22/99 (cont.)

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<200	U	V		200	µg/L	EX	EPAS0108
0 Barium, total recoverable	<25.5	U			146	µg/L	WA	EPAS0108
0 Benzene	8.59	U	I		10.0	µg/L	EX	EPAS0108
0 Bromodichloromethane	8.30	U			1.80	µg/L	WA	EPAS0108
0 Bromoform	<5.00	U			5.00	µg/L	EX	EPAS0108
0 Bromomethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	EX	EPAS0108
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloroethane	<5.00	U			5.00	µg/L	EX	EPAS0108
0 Chloroethane (Vinyl chloride)	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloroethane (Vinyl chloride)	<5.00	U			5.00	µg/L	EX	EPAS0108
0 2-Chloroethyl vinyl ether	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloroform	<5.00	U			5.00	µg/L	EX	EPAS0108
0 Chloromethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Cyanide	<10.0	U			5.00	µg/L	EX	EPAS0108
0 Dibromochloromethane	<10.0	U			5.00	µg/L	WA	EPAS0108
0 Dibromochloromethane	<10.0	U			5.00	µg/L	EX	EPAS0108
0 1,1-Dichloroethane	<15.2	U			15.2	µg/L	WA	EPAS0108
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	EX	EPAS0108
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	EX	EPAS0108
0 1,3-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,3-Dichloropropane	<5.00	U			5.00	µg/L	EX	EPAS0108
0 1,1-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1-Dichloroethylene	<5.00	U			5.00	µg/L	EX	EPAS0108
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	EX	EPAS0108
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	EX	EPAS0108
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	EX	EPAS0108
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	EX	EPAS0108
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	EX	EPAS0108
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Ethylbenzene	<5.00	U			5.00	µg/L	EX	EPAS0108
2 Iron, total recoverable	467	U			200	µg/L	WA	EPAS0108
2 Iron, total recoverable	474	U			200	µg/L	EX	EPAS0108
0 Lead, total recoverable	<10.0	U			14.0	µg/L	WA	EPAS0108
0 Lead, total recoverable	<10.0	U			14.0	µg/L	EX	EPAS0108
0 Nickel, total recoverable	<4.0	U			4.0	µg/L	WA	EPAS0108
0 Nickel, total recoverable	<4.0	U			4.0	µg/L	EX	EPAS0108
0 Selenium, total recoverable	<20.0	U			20.0	µg/L	WA	EPAS0108
0 Selenium, total recoverable	<20.0	U			20.0	µg/L	EX	EPAS0108
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	EX	EPAS0108
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	EX	EPAS0108
0 Tetrachloroethylene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Tetrachloroethylene	<5.00	U			5.00	µg/L	EX	EPAS0108
0 Toluene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Toluene	<5.00	U			5.00	µg/L	EX	EPAS0108
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	EX	EPAS0108
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	EX	EPAS0108
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Trichloroethylene	<5.00	U			5.00	µg/L	EX	EPAS0108
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	EX	EPAS0108
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Xylenes	<5.00	U			5.00	µg/L	EX	EPAS0108

ESH-EMS-990520

B-54

## WELL ASB 8TA Replicate

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/22/99  
 Depth to water: 134.54 ft (41.01 m) below TOC  
 Water elevation: 215.06 ft (65.55 m) msl  
 pH: 4.8  
 Conductivity: 22 µS/cm  
 Turbidity: 3 NTU  
 Water evacuated from the well prior to sampling: 325 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<27.3	U	V		146	µg/L	WA	EPAS0108
0 Barium, total recoverable	8.80	U			1.80	µg/L	WA	EPAS0108
0 Benzene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Bromomethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloroethane (Vinyl chloride)	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloroethane (Vinyl chloride)	<5.00	U			5.00	µg/L	WA	EPAS0108
0 2-Chloroethyl vinyl ether	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloromethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Cyanide	<15.2	U			15.2	µg/L	WA	EPAS0108
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Dichloromethane	<7.01	U	V		5.00	µg/L	WA	EPAS0108
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS0108
1 Iron, total recoverable	199	U			74.0	µg/L	WA	EPAS0108
0 Lead, total recoverable	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Nickel, total recoverable	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Selenium, total recoverable	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPAS0108

## WELL ASB 9B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
 Depth to water: 88.84 ft (27.08 m) below TOC  
 Water elevation: 220.16 ft (67.11 m) msl  
 pH: 6.8  
 Conductivity: 85 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 130 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<34.5	U	V		146	µg/L	WA	EPAS0108
0 Barium, total recoverable	62.0	U			1.80	µg/L	WA	EPAS0108
0 Benzene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Bromomethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloroethane	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloroethane (Vinyl chloride)	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloroethane (Vinyl chloride)	<5.00	U			5.00	µg/L	WA	EPAS0108
0 2-Chloroethyl vinyl ether	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPAS0108
0 Chloromethane	<5.00	U			5.00	µg/L	WA	EPAS0108

First Quarter 1999



Well ASB 9B collected on 02/17/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Cyanide	<15.2	U		15.2		µg/L	WA	EPAS0114
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dichloromethane	<3.97	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Ethylbenzene	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Iron, total recoverable	<47.0	U		47.0		µg/L	WA	EPAS010B
0	Lead, total recoverable	<26.0	U		26.0		µg/L	WA	EPAS010B
0	Nickel, total recoverable	<66.0	U		66.0		µg/L	WA	EPAS010B
0	Selenium, total recoverable	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
2	Chloroethene	6.93	U		5.00		µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
2	Trichloroethylene	7.27	U		5.00		µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B

## WELL ASB 9C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
Depth to water: 89.45 ft (27.26 m) below TOC  
Water elevation: 220.45 ft (67.19 m) msl  
pH: 5.2  
Sp. conductance: 34 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling: 101 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	<24.9	U		146		µg/L	WA	EPAS010B
0	Barium, total recoverable	19.4	U		1.80		µg/L	WA	EPAS010B
0	Benzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromodichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromotoluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromomethane	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethane	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPAS260B
0	2-Chloroethyl vinyl ether	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Chloroform	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Cyanide	<15.2	U		15.2		µg/L	WA	EPAS0114
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dichloromethane	<5.94	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Iron, total recoverable	<74.0	U		74.0		µg/L	WA	EPAS010B
0	Lead, total recoverable	<47.0	U		47.0		µg/L	WA	EPAS010B
0	Nickel, total recoverable	<26.0	U		26.0		µg/L	WA	EPAS010B
0	Selenium, total recoverable	<66.0	U		66.0		µg/L	WA	EPAS010B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
2	Chloroethene	11.8	U		5.00		µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
2	Trichloroethylene	11.8	U		5.00		µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B

ESH-EMS-990520

B-55

First Quarter 1999

## WELL ASB 10CR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/11/99  
Depth to water: 127.88 ft (38.98 m) below TOC  
Water elevation: 221.32 ft (67.46 m) msl  
pH: 5.4  
Sp. conductance: 42 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 78 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	<146	U		146		µg/L	WA	EPAS010B
0	Barium, total recoverable	8.60	U		1.80		µg/L	WA	EPAS010B
0	Benzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromodichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromotoluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromomethane	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethane	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPAS260B
0	2-Chloroethyl vinyl ether	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloromethane	<15.2	U		15.2		µg/L	WA	EPAS0114
0	Cyanide	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Iron, total recoverable	<20.1	U		74.0		µg/L	WA	EPAS010B
0	Lead, total recoverable	<47.0	U		47.0		µg/L	WA	EPAS010B
0	Nickel, total recoverable	<26.0	U		26.0		µg/L	WA	EPAS010B
0	Selenium, total recoverable	<66.0	U		66.0		µg/L	WA	EPAS010B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Terrachloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
2	Trichloroethylene	192	U		5.00		µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B

## WELL BGO 1D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/22/99  
Depth to water: 53.3 ft (16.86 m) below TOC  
Water elevation: Not available  
pH: 5.2  
Sp. conductance: 48 µS/cm  
Turbidity: 14.9 NTU  
Water evacuated from the well prior to sampling: 13 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	1,850			146		µg/L	WA	EPAS010B
2	Iron, total recoverable	2,540			74.0		µg/L	WA	EPAS010B
1	Manganese, total recoverable	26.1			7.80		µg/L	WA	EPAS010B

Time: 9:00  
Water temperature: 18.1°C  
Air temperature: 0.5°C  
Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): SX



## ANALYTICAL RESULTS

**First Quarter 1999**

8-56

FCM-FMC-990620

**WELL BGO 3DR**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/25/99  
Depth to water: 59.93 ft (18.27 m) below TOC  
Water elevation: 231.57 ft (70.58 m) msl  
pH: 4.5  
Sp. conductance: 33 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling

## ANALYSES

<i>F</i>	<i>Analyte</i>	<i>Result</i>	<i>FG</i>	<i>S</i>	<i>EMS</i>	<i>SQL</i>	<i>Unit</i>	<i>Lab</i>	<i>Method</i>
22	Aluminum, total recoverable	132	J	1	146	μg/L	WA	EPAG0108	
0	Iron, total recoverable	54.1	J	1	74.0	μg/L	WA	EPAG0108	
1	Manganese, total recoverable	27.5			7.80	μg/L	WA	EPAG0108	

## WELL BGO 12DR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/26/99  
Depth to water: 93 ft (28.35 m) below TOC  
Water elevation: 220.6 ft (67.24 m) msl  
pH: 11.1  
Sp. conductance: 840 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling  
Well BGO 12DR collected on 01/26/99 (cont.)

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Nitrate-nitrite as nitrogen	187				20.0	µg/L	WA	EPA353.2

**WELL BGO 20B**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/14/99  
Depth to water: 56 ft (17.07 m) below TOC  
Water elevation: 227.5 ft (69.34 m) msl  
pH: 6.6  
Sp. conductance: 96  $\mu$ S/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sample

## ANALYSES

<i>F Analyte</i>	<i>Result</i>	<i>PG</i>	<i>S</i>	<i>EMS</i>	<i>SQL</i>	<i>Unit</i>	<i>Lab</i>	<i>Method</i>
0 Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromochloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromomethane	<10.00	U			10.00	µg/L	WA	EPA8260B
0 Bromomethane	<10.00	U			10.00	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane	<10.00	U			10.00	µg/L	WA	EPA8260B
0 Chloroethane	<10.00	U			10.00	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.00	U			10.00	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.00	U			10.00	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.00	U			10.00	µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.00	U			10.00	µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.00	U			10.00	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B

Well BGO 20B collected on 01/14/99 (cont.)									
F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
	Chloroform	<5.00	U			5.00	µg/L	WA	EPAS260B
	Chloroform	<5.00	U			5.00	µg/L	WA	EPAS260B
	Chloromethane	<10.0	U			10.0	µg/L	WA	EPAS260B
	Chloromethane	<10.0	U			10.0	µg/L	WA	EPAS260B
	Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,1-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,1-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
	trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
	trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
	Dichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	Dichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
	cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
	cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
	trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
	trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
	trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
	Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
	Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	Tetrachloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
	Tetrachloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
	Toluene	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
	Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
	Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
	Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
	Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
	Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
	Gross alpha	4.90E-10±4.50E-10	U			6.90E-10	µCi/mL	TM	EPAS900.0M
	Nonvolatile beta	1.85E-09±1.07E-09	U			2.01E-09	µCi/mL	TM	EPAS900.0M
	Trifluoromethane	4.60E-07±3.50E-07	U			5.60E-07	µCi/mL	TM	EPAS906.0M
	Trifluoromethane	4.00E-07±3.50E-07	U			5.80E-07	µCi/mL	TM	EPAS906.0M



## WELL BGO 20B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/18/99  
 Depth to water: 55.9 ft (17.04 m) below TOC  
 Water elevation: 227.8 ft (69.37 m) msl  
 pH: 6.3  
 Sp. conductance: 96  $\mu\text{S}/\text{cm}$   
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 35 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Bromodichloromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Bromoform	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Bromomethane	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Carbon tetrachloride	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chlorobenzene	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chloroethane	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 2-Chloroethyl vinyl ether	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chloroform	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chloromethane	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Dibromochloromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,2-Dichloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1-Dichloroethylene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Dichloromethane	<10.5	U			10.5	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Ethylbenzene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Toluene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Tetrachloroethylene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Trichloroethylene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Xylenes	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Gross alpha	3.60E-10±7.30E-07	U			1.29E-09	$\mu\text{Ci}/\text{mL}$	WA	EPAA8260B
0 Gross alpha	5.60E-10±7.90E-07	U			1.34E-09	$\mu\text{Ci}/\text{mL}$	TM	EPAA900.0M
0 Nonvolatiles beta	2.21E-09±9.00E-10	U			1.34E-09	$\mu\text{Ci}/\text{mL}$	TM	EPAA900.0M
0 Nonvolatiles beta	1.65E-09±9.50E-10	U			1.50E-09	$\mu\text{Ci}/\text{mL}$	TM	EPAA900.0M
0 Tritium	3.00E-07±3.40E-07	U			5.80E-07	$\mu\text{Ci}/\text{mL}$	TM	EPAA906.0M
0 Tritium	2.80E-07±3.40E-07	U			5.80E-07	$\mu\text{Ci}/\text{mL}$	TM	EPAA906.0M

## WELL BGO 20B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/15/99  
 Depth to water: 55.9 ft (17.04 m) below TOC  
 Water elevation: 227.8 ft (69.37 m) msl  
 pH: 6.8  
 Sp. conductance: 98  $\mu\text{S}/\text{cm}$   
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 34 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Bromodichloromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Bromoform	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Bromomethane	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Carbon tetrachloride	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chlorobenzene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chloroethane	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 2-Chloroethyl vinyl ether	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chloroform	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chloromethane	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Dibromochloromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,2-Dichloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1-Dichloroethylene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Dichloromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Ethylbenzene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Toluene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Trichloroethylene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Xylenes	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Gross alpha	3.40E-10±3.50E-10	U			5.40E-10	$\mu\text{Ci}/\text{mL}$	TM	EPAA900.0M
0 Gross alpha	1.00E-10±3.80E-10	U			1.56E-09	$\mu\text{Ci}/\text{mL}$	TM	EPAA900.0M
0 Nonvolatiles beta	5.57E-06±6.40E-07	U			5.80E-07	$\mu\text{Ci}/\text{mL}$	TM	EPAA906.0M

ESH-EMS-990520

Well BGO 20B collected on 03/15/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 1,1-Dichloroethylene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Dichloromethane	<2.98	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Ethylbenzene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Toluene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Trichloroethylene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Xylenes	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Gross alpha	1.00E-10±7.00E-10	U			1.33E-09	$\mu\text{Ci}/\text{mL}$	TM	EPAA900.0M
0 Gross alpha	4.30E-10±7.60E-10	U			1.32E-09	$\mu\text{Ci}/\text{mL}$	TM	EPAA900.0M
0 Nonvolatiles beta	5.30E-10±1.10E-09	U			1.89E-09	$\mu\text{Ci}/\text{mL}$	TM	EPAA900.0M
0 Nonvolatiles beta	4.00E-07±3.70E-07	U			6.10E-07	$\mu\text{Ci}/\text{mL}$	TM	EPAA906.0M
0 Tritium	1.40E-07±3.40E-07	U			5.90E-07	$\mu\text{Ci}/\text{mL}$	TM	EPAA906.0M

## WELL BGO 20C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/14/99  
 Depth to water: 54.85 ft (16.72 m) below TOC  
 Water elevation: 228.65 ft (69.69 m) msl  
 pH: 5.8  
 Sp. conductance: 28  $\mu\text{S}/\text{cm}$   
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 22 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Bromodichloromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Bromoform	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Bromomethane	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Carbon tetrachloride	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chlorobenzene	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chloroethane	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 2-Chloroethyl vinyl ether	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chloroform	<10.0	U			10.0	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Chloromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Dibromochloromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,2-Dichloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Dichloromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Ethylbenzene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Toluene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Trichloroethylene	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Xylenes	<5.00	U			5.00	$\mu\text{g}/\text{L}$	WA	EPAA8260B
0 Gross alpha	3.40E-10±3.50E-10	U			5.40E-10	$\mu\text{Ci}/\text{mL}$	TM	EPAA900.0M
0 Gross alpha	1.00E-10±3.80E-10	U			1.56E-09	$\mu\text{Ci}/\text{mL}$	TM	EPAA900.0M
0 Nonvolatiles beta	5.57E-06±6.40E-07	U			5.80E-07	$\mu\text{Ci}/\text{mL}$	TM	EPAA906.0M

Time: 9:17  
 Water temperature: 19.1°C  
 Air temperature: 12.9°C  
 Total alkalinity (as  $\text{CaCO}_3$ ): 3 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): V

B-57

First Quarter 1999



## ANALYTICAL RESULTS

## WELL BGO 20C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/18/99  
Depth to water: 54.58 ft (16.64 m) below TOC  
Water elevation: 228.92 ft (69.78 m) msf  
pH: 5.4  
Sp. conductance: 28 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 23 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromodichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromomethane	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethane	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromodichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dichloromethane	<11.0	U		11.0		µg/L	WA	EPAS260B
0	1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Tetrachloroethene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethene (Vinyl chloride)	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromodichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichloroethene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Gross alpha	7.60E-10±5.80E-10	U		6.30E-10		µCi/mL	TM	EPAS900.0M
0	Nonvolatile beta	1.60E-09±4.50E-10	U		1.32E-09		µCi/mL	TM	EPAS900.0M
0	Tritium	4.67E-06±5.80E-07	U		5.80E-07		µCi/mL	TM	EPAS906.0M

## WELL BGO 20C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/15/99  
Depth to water: 54.62 ft (16.65 m) below TOC  
Water elevation: 228.88 ft (69.76 m) msf  
pH: 5.6  
Sp. conductance: 28 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 30 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromodichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromochloromethane	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Bromomethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethane	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPAS260B
0	2-Chloroethyl vinyl ether	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromodichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dichloromethane	<2.78	U		5.00		µg/L	WA	EPAS260B

ESH-EMS-990520

B-58

Well BGO 20C collected on 03/15/99 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Tetrachloroethene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Gross alpha	1.00E-11±5.70E-10	U		1.13E-09		µCi/mL	TM	EPAS900.0M
0	Nonvolatile beta	2.70E-10±3.50E-10	U		1.76E-09		µCi/mL	TM	EPAS900.0M
0	Tritium	5.20E-06±5.30E-07	U		5.30E-07		µCi/mL	TM	EPAS906.0M

## WELL BGO 20D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/14/99  
Depth to water: 50.34 ft (15.34 m) below TOC  
Water elevation: Not available  
pH: 5.2  
Sp. conductance: 57 µS/cm  
Turbidity: 12.2 NTU  
Water evacuated from the well prior to sampling: 8 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromodichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromochloromethane	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Bromomethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chlorobenzene	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Chloroethane	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPAS260B
0	2-Chloroethyl vinyl ether	<10.0	U		10.0		µg/L	WA	EPAS260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromodichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Tetrachloroethene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Gross alpha	2.65E-09±7.40E-10	U		5.50E-10		µCi/mL	TM	EPAS900.0M
0	Nonvolatile beta	2.90E-10±3.10E-10	U		1.57E-09		µCi/mL	TM	EPAS900.0M
2	Tritium	3.26E-05±1.41E-06	U		6.10E-07		µCi/mL	TM	EPAS906.0M

First Quarter 1999



## ANALYTICAL RESULTS

## WELL BGO 20D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/18/99  
Depth to water: 50.5 ft (15.39 m) below TOC  
Water elevation: Not available  
pH: 5.3  
Sp. conductance: 56 µS/cm  
Turbidity: 13.7 NTU  
Water evacuated from the well prior to sampling: 9 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Bromodichloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Bromochloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Carbon tetrachloride	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Chlorobenzene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Chloroethane	<10.0	U		10.0	µg/L	WA	EPA8260B	
0	Chloroethane (Vinyl chloride)	<10.0	U		10.0	µg/L	WA	EPA8260B	
0	Chloroform	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Dibromochloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	1,1-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	1,1-Dichloroethylene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	trans-1,2-Dichloroethylene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Dichloromethane	<11.2	U		5.00	µg/L	WA	EPA8260B	
0	1,2-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	trans-1,3-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	1,1,1-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Toluene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	1,1,1-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Trichloroethylene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Trichlorofluoromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Xylenes	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Gross alpha	1.35E-09±9.30E-10	U		1.37E-09	µCi/mL	TM	EPA900.0M	
0	Nonvolatile beta	2.52E-09±9.30E-10	U		1.36E-09	µCi/mL	TM	EPA900.0M	
2	Trilium	2.53E-05±1.18E-06	U		6.00E-07	µCi/mL	TM	EPA906.0M	

## WELL BGO 20D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/15/99  
Depth to water: 50.75 ft (15.47 m) below TOC  
Water elevation: Not available  
pH: 5.4  
Sp. conductance: 56 µS/cm  
Turbidity: 14.3 NTU  
Water evacuated from the well prior to sampling: 3 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Bromodichloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Bromochloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Carbon tetrachloride	<10.0	U		10.0	µg/L	WA	EPA8260B	
0	Chlorobenzene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Chloroethane	<10.0	U		10.0	µg/L	WA	EPA8260B	
0	Chloroethane (Vinyl chloride)	<10.0	U		10.0	µg/L	WA	EPA8260B	
0	Chloroform	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Dibromochloromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	1,1-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	1,1-Dichloroethylene	<5.00	U		5.00	µg/L	WA	EPA8260B	

## ESH-EMS-990520

Well BGO 20D collected on 03/15/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	trans-1,2-Dichloroethylene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Dichloromethane	<2.88	U		5.00	µg/L	WA	EPA8260B	
0	1,2-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	cis-1,3-Dichloropropene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	trans-1,3-Dichloropropene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Ethylbenzene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Tetrachloroethylene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Toluene	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	1,1,1-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Trichlorofluoromethane	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Xylenes	<5.00	U		5.00	µg/L	WA	EPA8260B	
0	Gross alpha	3.05E-09±1.10E-09	U		1.24E-09	µCi/mL	TM	EPA900.0M	
0	Nonvolatile beta	4.07E-09±1.24E-09	U		1.80E-09	µCi/mL	TM	EPA900.0M	
2	Trilium	2.58E-05±1.31E-06	U		6.40E-07	µCi/mL	TM	EPA906.0M	

## WELL BGO 27D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 49.3 ft (15.03 m) below TOC  
Water elevation: Not available  
pH: 4.1  
Sp. conductance: 33 µS/cm  
Turbidity: 12.3 NTU  
Water evacuated from the well prior to sampling: 20 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	208	U		146	µg/L	WA	EPA6010B	
1	Iron, total recoverable	1,080	U		74.0	µg/L	WA	EPA6010B	
1	Manganese, total recoverable	35.4	U		7.80	µg/L	WA	EPA6010B	

## WELL BGO 32D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/18/99  
Depth to water: 55.02 ft (16.77 m) below TOC  
Water elevation: 226.68 ft (69.09 m) msl  
pH: 4.6  
Sp. conductance: 81 µS/cm  
Turbidity: 14 NTU  
Water evacuated from the well prior to sampling: 6 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Nitrate-nitrite as nitrogen	3,990	U		200	µg/L	WA	EPA353.2	
0	Nitrate-nitrite as nitrogen	3,990	U		200	µg/L	WA	EPA353.2	

## WELL BGO 33D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
Depth to water: 51.24 ft (15.62 m) below TOC  
Water elevation: Not available  
pH: 5.0  
Sp. conductance: 46 µS/cm  
Turbidity: 14.3 NTU  
Water evacuated from the well prior to sampling: 17 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00	µg/L	WA	EPA8260B	

## B-59

First Quarter 1999



## ANALYTICAL RESULTS

Well BGO 33D collected on 01/13/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Bromodichloromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Bromomethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Bromochloromethane	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Carbon tetrachloride	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Chlorobenzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Chloroethane	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	2-Chloroethyl vinyl ether	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chloroform	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Chloromethane	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Dibromochloromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	trans-1,2-Dichloroethylene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Dichloromethane	<1.13	U	Y	5.00	µg/L	WA	EPAS260B	
0	1,2-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	cis-1,3-Dichloropropene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	trans-1,3-Dichloropropene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Ethylbenzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Tetrachloroethylene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Toluene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,1-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Trichloroethylene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Trichlorofluoromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Xylenes	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Gross alpha	3.15E-09±8.0E-10	U		9.40E-10	µCi/mL	TM	EPAS900.0M	
0	Gross beta	3.85E-09±1.0E-09	U		9.50E-10	µCi/mL	TM	EPAS900.0M	
0	Nonvolatile beta	4.03E-09±1.21E-09	J	I	1.74E-09	µCi/mL	TM	EPAS900.0M	
0	Nonvolatile beta	2.87E-09±1.14E-09	J	I	1.74E-09	µCi/mL	TM	EPAS900.0M	
2	Tritium	2.32E-05±1.15E-06			6.50E-07	µCi/mL	TM	EPAS906.0M	
2	Tritium	2.33E-05±1.16E-06			6.50E-07	µCi/mL	TM	EPAS906.0M	

## WELL BGO 33D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/18/99  
 Depth to water: 51.35 ft (15.65 m) below TOC  
 Water elevation: 228.95 ft (69.78 m) nsl  
 pH: 5  
 Sp. conductance: 54 µS/cm  
 Turbidity: 10 NTU  
 Water evacuated from the well prior to sampling: 6 gal  
 The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Bromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Bromotoluene	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Chloroethane	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Chloroethene (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPAS260B
0	2-Chloroethyl vinyl ether	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Chloroform	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Chloromethane	<10.0	U			10.0	µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Dichloromethane	<13.1	U			5.00	µg/L	WA	EPAS260B
0	1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Tetrachloroethene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Toluene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B

ESH-EMS-990520

B-60

First Quarter 1999

Well BGO 33D collected on 02/18/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Trichloroethylene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Trichlorofluoromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Xylenes	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Gross alpha	3.70E-09±1.10E-09	J		1.08E-09	µCi/mL	TM	EPAS900.0M	
0	Nonvolatile beta	2.55E-09±1.03E-09	J		1.56E-09	µCi/mL	TM	EPAS900.0M	
2	Tritium	2.20E-05±1.13E-06		C	6.20E-07	µCi/mL	TM	EPAS906.0M	

## WELL BGO 33D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 51.8 ft (15.79 m) below TOC  
 Water elevation: 228.5 ft (69.65 m) nsl  
 pH: 5.1  
 Sp. conductance: 54 µS/cm  
 Turbidity: 6 NTU  
 Water evacuated from the well prior to sampling: 1 gal  
 The well went dry during purging.

## ANALYSES

The analyses were not dry during purging.

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Bromodichloromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Bromochloromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Bromomethane	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Carbon tetrachloride	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Chlorobenzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Chloroethane	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	2-Chloroethyl vinyl ether	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Chloroform	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Chloromethane	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Dibromochloromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	trans-1,2-Dichloroethene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Dichloropropane	<3.58	U	V	5.00	µg/L	WA	EPAS260B	
0	1,2-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	cis-1,3-Dichloropropene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	trans-1,3-Dichloropropene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Ethylbenzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Tetrachloroethylene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Toluene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,1-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Trichloroethylene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Trichlorofluoromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Xylenes	5.35E-09±1.22E-09	U		1.00E-09	µCi/mL	TM	EPAS900.0M	
0	Gross alpha	3.53E-09±1.14E-09	J		1.22E-09	µCi/mL	TM	EPAS900.0M	
0	Gross beta	3.08E-09±5.0E-10	J		1.34E-09	µCi/mL	TM	EPAS900.0M	
0	Nonvolatile beta	3.48E-09±1.04E-09	J		1.47E-09	µCi/mL	TM	EPAS900.0M	
2	Tritium	2.23E-05±1.24E-06			6.70E-07	µCi/mL	TM	EPAS906.0M	
2	Tritium	2.21E-05±1.23E-06			6.70E-07	µCi/mL	TM	EPAS906.0M	

## WELL BGO 34D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 43.72 ft (13.33 m) below TOC  
 Water elevation: Not available  
 pH: 4.8  
 Sp. conductance: 27 µS/cm  
 Turbidity: 5.3 NTU  
 Water evacuated from the well prior to sampling: 13 gal  
 The well went dry during purging.

## ANALYSES



## ANALYTICAL RESULTS

Well BGO 34D collected on 01/13/99 (cont.)

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Benzene	<5.00				5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Bromoform	<5.00				5.00	µg/L	WA	EPAS260B
0 Bromomethane	<10.0				10.0	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00				5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00				5.00	µg/L	WA	EPAS260B
0 Chloroethane	<10.0				10.0	µg/L	WA	EPAS260B
0 Chloroethene (Vinyl chloride)	<10.0				10.0	µg/L	WA	EPAS260B
0 2-Chloroethyl vinyl ether	<5.00				5.00	µg/L	WA	EPAS260B
0 Chloroform	<5.00				5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<5.00				5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethene	<5.00				5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<5.00				5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00				5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00				5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00				5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Tetrachloroethene	<5.00				5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00				5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Trichloroethene	<5.00				5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00				5.00	µg/L	WA	EPAS260B
0 Gross alpha	1.74E-09±7.60E-10		I		8.90E-10	µCi/mL	TM	EPAS900.0M
0 Nonradioactive beta	1.45E-09±1.08E-09				1.71E-09	µCi/mL	TM	EPAS900.0M
1 Tritium	1.18E-05±8.50E-07				6.30E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 34D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/18/99  
 Depth to water: 43.8 ft (13.35 m) below TOC  
 Water elevation: 231.1 ft (70.44 m) msl  
 pH: 5.2  
 Sp. conductance: 28 µS/cm  
 Turbidity: 10 NTU  
 Water evacuated from the well prior to sampling: 4 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Benzene	<5.00				5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Bromoform	<5.00				5.00	µg/L	WA	EPAS260B
0 Bromomethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00				5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	<10.0				10.0	µg/L	WA	EPAS260B
0 Chloroethane	<10.0				10.0	µg/L	WA	EPAS260B
0 Chloroethene (Vinyl chloride)	<10.0				10.0	µg/L	WA	EPAS260B
0 2-Chloroethyl vinyl ether	<5.00				5.00	µg/L	WA	EPAS260B
0 Chloroform	<5.00				5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Dibromodichloromethane	<5.00				5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethene	<5.00				5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<10.3				5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00				5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00				5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00				5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Tetrachloroethene	<5.00				5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00				5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00				5.00	µg/L	WA	EPAS260B

## ESH-EMS-990520

Well BGO 34D collected on 02/18/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Trichloroethylene	<5.00				5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00				5.00	µg/L	WA	EPAS260B
0 Gross alpha	1.75E-09±8.30E-10		V		1.05E-09	µCi/mL	TM	EPAS900.0M
0 Nonradioactive beta	2.10E-09±8.30E-10		I		1.41E-09	µCi/mL	TM	EPAS900.0M
1 Tritium	1.22E-05±8.70E-07		K		6.20E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 34D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 44.32 ft (13.51 m) below TOC  
 Water elevation: 230.58 ft (70.28 m) msl  
 pH: 5.1  
 Sp. conductance: 27 µS/cm  
 Turbidity: 7 NTU  
 Water evacuated from the well prior to sampling: 1 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Benzene	<5.00				5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Bromoform	<5.00				5.00	µg/L	WA	EPAS260B
0 Bromomethane	<10.0				10.0	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00				5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00				5.00	µg/L	WA	EPAS260B
0 Chloroethane	<10.0				10.0	µg/L	WA	EPAS260B
0 Chloroethene (Vinyl chloride)	<10.0				10.0	µg/L	WA	EPAS260B
0 2-Chloroethyl vinyl ether	<5.00				5.00	µg/L	WA	EPAS260B
0 Chloroform	<5.00				5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<5.00				5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethene	<5.00				5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<3.46				5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00				5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00				5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00				5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Tetrachloroethene	<5.00				5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00				5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00				5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00				5.00	µg/L	WA	EPAS260B
0 Gross alpha	3.80E-09±1.09E-09		I		1.04E-09	µCi/mL	TM	EPAS900.0M
0 Nonradioactive beta	2.32E-09±8.80E-10				1.47E-09	µCi/mL	TM	EPAS900.0M
1 Tritium	1.34E-05±8.30E-07				6.70E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 35C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/19/99  
 Depth to water: 45.67 ft (13.92 m) below TOC  
 Water elevation: 227.73 ft (69.41 m) msl  
 pH: 5.1  
 Sp. conductance: 35 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 111 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Benzene	<5.00				5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00				5.00	µg/L	WA	EPAS260B
0 Bromoform	<5.00				5.00	µg/L	WA	EPAS260B
0 Bromomethane	<10.0				10.0	µg/L	WA	EPAS260B

## B-61

First Quarter 1999



## ANALYTICAL RESULTS

Well BGO 35C collected on 01/19/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Carbon tetrachloride	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Chlorobenzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Chloroethane	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chloroethane (Vinyl chloride)	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	2-Chloroethyl vinyl ether	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chloroform	1.34	U		5.00	µg/L	WA	EPAS260B	
0	Chloromethane	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Dibromochloromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	trans-1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	trans-1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Dichloromethane	<3.50	U		5.00	µg/L	WA	EPAS260B	
0	1,2-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	cis-1,3-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	trans-1,3-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Ethylbenzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Toluene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,1-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Trichloroethylene	19.7	U		5.00	µg/L	WA	EPAS260B	
0	Trichlorofluoromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Xylenes	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Gross alpha	7.60E-10±5.50E-10	U		7.60E-10	µCi/mL	TM	EPAS900.0M	
0	Gross beta	1.06E-09±6.10E-10	U		7.60E-10	µCi/mL	TM	EPAS900.0M	
0	Nonvolatile beta	2.60E-10±9.90E-10	U		1.73E-09	µCi/mL	TM	EPAS900.0M	
0	Nonvolatile beta	-6.00E-11±9.70E-10	U		1.73E-09	µCi/mL	TM	EPAS900.0M	
2	Tritium	2.28E-04±3.33E-06	U		1.73E-07	µCi/mL	TM	EPAS906.0M	
2	Tritium	2.38E-04±3.46E-06	U		5.90E-07	µCi/mL	TM	EPAS906.0M	

## WELL BGO 35C Replicate

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/19/99  
 Depth to water: 45.67 ft (13.92 m) below TOC  
 Water elevation: 227.73 ft (69.41 m) msl  
 pH: 5.1  
 Sp. conductivity: 35 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 111 gal  
 ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Bromodichloromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Bromomethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Carbon tetrachloride	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chlorobenzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Chloroethane	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chloroethane (Vinyl chloride)	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	2-Chloroethyl vinyl ether	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chloroform	1.32	U		5.00	µg/L	WA	EPAS260B	
0	Chloromethane	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Dibromochloromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	trans-1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Dichloromethane	<3.27	U		5.00	µg/L	WA	EPAS260B	
0	1,2-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	cis-1,3-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	trans-1,3-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Ethylbenzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Toluene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,1-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
2	Tritium	19.5	U		5.00	µg/L	WA	EPAS260B	
0	Trichloroethylene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Xylenes	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Gross alpha	3.30E-10±4.50E-10	U		7.60E-10	µCi/mL	TM	EPAS900.0M	

ESH-EMS-990520

B-62

Well BGO 35C collected on 01/19/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Nonvolatile beta	3.50E-10±9.50E-10	U		1.73E-09	µCi/mL	TM	EPAS900.0M	
2	Tritium	2.43E-04±3.55E-06	U		6.10E-07	µCi/mL	TM	EPAS906.0M	

## WELL BGO 35C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/25/99  
 Depth to water: 45.85 ft (13.98 m) below TOC  
 Water elevation: 227.55 ft (69.36 m) msl  
 pH: 6.1  
 Sp. conductivity: 32 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 132 gal  
 ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Bromodichloromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Bromomethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Carbon tetrachloride	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chlorobenzene	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chloroethane	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chloroethane (Vinyl chloride)	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	2-Chloroethyl vinyl ether	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chloroform	1.13	U		5.00	µg/L	WA	EPAS260B	
0	Chloromethane	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Dibromochloromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	trans-1,2-Dichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Dichloromethane	<13.0	U		5.00	µg/L	WA	EPAS260B	
0	1,2-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	cis-1,3-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	trans-1,3-Dichloropropane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Ethylbenzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Toluene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,1-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	1,1,2-Trichloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
2	Tritium	19.6	U		5.00	µg/L	WA	EPAS260B	
0	Trichloroethylene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Trichlorofluoromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Xylenes	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Gross alpha	1.50E-10±4.90E-10	U		9.20E-10	µCi/mL	TM	EPAS900.0M	
0	Gross beta	3.30E-10±7.70E-10	U		1.37E-09	µCi/mL	TM	EPAS900.0M	
0	Nonvolatile beta	2.60E-10±7.80E-10	U		1.38E-09	µCi/mL	TM	EPAS900.0M	
0	Nonvolatile beta	3.70E-10±7.80E-10	U		1.34E-09	µCi/mL	TM	EPAS900.0M	
2	Tritium	3.80E-04±5.58E-06	U		9.40E-07	µCi/mL	TM	EPAS906.0M	
2	Tritium	3.06E-04±4.58E-06	U		7.80E-07	µCi/mL	TM	EPAS906.0M	

## WELL BGO 35C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/15/99  
 Depth to water: 45.03 ft (13.73 m) below TOC  
 Water elevation: 228.37 ft (69.61 m) msl  
 pH: 5.3  
 Sp. conductivity: 35 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 134 gal  
 ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Bromodichloromethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Bromomethane	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Carbon tetrachloride	<10.0	U		10.0	µg/L	WA	EPAS260B	
0	Chlorobenzene	<5.00	U		5.00	µg/L	WA	EPAS260B	
0	Chloroethane	<5.00	U		5.00	µg/L	WA	EPAS260B	

ESH-EMS-990520

B-62

First Quarter 1999



## ANALYTICAL RESULTS

Well BGO 35C collected on 03/15/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroform	1.33	U	I		5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Dibromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<1.88	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
2 Trichloroethylene	22.7	U			5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Gross alpha	1.00E-11±5.70E-10	U			1.76E-09	µCi/mL	TM	EPA900.0M
0 Nonviable beta	-8.70E-10±9.40E-10	U			1.76E-09	µCi/mL	TM	EPA900.0M
2 Tritium	4.80E-04±7.43E-06	U			1.17E-06	µCi/mL	TM	EPA906.0M

## WELL BGO 35D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 40.41 ft (12.32 m) below TOC  
 Water elevation: 24.8 C  
 pH: 4.5  
 Sp. conductance: 41 µS/cm  
 Turbidity: 14.9 NTU  
 Water evacuated from the well prior to sampling: 15 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromochloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromomethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromonitrobenzene	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.0	U			10.0	µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Dibromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B

## ESH-EMS-990520

Well BGO 35D collected on 01/13/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<1.88	U			5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<0.966	U	V		5.00	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Tetrachloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Tetrachloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Gross alpha	1.00E-09±7.80E-10	U			9.60E-10	µCi/mL	TM	EPA900.0M
0 Nonviable beta	1.00E-09±1.00E-09	U			1.74E-09	µCi/mL	TM	EPA900.0M
2 Tritium	6.93E-05±1.90E-06	U			6.30E-07	µCi/mL	TM	EPA906.0M

## WELL BGO 35D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/18/99  
 Depth to water: 40.42 ft (12.32 m) below TOC  
 Water elevation: 233.08 ft (71.04 m) msl  
 pH: 4.9  
 Sp. conductance: 40 µS/cm  
 Turbidity: 8 NTU  
 Water evacuated from the well prior to sampling: 6 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromomethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B

## B-63

First Quarter 1999

Time: 8:48  
 Water temperature: 22.8°C  
 Air temperature: 14.4°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): SX



[illegible]



Well BGO 36D collected on 02/18/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
trans-1,2-Dichloroethylene	<5.00	U	V	5.00	5.00	µg/L	WA	EPAS260B
Dichloromethane	<3.38	U		5.00	5.00	µg/L	WA	EPAS260B
1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Gross alpha	3.61E-09±1.08E-09	U		5.00	5.00	µCi/mL	WA	EPAS260B
Nonvolatiles beta	3.19E-09±9.30E-10	U		1.28E-09	1.28E-09	µCi/mL	TM	EPAS260B
2 Tritium	2.19E-05±1.16E-06	J	K	6.50E-07	6.50E-07	µCi/mL	TM	EPAS260B

## WELL BGO 36D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 39.98 ft (12.19 m) below TOC  
 Water elevation: 235.42 ft (71.78 m) msl  
 pH: 4.8  
 Sp. conductance: 26 µS/cm  
 Turbidity: 7 NTU  
 Water evacuated from the well prior to sampling: 1 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Bromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Bromomethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Carbon tetrachloride	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Chloroethane	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
2-Chloroethyl vinyl ether	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
Chloroform	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Gross alpha	2.78E-09±1.07E-09	U		1.31E-09	1.31E-09	µCi/mL	TM	EPAS260B
Nonvolatiles beta	2.00E-09±8.80E-10	U		1.52E-09	1.52E-09	µCi/mL	TM	EPAS260B
2 Tritium	1.75E-05±1.09E-06	J		6.50E-07	6.50E-07	µCi/mL	TM	EPAS260B

ESH-EMS-990520

## WELL BGO 37C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/19/99  
 Depth to water: 56.46 ft (17.21 m) below TOC  
 Water elevation: 229.84 ft (70.06 m) msl  
 pH: 4.2  
 Sp. conductance: 45 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 100 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Bromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Bromomethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Carbon tetrachloride	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Chloroethane	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
2-Chloroethyl vinyl ether	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
Chloroform	88.9	U		50.0	50.0	µg/L	WA	EPAS260B
Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
1,1-Dichloroethane	61.3	U		50.0	50.0	µg/L	WA	EPAS260B
1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
trans-1,2-Dichloroethylene	19.8	U		50.0	50.0	µg/L	WA	EPAS260B
Dichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Trichloroethylene	67.4	U		50.0	50.0	µg/L	WA	EPAS260B
Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Gross alpha	1.89E-09±7.00E-10	U	IK	5.20E-10	5.20E-10	µCi/mL	TM	EPAS260B
Nonvolatiles beta	7.50E-10±8.80E-10	U	IK	1.44E-09	1.44E-09	µCi/mL	TM	EPAS260B
2 Tritium	1.74E-03±2.24E-05	J		3.57E-08	3.57E-08	µCi/mL	TM	EPAS260B

## WELL BGO 37C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/25/99  
 Depth to water: 56.48 ft (17.22 m) below TOC  
 Water elevation: 229.82 ft (70.05 m) msl  
 pH: 4.6  
 Sp. conductance: 46 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 103 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Bromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Bromomethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Carbon tetrachloride	6.99	U		5.00	5.00	µg/L	WA	EPAS260B
Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
Chloroethane	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
2-Chloroethyl vinyl ether	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
Chloroform	87.7	U		5.00	5.00	µg/L	WA	EPAS260B
Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
1,1-Dichloroethane	37.2	U		5.00	5.00	µg/L	WA	EPAS260B
1,2-Dichloroethane	1.60	J		5.00	5.00	µg/L	WA	EPAS260B

B-65

First Quarter 1999



## ANALYTICAL RESULTS

Well BGO 37C collected on 02/25/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 1,1-Dichloroethylene	22.4	J	I	5.00	5.00	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<14.5	U	V	5.00	5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
2 Tetrachloroethylene	27.1	U		5.00	5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	1.09	J	R	5.00	5.00	µg/L	WA	EPA8260B
2 Trichloroethylene	556	U		5.00	5.00	µg/L	WA	EPA8260B
2 Trichlorofluoromethane	689	U		5.00	5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Gross alpha	1.55E-09±7.60E-10	J		8.40E-10	8.40E-10	µCi/mL	TM	EPA900.0M
0 Gross beta	1.48E-09±1.04E-09	J		1.69E-09	1.69E-09	µCi/mL	TM	EPA900.0M
0 Nonvolatiles beta	9.20E-10±1.01E-09	U		1.69E-09	1.69E-09	µCi/mL	TM	EPA900.0M
0 Nonvolatiles alpha	1.55E-01±9.20E-05	U		7.30E-07	7.30E-07	µCi/mL	TM	EPA900.0M
2 Tritium	1.55E-01±9.20E-05	U		7.30E-07	7.30E-07	µCi/mL	TM	EPA900.0M

## WELL BGO 37C Replicate

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/25/99  
 Depth to water: 56.48 ft (17.22 m) below TOC  
 Water elevation: 229.82 ft (70.05 m) msl  
 pH: 4.6  
 Sp. conductance: 46 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 103 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
2 Carbon tetrachloride	7.09	U		5.00	5.00	µg/L	WA	EPA8260B
0 Chloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0	10.0	µg/L	WA	EPA8260B
1 Chloroform	88.1	U		10.0	10.0	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U		5.00	5.00	µg/L	WA	EPA8260B
0 Dibromochloromethane	<10.0	U		10.0	10.0	µg/L	WA	EPA8260B
2 1,1-Dichloroethane	58.3	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,2-Dichloroethylene	1.58	J		5.00	5.00	µg/L	WA	EPA8260B
2 trans-1,2-Dichloroethylene	23.5	J		5.00	5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<14.0	U		5.00	5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
2 Trichloroethylene	28.5	U		5.00	5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
2 1,1,2-Trichloroethane	1.13	J		5.00	5.00	µg/L	WA	EPA8260B
2 Trichloroethylene	570	J		5.00	5.00	µg/L	WA	EPA8260B
2 Trichlorofluoromethane	690	J		5.00	5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Gross alpha	1.77E-09±7.40E-10	J		8.30E-10	8.30E-10	µCi/mL	TM	EPA900.0M
0 Gross beta	1.18E-09±1.02E-09	J		1.69E-09	1.69E-09	µCi/mL	TM	EPA900.0M
2 Nonvolatiles beta	1.82E-01±9.52E-05	U		7.40E-07	7.40E-07	µCi/mL	TM	EPA900.0M

ESH-EMS-990520

B-66

## WELL BGO 37C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/15/99  
 Depth to water: 55.44 ft (16.9 m) below TOC  
 Water elevation: 230.86 ft (70.37 m) msl  
 pH: 6  
 Sp. conductance: 42 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 125 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	JU		50.0	50.0	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	JU		50.0	50.0	µg/L	WA	EPA8260B
0 Bromoform	<100	JU		100	100	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
0 Chloroethane	<100	JU		100	100	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<100	JU		100	100	µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<100	JU		100	100	µg/L	WA	EPA8260B
1 Chloroform	98.9	J		50.0	50.0	µg/L	WA	EPA8260B
0 Chloromethane	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
0 Dibromochloromethane	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
2 1,1-Dichloroethane	77.8	J		50.0	50.0	µg/L	WA	EPA8260B
2 1,1-Dichloroethylene	26.2	J		50.0	50.0	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
0 Dichloromethane	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
0 Ethylbenzene	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
0 Toluene	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
2 1,1,2-Trichloroethane	75.4	JU		50.0	50.0	µg/L	WA	EPA8260B
2 Trichloroethylene	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
0 Xylenes	<50.0	JU		50.0	50.0	µg/L	WA	EPA8260B
0 Gross alpha	2.34E-09±1.18E-09	J		1.65E-09	1.65E-09	µCi/mL	TM	EPA900.0M
0 Gross beta	2.33E-09±1.17E-09	J		1.65E-09	1.65E-09	µCi/mL	TM	EPA900.0M
0 Nonvolatiles beta	2.20E-10±2.12E-09	U		3.65E-09	3.65E-09	µCi/mL	TM	EPA900.0M
0 Nonvolatiles alpha	1.32E-01±2.05E-03	J		6.32E-04	6.32E-04	µCi/mL	TM	EPA900.0M
2 Tritium	1.30E-01±2.00E-03	J		6.17E-04	6.17E-04	µCi/mL	TM	EPA900.0M

## WELL BGO 37D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 48.31 ft (14.72 m) below TOC  
 Water elevation: Not available  
 pH: 5.2  
 Sp. conductance: 25 µS/cm  
 Turbidity: 12.8 NTU  
 Water evacuated from the well prior to sampling: 8 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Chloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0	10.0	µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.0	U		10.0	10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U		10.0	10.0	µg/L	WA	EPA8260B
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPA8260B

First Quarter 1999



Well BGO 37D collected on 01/13/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<1.23	U			5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Tetrachloroethene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichloroethene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Gross alpha	6.50E-10±5.90E-10	U			9.20E-10	µCi/mL	TM	EPAS900.0M
0 Nonvolatile beta	-6.90E-11±9.70E-10	U			1.73E-09	µCi/mL	TM	EPAS900.0M
2 Tritium	2.58E-05±1.19E-06	U			6.30E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 37D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/18/99  
 Depth to water: 48.62 ft (14.82 m) below TOC  
 Water elevation: 238.68 ft (72.75 m) msl  
 pH: 5.4  
 Sp. conductance: 24 µS/cm  
 Water evacuated from the well prior to sampling: 1 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Bromoform	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Chloroethene (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPAS260B
0 2-Chloroethyl vinyl ether	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chloroform	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichloroethene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Gross alpha	5.52E-08±1.34E-09	U			9.50E-10	µCi/mL	TM	EPAS900.0M
0 Nonvolatile beta	5.29E-08±1.19E-09	U			1.57E-09	µCi/mL	TM	EPAS900.0M
2 Tritium	2.58E-05±1.23E-06	U			6.20E-07	µCi/mL	TM	EPAS906.0M

ESH-EMS-990520

B-67

## WELL BGO 37D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 49.2 ft (15 m) below TOC  
 Water elevation: 238.1 ft (72.57 m) msl  
 pH: 5.2  
 Sp. conductance: 24 µS/cm  
 Turbidity: 6 NTU  
 Water evacuated from the well prior to sampling: 1 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Bromoform	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Chloroethene (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPAS260B
0 2-Chloroethyl vinyl ether	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chloroform	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<3.17	U			5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Gross alpha	1.30E-09±5.50E-10	U			7.00E-10	µCi/mL	TM	EPAS900.0M
0 Nonvolatile beta	2.50E-10±8.80E-10	U			1.53E-09	µCi/mL	TM	EPAS900.0M
2 Tritium	2.51E-05±1.30E-06	U			6.60E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 38D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 55.3 ft (16.86 m) below TOC  
 Water elevation: Not available  
 pH: 4.2  
 Sp. conductance: 38 µS/cm  
 Turbidity: 13.6 NTU  
 Water evacuated from the well prior to sampling: 17 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Bromoform	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Chloroethene (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPAS260B
0 2-Chloroethyl vinyl ether	<5.00	U			5.00	µg/L	WA	EPAS260B
0 Chloroform	<10.0	U			10.0	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethene	<5.00	U			5.00	µg/L	WA	EPAS260B

First Quarter 1999



## ANALYTICAL RESULTS

Well BGO 38D collected on 01/13/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 cis-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Gross alpha	3.43E-09±1.19E-09	U		1.23E-09	1.23E-09	µCi/mL	TM	EPAS900.0M
0 Nonvolatile beta	3.22E-09±1.22E-09	U		1.83E-09	1.83E-09	µCi/mL	TM	EPAS900.0M
2 Tritium	2.38E-05±1.14E-06	J		6.20E-07	6.20E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 38D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/18/99  
 Depth to water: 54.8 ft (16.7 m) below TOC  
 Water elevation: 236.3 ft (72.18 m) msl  
 pH: 4.5  
 Sp. conductance: 42 µS/cm  
 Turbidity: 10 NTU  
 Water evacuated from the well prior to sampling: 1 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromomethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Carbon tetrachloride	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 2-Chloroethyl vinyl ether	<10.0	U		10.0	10.0	µg/L	WA	EPAS2608
0 Chloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Dichloromethane	<10.3	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Gross alpha	2.23E-09±8.40E-10	U		8.70E-10	8.70E-10	µCi/mL	TM	EPAS900.0M
0 Nonvolatile beta	2.50E-09±9.40E-10	J		1.38E-09	1.38E-09	µCi/mL	TM	EPAS900.0M
2 Tritium	2.95E-05±1.36E-06	J		6.80E-07	6.80E-07	µCi/mL	TM	EPAS906.0M

ESH-EMS-990520

B-68

## WELL BGO 38D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 55 ft (16.76 m) below TOC  
 Water elevation: 236.6 ft (72.12 m) msl  
 pH: 4.4  
 Sp. conductance: 42 µS/cm  
 Turbidity: 7 NTU  
 Water evacuated from the well prior to sampling: 1 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromomethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Carbon tetrachloride	<10.0	U		10.0	10.0	µg/L	WA	EPAS2608
0 Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chloroethane	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 2-Chloroethyl vinyl ether	<10.0	U		10.0	10.0	µg/L	WA	EPAS2608
0 Chloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Dichloromethane	<3.65	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Gross alpha	3.67E-09±1.11E-09	U		1.14E-09	1.14E-09	µCi/mL	TM	EPAS900.0M
0 Nonvolatile beta	2.31E-09±1.06E-09	J		1.63E-09	1.63E-09	µCi/mL	TM	EPAS900.0M
2 Tritium	2.35E-05±1.28E-06	J		6.70E-07	6.70E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 39C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 65.68 ft (20.02 m) below TOC  
 Water elevation: 230.72 ft (70.32 m) msl  
 pH: 6.4  
 Sp. conductance: 58 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 20 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromomethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Carbon tetrachloride	<10.0	U		10.0	10.0	µg/L	WA	EPAS2608
0 Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chloroethane	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 2-Chloroethyl vinyl ether	<10.0	U		10.0	10.0	µg/L	WA	EPAS2608
0 Chloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608

First Quarter 1999



Well BGO 39C collected on 01/13/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Dichloromethane	<1.10	U	V	5.00		µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Toluene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Bromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Xylenes	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Gross alpha	1.89E-08±1.06E-09	U	I	1.38E-09		µCi/mL	WA	EPA900.0M
0 Nonvolatiles beta	1.82E-08±1.16E-09	U		1.87E-09		µCi/mL	TM	EPA900.0M
0 Tritium	6.80E-06±7.00E-07	U		6.50E-07		µCi/mL	TM	EPA906.0M

## WELL BGO 39C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
 Depth to water: 65.02 ft (19.82 m) below TOC  
 Water elevation: 231.38 ft (70.53 m) msl  
 pH: 6.4  
 Sp. conductance: 48 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 23 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Bromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Bromoform	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.0	U		10.0		µg/L	WA	EPA8260B
0 Chloroform	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Dichloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Trichloroethene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Xylenes	4.50E-10±3.70E-10	U		5.40E-10		µCi/mL	WA	EPA900.0M
0 Gross alpha	3.10E-10±6.50E-10	U		1.14E-09		µCi/mL	TM	EPA900.0M
0 Nonvolatiles beta	2.60E-10±6.80E-10	U		1.14E-09		µCi/mL	TM	EPA900.0M
0 Tritium	8.10E-10±7.10E-10	U		7.80E-07		µCi/mL	TM	EPA906.0M
0 Tritium	5.90E-06±7.10E-07	U	V	8.00E-07		µCi/mL	TM	EPA906.0M

ESH-EMS-990520

## WELL BGO 39C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/11/99  
 Depth to water: 64.9 ft (19.78 m) below TOC  
 Water elevation: 231.5 ft (70.56 m) msl  
 pH: 6.3  
 Sp. conductance: 54 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 24 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Bromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Bromoform	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.0	U		10.0		µg/L	WA	EPA8260B
0 Chloroform	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Dichloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Toluene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Xylenes	1.60E-10±5.20E-10	U		8.70E-10		µCi/mL	WA	EPA900.0M
0 Gross alpha	3.00E-10±4.80E-10	U		9.40E-10		µCi/mL	TM	EPA900.0M
0 Nonvolatiles beta	2.10E-10±8.60E-10	U		1.51E-09		µCi/mL	TM	EPA900.0M
0 Tritium	8.70E-10±7.80E-10	U		1.27E-09		µCi/mL	TM	EPA900.0M
0 Tritium	6.81E-06±6.80E-07	U		5.90E-07		µCi/mL	TM	EPA906.0M
0 Tritium	6.83E-06±6.70E-07	U		5.90E-07		µCi/mL	TM	EPA906.0M

## WELL BGO 39D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 60.05 ft (18.3 m) below TOC  
 Water elevation: Not available  
 pH: 4.5  
 Sp. conductance: 33 µS/cm  
 Turbidity: 14.7 NTU  
 Water evacuated from the well prior to sampling: 6 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Bromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Bromoform	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<10.0	U		10.0		µg/L	WA	EPA8260B
0 Chloroform	<5.00	U		5.00		µg/L	WA	EPA8260B
0 Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B

B-69

First Quarter 1999



## ANALYTICAL RESULTS

Well BGO 39D collected on 01/13/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Gross alpha	5.85E-09±1.51E-09					µCi/mL	WA	EPAS260B
0	Nonvolatil beta	4.43E-09±1.38E-09					µCi/mL	WA	EPAS260B
2	Tritium	3.61E-05±1.42E-06	J				µCi/mL	TM	EPAS260B

## WELL BGO 39D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/18/99  
 Depth to water: 39.3 ft (18.23 m) below TOC  
 Water elevation: 235.9 ft (71.9 m) msl  
 pH: 4.8  
 Conductance: 32 µS/cm  
 Turbidity: 14 NTU  
 Water evacuated from the well prior to sampling: 1 gal  
 The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromodichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromomethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromotrichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethene (Vinyl chloride)	<5.00	U		5.00		µg/L	WA	EPAS260B
0	2-Chloroethyl vinyl ether	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Gross alpha	1.37E-09±6.00E-10					µCi/mL	WA	EPAS260B
0	Nonvolatil beta	1.03E-09±8.50E-10					µCi/mL	WA	EPAS260B
2	Tritium	3.86E-05±1.48E-06	J				µCi/mL	TM	EPAS260B

ESH-EMS-990520

B-70

First Quarter 1999

## WELL BGO 39D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 60.1 ft (18.32 m) below TOC  
 Water elevation: 235.6 ft (71.81 m) msl  
 pH: 4.6  
 Conductance: 32 µS/cm  
 Turbidity: 5 NTU  
 Water evacuated from the well prior to sampling: 1 gal  
 The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromodichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromomethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromotrichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethene (Vinyl chloride)	<5.00	U		5.00		µg/L	WA	EPAS260B
0	2-Chloroethyl vinyl ether	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Gross alpha	<5.00					µCi/mL	WA	EPAS260B
0	Nonvolatil beta	<5.00					µCi/mL	WA	EPAS260B
2	Tritium	<5.00	U				µCi/mL	WA	EPAS260B

V V



Well BGO 39D collected on 03/12/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Gross alpha	3.20E-09±9.80E-10	J		8.90E-10	8.90E-10	µCi/mL	TM	EPAS900.0M
0 Nonvolatile beta	2.12E-09±9.20E-10	J		1.39E-09	1.39E-09	µCi/mL	TM	EPAS900.0M
2 Tritium	3.98E-05±1.64E-06			6.90E-07	6.90E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 49C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 44.08 ft (13.44 m) below TOC  
 Water elevation: 227.02 ft (69.2 m) msl  
 pH: 6.5  
 Sp. conductance: 65 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 88 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromomethane	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloroethane	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 2-Chloroethyl vinyl ether	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chloroform	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<1.37	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Gross alpha	1.42E-09±9.20E-10	J		1.28E-09	1.28E-09	µCi/mL	TM	EPAS900.0M
0 Nonvolatile beta	2.83E-09±1.21E-09	J		1.84E-09	1.84E-09	µCi/mL	TM	EPAS900.0M
2 Tritium	5.78E-05±1.77E-06			6.50E-07	6.50E-07	µCi/mL	TM	EPAS906.0M

ESH-EMS-990520

B-71

## WELL BGO 49C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
 Depth to water: 43.65 ft (13.3 m) below TOC  
 Water elevation: 227.45 ft (69.33 m) msl  
 pH: 6.5  
 Sp. conductance: 65 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 90 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromomethane	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloroethane	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 2-Chloroethyl vinyl ether	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chloroform	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<6.70	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Gross alpha	2.80E-10±5.50E-10	U		8.80E-10	8.80E-10	µCi/mL	TM	EPAS900.0M
0 Nonvolatile beta	4.10E-10±7.90E-10	U		1.36E-09	1.36E-09	µCi/mL	TM	EPAS900.0M
2 Tritium	6.59E-05±1.93E-06			8.40E-07	8.40E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 49C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/11/99  
 Depth to water: 43.44 ft (13.24 m) below TOC  
 Water elevation: 227.66 ft (69.39 m) msl  
 pH: 6.4  
 Sp. conductance: 62 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 96 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromomethane	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloroethane	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 2-Chloroethyl vinyl ether	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chloroform	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloromethane	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<3.80	U		5.00	5.00	µg/L	WA	EPAS260B

First Quarter 1999



## ANALYTICAL RESULTS

Well BGO 49C collected on 03/11/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,2,2-Tetrachloroethene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Gross alpha	4.90E-10±5.40E-10	U		8.70E-10		µCi/mL	TM	EPA900.0M
0	Nonvolatile beta	2.23E-09±3.40E-10	U		1.21E-09		µCi/mL	TM	EPA900.0M
2	Tritium	5.43E-05±1.74E-06	U		6.10E-07		µCi/mL	TM	EPA906.0M

## WELL BGO 49C Replicate

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/11/99  
 Depth to water: 43.44 ft (13.24 m) below TOC  
 Water elevation: 227.66 ft (69.39 m) nsl  
 pH: 6.4  
 Sp. conductance: 62 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 96 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromofluoromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromomethane	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Chloroethane	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPA8260B
0	2-Chloroethyl vinyl ether	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	trans-1,2-Dichloroethene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Gross alpha	8.70E-10±4.70E-10	U		1.80E-10		µCi/mL	TM	EPA900.0M
0	Nonvolatile beta	1.50E-10±4.50E-10	U		1.50E-09		µCi/mL	TM	EPA900.0M
2	Tritium	5.91E-05±1.87E-06	U		6.60E-07		µCi/mL	TM	EPA906.0M

ESH-EMS-990520

B-72

## WELL BGO 49D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 39.50 ft (12.04 m) below TOC  
 Water elevation: Not available  
 pH: 5.4  
 Sp. conductance: 30 µS/cm  
 Turbidity: 4.1 NTU  
 Water evacuated from the well prior to sampling: 6 gal  
 The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromofluoromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromomethane	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Chloroethane	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPA8260B
0	2-Chloroethyl vinyl ether	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	trans-1,2-Dichloroethene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Dichloromethane	<10.0	U		10.0		µg/L	WA	EPA8260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Gross alpha	1.96E-09±9.90E-10	U		1.32E-09		µCi/mL	TM	EPA900.0M
0	Nonvolatile beta	1.90E-10±1.26E-09	U		2.20E-09		µCi/mL	TM	EPA900.0M
2	Tritium	2.12E-05±1.09E-06	U		6.30E-07		µCi/mL	TM	EPA906.0M

## WELL BGO 49D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
 Depth to water: 39.7 ft (12.1 m) below TOC  
 Water elevation: Not available  
 pH: 5.5  
 Sp. conductance: 28 µS/cm  
 Turbidity: 3.5 NTU  
 Water evacuated from the well prior to sampling: 6 gal  
 The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromofluoromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Bromomethane	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Chloroethane	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0		µg/L	WA	EPA8260B
0	2-Chloroethyl vinyl ether	<10.0	U		10.0		µg/L	WA	EPA8260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPA8260B
0	trans-1,2-Dichloroethene	<5.00	U		5.00		µg/L	WA	EPA8260B

First Quarter 1999



Well BGO 49D collected on 02/17/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 trans-1,2-Dichloroethylene	<5.00	U	V	5.00	5.00	µg/L	WA	EPAS2608
0 Dichloromethane	<7.20	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Gross alpha	7.00E-10±5.70E-10	U		5.00	5.00	µg/L	WA	EPAS2608
0 Nonvolatile beta	8.30E-10±7.40E-10	U		5.00	5.00	µg/L	TM	EPAS900.0M
0 Tritium	1.98E-05±1.09E-06	U		7.90E-07	7.90E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 49D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 40.08 ft (12.22 m) below TOC  
 Water elevation: 231.42 ft (70.54 m) msl  
 pH: 5.2  
 Sp. conductance: 30 µS/cm  
 Turbidity: 7 NTU  
 Water evacuated from the well prior to sampling: 1 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Carbon tetrachloride	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chloroethane	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 2-Chloroethyl vinyl ether	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chloroform	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 Dichloromethane	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2-Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromomethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Gross alpha	7.80E-10±6.60E-10	U		5.00	5.00	µg/L	TM	EPAS900.0M
0 Nonvolatile beta	1.63E-09±9.00E-10	U		5.00	5.00	µg/L	TM	EPAS900.0M
2 Tritium	2.13E-05±1.21E-06	U		6.70E-07	6.70E-07	µCi/mL	TM	EPAS906.0M

ESH-EMS-990520

B-73

## WELL BGO 51B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/14/99  
 Depth to water: 59.15 ft (18.03 m) below TOC  
 Water elevation: 229.95 ft (70.09 m) msl  
 pH: 8.2  
 Sp. conductance: 200 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 39 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromomethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Carbon tetrachloride	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chloroethane	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 2-Chloroethyl vinyl ether	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chloroform	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Dibromochloromethane	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Dichloromethane	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Gross alpha	2.20E-09±9.50E-10	U		5.00	5.00	µg/L	TM	EPAS900.0M
0 Nonvolatile beta	7.30E-10±5.80E-10	U		5.00	5.00	µg/L	TM	EPAS900.0M
0 Nonvolatile beta	-1.30E-10±1.18E-09	U		5.00	5.00	µg/L	TM	EPAS900.0M
0 Tritium	8.70E-07±3.80E-07	U		5.60E-07	5.60E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 51B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
 Depth to water: 58.86 ft (17.94 m) below TOC  
 Water elevation: 230.24 ft (70.18 m) msl  
 pH: 8.3  
 Sp. conductance: 190 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 40 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Bromomethane	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 Carbon tetrachloride	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chloroethane	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 2-Chloroethyl vinyl ether	<10.0	U		5.00	5.00	µg/L	WA	EPAS2608
0 Chloroform	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608
0 1,1-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS2608

First Quarter 1999



## ANALYTICAL RESULTS

Well BGO 51B collected on 02/17/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 trans-1,2-Dichloroethylene	<5.00	U	V	5.00	5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<7.22	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Xylenes	<3.75E-09# 5.0E-10	U		1.25E-09	1.25E-09	µCi/mL	TM	EPAS260B
0 Gross alpha	9.10E-10# 1.04E-09	U		1.74E-09	1.74E-09	µCi/mL	TM	EPAS260B
0 Nonvolatile beta	-1.40E-07# 4.40E-07	U		7.90E-07	7.90E-07	µCi/mL	TM	EPAS260B

## WELL BGO 51B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
Depth to water: 58.77 ft (17.91 m) below TOC  
Water elevation: 230.33 ft (70.21 m) msl  
pH: 7.5  
Sp. conductance: 200 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling: 40 gal

Time: 10:25

Water temperature: 20.2°C

Air temperature: 12.3°C

Total alkalinity (as CaCO<sub>3</sub>): 91 mg/L

Phenolphthalein alkalinity: 0 mg/L

Field Qualifier(s): V

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chloroform	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<1.14	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Gross alpha	5.00E-10# 6.80E-10	U		1.14E-09	1.14E-09	µCi/mL	TM	EPAS260B
0 Nonvolatile beta	1.10E-09# 8.0E-10	U		1.61E-09	1.61E-09	µCi/mL	TM	EPAS260B
0 Tritium	8.00E-07# 4.20E-07	J		6.50E-07	6.50E-07	µCi/mL	TM	EPAS260B

ESH-EMS-990520

B-74

First Quarter 1999

## WELL BGO 51C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/14/99  
Depth to water: 59.29 ft (17.77 m) below TOC  
Water elevation: 230.81 ft (70.35 m) msl  
pH: 5.1  
Sp. conductance: 21 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 21 gal

Time: 8:01

Water temperature: 19.3°C

Air temperature: 10.9°C

Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L

Phenolphthalein alkalinity: 0 mg/L

Field Qualifier(s): V

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chloroform	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Gross alpha	6.50E-10# 4.10E-10	J		5.20E-10	5.20E-10	µCi/mL	TM	EPAS260B
0 Nonvolatile beta	-7.20E-10# 4.0E-10	J		1.55E-09	1.55E-09	µCi/mL	TM	EPAS260B
0 Tritium	3.56E-06# 5.40E-07	U		5.80E-07	5.80E-07	µCi/mL	TM	EPAS260B

## WELL BGO 51C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
Depth to water: 57.93 ft (17.66 m) below TOC  
Water elevation: 231.17 ft (70.46 m) msl  
pH: 5.2  
Sp. conductance: 20 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 21 gal

Time: 10:57

Water temperature: 20°C

Air temperature: 21.7°C

Total alkalinity (as CaCO<sub>3</sub>): 1 mg/L

Phenolphthalein alkalinity: 0 mg/L

Field Qualifier(s): V

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chloroform	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<5.95	U		5.00	5.00	µg/L	WA	EPAS260B



Well BGO 51C collected on 02/17/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	dis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Tetrachloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Gross alpha	2.30E-10±4.50E-10	U		7.70E-10		µCi/mL	TM	EPAS260B
0	Nonhalide beta	1.04E-09±6.80E-10	U		1.09E-09		µCi/mL	TM	EPAS260B
0	Tritium	2.41E-06±5.70E-07	U	V	7.90E-07		µCi/mL	TM	EPAS260B

## WELL BGO 51C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 57.85 ft (17.63 m) below TOC  
 Water elevation: 231.25 ft (70.49 m) msl  
 pH: 5.1  
 Sp. conductance: 21 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 20 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromomethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethene (Vinyl chloride)	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	dis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Tetrachloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Gross alpha	4.10E-10±5.50E-10	U		1.21E-09		µCi/mL	TM	EPAS260B
0	Nonhalide beta	3.80E-10±7.40E-10	U		1.27E-09		µCi/mL	TM	EPAS260B
0	Tritium	3.07E-06±5.60E-07	U		6.50E-07		µCi/mL	TM	EPAS260B

ESH-EMS-990520

B-75

## WELL BGO 51D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/14/99  
 Depth to water: 53.98 ft (16.45 m) below TOC  
 Water elevation: 235.32 ft (71.73 m) msl  
 pH: 4.6  
 Sp. conductance: 35 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 4 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromomethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethene (Vinyl chloride)	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dichloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	dis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Tetrachloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Gross alpha	1.59E-09±5.70E-10	U		5.20E-10		µCi/mL	TM	EPAS260B
0	Nonhalide beta	3.60E-10±8.60E-10	U		1.55E-09		µCi/mL	TM	EPAS260B
2	Tritium	2.58E-05±1.23E-06	U		5.70E-07		µCi/mL	TM	EPAS260B

## WELL BGO 51D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
 Depth to water: 54.15 ft (16.5 m) below TOC  
 Water elevation: Not available  
 pH: 6.4  
 Sp. conductance: 32 µS/cm  
 Turbidity: 12.7 NTU  
 Water evacuated from the well prior to sampling: 4 gal  
 The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Bromomethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Carbon tetrachloride	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroethene (Vinyl chloride)	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Chloroform	<5.00	U		5.00		µg/L	WA	EPAS260B
0	2-Chloroethyl vinyl ether	<5.00	U		5.00		µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	WA	EPAS260B
0	1,1-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPAS260B

First Quarter 1999



## ANALYTICAL RESULTS

Well BGO 51D collected on 02/17/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Dichloromethane	<5.00	U	V	5.00	5.00	µg/L	WA	EPAS260B
0	1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Gross alpha	2.01E-09±7.70E-10	U		7.00E-10	7.00E-10	µCi/mL	TM	EPAS900.0M
0	Nonvolatile beta	2.20E-10±1.25E-06	U		1.32E-09	1.32E-09	µCi/mL	TM	EPAS900.0M
0	Tributyl	2.54E-05±1.25E-06	U		8.40E-07	8.40E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 51D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 54.44 ft (16.59 m) below TOC  
 Water elevation: Not available  
 pH: 4.6  
 Sp. conductance: 34 µS/cm  
 Turbidity: 2.6 NTU  
 Water evacuated from the well prior to sampling: 3 gal  
 The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Bromomethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Carbon tetrachloride	<10.0	U		5.00	5.00	µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Chloroethane	<10.0	U		5.00	5.00	µg/L	WA	EPAS260B
0	2-Chloroethyl vinyl ether	<10.0	U		5.00	5.00	µg/L	WA	EPAS260B
0	Chloroform	<10.0	U		5.00	5.00	µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Dichloromethane	<3.48	U		5.00	5.00	µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Gross alpha	2.01E-09±7.70E-10	U		7.00E-10	7.00E-10	µCi/mL	TM	EPAS900.0M
0	Nonvolatile beta	-7.70E-10±9.20E-10	U		1.55E-09	1.55E-09	µCi/mL	TM	EPAS900.0M
1	Tributyl	1.81E-05±1.12E-06	U		6.90E-07	6.90E-07	µCi/mL	TM	EPAS906.0M

ESH-EMS-990520

## WELL BGO 52B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 56.3 ft (17.16 m) below TOC  
 Water elevation: 228.1 ft (69.53 m) msl  
 pH: 8.5  
 Sp. conductance: 80 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 34 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Bromomethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Carbon tetrachloride	<10.0	U		5.00	5.00	µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Chloroethane	<10.0	U		5.00	5.00	µg/L	WA	EPAS260B
0	2-Chloroethyl vinyl ether	<10.0	U		5.00	5.00	µg/L	WA	EPAS260B
0	Chloroform	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Dichloromethane	<1.52	U		5.00	5.00	µg/L	WA	EPAS260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Gross alpha	4.05E-09±1.49E-09	U		1.59E-09	1.59E-09	µCi/mL	TM	EPAS900.0M
0	Nonvolatile beta	4.44E-09±1.33E-09	U		1.91E-09	1.91E-09	µCi/mL	TM	EPAS900.0M
0	Tributyl	1.90E-06±4.80E-07	U		6.50E-07	6.50E-07	µCi/mL	TM	EPAS906.0M

## WELL BGO 52B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
 Depth to water: 56.15 ft (17.11 m) below TOC  
 Water elevation: 228.25 ft (69.57 m) msl  
 pH: 7.4  
 Sp. conductance: 80 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 35 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Bromomethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Carbon tetrachloride	<10.0	U		5.00	5.00	µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Chloroethane	<10.0	U		5.00	5.00	µg/L	WA	EPAS260B
0	2-Chloroethyl vinyl ether	<10.0	U		5.00	5.00	µg/L	WA	EPAS260B
0	Chloroform	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0	trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B

B-76

First Quarter 1999



Well BGO 52B collected on 02/17/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Dichloromethane	<6.37	U	V	5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Toluene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Gross alpha	0.00E+00 to 4.10E-10	U		8.20E-10	µCi/mL	TM	EPAS900.0M	
0 Nonvolatile beta	5.40E-09 to 7.0E-10	U		1.21E-09	µCi/mL	TM	EPAS900.0M	
0 Tritium	8.20E-07 to 4.80E-07	U		7.90E-07	µCi/mL	TM	EPAS908.0M	

## WELL BGO 52B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/15/99  
 Depth to water: 56.12 ft (17.11 m) below TOC  
 Water elevation: 228.26 ft (69.58 m) msl  
 pH: 7.9  
 Sp. conductance: 80 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 37 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chloroform	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chloromethane	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<8.51	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloropropane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Gross alpha	6.20E-10 to 7.30E-10	U		1.22E-09	µCi/mL	TM	EPAS900.0M	
0 Nonvolatile beta	3.12E-09 to 1.19E-09	U		1.79E-09	µCi/mL	TM	EPAS900.0M	
0 Tritium	1.89E-06 to 4.80E-07	U		6.20E-07	µCi/mL	TM	EPAS908.0M	

ESH-EMS-990520

B-77

## WELL BGO 52C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 55.24 ft (16.84 m) below TOC  
 Water elevation: 229.26 ft (69.88 m) msl  
 pH: 5  
 Sp. conductance: 20 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 18 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chloroform	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<1.26	U		5.00	5.00	µg/L	WA	EPAS260B
0 cis-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,3-Dichloropropene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Ethylbenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2,2-Tetrachloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Tetrachloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,1-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1,2-Trichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Trichlorofluoromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Xylenes	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Gross alpha	1.31E-09 to 9.80E-10	U		1.44E-09	µCi/mL	TM	EPAS900.0M	
0 Nonvolatile beta	-2.00E-10 to 1.05E-09	U		1.88E-09	µCi/mL	TM	EPAS900.0M	
0 Tritium	2.90E-07 to 3.80E-07	U		6.40E-07	µCi/mL	TM	EPAS908.0M	

## WELL BGO 52C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
 Depth to water: 54.98 ft (16.76 m) below TOC  
 Water elevation: 229.52 ft (69.96 m) msl  
 pH: 6  
 Sp. conductance: 20 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 26 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Benzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromodichloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Bromoform	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Carbon tetrachloride	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chlorobenzene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Chloroethane (Vinyl chloride)	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chloroform	<10.0	U		10.0	10.0	µg/L	WA	EPAS260B
0 Chloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Dibromochloromethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,2-Dichloroethane	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 1,1-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 trans-1,2-Dichloroethylene	<5.00	U		5.00	5.00	µg/L	WA	EPAS260B
0 Dichloromethane	<6.26	U		5.00	5.00	µg/L	WA	EPAS260B

First Quarter 1999



## ANALYTICAL RESULTS

Well BGO 52C collected on 02/17/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Gross alpha	4.10E-10±3.20E-10	U			4.20E-10	µCi/mL	TM	EPA900.0M
0 Nonvolatiles beta	3.30E-10±4.90E-10	U			1.19E-09	µCi/mL	TM	EPA900.0M
0 Tritium	-8.50E-07±3.90E-07	U			7.70E-07	µCi/mL	TM	EPA906.0M

## WELL BGO 52C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/15/99  
 Depth to water: 54.98 ft (16.76 m) below TOC  
 Water elevation: 229.52 ft (69.96 m) msl  
 pH: 5  
 Sp. conductivity: 20 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 33 gal

Time: 8:24  
 Water temperature: 18.8°C  
 Air temperature: 8.3°C  
 Total alkalinity (as CaCO<sub>3</sub>): 1 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): V

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromomethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<6.68	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Gross alpha	0.00E+00±4.60E-10	U			1.28E-09	µCi/mL	TM	EPA900.0M
0 Nonvolatiles beta	-1.52E-09±1.10E-09	U			2.08E-09	µCi/mL	TM	EPA900.0M
0 Tritium	1.90E-07±3.50E-07	U			6.10E-07	µCi/mL	TM	EPA906.0M

## WELL BGO 52C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/15/99  
 Depth to water: 54.98 ft (16.76 m) below TOC  
 Water elevation: 229.52 ft (69.96 m) msl  
 pH: 5  
 Sp. conductivity: 20 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 33 gal

Time: 8:24  
 Water temperature: 18.8°C  
 Air temperature: 8.3°C  
 Total alkalinity (as CaCO<sub>3</sub>): 1 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): V

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromomethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<6.68	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Gross alpha	0.00E+00±4.60E-10	U			1.28E-09	µCi/mL	TM	EPA900.0M
0 Nonvolatiles beta	-1.52E-09±1.10E-09	U			2.08E-09	µCi/mL	TM	EPA900.0M
0 Tritium	1.90E-07±3.50E-07	U			6.10E-07	µCi/mL	TM	EPA906.0M

ESH-EMS-990520

B-78

First Quarter 1999

## WELL BGO 52D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 50.37 ft (15.54 m) below TOC  
 Water elevation: Not available  
 pH: 5.5  
 Sp. conductivity: 40 µS/cm  
 Turbidity: 11.4 NTU  
 Water evacuated from the well prior to sampling: 3 gal  
 The well went dry during purging.

Time: 15:05  
 Water temperature: 19.6°C  
 Air temperature: 23.6°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): VX

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromomethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2,2-Tetrachloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Toluene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Xylenes	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Gross alpha	2.84E-09±1.11E-09	U			1.28E-09	µCi/mL	TM	EPA900.0M
0 Nonvolatiles beta	2.07E-09±1.16E-09	U			1.84E-09	µCi/mL	TM	EPA900.0M
0 Tritium	3.08E-05±1.28E-06	U			6.20E-07	µCi/mL	TM	EPA906.0M

## WELL BGO 52D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
 Depth to water: 51.2 ft (15.61 m) below TOC  
 Water elevation: 233.6 ft (71.2 m) msl  
 pH: 5.4  
 Sp. conductivity: 40 µS/cm  
 Turbidity: 5.1 NTU  
 Water evacuated from the well prior to sampling: 6 gal

Time: 12:01  
 Water temperature: 20.7°C  
 Air temperature: 26.8°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): V

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromodichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromoform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Bromomethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Carbon tetrachloride	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloroethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Chloromethane	<10.0	U			10.0	µg/L	WA	EPA8260B
0 Dibromochloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Dichloromethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Ethylbenzene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,1-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 1,1,2-Trichloroethane	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8260B
0 Trichlorofluoromethane	<5.00	U			5.00	µg/L	WA	EPA8260B







## ANALYTICAL RESULTS

## WELL BGX 3D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/22/99  
Depth to water: 76.5 ft (23.44 m) below TOC  
Water elevation: Not available  
pH: 5.6  
Sp. conductance: 22 µS/cm  
Turbidity: 2.2 NTU  
Water evacuated from the well prior to sampling: 14 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	24.6	J	I	146	µg/L	µg/L	WA	EPA6010B
0	Iron, total recoverable	44.2	J	I	74.0	µg/L	µg/L	WA	EPA6010B
0	Manganese, total recoverable	16.8	J	I	7.80	µg/L	µg/L	WA	EPA6010B

## WELL BGX 5D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 75.81 ft (23.11 m) below TOC  
Water elevation: 209.19 ft (63.76 m) msl  
pH: 4.3  
Sp. conductance: 53 µS/cm  
Turbidity: 2 NTU  
Water evacuated from the well prior to sampling: 57 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	<123	U	V	146	µg/L	µg/L	WA	EPA6010B
0	Iron, total recoverable	25.2	J	I	74.0	µg/L	µg/L	WA	EPA6010B
2	Manganese, total recoverable	161	J	I	7.80	µg/L	µg/L	WA	EPA6010B

## WELL BGX 9D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/22/99  
Depth to water: 53.2 ft (16.22 m) below TOC  
Water elevation: 228.2 ft (68.95 m) msl  
pH: 5.1  
Sp. conductance: 29 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 40 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1	Aluminum, total recoverable	40.1	J	I	146	µg/L	µg/L	WA	EPA6010B
0	Iron, total recoverable	15.2	J	I	74.0	µg/L	µg/L	WA	EPA6010B
0	Manganese, total recoverable	2.80	J	I	7.80	µg/L	µg/L	WA	EPA6010B

## WELL BGX 10D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/28/99  
Depth to water: 51.75 ft (15.77 m) below TOC  
Water elevation: 225.15 ft (68.63 m) msl  
pH: 6  
Sp. conductance: 28 µS/cm  
Turbidity: 12 NTU  
Water evacuated from the well prior to sampling: 1 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	124	J	I	146	µg/L	µg/L	WA	EPA6010B
0	Iron, total recoverable	94.7	J	I	74.0	µg/L	µg/L	WA	EPA6010B
0	Manganese, total recoverable	20.4	J	I	7.80	µg/L	µg/L	WA	EPA6010B

ESH-EMS-990520

B-80

First Quarter 1999

## WELL BRD 1

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
Depth to water: 33.35 ft (10.17 m) below TOC  
Water elevation: 172.45 ft (52.56 m) msl  
pH: 4.4  
Sp. conductance: 28 µS/cm  
Turbidity: 8 NTU  
Water evacuated from the well prior to sampling: 70 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	187	U	I	146	µg/L	µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U	I	40.0	µg/L	µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U	I	4.70	µg/L	µg/L	WA	EPA6010B
0	Carbon tetrachloride	<1.00	U	I	1.00	µg/L	µg/L	WA	EPA6010B
0	Chloroform	<1.00	U	I	1.00	µg/L	µg/L	WA	EPA6010B
0	dis-1,2-Dichloroethylene	<5.00	U	I	5.00	µg/L	µg/L	WA	EPA6010B
2	Lead, total recoverable	633	U	I	74.0	µg/L	µg/L	WA	EPA6010B
0	Lind, total recoverable	13.5	J	I	7.80	µg/L	µg/L	WA	EPA6010B
0	Manganese, total recoverable	20.7	U	I	66.0	µg/L	µg/L	WA	EPA6010B
0	Selenium, total recoverable	<66.0	U	I	5.00	µg/L	µg/L	WA	EPA6010B
0	Tetrachloroethylene	<5.00	U	I	120	µg/L	µg/L	WA	EPA6010B
0	Total organic halogens	41.5	J	I	1.00	µg/L	µg/L	WA	EPA6010B
0	1,1,1-Trichloroethane	<1.00	U	I	1.00	µg/L	µg/L	WA	EPA6010B
0	Trichloroethylene	<1.00	U	I	1.00	µg/L	µg/L	WA	EPA6010B

## WELL BRD 2

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
Depth to water: 51.25 ft (15.62 m) below TOC  
Water elevation: 156.05 ft (47.56 m) msl  
pH: 5.3  
Sp. conductance: 32 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling: 43 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1	Aluminum, total recoverable	42.5	J	I	146	µg/L	µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U	I	40.0	µg/L	µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U	I	4.70	µg/L	µg/L	WA	EPA6010B
0	Iron, total recoverable	<45.2	U	I	74.0	µg/L	µg/L	WA	EPA6010B
1	Lead, total recoverable	28.6	J	I	47.0	µg/L	µg/L	WA	EPA6010B
0	Selenium, total recoverable	<66.0	U	I	66.0	µg/L	µg/L	WA	EPA6010B
0	Total organic halogens	<120	U	I	120	µg/L	µg/L	WA	EPA6010B

## WELL BRD 4

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
Depth to water: 29.1 ft (8.87 m) below TOC  
Water elevation: 168.8 ft (51.45 m) msl  
pH: 4.4  
Sp. conductance: 27 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 73 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1	Aluminum, total recoverable	33.2	J	I	146	µg/L	µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U	I	40.0	µg/L	µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U	I	4.70	µg/L	µg/L	WA	EPA6010B
0	Iron, total recoverable	97.9	U	I	74.0	µg/L	µg/L	WA	EPA6010B
0	Lead, total recoverable	<47.0	U	I	47.0	µg/L	µg/L	WA	EPA6010B
0	Selenium, total recoverable	<66.0	U	I	66.0	µg/L	µg/L	WA	EPA6010B
0	Total organic halogens	<120	U	I	120	µg/L	µg/L	WA	EPA6010B



## WELL BRD 5D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 34.62 ft (10.55 m) below TOC  
 Water elevation: 170.38 ft (51.93 m) msl  
 pH: 5.1  
 Sp. conductance: 25 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 83 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	65.8	J	I	146	µg/L	µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U		40.0	µg/L	µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U		4.70	µg/L	µg/L	WA	EPA6010B
0	Copper, total recoverable	<6.0	U		6.0	µg/L	µg/L	WA	EPA6010B
0	Selenium, total recoverable	<120	U		120	µg/L	µg/L	WA	EPA6020B
0	Total organic halogens		U					WA	EPA8260B

## WELL BRD 8DR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/26/99  
 Depth to water: 63.55 ft (19.37 m) below TOC  
 Water elevation: 216.25 ft (65.91 m) msl  
 pH: 3.8  
 Sp. conductance: 24 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 6 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	53.3	J	I	146	µg/L	µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U		40.0	µg/L	µg/L	WA	EPA6010B
0	Boron, total recoverable	286	U		286	µg/L	µg/L	WA	EPA6010B
0	Carbon tetrachloride	7.66	U		21.0	µg/L	µg/L	WA	EPA9056
0	Chloroform	2.870	U		1.00	µg/L	µg/L	WA	EPA8010
0	Fluoride	<1.00	U		5.00	µg/L	µg/L	WA	EPA8010
0	cis-1,2-Dichloroethylene	<5.00	U		40.0	µg/L	µg/L	WA	EPA340.2
0	Iron, total recoverable	81.4	U	V	74.0	µg/L	µg/L	WA	EPA6010B
0	Lithium, total recoverable	<0.910	U		2.70	µg/L	µg/L	WA	EPA6010B
0	Nitrate-nitrite as nitrogen	1.880	U		100	µg/L	µg/L	WA	EPA353.2
0	Selenium, total recoverable	<66.0	U		66.0	µg/L	µg/L	WA	EPA6010B
0	Silica, total recoverable	7.470	U		1,350	µg/L	µg/L	WA	EPA9056
0	Sulfate	678	U		340	µg/L	µg/L	WA	EPA8010
0	Tetrachloroethylene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Total dissolved solids	<44,000	JU	QV	50,000	µg/L	µg/L	WA	EPA160.1
0	Total organic halogens	<120	U		120	µg/L	µg/L	WA	EPA8260B
0	Total phosphates (as P)	<87.0	U		87.0	µg/L	µg/L	WA	EPA385.2
0	Total phosphates (as P)	8.62	U		67.0	µg/L	µg/L	WA	EPA385.2
0	1,1,1-Trichloroethane	<1.00	U		1.00	µg/L	µg/L	WA	EPA8010
0	Trichloroethylene	4.20E-06±6.50E-07	U		8.10E-07	µg/L	µg/L	WA	EPA8010
0	Trifluoromethane	4.46E-06±6.50E-07	U		8.20E-07	µg/L	µg/L	TN	EPA906.0M
0	Tritium		U						

## WELL BSE 1D4

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/05/99  
 Depth to water: 231.23 ft (70.48 m) below TOC  
 Water elevation: Not available  
 pH: 4.9  
 Sp. conductance: 28 µS/cm  
 Turbidity: 0.3 NTU  
 Water evacuated from the well prior to sampling: 3 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Alkalinity (as CaCO <sub>3</sub> )	<13.4	U		13.400	mg/L	mg/L	WA	EPA310.1
0	Alkalinity (as CaCO <sub>3</sub> )	<13.4	U		13.400	mg/L	mg/L	WA	EPA310.1

ESH-EMS-990520

Well BSE 1D4 collected on 01/05/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	<146	U		146	µg/L	µg/L	WA	EPA6010B
0	Antimony, total recoverable	<27.0	U		27.0	µg/L	µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U		40.0	µg/L	µg/L	WA	EPA6010B
0	Barium, total recoverable	4.30	U		1.80	µg/L	µg/L	WA	EPA6010B
0	Benzene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Boron, total recoverable	<286	U		286	µg/L	µg/L	WA	EPA6010B
0	Bromochloromethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Bromodichloromethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Bromotrichloromethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Cadmium, total recoverable	<4.70	U		4.70	µg/L	µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U		4.70	µg/L	µg/L	WA	EPA6010B
0	Carbon tetrachloride	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Chlorobenzene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Chloroethane	<10.0	U		10.0	µg/L	µg/L	WA	EPA8260B
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0	µg/L	µg/L	WA	EPA8260B
0	2-Chloroethyl vinyl ether	<10.0	U		10.0	µg/L	µg/L	WA	EPA8260B
0	Chloroform	7.17	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Chloromethane	<10.0	U		10.0	µg/L	µg/L	WA	EPA6010B
0	Chromium, total recoverable	<7.00	U		7.00	µg/L	µg/L	WA	EPA6010B
0	Copper, total recoverable	<2.90	U		15.0	µg/L	µg/L	WA	EPA6010B
0	Copper, total recoverable	<15.0	U		15.0	µg/L	µg/L	WA	EPA6010B
0	Dibromochloromethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Dibromodichloromethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	1,1-Dichloroethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	1,1-Dichloroethylene	4.35	U		5.00	µg/L	µg/L	WA	EPA8260B
0	trans-1,2-Dichloroethylene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Dichloromethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	1,2-Dichloropropane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Ethylbenzene	<74.0	U		74.0	µg/L	µg/L	WA	EPA6010B
0	Iron, total recoverable	<47.0	U		47.0	µg/L	µg/L	WA	EPA6010B
0	Lead, total recoverable	<47.0	U		47.0	µg/L	µg/L	WA	EPA6010B
0	Lithium, total recoverable	0.490	U		2.70	µg/L	µg/L	WA	EPA6010B
0	Mercury, total recoverable	<0.370	U		0.450	µg/L	µg/L	WA	EPA7470A
0	Nickel, total recoverable	<26.0	U		26.0	µg/L	µg/L	WA	EPA6010B
0	Nickel, total recoverable	<26.0	U		26.0	µg/L	µg/L	WA	EPA6010B
0	Phenanthrene	<66.0	U		66.0	µg/L	µg/L	WA	EPA9066
0	Selenium, total recoverable	<66.0	U		66.0	µg/L	µg/L	WA	EPA6010B
0	Silver, total recoverable	<5.00	U		5.00	µg/L	µg/L	WA	EPA6010B
0	Sulfate	704	JU		340	µg/L	µg/L	WA	EPA9056
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Tetrachloroethylene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Tin, total recoverable	<70.0	U		70.0	µg/L	µg/L	WA	EPA6010B
0	Tin, total recoverable	<70.0	U		70.0	µg/L	µg/L	WA	EPA6010B
0	Toluene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Total dissolved solids	27,000	U		50,000	µg/L	µg/L	WA	EPA160.1
0	Total organic carbon	427	J		1,000	µg/L	µg/L	WA	EPA9060
0	Total organic halogens	123	U		120	µg/L	µg/L	WA	EPA8260B
0	1,1,1-Trichloroethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	1,1,2-Trichloroethane	61.3	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Trichloroethylene	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Trichlorofluoromethane	<5.00	U		5.00	µg/L	µg/L	WA	EPA8260B
0	Xylenes	<53.0	U		53.0	µg/L	µg/L	WA	EPA6010B
0	Zinc, total recoverable	<53.0	U		53.0	µg/L	µg/L	WA	EPA6010B
0	Zinc, total recoverable	3.22E-06±1.81E-07	R		1.78E-07	µg/L	µg/L	WA	EPA6010B
0	Carbon-14	3.07E-06±1.78E-07	R		9.70E-10	µCi/mL	µCi/mL	TM	EPA900.0M
0	Gross alpha	1.09E-09±7.00E-10	U		1.07E-09	µCi/mL	µCi/mL	TM	EPA900.0M
0	Gross beta	1.09E-09±7.00E-10	U		1.07E-09	µCi/mL	µCi/mL	TM	EPA900.0M
0	Nonvolatile beta	1.46E-09±8.60E-10	U		1.43E-09	µCi/mL	µCi/mL	TM	EPA900.0M
0	Radon, total alpha-emitting	1.18E-09±8.60E-10	U		1.03E-09	µCi/mL	µCi/mL	TM	EPA903.0M
0	Radon, total alpha-emitting	1.18E-09±8.60E-10	U		1.03E-09	µCi/mL	µCi/mL	TM	EPA903.0M
0	Strontium-90	6.40E-10±4.90E-10	U		1.47E-09	µCi/mL	µCi/mL	TM	EML SR02M
0	Strontium-90	6.40E-10±4.90E-10	U		1.47E-09	µCi/mL	µCi/mL	TM	EML SR02M
0	Tritium	3.82E-03±1.04E-04	U		3.07E-05	µCi/mL	µCi/mL	TM	EPA906.0M

B-81

First Quarter 1999



## ANALYTICAL RESULTS

Well BSE 1D4 collected on 01/05/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2 Tritium	4.01E-03±1.09E-04				3.20E-05	µCi/mL	TM	EPA906.0M

## WELL CBR 1D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/25/99  
Depth to water: 47.8 ft (14.57 m) below TOC  
Water temperature: Not available  
Air temperature: 22.3°C  
Water elevation: 226.79 ft (69.13 m) msl  
pH: 3.8  
Total alkalinity (as CaCO<sub>3</sub>): 3 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): SX  
Sp. conductance: 32 µS/cm  
Turbidity: 3.5 NTU  
Water evacuated from the well prior to sampling: 13 gal  
The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Aluminum, total recoverable	22.7	J	I		146	µg/L	WA	EPA6010B
0 Boron, total recoverable	<266	U			266	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	<4.70	U			4.70	µg/L	WA	EPA6010B
0 Fluoride	<25.6	U	V		40.0	µg/L	WA	EPA340.2
0 Iron, total recoverable	58.4	J	V		7.0	µg/L	WA	EPA6010B
0 Lithium, total recoverable	<120	J	V		2.70	µg/L	WA	EPA6010B
0 Total organic carbon	<102	U			1,000	µg/L	WA	EPA9060
0 Total organic halogens	<120	U			120	µg/L	WA	EPA9020B
0 Total phosphates (as P)	<67.0	U			67.0	µg/L	WA	EPA365.2

## WELL CBR 2D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/25/99  
Depth to water: 48.7 ft (14.84 m) below TOC  
Water temperature: 25.2°C  
Air temperature: 22.1°C  
Water elevation: 252.2 ft (76.87 m) msl  
pH: 4.9  
Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): S  
Sp. conductance: 33 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling: 37 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
1 Aluminum, total recoverable	29.4	J	I		146	µg/L	WA	EPA6010B
0 Boron, total recoverable	<266	U			266	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	<4.70	U			4.70	µg/L	WA	EPA6010B
0 Fluoride	<35.6	U	V		40.0	µg/L	WA	EPA340.2
1 Iron, total recoverable	<33.3	U			40.0	µg/L	WA	EPA340.2
0 Lithium, total recoverable	29.7	U	V		74.0	µg/L	WA	EPA6010B
0 Total organic carbon	<140	J	V		2.70	µg/L	WA	EPA6010B
0 Total organic carbon	134	U			1,000	µg/L	WA	EPA9060
0 Total organic halogens	260	J			1,000	µg/L	WA	EPA9020B
0 Total organic halogens	<120	U			120	µg/L	WA	EPA9020B
0 Total phosphates (as P)	12.0	J			67.0	µg/L	WA	EPA365.2

## WELL CCB 2

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/28/99  
Depth to water: 44.81 ft (13.66 m) below TOC  
Water temperature: 22.5°C  
Air temperature: 9.4°C  
Water elevation: 225.59 ft (68.76 m) msl  
pH: 3.9  
Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): S  
Sp. conductance: 24 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling: 48 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
1 Aluminum, total recoverable	49.7	J	I		146	µg/L	WA	EPA6010B
0 Boron, total recoverable	<4.70	U			4.70	µg/L	WA	EPA6010B
0 Iron, total recoverable	61.7	J	V		74.0	µg/L	WA	EPA6010B
0 Lead, total recoverable	<47.0	U			47.0	µg/L	WA	EPA6010B

ESH-EMS-990520

B-82

First Quarter 1999

Well CCB 2 collected on 01/28/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Sulfate	624				340	µg/L	WA	EPA9056

## WELL CCB 4

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/28/99  
Depth to water: 56.21 ft (17.13 m) below TOC  
Water temperature: 18.9°C  
Air temperature: 10°C  
Water elevation: 226.79 ft (69.13 m) msl  
pH: 3.8  
Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): S  
Sp. conductance: 17 µS/cm  
Turbidity: 2 NTU  
Water evacuated from the well prior to sampling: 45 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
1 Aluminum, total recoverable	32.3	J	I		146	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	<4.70	U			4.70	µg/L	WA	EPA6010B
0 Fluoride	<35.7	U	V		40.0	µg/L	WA	EPA6010B
0 Iron, total recoverable	<176	U			47.0	µg/L	WA	EPA6010B
0 Lead, total recoverable	73.1	U			20.0	µg/L	WA	EPA363.2
0 Nitrate as nitrogen	8.260				340	µg/L	WA	EPA6010B
0 Sulfate, total recoverable	476				340	µg/L	WA	EPA9056
0 Sulfate	17.2	J			120	µg/L	WA	EPA9020B
0 Total organic halogens	68.5				67.0	µg/L	WA	EPA365.2
0 Total phosphates (as P)								

## WELL CDB 1

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/01/99  
Depth to water: 73.38 ft (22.37 m) below TOC  
Water temperature: Not available  
Air temperature: 20.3°C  
Water elevation: Not available  
pH: 4.9  
Total alkalinity (as CaCO<sub>3</sub>): 11 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): SX  
Sp. conductance: 63 µS/cm  
Turbidity: 13.9 NTU  
Water evacuated from the well prior to sampling: 27 gal  
The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2 Aluminum, total recoverable	432				146	µg/L	WA	EPA6010B
0 Boron, total recoverable	<4.70	U			40.0	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	<4.70	U			4.70	µg/L	WA	EPA6010B
0 Carbon tetrachloride	<1.00	U			1.00	µg/L	WA	EPA802.1B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8260B
0 cis-1,2-Dichloroethylene	441	U			47.0	µg/L	WA	EPA6010B
2 Iron, total recoverable	488				66.0	µg/L	WA	EPA6010B
1 Lead, total recoverable	26.4				7.80	µg/L	WA	EPA6010B
0 Manganese, total recoverable	<66.0	U			340	µg/L	WA	EPA9056
0 Sulfate	4.950				5.00	µg/L	WA	EPA8260B
0 Tetrachloroethylene	<5.00	U			1.00	µg/L	WA	EPA802.1B
0 Total organic halogens	12.1	U			1.00	µg/L	WA	EPA802.1B
0 1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	WA	EPA802.1B
0 Trichloroethylene	5.74E-09±1.37E-09	J			1.00	µg/L	WA	EPA802.1B
0 Gross alpha	6.84E-09±1.51E-09	J			1.00	µg/L	WA	EPA802.1B
0 Gross beta	8.95E-05±2.30E-06	J			1.00	µg/L	WA	EPA802.1B
2 Tritium	8.66E-05±2.21E-06	J			7.30E-07	µCi/mL	TM	EPA906.0M



## WELL CDB 2

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/01/99  
Depth to water: 73.1 ft (22.28 m) below TOC  
Water temperature: 20.8°C  
Air temperature: 12.1°C  
pH: 4.5  
Total alkalinity (as CaCO<sub>3</sub>): 7 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): SX  
Sp. conductance: 1200 µS/cm  
Turbidity: 5.9 NTU  
Water evacuated from the well prior to sampling: 21 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2	Aluminum, total recoverable	58.4	J	I	146		µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<1.00	U		4.70		µg/L	WA	EPA6010B
0	Carbon tetrachloride	<1.00	U		1.00		µg/L	WA	EPA8010
0	Chloroform	<1.00	U		1.00		µg/L	WA	EPA8010
0	cis-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8010
2	Lead, total recoverable	332	U		74.0		µg/L	WA	EPA8260B
2	Lead, total recoverable	140	U		47.0		µg/L	WA	EPA8010B
0	Manganese, total recoverable	16.8	U		7.80		µg/L	WA	EPA8010B
0	Sulfate	<66.0	U		66.0		µg/L	WA	EPA8010B
0	Tetrachloroethylene	2.880	U		340		µg/L	WA	EPA8010B
0	Total organic halogens	<5.00	U		5.00		µg/L	WA	EPA8260B
0	1,1,1-Trichloroethane	<120	U		120		µg/L	WA	EPA8020B
0	Trichloroethylene	<1.00	U		1.00		µg/L	WA	EPA8021B
2	Tritium	3.69E-04±5.63E-06	U		1.13E-06		µCi/mL	TM	EPA906.0M

## WELL CMP 8

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/28/99  
Depth to water: 24.62 ft (7.5 m) below TOC  
Water elevation: 203.96 ft (62.17 m) msl  
pH: 4.5  
Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): S  
Sp. conductance: 19 µS/cm  
Turbidity: 2 NTU  
Water evacuated from the well prior to sampling: 52 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2	Aluminum, total recoverable	76.1	J	I	146		µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<1.00	U		4.70		µg/L	WA	EPA6010B
0	Iron, total recoverable	116	U		74.0		µg/L	WA	EPA6010B
0	Lead, total recoverable	17.9	J	I	47.0		µg/L	WA	EPA8010B
0	Selenium, total recoverable	<66.0	U		66.0		µg/L	WA	EPA6010B
0	Total organic halogens	<120	U		120		µg/L	WA	EPA9020B

## WELL CMP 10D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/28/99  
Depth to water: 89.02 ft (27.13 m) below TOC  
Water elevation: 222.38 ft (67.78 m) msl  
pH: 4.3  
Total alkalinity (as CaCO<sub>3</sub>): 1 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): V  
Sp. conductance: 20 µS/cm  
Turbidity: 6 NTU  
Water evacuated from the well prior to sampling: 5 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2	Aluminum, total recoverable	98.4	J	I	146		µg/L	WA	EPA6010B
0	Barium, total recoverable	23.1	U		1.80		µg/L	WA	EPA6010B

ESH-EMS-990520

Well CMP 10D collected on 01/28/99 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Cadmium, total recoverable	0.750	J	I	4.70		µg/L	WA	EPA6010B
0	Carbon tetrachloride	<1.00	U		1.00		µg/L	WA	EPA8010
0	Chloroform	<1.00	U		1.00		µg/L	WA	EPA8010
0	cis-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8010
0	Lead, total recoverable	144	U		74.0		µg/L	WA	EPA8010B
0	Lead, total recoverable	<47.0	U		47.0		µg/L	WA	EPA6010B
1	Manganese, total recoverable	32.9	U		7.80		µg/L	WA	EPA6010B
0	Tetrachloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Total organic halogens	<120	U		120		µg/L	WA	EPA9020B
0	1,1,1-Trichloroethane	<1.00	U		1.00		µg/L	WA	EPA8010
0	Trichloroethylene	<1.00	U		1.00		µg/L	WA	EPA8010
0	Trichloroethylene	<1.00	U		1.00		µg/L	WA	EPA8010

## WELL CMP 11D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/24/99  
Depth to water: 88.8 ft (27.07 m) below TOC  
Water elevation: 222.2 ft (67.73 m) msl  
pH: 5.5  
Total alkalinity (as CaCO<sub>3</sub>): 12 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): SX  
Sp. conductance: 43 µS/cm  
Turbidity: 15 NTU  
Water evacuated from the well prior to sampling: 6 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2	Aluminum, total recoverable	212	U		146		µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EPA6010B
0	Barium, total recoverable	9.40	U		1.80		µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<1.00	U		4.70		µg/L	WA	EPA6010B
0	Carbon tetrachloride	<1.00	U		1.00		µg/L	WA	EPA8021B
0	Chloroform	<1.00	U		1.00		µg/L	WA	EPA8021B
0	cis-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
2	Iron, total recoverable	588	U		74.0		µg/L	WA	EPA6010B
0	Lead, total recoverable	5.50	J	I	47.0		µg/L	WA	EPA6010B
0	Manganese, total recoverable	18.1	U		7.80		µg/L	WA	EPA6010B
0	Selenium, total recoverable	<66.0	U		66.0		µg/L	WA	EPA6010B
0	Tetrachloroethylene	<5.00	U		5.00		µg/L	WA	EPA8260B
0	Total organic halogens	<120	U		120		µg/L	WA	EPA9020B
0	1,1,1-Trichloroethane	<1.00	U		1.00		µg/L	WA	EPA8021B
0	Trichloroethylene	<1.00	U		1.00		µg/L	WA	EPA8021B

## WELL CRP 3D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/02/99  
Depth to water: 60.15 ft (18.33 m) below TOC  
Water elevation: Not available  
pH: 4.8  
Total alkalinity (as CaCO<sub>3</sub>): 5 µS/cm  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): V  
Sp. conductance: 41 µS/cm  
Turbidity: 12 NTU  
Water evacuated from the well prior to sampling: 4 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2	Aluminum, total recoverable	98.7	J	I	146		µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<1.00	U		4.70		µg/L	WA	EPA6010B
0	Carbon tetrachloride	<200	U		200		µg/L	WA	EPA8021B
0	Chloroform	<1.000	U		1.000		µg/L	WA	EPA8021B
0	cis-1,2-Dichloroethylene	<159	U		74.0		µg/L	WA	EPA8260B
0	Lead, total recoverable	<47.0	U		47.0		µg/L	WA	EPA6010B
1	Manganese, total recoverable	26.8	U		7.80		µg/L	WA	EPA6010B

B-83

First Quarter 1999



## ANALYTICAL RESULTS

Well CRP 3D collected on 03/02/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Selenium, total recoverable	<66.0	U			66.0	µg/L	WA	EPAS010B
0	Tetrachloroethylene	<1,000	U			1,000	µg/L	WA	EPAS260B
2	Total organic halogens	2,840	U			2,000	µg/L	WA	EPAS020B
0	1,1,1-Trichloroethane	<200	U			200	µg/L	WA	EPAS021B
2	Trichloroethylene	4,080				200	µg/L	WA	EPAS021B
0	Trifluoromethane	4,61E-06±7.80E-07				1.03E-06	µCi/mL	TM	EPAS06.0M
0	Trifluoromethane	4.42E-06±7.40E-07				9.90E-07	µCi/mL	TM	EPAS06.0M

## WELL CRP 5D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/05/99  
 Depth to water: 65.55 ft (19.98 m) below TOC  
 Water elevation: 210.95 ft (64.3 m) msl  
 pH: 5  
 Total alkalinity (as CaCO<sub>3</sub>): 2 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): V  
 Sp. conductance: 21 µS/cm  
 Turbidity: 3 NTU  
 Water evacuated from the well prior to sampling: 7 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	68.4	J	I		146	µg/L	WA	EPAS010B
0	Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPAS010B
0	Cadmium, total recoverable	<4.70	U			4.70	µg/L	WA	EPAS010B
0	Carbon tetrachloride	<1.00	U			1.00	µg/L	WA	EPAS021B
0	Chloroform	<1.00	U			1.00	µg/L	WA	EPAS021B
0	cis-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Iron, total recoverable	90.8	U			74.0	µg/L	WA	EPAS010B
0	Lead, total recoverable	<47.0	U			47.0	µg/L	WA	EPAS010B
0	Selenium, total recoverable	<66.0	U			66.0	µg/L	WA	EPAS010B
0	Tetrachloroethylene	<3.00	U			3.00	µg/L	WA	EPAS010B
0	Total organic halogens	<3.00	U			3.00	µg/L	WA	EPAS010B
0	1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	WA	EPAS020B
0	Trichloroethylene	2.24	U			1.00	µg/L	WA	EPAS021B
0	Trifluoromethane	5.59E-06±6.90E-07				7.70E-07	µCi/mL	TM	EPAS06.0M
0	Trifluoromethane	6.83E-06±7.40E-07				7.80E-07	µCi/mL	TM	EPAS06.0M

## WELL CRP 8D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/02/99  
 Depth to water: 41.41 ft (12.62 m) below TOC  
 Water elevation: 206.99 ft (63.09 m) msl  
 pH: 4.5  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): V  
 Sp. conductance: 33 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 12 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	59.4	J	I		146	µg/L	WA	EPAS010B
0	Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPAS010B
0	Carbon tetrachloride	<1.00	U			1.00	µg/L	WA	EPAS021B
0	Chloroform	<1.00	U			1.00	µg/L	WA	EPAS021B
0	cis-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS260B
0	Iron, total recoverable	18.2	J	I		74.0	µg/L	WA	EPAS010B
0	Lead, total recoverable	<47.0	U			47.0	µg/L	WA	EPAS010B
0	Mercury, total recoverable	<0.450	U			0.450	µg/L	WA	EPAS010B
0	Selenium, total recoverable	<66.0	U			66.0	µg/L	WA	EPAS010B
0	Tetrachloroethylene	<3.00	U			3.00	µg/L	WA	EPAS010B
0	Total organic halogens	<3.00	U			3.00	µg/L	WA	EPAS010B
0	1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	WA	EPAS020B
0	Trichloroethylene	<1.00	U			1.00	µg/L	WA	EPAS021B

ESH-EMS-990520

B-84

## WELL CSB 1A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/29/99  
 Depth to water: 78.64 ft (23.97 m) below TOC  
 Water elevation: 213.16 ft (64.97 m) msl  
 pH: 6.4  
 Total alkalinity (as CaCO<sub>3</sub>): 33 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S  
 Sp. conductance: 90 µS/cm  
 Turbidity: 3 NTU  
 Water evacuated from the well prior to sampling: 38 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	386	U			146	µg/L	WA	EPAS010B
0	Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPAS010B
0	Cadmium, total recoverable	<4.70	U			4.70	µg/L	WA	EPAS010B
0	Carbon tetrachloride	<1.00	U			1.00	µg/L	WA	EPAS021B
0	Chloroform	2,140				210	µg/L	WA	EPAS056
0	cis-1,2-Dichloroethylene	1,960				210	µg/L	WA	EPAS056
0	Fluoride	<5.00	U			5.00	µg/L	WA	EPAS010B
0	Iron, total recoverable	<52.9	U	V		40.0	µg/L	WA	EPAS010B
1	Lead, total recoverable	289	U			74.0	µg/L	WA	EPAS010B
0	Nitrate-nitrite as nitrogen	1,320	J	I		100	µg/L	WA	EPAS33.2
0	Nitrate-nitrite as nitrogen	1,340	U			66.0	µg/L	WA	EPAS33.2
0	Selenium, total recoverable	<66.0	U			66.0	µg/L	WA	EPAS010B
0	Sulfate, total recoverable	12,700				1,350	µg/L	WA	EPAS010B
0	Sulfate	3,110				340	µg/L	WA	EPAS056
0	Tetrachloroethylene	<3.00	U			3.00	µg/L	WA	EPAS010B
0	Total dissolved solids	3,000	J	I		1,000	µg/L	WA	EPAS010B
0	Total organic carbon	<120	U			120	µg/L	WA	EPAS010B
0	Total organic halogens	<120	U			120	µg/L	WA	EPAS010B
0	1,1,1-Trichloroethane	<1.00	J	I		67.0	µg/L	WA	EPAS35.2
0	Trichloroethylene	1.19	U			1.00	µg/L	WA	EPAS010B
2	Tritium	4.44E-05±1.54E-06				6.40E-07	µCi/mL	TM	EPAS06.0M
2	Tritium	4.25E-05±1.49E-06				6.20E-07	µCi/mL	TM	EPAS06.0M

## WELL CSB 1C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/19/99  
 Depth to water: 82.35 ft (25.1 m) below TOC  
 Water elevation: 204.55 ft (62.35 m) msl  
 pH: 6  
 Sp. conductance: 24 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 32 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Acenaphthene	<10.0	JU	L	I	10.0	µg/L	GE	EPAS270C
0	Acenaphthylene	<10.0	JU	L	I	10.0	µg/L	GE	EPAS270C
0	Acetone	<10.0	JU	L	O	5.00	µg/L	GE	EPAS260B
0	Aluminum, total recoverable	<0.0200	JU	L	O	0.0200	µg/L	GE	EPAS010B
0	Anthracene	<10.0	U			10.0	µg/L	GE	EPAS270C
0	Antimony, total recoverable	<10.0	U			10.0	µg/L	GE	EPAS010B
0	Arsenic, total recoverable	<5.00	U			5.00	µg/L	GE	EPAS010B
0	Barium, total recoverable	5.75	U			1.00	µg/L	GE	EPAS010B
0	Benzene	<1.00	JU	L	O	0.0200	µg/L	GE	EPAS010B
0	alpha-Benzene hexachloride	<0.0200	U			0.0200	µg/L	GE	EPAS010B
0	beta-Benzene hexachloride	<0.0200	U			0.0200	µg/L	GE	EPAS010B
0	delta-Benzene hexachloride	<0.0200	U			0.0200	µg/L	GE	EPAS010B
0	Benzidine	<50.0	U			50.0	µg/L	GE	EPAS270C
0	Benzo(a)anthracene	<10.0	U			10.0	µg/L	GE	EPAS270C
0	Benzo(b)fluoranthene	<10.0	U			10.0	µg/L	GE	EPAS270C
0	Benzo(k)fluoranthene	<10.0	U			10.0	µg/L	GE	EPAS270C
0	Benzoic acid	<20.0	U			20.0	µg/L	GE	EPAS270C
0	Benzo(g,h,i)perylene	<10.0	U			10.0	µg/L	GE	EPAS270C
0	Benzo(a)pyrene	<10.0	U			10.0	µg/L	GE	EPAS270C
0	Benzo(b)pyrene	<10.0	U			10.0	µg/L	GE	EPAS270C
0	Benzyl alcohol	<5.00	U			5.00	µg/L	GE	EPAS010B
0	Bis(2-chloroethoxy) methane	<10.0	U			10.0	µg/L	GE	EPAS270C

First Quarter 1999



## ANALYTICAL RESULTS

Well CSB 1C collected on 03/19/99 (cont.)

F Analyte	Result	Unit	Lab	Method
0 Bis(2-chloroethyl) ether	<10.0	µg/L	GE	EPAB270C
0 Bis(2-chloroisopropyl) ether	<10.0	µg/L	GE	EPAB270C
0 Bis(2-ethylhexyl) phthalate	<10.0	µg/L	GE	EPAB270C
0 Bromodichloromethane	<1.00	µg/L	GE	EPAB260B
0 Bromoform	<1.00	µg/L	GE	EPAB260B
0 Bromomethane	<1.00	µg/L	GE	EPAB260B
0 4-Bromophenyl phenyl ether	<10.0	µg/L	GE	EPAB270C
0 Butylbenzyl phthalate	<10.0	µg/L	GE	EPAB270C
0 Cadmium, total recoverable	<5.00	µg/L	GE	EPAB270C
0 Calcium, total recoverable	1.710	µg/L	GE	EPAB270C
0 Carbon disulfide	<1.00	µg/L	GE	EPAB270C
0 Carbon tetrachloride	<1.00	µg/L	GE	EPAB270C
0 alpha-Chloroacetate	<0.0200	µg/L	GE	EPAB270C
0 gamma-Chlorobutylate	<0.0200	µg/L	GE	EPAB270C
0 Chlorobenzene	<1.00	µg/L	GE	EPAB270C
0 4-Chloro-m-cresol	<1.00	µg/L	GE	EPAB270C
0 Chloroethane	<1.00	µg/L	GE	EPAB270C
0 Chloroethane (Vinyl chloride)	<1.00	µg/L	GE	EPAB270C
0 Chloroform	<1.00	µg/L	GE	EPAB270C
0 Chloromethane	<1.00	µg/L	GE	EPAB270C
0 2-Chloronaphthalene	<1.00	µg/L	GE	EPAB270C
0 2-Chlorophenol	<1.00	µg/L	GE	EPAB270C
0 4-Chlorophenyl phenyl ether	<1.00	µg/L	GE	EPAB270C
0 Chromium, total recoverable	2.70	µg/L	GE	EPAB270C
0 Chrysene	<10.0	µg/L	GE	EPAB270C
0 Cobalt, total recoverable	<5.00	µg/L	GE	EPAB270C
0 Copper, total recoverable	1.70	µg/L	GE	EPAB270C
0 m,p-Cresol	<1.00	µg/L	GE	EPAB270C
0 o-Cresol	<1.00	µg/L	GE	EPAB270C
0 p,p'-DDT	<1.00	µg/L	GE	EPAB270C
0 p,p'-DDE	<0.0400	µg/L	GE	EPAB270C
0 p,p'-DDD	<0.0400	µg/L	GE	EPAB270C
0 Dibenz(a,h)anthracene	<1.00	µg/L	GE	EPAB270C
0 Dibenzofuran	<1.00	µg/L	GE	EPAB270C
0 Dibromochloromethane	<1.00	µg/L	GE	EPAB270C
0 Di-n-butyl phthalate	<1.00	µg/L	GE	EPAB270C
0 1,2-Dichlorobenzene	<1.00	µg/L	GE	EPAB270C
0 1,3-Dichlorobenzene	<1.00	µg/L	GE	EPAB270C
0 1,4-Dichlorobenzene	<1.00	µg/L	GE	EPAB270C
0 3,3'-Dichlorobenzidine	<2.00	µg/L	GE	EPAB270C
0 1,1-Dichloroethane	<1.00	µg/L	GE	EPAB270C
0 1,2-Dichloroethane	<1.00	µg/L	GE	EPAB270C
0 1,1-Dichloroethylene	<1.00	µg/L	GE	EPAB270C
0 1,2-Dichloroethylene	<1.00	µg/L	GE	EPAB270C
0 Dichloromethane	<1.00	µg/L	GE	EPAB270C
0 2,4-Dichlorophenol	<1.00	µg/L	GE	EPAB270C
0 cis-1,3-Dichloropropene	<1.00	µg/L	GE	EPAB270C
0 trans-1,3-Dichloropropene	<0.0400	µg/L	GE	EPAB270C
0 Dieldrin	<1.00	µg/L	GE	EPAB270C
0 Diethyl phthalate	<1.00	µg/L	GE	EPAB270C
0 2,4-Dimethyl phenol	<1.00	µg/L	GE	EPAB270C
0 Dimethyl phthalate	<1.00	µg/L	GE	EPAB270C
0 2,4-Dinitrophenol	<1.00	µg/L	GE	EPAB270C
0 2,6-Dinitrotoluene	<1.00	µg/L	GE	EPAB270C
0 Di-n-octyl phthalate	<1.00	µg/L	GE	EPAB270C
0 Endosulfan sulfate	<0.0400	µg/L	GE	EPAB270C
0 Endosulfan II	<0.0400	µg/L	GE	EPAB270C
0 Endosulfan I	<0.0400	µg/L	GE	EPAB270C
0 Endrin	<0.0400	µg/L	GE	EPAB270C
0 Endrin ketone	<0.0400	µg/L	GE	EPAB270C
0 Ethylbenzene	<1.00	µg/L	GE	EPAB270C
0 Fluoranthene	<1.00	µg/L	GE	EPAB270C
0 Heptachlor epoxide	<0.0200	µg/L	GE	EPAB270C
0 Heptachlorobenzene	<0.0200	µg/L	GE	EPAB270C
0 Hexachlorobiphenyl	<1.00	µg/L	GE	EPAB270C
0 Hexachlorocyclopentadiene	<1.00	µg/L	GE	EPAB270C
0 Hexachlorophthalate	<1.00	µg/L	GE	EPAB270C
0 2-Hexanone	<5.00	µg/L	GE	EPAB270C
0 Indeno[1,2,3-c,d]pyrene	<10.0	µg/L	GE	EPAB270C
0 Iron, total recoverable	76.6	µg/L	GE	EPAB270C
0 Isophorone	<10.0	µg/L	GE	EPAB270C

ESH-EMS-990520

Well CSB 1C collected on 03/19/99 (cont.)

F Analyte	Result	Unit	Lab	Method
0 Lead, total recoverable	7.70	µg/L	GE	EPAB270C
0 Magnesium, total recoverable	<0.0200	µg/L	GE	EPAB270C
0 Manganese, total recoverable	263	µg/L	GE	EPAB270C
0 Mercury, total recoverable	<5.88	µg/L	GE	EPAB270C
0 Methoxychlor	<0.200	µg/L	GE	EPAB270C
0 2-Methyl-4,6-dinitrophenol	<10.0	µg/L	GE	EPAB270C
0 Methyl ethyl ketone	<10.0	µg/L	GE	EPAB270C
0 Methyl isobutyl ketone	<10.0	µg/L	GE	EPAB270C
0 Naphthalene	<10.0	µg/L	GE	EPAB270C
0 Nickel, total recoverable	<1.00	µg/L	GE	EPAB270C
0 Nitrobenzene	<1.00	µg/L	GE	EPAB270C
0 Nitrobenzidine	<1.00	µg/L	GE	EPAB270C
0 Nitrophenol	<1.00	µg/L	GE	EPAB270C
0 2-Nitrophenol	<1.00	µg/L	GE	EPAB270C
0 4-Nitrophenol	<1.00	µg/L	GE	EPAB270C
0 N-Nitrosodiphenylamine	<1.00	µg/L	GE	EPAB270C
0 N-Nitrosodipropylamine	<1.00	µg/L	GE	EPAB270C
0 PCB 1016	<0.0990	µg/L	GE	EPAB270C
0 PCB 1221	<0.0990	µg/L	GE	EPAB270C
0 PCB 1232	<0.0990	µg/L	GE	EPAB270C
0 PCB 1242	<0.0990	µg/L	GE	EPAB270C
0 PCB 1248	<0.0990	µg/L	GE	EPAB270C
0 PCB 1254	<0.0990	µg/L	GE	EPAB270C
0 PCB 1260	<0.0990	µg/L	GE	EPAB270C
0 Phenachlorophenol	<1.00	µg/L	GE	EPAB270C
0 Phenanthrene	<1.00	µg/L	GE	EPAB270C
0 Potassium, total recoverable	483	µg/L	GE	EPAB270C
0 Pyrene	<1.00	µg/L	GE	EPAB270C
0 Selenium, total recoverable	<5.00	µg/L	GE	EPAB270C
0 Silver, total recoverable	<5.00	µg/L	GE	EPAB270C
0 Sodium, total recoverable	1.280	µg/L	GE	EPAB270C
0 Styrene	<1.00	µg/L	GE	EPAB270C
0 1,1,2,2-Tetrachloroethane	<1.00	µg/L	GE	EPAB270C
0 Tetrachloroethylene	<1.00	µg/L	GE	EPAB270C
0 Thallium, total recoverable	<5.49	µg/L	GE	EPAB270C
0 Toluene	<1.00	µg/L	GE	EPAB270C
0 Total organic halogens	<1.00	µg/L	GE	EPAB270C
0 Total organic halogens	<1.00	µg/L	GE	EPAB270C
0 Toxaphene	<1.00	µg/L	GE	EPAB270C
0 1,1,1-Trichloroethane	<1.00	µg/L	GE	EPAB270C
0 1,1,2-Trichloroethane	<1.00	µg/L	GE	EPAB270C
0 Trichloroethylene	<1.00	µg/L	GE	EPAB270C
0 2,4,5-Trichlorophenol	<1.00	µg/L	GE	EPAB270C
0 2,4,6-Trichlorophenol	<1.00	µg/L	GE	EPAB270C
0 Vinyl acetate	<0.622	µg/L	GE	EPAB270C
0 Xylenes	<5.00	µg/L	GE	EPAB270C
0 Zinc, total recoverable	6.82E-09±1.10E-08	µg/L	GE	EPAB270C
0 Antimony-125	1.58E-09±9.31E-09	µg/L	GE	EPAB270C
0 Carbon-14	4.01E-09±4.40E-09	µg/L	GE	EPAB270C
0 Cerium-144	-5.84E-09±2.41E-09	µg/L	GE	EPAB270C
0 Cesium-134	-1.08E-10±3.23E-09	µg/L	GE	EPAB270C
0 Cesium-137	2.69E-10±3.15E-09	µg/L	GE	EPAB270C
0 Cobalt-57	-4.74E-10±3.09E-09	µg/L	GE	EPAB270C
0 Cobalt-60	9.55E-10±3.20E-09	µg/L	GE	EPAB270C
0 Europium-152	-1.54E-09±1.02E-08	µg/L	GE	EPAB270C
0 Europium-154	1.77E-09±1.03E-08	µg/L	GE	EPAB270C
0 Europium-155	4.75E-11±1.27E-08	µg/L	GE	EPAB270C
0 Gross alpha	1.08E-09±3.45E-10	µg/L	GE	EPAB270C
0 Gross beta	4.47E-09±3.72E-10	µg/L	GE	EPAB270C
0 Lead-212	1.47E-09±3.36E-09	µg/L	GE	EPAB270C
0 Lead-214	9.71E-10±6.48E-09	µg/L	GE	EPAB270C
0 Manganese-54	4.84E-09±3.36E-09	µg/L	GE	EPAB270C
0 Promethium-144	-1.39E-09±2.72E-08	µg/L	GE	EPAB270C
0 Promethium-146	2.50E-09±5.4E-09	µg/L	GE	EPAB270C
0 Ruthenium-106	1.77E-09±2.33E-08	µg/L	GE	EPAB270C
0 Sodium-22	4.04E-10±3.66E-09	µg/L	GE	EPAB270C
0 Strontium-90	-5.33E-10±4.40E-10	µg/L	GE	EPAB270C
0 Technetium-99	8.71E-10±7.90E-09	µg/L	GE	EPAB270C
0 Tritium	1.64E-06±4.57E-07	µg/L	GE	EPAB270C
0 Yttrium-88	4.06E-09±3.85E-09	µg/L	GE	EPAB270C

B-85

First Quarter 1999



## ANALYTICAL RESULTS

Well CSB 1C collected on 03/19/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Zinc-65	-4.92E-10±6.37E-09	U			9.65E-09	µCi/mL	GP	EPIA-013

## WELL CSB 2A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/10/99  
Depth to water: 72.1 ft (22.16 m) below TOC  
Water elevation: Not available  
pH: 5.6  
Sp. conductance: 30 µS/cm  
Turbidity: 14.9 NTU  
Water evacuated from the well prior to sampling: 9 gal  
The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	537				146	µg/L	WA	EPA6010B
0 Arsenic, total recoverable	<40.0				40.0	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	<1.0				4.70	µg/L	WA	EPA8210B
0 Carbon tetrachloride	<2.50				2.50	µg/L	WA	EPA8021B
0 Chloroform	<2.50				2.50	µg/L	WA	EPA8021B
0 Chromium, total recoverable	8.40				7.00	µg/L	WA	EPA8010B
0 cis-1,2-Dichloroethylene	<12.5				12.5	µg/L	WA	EPA8260B
0 Iron, total recoverable	507				47.0	µg/L	WA	EPA6010B
2 Lead, total recoverable	68.0				7.80	µg/L	WA	EPA7470A
0 Manganese, total recoverable	<0.450				0.450	µg/L	WA	EPA6010B
0 Mercury, total recoverable	<68.0				68.0	µg/L	WA	EPA8260B
0 Selenium, total recoverable	<12.5				12.5	µg/L	WA	EPA8021B
0 Tetrachloroethylene	<12.5				12.5	µg/L	WA	EPA8021B
1 Total organic halogens	51.2				2.50	µg/L	WA	EPA8021B
0 1,1,1-Trichloroethane	<2.50				2.50	µg/L	WA	EPA8021B
0 1,1,1-Trichloroethane	<2.50				2.50	µg/L	WA	EPA8021B
2 Trichloroethylene	60.7				2.50	µg/L	WA	EPA8021B
1 Tritium	3.02E-05±7.70E-07				5.50E-07	µCi/mL	TM	EPA906.0M
1 Tritium	1.12E-05±6.20E-07				5.60E-07	µCi/mL	TM	EPA906.0M

## WELL CSB 2C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/19/99  
Depth to water: 88.85 ft (27.08 m) below TOC  
Water elevation: 203.55 ft (62.04 m) msl  
pH: 5.8  
Sp. conductance: 20 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling: 26 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Acenaphthene	<10.0				10.0	µg/L	GE	EPA8270C
0 Acenaphthene	<20.0				10.2	µg/L	WA	EPA8270C
0 Acenaphthylene	<10.0				2.00	µg/L	WA	EPA8270C
0 Acenaphthylene	<20.0				10.2	µg/L	WA	EPA8270C
0 Acenaphthylene	<5.00				20.0	µg/L	WA	EPA8270C
0 Acetone	<10.0				5.00	µg/L	GE	EPA8260B
0 Aldrin	<0.0200				0.0200	µg/L	WA	EPA8081A
0 Aldrin	<0.0505				0.0505	µg/L	WA	EPA8081A
0 Aldrin	<50.0				50.0	µg/L	WA	EPA8081A
2 Aluminum, total recoverable	70.6				146	µg/L	WA	EPA6010B
2 Aluminum, total recoverable	68.2				146	µg/L	WA	EPA6010B
0 Anthracene	<10.0				10.0	µg/L	GE	EPA8270C
0 Anthracene	<10.2				10.2	µg/L	WA	EPA8270C
0 Anthracene	<20.0				20.0	µg/L	WA	EPA8270C
0 Antimony, total recoverable	<10.0				10.0	µg/L	GE	EPA6010B

## ESH-EMS-990520

Well CSB 2C collected on 03/19/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Antimony, total recoverable	<27.0				27.0	µg/L	WA	EPA6010B
0 Antimony, total recoverable	<27.0				27.0	µg/L	WA	EPA6010B
0 Arsenic, total recoverable	<5.00				5.00	µg/L	WA	EPA6010B
0 Arsenic, total recoverable	<40.0				40.0	µg/L	WA	EPA6010B
0 Arsenic, total recoverable	7.29				5.00	µg/L	WA	EPA6010B
0 Barium, total recoverable	9.60				1.80	µg/L	WA	EPA6010B
0 Barium, total recoverable	<1.00				1.00	µg/L	WA	EPA6010B
0 Benzene	<0.000				0.000	µg/L	WA	EPA8260B
0 alpha-Benzene hexachloride	<0.0505				0.0505	µg/L	WA	EPA8081A
0 alpha-Benzene hexachloride	<0.100				0.100	µg/L	WA	EPA8081A
0 alpha-Benzene hexachloride	<0.0200				0.0200	µg/L	WA	EPA8081A
0 beta-Benzene hexachloride	<0.0505				0.0505	µg/L	WA	EPA8081A
0 delta-Benzene hexachloride	<0.0200				0.0200	µg/L	WA	EPA8081A
0 delta-Benzene hexachloride	<0.0505				0.0505	µg/L	WA	EPA8081A
0 Benzidine	<50.0				50.0	µg/L	WA	EPA8270C
0 Benzo(a)anthracene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(a)anthracene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(b)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(b)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.0				10.0	µg/L	WA	EPA8270C
0 Benzo(k)fluoranthene	<10.2				10.2	µg/L	WA	EPA8270C



## ANALYTICAL RESULTS

Well CSB 2C collected on 03/19/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method	F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	alpha-Chlordane	<0.100	U			0.100	µg/L	WA	EPAS081A	0	3,3'-Dichlorobenzidine	<20.0	U			20.0	µg/L	GE	EPAS270C
0	gamma-Chlordane	<0.0200	U			0.0200	µg/L	GE	EPAS081A	0	3,3'-Dichlorobenzidine	<20.4	U			20.4	µg/L	WA	EPAS270C
0	gamma-Chlordane	<0.0505	U			0.0505	µg/L	WA	EPAS081A	0	3,3'-Dichlorobenzidine	<20.0	U			20.0	µg/L	WA	EPAS270C
0	gamma-Chlordane	<0.100	U			0.100	µg/L	WA	EPAS081A	0	1,1-Dichloroethane	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	4-Chloroaniline	<10.0	U			10.0	µg/L	GE	EPAS270C	0	1,1-Dichloroethane	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	4-Chloroaniline	<10.2	U			10.2	µg/L	WA	EPAS270C	0	1,2-Dichloroethane	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	Chlorobenzene	<20.0	U			20.0	µg/L	WA	EPAS270C	0	1,2-Dichloroethane	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPAS260B	0	1,1-Dichloroethane	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	Chlorobenzene	<5.00	U			5.00	µg/L	WA	EPAS260B	0	1,1-Dichloroethane	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	4-Chloro-m-cresol	<10.2	U			10.2	µg/L	GE	EPAS270C	0	1,2-Dichloroethane	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	4-Chloro-m-cresol	<10.2	U			10.2	µg/L	WA	EPAS270C	0	1,2-Dichloroethane	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	Chloromethane	<1.00	U			1.00	µg/L	WA	EPAS270C	0	Dichloromethane	<5.00	U	L		5.00	µg/L	WA	EPAS260B
0	Chloroethane	<10.0	U			10.0	µg/L	GE	EPAS260B	0	Dichloromethane	<5.00	U	L		5.00	µg/L	WA	EPAS260B
0	Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPAS260B	0	2,4-Dichlorophenol	<10.2	U			10.2	µg/L	WA	EPAS270C
0	Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	GE	EPAS260B	0	2,4-Dichlorophenol	<10.2	U			10.2	µg/L	WA	EPAS270C
0	Chloroethane (Vinyl chloride)	<10.0	U			10.0	µg/L	WA	EPAS260B	0	2,4-Dichlorophenol	<10.2	U			10.2	µg/L	WA	EPAS270C
0	Chloroform	<1.00	U			1.00	µg/L	GE	EPAS260B	0	1,2-Dichloropropane	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	Chloroform	<5.00	U			5.00	µg/L	WA	EPAS260B	0	1,2-Dichloropropane	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	Chloromethane	<1.00	U			1.00	µg/L	GE	EPAS260B	0	cis-1,3-Dichloropropene	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	Chloromethane	<10.0	U			10.0	µg/L	WA	EPAS260B	0	cis-1,3-Dichloropropene	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	2-Chloronaphthalene	<10.2	U			10.2	µg/L	GE	EPAS270C	0	trans-1,3-Dichloropropene	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	2-Chloronaphthalene	<10.0	U			10.0	µg/L	WA	EPAS270C	0	trans-1,3-Dichloropropene	<1.00	U	L		1.00	µg/L	WA	EPAS260B
0	2-Chloronaphthalene	<10.0	U			10.0	µg/L	GE	EPAS270C	0	Dieldrin	<0.0400	U			0.0400	µg/L	WA	EPAS260B
0	2-Chlorophenol	<10.2	U			10.2	µg/L	WA	EPAS270C	0	Dieldrin	<0.101	U			0.101	µg/L	WA	EPAS081A
0	2-Chlorophenol	<10.2	U			10.2	µg/L	GE	EPAS270C	0	Dieldrin	<0.200	U			0.200	µg/L	WA	EPAS081A
0	4-Chlorophenyl phenyl ether	<10.2	U			10.2	µg/L	WA	EPAS270C	0	Diethyl phthalate	<10.2	U			10.2	µg/L	WA	EPAS270C
0	4-Chlorophenyl phenyl ether	<10.2	U			10.2	µg/L	GE	EPAS270C	0	Diethyl phthalate	<10.2	U			10.2	µg/L	WA	EPAS270C
0	Chlorophenyl phenyl ether	<10.2	U			10.2	µg/L	WA	EPAS270C	0	Diethyl phthalate	<10.2	U			10.2	µg/L	WA	EPAS270C
0	Chlorophenyl phenyl ether	<10.2	U			10.2	µg/L	GE	EPAS270C	0	Diethyl phthalate	<10.2	U			10.2	µg/L	WA	EPAS270C
0	Chromium, total recoverable	4.14	U			4.14	µg/L	WA	EPAS270C	0	2,4-Dimethyl phenol	<10.0	U			10.0	µg/L	WA	EPAS270C
0	Chromium, total recoverable	8.10	U			8.10	µg/L	WA	EPAS270C	0	2,4-Dimethyl phenol	<10.0	U			10.0	µg/L	WA	EPAS270C
0	Chrysene	<10.0	U			10.0	µg/L	GE	EPAS270C	0	2,4-Dimethyl phenol	<10.0	U			10.0	µg/L	WA	EPAS270C
0	Chrysene	<10.2	U			10.2	µg/L	WA	EPAS270C	0	2,4-Dimethyl phenol	<10.0	U			10.0	µg/L	WA	EPAS270C
0	Cobalt, total recoverable	<5.00	U			5.00	µg/L	GE	EPAS270C	0	Dimethyl phthalate	<10.2	U			10.2	µg/L	WA	EPAS270C
0	Cobalt, total recoverable	<0.740	U			0.740	µg/L	WA	EPAS270C	0	Dimethyl phthalate	<10.2	U			10.2	µg/L	WA	EPAS270C
0	Copper, total recoverable	<1.10	U			1.10	µg/L	GE	EPAS270C	0	Dimethyl phthalate	<10.2	U			10.2	µg/L	WA	EPAS270C
0	Copper, total recoverable	<1.50	U			1.50	µg/L	WA	EPAS270C	0	2,4-Dinitrophenol	<25.5	U			25.5	µg/L	WA	EPAS270C
0	Copper, total recoverable	<3.60	U			3.60	µg/L	GE	EPAS270C	0	2,4-Dinitrophenol	<25.5	U			25.5	µg/L	WA	EPAS270C
0	m/p-Cresol	<10.0	U			10.0	µg/L	WA	EPAS270C	0	2,4-Dinitrophenol	<25.5	U			25.5	µg/L	WA	EPAS270C
0	m/p-Cresol	<10.2	U			10.2	µg/L	GE	EPAS270C	0	2,4-Dinitrophenol	<25.5	U			25.5	µg/L	WA	EPAS270C
0	m/p-Cresol	<10.2	U			10.2	µg/L	WA	EPAS270C	0	2,4-Dinitrophenol	<25.5	U			25.5	µg/L	WA	EPAS270C
0	m/p-Cresol	<10.2	U			10.2	µg/L	GE	EPAS270C	0	2,4-Dinitrophenol	<25.5	U			25.5	µg/L	WA	EPAS270C
0	o-Cresol (2-Methylphenol)	<10.2	U			10.2	µg/L	WA	EPAS270C	0	2,4-Dinitrophenol	<25.5	U			25.5	µg/L	WA	EPAS270C
0	o-Cresol (2-Methylphenol)	<10.2	U			10.2	µg/L	GE	EPAS270C	0	2,4-Dinitrophenol	<25.5	U			25.5	µg/L	WA	EPAS270C
0	o-Cresol (2-Methylphenol)	<10.2	U			10.2	µg/L	WA	EPAS270C	0	2,4-Dinitrophenol	<25.5	U			25.5	µg/L	WA	EPAS270C
0	o-Cresol (2-Methylphenol)	<10.2	U			10.2	µg/L	GE	EPAS270C	0	2,4-Dinitrophenol	<25.5	U			25.5	µg/L	WA	EPAS270C
0	Cyanide	<1.97	U			1.97	µg/L	WA	EPAS270C	0	Di-n-octyl phthalate	<10.2	U			10.2	µg/L	WA	EPAS270C
0	p,p'-DDD	<15.2	U			15.2	µg/L	GE	EPAS270C	0	Di-n-octyl phthalate	<10.2	U			10.2	µg/L	WA	EPAS270C
0	p,p'-DDD	<0.400	U			0.400	µg/L	WA	EPAS270C	0	Endosulfan sulfate	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	p,p'-DDD	<0.101	U			0.101	µg/L	GE	EPAS081A	0	Endosulfan sulfate	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	p,p'-DDD	<0.200	U			0.200	µg/L	WA	EPAS081A	0	Endosulfan I	<0.0200	U			0.0200	µg/L	WA	EPAS081A
0	p,p'-DDE	<0.0400	U			0.0400	µg/L	GE	EPAS081A	0	Endosulfan I	<0.0200	U			0.0200	µg/L	WA	EPAS081A
0	p,p'-DDE	<0.101	U			0.101	µg/L	WA	EPAS081A	0	Endosulfan II	<0.101	U			0.101	µg/L	WA	EPAS081A
0	p,p'-DDE	<0.200	U			0.200	µg/L	GE	EPAS081A	0	Endosulfan II	<0.101	U			0.101	µg/L	WA	EPAS081A
0	p,p'-DDE	<0.400	U			0.400	µg/L	WA	EPAS081A	0	Endosulfan II	<0.101	U			0.101	µg/L	WA	EPAS081A
0	p,p'-DDT	<0.101	U			0.101	µg/L	GE	EPAS081A	0	Endrin	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	p,p'-DDT	<0.200	U			0.200	µg/L	WA	EPAS081A	0	Endrin	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	p,p'-DDT	<0.101	U			0.101	µg/L	GE	EPAS081A	0	Endrin	<0.101	U			0.101	µg/L	WA	EPAS081A
0	p,p'-DDT	<0.200	U			0.200	µg/L	WA	EPAS081A	0	Endrin	<0.101	U			0.101	µg/L	WA	EPAS081A
0	Dibenz(a,h)anthracene	<10.0	U			10.0	µg/L	GE	EPAS081A	0	Endrin aldehyde	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenz(a,h)anthracene	<10.2	U			10.2	µg/L	WA	EPAS081A	0	Endrin aldehyde	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenz(a,h)anthracene	<10.0	U			10.0	µg/L	GE	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenz(a,h)anthracene	<10.2	U			10.2	µg/L	WA	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.0	U			10.0	µg/L	GE	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.2	U			10.2	µg/L	WA	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.0	U			10.0	µg/L	GE	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.2	U			10.2	µg/L	WA	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.0	U			10.0	µg/L	GE	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.2	U			10.2	µg/L	WA	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.0	U			10.0	µg/L	GE	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.2	U			10.2	µg/L	WA	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.0	U			10.0	µg/L	GE	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.2	U			10.2	µg/L	WA	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.0	U			10.0	µg/L	GE	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.2	U			10.2	µg/L	WA	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A
0	Dibenzofuran	<10.0	U			10.0	µg/L	GE	EPAS081A	0	Endrin ketone	<0.0400	U			0.0400	µg/L	WA	EPAS081A



## ANALYTICAL RESULTS

Well CSB 2C collected on 03/19/99 (cont.)

F	Analyte	Residue
	Hexachlorobenzene	<10.0
	Hexachlorobenzene	<10.2
	Hexachlorobenzene	<10.2
	Hexachlorobutadiene	<10.0
	Hexachlorobutadiene	<10.2
	Hexachlorocyclopentadiene	<10.0
	Hexachlorocyclopentadiene	<10.2
	Hexachlorocyclopentadiene	<10.0
	Hexachlorocyclopentadiene	<10.2
	Hexachloroethane	<10.0
	Hexachlorothane	<10.2
	2-Hexanone	<5.00
	2-Hexanone	<10.0
	Indeno[1,2,3-c,d]pyrene	<10.2
	Indeno[1,2,3-c,d]pyrene	<10.0
	Indeno[1,2,3-c,d]pyrene	<20.0
	Iron, total recoverable	<50.0
	Iron, total recoverable	207
	Iron, total recoverable	188
	Isonitrophenol	<10.0
	Isophorone	<10.2
	Isophorone	<20.0
	Lead, total recoverable	<5.00
	Lead, total recoverable	<10.2
	Lead, total recoverable	<47.0
	Lead, total recoverable	<47.9
	Lindane	<0.0608
	Lindane	<0.100
	Magnesium, total recoverable	206
	Magnesium, total recoverable	214
	Magnesium, total recoverable	237
	Magnesium, total recoverable	<10.0
	Manganese, total recoverable	5.70
	Manganese, total recoverable	4.50
	Mercury, total recoverable	0.0483
	Mercury, total recoverable	<0.450
	Methoxychlor	<0.200
	Methoxychlor	<0.505
	Methoxychlor	<1.00
	2-Methyl-4,6-dinitrophenol	<10.0
	2-Methyl-4,6-dinitrophenol	<25.5
	2-Methyl-4,6-dinitrophenol	<50.0
	Methyl ethyl ketone	<10.0
	Methyl ethyl ketone	<10.0
	Methyl isobutyl ketone	<5.00
	Methyl isobutyl ketone	<10.0
	2-Methylnaphthalene	<10.2
	2-Methylnaphthalene	<10.0
	2-Methylnaphthalene	<20.0
	Naphthalene	<10.0
	Naphthalene	<10.2
	Nickel, total recoverable	1.35
	Nickel, total recoverable	4.40
	Nickel, total recoverable	4.20
	m-Nitroaniline	<10.0
	m-Nitroaniline	<25.5
	o-Nitroaniline	<50.0
	o-Nitroaniline	<10.0
	p-Nitroaniline	<25.5
	p-Nitroaniline	<10.0
	p-Nitroaniline	<25.5
	p-Nitroaniline	<50.0
	Nitrobenzene	<10.0
	Nitrobenzene	<10.2
	Nitrophenol	<40.0
	2-Nitrophenol	<10.2
	2-Nitrophenol	<10.0
	4-Nitrophenol	<10.0
	4-Nitrophenol	<25.5
	4-Nitrosodiphenylamine	<50.0
	N-Nitrosodiphenylamine	<10.0
	N-Nitrosodipropylamine	<10.0
	N-Nitrosodipropylamine	<10.2

**ESH-EMS-990520**

Well CSB 2C collected on 03/19/99 (cont.)

[illegible]

**B-88**

**First Quarter 1999**



## ANALYTICAL RESULTS

Well CSB 2C collected on 03/19/99 (cont.)

F	Analyte	2,4,5-Trichlorophenol	2,4,5-Trichlorophenol	2,4,5-Trichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4,6-Trichlorophenol	Vanadium, total recoverable	Vanadium, total recoverable	Vinyl acetate	Xylenes	Zinc, total recoverable	Zinc, total recoverable	Zinc, total recoverable	Asium-228	Asium-228	Antimony-124	Antimony-124	Antimony-125	Antimony-125	Antimony-125	Antimony-125	Barium-133	Barium-133	Carbon-14	Carbon-14	Carbon-14	Carbon-14	Cesium-134	Cesium-134	Cesium-137	Cesium-137	Cesium-137	Cobalt-57	Cobalt-57	Cobalt-58	Cobalt-58	Cobalt-58	Cobalt-58	Cobalt-60	Cobalt-60	Europium-152	Europium-152	Europium-152	Europium-154	Europium-154	Europium-154	Europium-155	Europium-155	Europium-155	Gross alpha	Gross alpha	Gross alpha	Iodine-129	Iodine-129	Iodine-129	Iodine-129	Lead-212	Lead-212	Lead-212	Manganese-54	Manganese-54	Manganese-54	Neptunium-239	Neptunium-239	Nonradioactive beta	Nonradioactive beta	Potassium-40	Potassium-40	Potassium-40	Potassium-40	Promethium-144	Promethium-144	Promethium-144	Promethium-146	Promethium-146
---	---------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------------	-----------------------------	---------------	---------	-------------------------	-------------------------	-------------------------	-----------	-----------	--------------	--------------	--------------	--------------	--------------	--------------	------------	------------	-----------	-----------	-----------	-----------	------------	------------	------------	------------	------------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	-------------	-------------	-------------	------------	------------	------------	------------	----------	----------	----------	--------------	--------------	--------------	---------------	---------------	---------------------	---------------------	--------------	--------------	--------------	--------------	----------------	----------------	----------------	----------------	----------------

Well: CSB 2C collected on 03/19/99 (cont.)

F Analyte	Result
Promethium-146	-1.70E-09±3.62E-09
Ruthenium-106	1.10E-09±2.10E-08
Ruthenium-106	-1.66E-08±2.58E-08
Ruthenium-106	1.48E-09±2.36E-08
Sodium-22	1.64E-09±2.79E-09
Sodium-22	-7.90E-10±2.53E-09
Sodium-22	1.04E-09±2.74E-09
Sodium-90	5.30E-10±4.17E-10
Strontium-90	3.20E-10±4.70E-10
Technetium-99	8.75E-10±7.75E-09
Technetium-99	-8.90E-10±7.75E-09
Technetium-99	1.34E-08±9.67E-09
Tin-113	-1.17E-08±3.60E-09
Tritium	-5.20E-10±2.75E-09
Tritium	7.38E-08±3.94E-07
Tritium	-3.00E-07±3.90E-07
Tritium	-1.70E-07±3.80E-07
Yttrium-88	-4.14E-10±2.53E-09
Yttrium-88	-2.28E-09±2.77E-08
Yttrium-88	-9.00E-11±2.78E-08
Zinc-65	-5.80E-10±3.57E-09
Zinc-65	2.66E-09±5.49E-09
Zinc-65	-1.34E-09±4.71E-09
Zincium-95	4.71E-09±4.91E-09
Zincium-95	

**MEASUREMENTS CONDUCTED IN THE FIELD**

**SWELL CSB 2C Replicate**

Sample date: 03/19/99  
Depth to water: 88.85 ft (27.08 m) below TOC  
Water elevation: 203.55 ft (62.04 m) msl  
pH: 5.8  
Temp.: 50.0 °C  
Sp. cond. conductance: 20 µS/cm

**WELL CSB 2C Replicate**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/19/99  
Depth to water: 88.85 ft (27.08 m) below TOC  
Water elevation: 203.55 ft (62.04 m) msl  
pH: 5.8  
Sp. conductance: 20 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling: 26 gal

## ANALYSES

Analyte	Result
Asenaphthene	<10.0
Asenaphthylene	<10.0
Asotene	<5.0
Aldrin	<0.0200
Aluminum, total recoverable	83.0
Anthracene	<10.0
Antimony, total recoverable	<10.0
Arsenic, total recoverable	<5.00
Barium, total recoverable	8.70
Benzene	<1.00
alpha-Benzene hexachloride	<0.0200
beta-Benzene hexachloride	<0.0200
delta-Benzene hexachloride	<0.0200
Benztidine	<50.0
Benzo(a)anthracene	<10.0
Benzo(b)fluoranthene	<10.0
Benzo(k)fluoranthene	<10.0
Benzoic acid	<20.0
Benzo(g,h,i)pyrene	<10.0
Benzo(a)pyrene	<10.0
Benzyl alcohol	<10.0
Beryllium, total recoverable	<5.00
Bis(2-chloroethoxy) methane	<10.0
Bis(2-chloroethyl) ether	<10.0
Bis(2-chloropropoxy) ether	<10.0
Bis(2-ethoxyethyl) phthalate	<10.0
Bromochloromethane	<1.00
Bromodim	<1.00
Bromofluorene	<1.00
4-chlorophenyl phenyl ether	<1.00
Buylphenyl phthalate	<10.0
Calcium, total recoverable	<5.00
Calcium, total recoverable	2.110
Carbon disulfide	<1.00
Carbon tetrachloride	<1.00

8-89

**ESH-EMS-990520**

Page 56 of 100  
**First Quarter 1999**



## ANALYTICAL RESULTS

Well CSB 2C collected on 03/19/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method	F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	alpha-Chlordane	<0.0200	U		0.0200		µg/L	GE	EPA8081A	0	m-Nitroaniline	<10.0	U			10.0	µg/L	GE	EPA8270C
0	gamma-Chlordane	<0.0200	U		0.0200		µg/L	GE	EPA8081A	0	o-Nitroaniline	<10.0	U			10.0	µg/L	GE	EPA8270C
0	4-Chloroaniline	<10.0	U		10.0		µg/L	GE	EPA8260B	0	p-Nitroaniline	<10.0	U			10.0	µg/L	GE	EPA8270C
0	Chlorobenzene	<10.0	U		10.0		µg/L	GE	EPA8260B	0	Nitrobenzene	<10.0	U			10.0	µg/L	GE	EPA8270C
0	4-Chloro-m-cresol	<10.0	U		10.0		µg/L	GE	EPA8270C	0	2-Nitrophenol	<10.0	U			10.0	µg/L	GE	EPA8270C
0	Chloroethane	<10.0	U		10.0		µg/L	GE	EPA8260B	0	4-Nitrophenol	<10.0	U			10.0	µg/L	GE	EPA8270C
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0		µg/L	GE	EPA8260B	0	N-Nitrosodiphenylamine	<10.0	U			10.0	µg/L	GE	EPA8270C
0	Chloroform	<10.0	U		10.0		µg/L	GE	EPA8260B	0	N-Nitrosodipropylamine	<10.0	U			10.0	µg/L	GE	EPA8270C
0	Chloromethane	<10.0	U		10.0		µg/L	GE	EPA8260B	0	PCB 1016	<0.100	U			0.100	µg/L	GE	EPA8082
0	2-Chlorophenol	<10.0	U		10.0		µg/L	GE	EPA8270C	0	PCB 1221	<0.100	U			0.100	µg/L	GE	EPA8082
0	2-Chlorophenol	<10.0	U		10.0		µg/L	GE	EPA8270C	0	PCB 1232	<0.100	U			0.100	µg/L	GE	EPA8082
0	Chlorophenyl phenyl ether	<10.0	U		10.0		µg/L	GE	EPA8270C	0	PCB 1542	<0.100	U			0.100	µg/L	GE	EPA8082
0	Chromium, total recoverable	6.87	U		10.0		µg/L	GE	EPA8270C	0	PCB 1554	<0.100	U			0.100	µg/L	GE	EPA8082
0	Cobalt, total recoverable	<5.00	U		5.00		µg/L	GE	EPA8270C	0	PCB 1260	<0.100	U			0.100	µg/L	GE	EPA8082
0	Copper, total recoverable	11.3	U		5.00		µg/L	GE	EPA8010B	0	Phenanthrene	<20.0	U			20.0	µg/L	GE	EPA8270C
0	Cresol (2-Methylphenol)	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Phenol	<10.0	U			10.0	µg/L	GE	EPA8270C
0	Cyanide	<10.0	U		10.0		µg/L	GE	EPA8012A	0	Potassium, total recoverable	375	U			100	µg/L	GE	EPA8010B
0	p,p'-DDD	<0.0400	U		0.0400		µg/L	GE	EPA8081A	0	Pyrene	<5.00	U			5.00	µg/L	GE	EPA8270C
0	p,p'-DDE	<0.0400	U		0.0400		µg/L	GE	EPA8081A	0	Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8010B
0	p,p'-DDT	<0.0400	U		0.0400		µg/L	GE	EPA8081A	0	Silver, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8010B
0	Dibenz(a,h)anthracene	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Sodium, total recoverable	991	U			100	µg/L	GE	EPA8010B
0	Dibenzofuran	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Styrene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Dibromochloromethane	<10.0	U		10.0		µg/L	GE	EPA8260B	0	1,1,2,2-Tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Di-n-butyl phthalate	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Tetrachloroethylene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,2-Dichlorobenzene	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Toluene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,3-Dichlorobenzene	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Total organic halogens	<19.8	U			1.00	µg/L	GE	EPA8270C
0	1,4-Dichlorobenzene	<10.0	U		10.0		µg/L	GE	EPA8270C	0	1,2,4-Trichlorobenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	3,3'-Dichlorobenzidine	<20.0	U		20.0		µg/L	GE	EPA8270C	0	1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<10.0	U		10.0		µg/L	GE	EPA8260B	0	1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<10.0	U		10.0		µg/L	GE	EPA8260B	0	2,4,5-Trichlorophenol	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethylene	<10.0	U		10.0		µg/L	GE	EPA8260B	0	2,4,6-Trichlorophenol	<1.00	U			1.00	µg/L	GE	EPA8270C
0	1,2-Dichloroethylene	<10.0	U		10.0		µg/L	GE	EPA8260B	0	Vanadium, total recoverable	<1.19	U			5.00	µg/L	GE	EPA8010B
0	Dibromomethane	<10.0	U		10.0		µg/L	GE	EPA8260B	0	Vinyl acetate	<5.00	U			2.00	µg/L	GE	EPA8260B
0	2,2-Dichloropropane	<10.0	U		10.0		µg/L	GE	EPA8260B	0	Xylenes	<16.9	U			5.00	µg/L	GE	EPA8010B
0	cis-1,3-Dichloropropene	<10.0	U		10.0		µg/L	GE	EPA8260B	0	Zinc, total recoverable	1.72E-09±9.15E-09	U			1.50E-08	µg/L	GP	EPA-013
0	trans-1,3-Dichloropropene	<10.0	U		10.0		µg/L	GE	EPA8260B	0	Actinium-228	-1.16E-09±6.53E-09	U			1.15E-08	µCi/mL	GP	EPA-013
0	Dieldrin	<0.0400	U		0.0400		µg/L	GE	EPA8270C	0	Antimony-125	-1.70E-09±4.31E-09	U			7.35E-09	µCi/mL	GP	EPA-003
0	Diethyl phthalate	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Carbon-14	-2.71E-09±1.62E-08	U			2.79E-08	µCi/mL	GP	EPA-013
0	Dimethyl phthalate	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Cerium-144	-2.37E-11±2.41E-10	U			3.79E-08	µCi/mL	GP	EPA-013
0	2,4-Dinitrophenol	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Cesium-137	5.09E-10±2.33E-09	U			3.79E-08	µCi/mL	GP	EPA-013
0	2,6-Dinitrotoluene	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Cobalt-57	-5.13E-10±2.06E-09	U			3.54E-08	µCi/mL	GP	EPA-013
0	Di-n-octyl phthalate	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Cobalt-60	-2.02E-10±2.48E-09	U			4.35E-08	µCi/mL	GP	EPA-013
0	Endosulfan sulfate	<0.0400	U		0.0400		µg/L	GE	EPA8081A	0	Europium-152	-4.59E-09±1.89E-09	U			1.19E-08	µCi/mL	GP	EPA-013
0	Endosulfan II	<0.0400	U		0.0400		µg/L	GE	EPA8081A	0	Europium-154	8.12E-09±1.20E-08	U			1.46E-08	µCi/mL	GP	EPA-013
0	Endrin	<0.0400	U		0.0400		µg/L	GE	EPA8081A	0	Gross alpha	4.18E-10±4.36E-10	U			8.41E-10	µCi/mL	GP	EPA-001
0	Endrin ketone	<0.0400	U		0.0400		µg/L	GE	EPA8081A	0	Gross beta	3.81E-10±3.61E-10	U			8.41E-10	µCi/mL	GP	EPA-001
0	Epifluorone	<10.0	U		10.0		µg/L	GE	EPA8260B	0	Iodine-129	-8.68E-12±4.05E-10	U			6.20E-10	µCi/mL	GP	EPA-001
0	Fluorene	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Lead-212	-2.07E-09±4.95E-09	U			7.14E-10	µCi/mL	GP	EPA-006
0	Fluoranthene	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Manganese-54	-1.18E-09±2.10E-09	U			8.17E-09	µCi/mL	GP	EPA-013
0	Heptachlor epoxide	<0.0200	U		0.0200		µg/L	GE	EPA8081A	0	Nonvolatile beta	-3.34E-11±2.30E-10	U			1.23E-09	µCi/mL	GP	EPA-001
0	Hexachlorobenzene	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Nonvolatile beta	1.93E-09±7.33E-10	U			1.35E-09	µCi/mL	GP	EPA-001
0	Hexachlorobutadiene	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Potassium-40	1.24E-08±4.72E-08	U			4.73E-08	µCi/mL	GP	EPA-013
0	Hexachlorocyclopentadiene	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Promethium-144	7.18E-10±1.91E-09	U			3.51E-09	µCi/mL	GP	EPA-013
0	Hexachloroethane	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Promethium-146	1.51E-09±2.96E-09	U			5.44E-09	µCi/mL	GP	EPA-013
0	2-Hexanone	<5.00	U		5.00		µg/L	GE	EPA8260B	0	Ruthenium-106	6.64E-09±2.10E-08	U			3.41E-08	µCi/mL	GP	EPA-013
0	Indeno(1,2,3-c,d)pyrene	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Selenium-75	-1.63E-09±2.81E-09	U			3.98E-09	µCi/mL	GP	EPA-004
1	Iron, total recoverable	191	U		50.0		µg/L	GE	EPA8010B	0	Sodium-22	2.30E-11±5.89E-10	U			1.14E-09	µCi/mL	GP	EPA-005
0	Isonitrophenol	<10.0	U		10.0		µg/L	GE	EPA8270C	0	Sr-90	-2.14E-10±3.90E-09	U			2.04E-08	µCi/mL	GP	EPA-005
0	Lead, total recoverable	6.53	U		5.00		µg/L	GE	EPA8010B	0	Technetium-99	-1.72E-07±3.83E-07	U			6.81E-07	µCi/mL	GP	EPA-002
0	Lindane	<0.0200	U		0.0200		µg/L	GE	EPA8081A	0	Titanium	-4.41E-10±2.58E-09	U			4.78E-09	µCi/mL	GP	EPA-013
0	Magnesium, total recoverable	229	U		10.0		µg/L	GE	EPA8010B	0	Zinc-65	-2.73E-09±5.23E-09	U			7.63E-09	µCi/mL	GP	EPA-013
0	Manganese, total recoverable	<6.94	U		10.0		µg/L	GE	EPA8010B										
0	Mercury, total recoverable	<0.200	U		0.200		µg/L	GE	EPA8010B										
0	Methoxychlor	<10.0	U		10.0		µg/L	GE	EPA8081A										
0	4-Methyl-1,6-dinitrophenol	<10.0	U		10.0		µg/L	GE	EPA8270C										
0	4-Methyl-2-nitrophenol	<10.0	U		10.0		µg/L	GE	EPA8260B										
0	Methyl isobutyl ketone	<5.00	U		5.00		µg/L	GE	EPA8260B										
0	2-Methylnaphthalene	<10.0	U		10.0		µg/L	GE	EPA8270C										
0	Naphthalene	<10.0	U		10.0		µg/L	GE	EPA8270C										
0	Nickel, total recoverable	2.98	U		5.00		µg/L	GE	EPA8010B										

B-90

ESH-EMS-990520

First Quarter 1999



## WELL CSB 3A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/10/99  
Depth to water: 73.5 ft (22.4 m) below TOC  
Water elevation: 211.4 ft (64.44 m) msl  
pH: 5.6  
Sp. conductance: 38 µS/cm  
Turbidity: 5 NTU  
Water evacuated from the well prior to sampling: 35 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1	Aluminum, total recoverable	31.5	J	I	146		µg/L	WA	EP46010B
0	Arsenic, total recoverable	<40.0	U	U	40.0		µg/L	WA	EP46010B
0	Cadmium, total recoverable	<4.70	U	U	4.70		µg/L	WA	EP46010B
0	Carbon tetrachloride	<2.50	JU	Q	2.50		µg/L	WA	EP46010B
0	Chloroform	<4.50	JU	U	4.50		µg/L	WA	EP46010B
0	1,1,2-Dichloroethane	<16.0	U	U	16.0		µg/L	WA	EP46010B
0	Lead, total recoverable	41.8	J	I	47.0		µg/L	WA	EP46010B
0	Selenium, total recoverable	<66.0	U	U	66.0		µg/L	WA	EP46010B
0	Tetrachloroethylene	<12.5	U	U	12.5		µg/L	WA	EP46010B
0	1,1,1-Trichloroethane	<2.50	JU	Q	2.50		µg/L	WA	EP46010B
2	Trichloroethylene	86.6	J	Q	3.94E-04		µCi/mL	TM	EP4606.0M
2	Tritium	2.08E-02±0.12E-04			3.82E-04		µCi/mL	TM	EP4606.0M

## WELL CSB 3C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/19/99  
Depth to water: 77.38 ft (23.59 m) below TOC  
Water elevation: 206.02 ft (62.8 m) msl  
pH: 4.6  
Sp. conductance: 24 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 29 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Acanaphthene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Acenaphthylene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Acetone	<5.00	JU	L	5.00		µg/L	GE	EP48270C
0	Aldrin	<0.0198	U	U	0.0198		µg/L	GE	EP48270C
0	Aluminum, total recoverable	<50.0	U	U	50.0		µg/L	GE	EP48270C
0	Anthracene	<10.0	U	U	10.0		µg/L	GE	EP48270C
0	Antimony, total recoverable	<5.00	U	U	5.00		µg/L	GE	EP48270C
0	Arsenic, total recoverable	<5.00	U	U	5.00		µg/L	GE	EP48270C
0	Barium, total recoverable	6.86	U	U	5.00		µg/L	GE	EP48270C
0	Benzene	<1.00	JU	L	1.00		µg/L	GE	EP48270C
0	alpha-Benzene hexachloride	<0.0198	U	U	0.0198		µg/L	GE	EP48270C
0	beta-Benzene hexachloride	<0.0198	U	U	0.0198		µg/L	GE	EP48270C
0	Benzidine	<50.0	U	U	50.0		µg/L	GE	EP48270C
0	Benz(a)anthracene	<10.0	U	U	10.0		µg/L	GE	EP48270C
0	Benz(b)fluoranthene	<10.0	U	U	10.0		µg/L	GE	EP48270C
0	Benz(k)fluoranthene	<20.0	U	U	20.0		µg/L	GE	EP48270C
0	Benz(g,h)perylene	<10.0	U	U	10.0		µg/L	GE	EP48270C
0	Benz(a)pyrene	<10.0	U	U	10.0		µg/L	GE	EP48270C
0	Benzyl alcohol	<10.0	U	U	10.0		µg/L	GE	EP48270C
0	Beryllium, total recoverable	<5.00	U	U	5.00		µg/L	GE	EP48270C
0	Bis(2-chloroethoxy) methane	<10.0	U	U	10.0		µg/L	GE	EP48270C
0	Bis(2-chloroethyl) ether	<10.0	U	U	10.0		µg/L	GE	EP48270C
0	Bis(2-chloroisopropyl) ether	<10.0	U	U	10.0		µg/L	GE	EP48270C
0	Bis(2-ethylhexyl) phthalate	<10.0	U	U	10.0		µg/L	GE	EP48270C
0	Bromodichloromethane	<10.0	U	U	10.0		µg/L	GE	EP48270C
0	Bromomethane	<1.00	JU	L	1.00		µg/L	GE	EP48270C
0	4-Bromophenyl phenyl ether	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Bunylbenzyl phthalate	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Cadmium, total recoverable	<5.00	U	U	5.00		µg/L	GE	EP48270C
0	Calcium, total recoverable	<5.00	U	U	5.00		µg/L	GE	EP48270C
0	Carbon disulfide	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Carbon tetrachloride	<1.00	JU	L	1.00		µg/L	GE	EP48270C

ESH-EMS-990520

Well CSB 3C collected on 03/19/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	alpha-Chlorodane	<0.0198	JU	U	0.0198		µg/L	GE	EP48081A
0	gamma-Chlorodane	<0.0198	JU	U	0.0198		µg/L	GE	EP48081A
0	4-Chloroaniline	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Chlorobenzene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	4-Chloro-m-cresol	<1.00	JU	L	1.00		µg/L	GE	EP48270C
0	Chloroethane	<1.00	JU	L	1.00		µg/L	GE	EP48270C
0	Chloroethene (Vinyl chloride)	<1.00	JU	L	1.00		µg/L	GE	EP48270C
0	Chloroform	<1.00	JU	L	1.00		µg/L	GE	EP48270C
0	Chloromethane	<1.00	JU	L	1.00		µg/L	GE	EP48270C
0	2-Chloronaphthalene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	2-Chlorophenol	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Chlorophenyl phenyl ether	<1.36	JU	L	1.36		µg/L	GE	EP48270C
0	Chromium, total recoverable	<5.00	JU	L	5.00		µg/L	GE	EP48270C
0	Cobalt, total recoverable	<5.00	JU	L	5.00		µg/L	GE	EP48270C
0	Copper, total recoverable	2.03	JU	L	2.03		µg/L	GE	EP48270C
0	m/p-Cresol	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	o-Cresol (2-Methylphenol)	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Cyanide	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	p,p'-DDD	<0.0396	JU	L	0.0396		µg/L	GE	EP48270C
0	p,p'-DDE	<0.0396	JU	L	0.0396		µg/L	GE	EP48270C
0	p,p'-DDT	<0.0396	JU	L	0.0396		µg/L	GE	EP48270C
0	Dibenz(a,h)anthracene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Dibenzofuran	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Dibromochloromethane	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	D-n-butyl phthalate	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	1,2-Dichlorobenzene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	1,3-Dichlorobenzene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	1,4-Dichlorobenzene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	1,1-Dichloroethane	<1.00	JU	L	1.00		µg/L	GE	EP48270C
0	1,2-Dichloroethylene	<1.00	JU	L	1.00		µg/L	GE	EP48270C
0	Dichloromethane	<5.00	JU	L	5.00		µg/L	GE	EP48270C
0	2,4-Dichlorophenol	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	1,2-Dichloropropane	<1.00	JU	L	1.00		µg/L	GE	EP48270C
0	cis-1,3-Dichloropropene	<1.00	JU	L	1.00		µg/L	GE	EP48270C
0	trans-1,3-Dichloropropene	<1.00	JU	L	1.00		µg/L	GE	EP48270C
0	Dieldrin	<0.0396	JU	L	0.0396		µg/L	GE	EP48270C
0	Diethyl phthalate	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	2,4-Dimethyl phenol	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Dimethyl phthalate	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	2,4-Dinitrophenol	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	2,6-Dinitrophenol	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Di-n-octyl phthalate	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Endosulfan sulfate	<0.0396	JU	L	0.0396		µg/L	GE	EP48270C
0	Endosulfan II	<0.0396	JU	L	0.0396		µg/L	GE	EP48270C
0	Endrin ketone	<0.0396	JU	L	0.0396		µg/L	GE	EP48270C
0	Endrin aldehyde	<0.0396	JU	L	0.0396		µg/L	GE	EP48270C
0	Ethylbenzene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Fluorene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Heptachlor epoxide	<0.0198	JU	L	0.0198		µg/L	GE	EP48270C
0	Hexachlorobenzene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Hexachlorobutadiene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Hexachlorocyclopentadiene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	2-Hexanone	<5.00	JU	L	5.00		µg/L	GE	EP48270C
0	Indeno(1,2,3-c,d)pyrene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Iron, total recoverable	<50.0	JU	L	50.0		µg/L	GE	EP48270C
0	Isophorone	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Lead, total recoverable	<5.00	JU	L	5.00		µg/L	GE	EP48270C
0	Lead	<0.0198	JU	L	0.0198		µg/L	GE	EP48270C
0	Magnesium, total recoverable	<5.11	JU	L	5.11		µg/L	GE	EP48270C
0	Manganese, total recoverable	<0.479	JU	L	0.479		µg/L	GE	EP48270C
0	Methoxychlor	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	2-Methyl-4,6-dinitrophenol	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Methyl ethyl ketone	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Methyl isobutyl ketone	<5.00	JU	L	5.00		µg/L	GE	EP48270C
0	2-Methylnaphthalene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Naphthalene	<10.0	JU	L	10.0		µg/L	GE	EP48270C
0	Nickel, total recoverable	1.39	JU	L	1.39		µg/L	GE	EP48270C

B-91

First Quarter 1999



## ANALYTICAL RESULTS

Well CSB 3C collected on 03/19/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 m-Nitroaniline	<10.0	U			10.0	µg/L	GE	EPAS270C
0 o-Nitroaniline	<10.0	U			10.0	µg/L	GE	EPAS270C
0 p-Nitroaniline	<10.0	U			10.0	µg/L	GE	EPAS270C
0 2-Nitrophenol	<10.0	U			10.0	µg/L	GE	EPAS270C
0 4-Nitrophenol	<10.0	U			10.0	µg/L	GE	EPAS270C
0 N-Nitrosodiphenylamine	<10.0	U			10.0	µg/L	GE	EPAS270C
0 N-Nitrosodipropylamine	<10.0	U			10.0	µg/L	GE	EPAS270C
0 PCB 1016	<0.0990	U			0.0990	µg/L	GE	EPAS270C
0 PCB 1221	<0.0990	U			0.0990	µg/L	GE	EPAS270C
0 PCB 1232	<0.0990	U			0.0990	µg/L	GE	EPAS270C
0 PCB 1242	<0.0990	U			0.0990	µg/L	GE	EPAS270C
0 PCB 1248	<0.0990	U			0.0990	µg/L	GE	EPAS270C
0 PCB 1254	<0.0990	U			0.0990	µg/L	GE	EPAS270C
0 PCB 1260	<0.0990	U			0.0990	µg/L	GE	EPAS270C
0 Pentachlorophenol	<20.0	U			20.0	µg/L	GE	EPAS270C
0 Phenanthrene	<10.0	U			10.0	µg/L	GE	EPAS270C
0 Phenol	412	U			100	µg/L	GE	EPAS270C
0 Potassium, total recoverable	<1.0	U			1.0	µg/L	GE	EPAS270C
0 Pyrene	<1.0	U			1.0	µg/L	GE	EPAS270C
0 Selenium, total recoverable	<1.0	U			1.0	µg/L	GE	EPAS270C
0 Silver, total recoverable	<1.0	U			1.0	µg/L	GE	EPAS270C
0 Sodium, total recoverable	<1.0	U			1.0	µg/L	GE	EPAS270C
0 Spent, total recoverable	<1.0	U			1.0	µg/L	GE	EPAS270C
0 1,1,2-Trichloroethane	1.610	U			1.00	µg/L	GE	EPAS270C
0 1,1,2,2-Tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPAS270C
0 Tetrahydrofuran	<1.00	U			1.00	µg/L	GE	EPAS270C
0 Thallium, total recoverable	<1.00	U			1.00	µg/L	GE	EPAS270C
0 Toluene	4.84	U			1.00	µg/L	GE	EPAS270C
0 Total organic halogens	<0.990	U			0.990	µg/L	GE	EPAS270C
0 Toxaphene	<1.00	U			1.00	µg/L	GE	EPAS270C
0 1,2,4-Trichlorobenzene	<1.00	U			1.00	µg/L	GE	EPAS270C
0 1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPAS270C
0 1,1,2-Trichloroethane	16.8	U			1.00	µg/L	GE	EPAS270C
2 Trichloroethylene	<10.0	U			10.0	µg/L	GE	EPAS270C
2 2,4,6-Trichlorophenol	<10.0	U			10.0	µg/L	GE	EPAS270C
0 2,4,6-Trichlorophenol	<10.0	U			10.0	µg/L	GE	EPAS270C
0 Vanadium, total recoverable	<2.00	U			2.00	µg/L	GE	EPAS270C
0 Vinyl acetate	<2.00	U			2.00	µg/L	GE	EPAS270C
0 Xylenes	<5.53	U			5.53	µg/L	GE	EPAS270C
0 Zinc	1.44E-08±1.03E-08	U			1.93E-08	µg/L	GP	EPAS270C
0 Actinium-228	1.42E-09±3.35E-09	U			1.42E-09	µg/L	GP	EPAS270C
0 Antimony-125	7.64E-09±4.53E-09	U			7.42E-09	µg/L	GP	EPAS270C
0 Carbon-14	-6.39E-09±2.45E-09	U			3.94E-09	µg/L	GP	EPAS270C
0 Cerium-144	1.79E-09±2.98E-09	U			4.80E-09	µg/L	GP	EPAS270C
0 Cesium-134	2.45E-09±2.90E-09	U			4.87E-09	µg/L	GP	EPAS270C
0 Cesium-137	-1.67E-09±3.05E-09	U			5.01E-09	µg/L	GP	EPAS270C
0 Cobalt-57	3.77E-10±2.70E-09	U			1.62E-08	µg/L	GP	EPAS270C
0 Cobalt-60	-6.15E-09±1.13E-08	U			1.43E-08	µg/L	GP	EPAS270C
0 Europium-152	2.13E-09±3.78E-09	U			2.09E-08	µg/L	GP	EPAS270C
0 Europium-154	-9.67E-11±1.27E-08	U			7.59E-10	µg/L	GP	EPAS270C
0 Europium-155	1.12E-09±3.30E-10	U			6.6E-09	µg/L	GP	EPAS270C
0 Gross alpha	-2.39E-10±4.73E-10	U			4.79E-09	µg/L	GP	EPAS270C
0 Iodine-129	1.70E-09±2.81E-09	U			1.39E-09	µg/L	GP	EPAS270C
0 Lead-212	2.43E-09±2.89E-09	U			5.63E-09	µg/L	GP	EPAS270C
0 Manganese-54	-2.51E-09±2.89E-09	U			4.05E-09	µg/L	GP	EPAS270C
0 Nonvolatile beta	4.95E-09±3.89E-09	U			6.44E-09	µg/L	GP	EPAS270C
0 Potassium-40	1.02E-08±2.27E-08	U			4.21E-09	µg/L	GP	EPAS270C
0 Potassium-144	1.82E-08±2.27E-08	U			5.12E-09	µg/L	GP	EPAS270C
0 Rutherfordium-146	-1.57E-10±4.58E-10	U			8.99E-10	µg/L	GP	EPAS270C
0 Rutherfordium-106	1.15E-08±9.57E-09	U			2.06E-08	µg/L	GP	EPAS270C
0 Sodium-22	7.54E-05±1.67E-06	U			6.82E-07	µg/L	GP	EPAS270C
0 Strontium-90	2.74E-09±2.72E-09	U			5.59E-09	µg/L	GP	EPAS270C
0 Technetium-99	1.52E-08±3.42E-09	U			1.45E-08	µg/L	GP	EPAS270C
2 Tritium								
2 Yttrium-88								
0 Zinc-65								

ESH-EMS-990520

B-92

First Quarter 1999

## WELL CSB 4A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/10/99  
 Depth to water: 73.0 ft (22.45 m) below TOC  
 Water elevation: 211.43 ft (64.44 m) msl  
 pH: 5.8  
 Sp. conductivity: 16 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 116 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	21.6	J	I		146	µg/L	WA	EPAS270C
0 Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPAS270C
0 Cadmium, total recoverable	4.70	U			4.70	µg/L	WA	EPAS270C
0 Carbon tetrachloride	<2.50	JU	Q		2.50	µg/L	WA	EPAS270C
0 Chloroform	<2.50	JU	Q		2.50	µg/L	WA	EPAS270C
0 cis-1,2-Dichloroethylene	12.5	U			12.5	µg/L	WA	EPAS270C
0 Iron, total recoverable	32.4	J	I		47.0	µg/L	WA	EPAS270C
0 Lead, total recoverable	11.0	U			11.0	µg/L	WA	EPAS270C
0 Mercury, total recoverable	<6.50	U			6.50	µg/L	WA	EPAS270C
0 Selenium, total recoverable	<12.5	U			12.5	µg/L	WA	EPAS270C
0 Tetrahydrofuran	51.6	U			120	µg/L	WA	EPAS270C
0 1,1,1-Trichloroethane	<2.50	JU	Q		2.50	µg/L	WA	EPAS270C
2 Trichloroethylene	59.8	J			3.77E-05	µg/L	TM	EPAS270C
2 Tritium	3.94E-03±1.16E-04							

## WELL CSB 5A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/10/99  
 Depth to water: 71.32 ft (21.74 m) below TOC  
 Water elevation: 211.48 ft (64.46 m) msl  
 pH: 6.2  
 Sp. conductivity: 82 µS/cm  
 Turbidity: 5 NTU  
 Water evacuated from the well prior to sampling: 38 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	151	U			146	µg/L	WA	EPAS270C
0 Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPAS270C
0 Cadmium, total recoverable	<4.70	JU	Q		4.70	µg/L	WA	EPAS270C
0 Carbon tetrachloride	<1.00	JU	Q		1.00	µg/L	WA	EPAS270C
0 Chloroform	<1.00	JU	Q		1.00	µg/L	WA	EPAS270C
0 cis-1,2-Dichloroethylene	<5.00	U			5.00	µg/L	WA	EPAS270C
0 Iron, total recoverable	109	J	I		47.0	µg/L	WA	EPAS270C
0 Lead, total recoverable	<6.50	U			6.50	µg/L	WA	EPAS270C
0 Selenium, total recoverable	<5.00	U			5.00	µg/L	WA	EPAS270C
0 Tetrahydrofuran	<1.00	JU	Q		1.00	µg/L	WA	EPAS270C
0 1,1,1-Trichloroethane	1.40	J			4.52E-06	µg/L	TM	EPAS270C
2 Tritium	2.05E-03±2.87E-05							

## WELL CSB 6A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/10/99  
 Depth to water: 74.47 ft (22.7 m) below TOC  
 Water elevation: 212.33 ft (64.72 m) msl  
 pH: 5.8  
 Sp. conductivity: 62 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 83 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1 Aluminum, total recoverable	29.5	J	I		146	µg/L	WA	EPAS270C
0 Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPAS270C



Well CSB 6A collected on 03/10/99 (cont.)

F	Analyte	Result	Unit	Lab	Method
0	Cadmium, total recoverable	<4.70	µg/L	WA	EPAG010B
0	Carbon tetrachloride	<1.00	µg/L	WA	EPAG021B
0	Chloroform	<1.00	µg/L	WA	EPAG021B
0	Chromium, total recoverable	2.30	µg/L	WA	EPAG010B
0	cis-1,2-Dichloroethylene	<5.00	µg/L	WA	EPAG010B
0	Iron, total recoverable	27.5	µg/L	WA	EPAG010B
0	Lead, total recoverable	5.10	µg/L	WA	EPAG010B
0	Manganese, total recoverable	7.70	µg/L	WA	EPAG010B
0	Selenium, total recoverable	<66.0	µg/L	WA	EPAG010B
0	Tetrachloroethylene	<3.00	µg/L	WA	EPAG021B
0	1,1,1-Trichloroethane	<1.00	µg/L	WA	EPAG021B
2	Tritium	1.3E-02±0.14E-04	µCi/mL	TM	EPAG06.0M

## WELL CSB 7D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/19/99  
 Depth to water: 74.34 ft (22.66 m) below TOC  
 Water elevation: 212.98 ft (64.88 m) msl  
 pH: 4.8  
 Sp. conductance: 53 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 10 gal

Time: 10:22  
 Water temperature: 21.1°C  
 Air temperature: 22.3°C  
 Total alkalinity (as CaCO<sub>3</sub>): 1 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): V

## ANALYSES

F	Analyte	Result	Unit	Lab	Method
0	Acenaphthene	<10.0	µg/L	GE	EPAG270C
0	Acenaphthylene	<10.0	µg/L	GE	EPAG270C
0	Acetone	<5.00	µg/L	GE	EPAG010B
0	Adm.	<0.0198	µg/L	GE	EPAG010B
0	Aluminum, total recoverable	10.4	µg/L	GE	EPAG010B
0	Anthracene, total recoverable	<10.0	µg/L	GE	EPAG010B
0	Antimony, total recoverable	<5.00	µg/L	GE	EPAG010B
0	Arsenic, total recoverable	9.03	µg/L	GE	EPAG010B
0	Barium, total recoverable	<1.00	µg/L	GE	EPAG010B
0	Benzene	<0.0198	µg/L	GE	EPAG010B
0	alpha-Benzene hexachloride	<0.0198	µg/L	GE	EPAG010B
0	beta-Benzene hexachloride	<0.0198	µg/L	GE	EPAG010B
0	delta-Benzene hexachloride	<0.0198	µg/L	GE	EPAG010B
0	Benzidine	<50.0	µg/L	GE	EPAG270C
0	Benz(e)anthracene	<10.0	µg/L	GE	EPAG270C
0	Benzo(b)fluoranthene	<10.0	µg/L	GE	EPAG270C
0	Benzo(k)fluoranthene	<10.0	µg/L	GE	EPAG270C
0	Benzoic acid	<10.0	µg/L	GE	EPAG270C
0	Benzo(g,h,i)perylene	<10.0	µg/L	GE	EPAG270C
0	Benzyl alcohol	<10.0	µg/L	GE	EPAG270C
0	Benzyl chloride	<10.0	µg/L	GE	EPAG270C
0	Bis(2-chloroethyl) methane	<10.0	µg/L	GE	EPAG270C
0	Bis(2-chloroethyl) phthalate	<10.0	µg/L	GE	EPAG270C
0	Bis(2-chloroisopropyl) ether	<10.0	µg/L	GE	EPAG270C
0	Bis(2-ethylhexyl) phthalate	<10.0	µg/L	GE	EPAG270C
0	Bromodichloromethane	<10.0	µg/L	GE	EPAG270C
0	Bromoform	<10.0	µg/L	GE	EPAG270C
0	Bromomethane	<10.0	µg/L	GE	EPAG270C
0	4-Bromophenyl phenyl ether	<10.0	µg/L	GE	EPAG270C
0	Butylbenzyl phthalate	<10.0	µg/L	GE	EPAG270C
0	Cadmium, total recoverable	<5.00	µg/L	GE	EPAG010B
0	Calcium, total recoverable	1.720	µg/L	GE	EPAG010B
0	Carbon disulfide	<5.00	µg/L	GE	EPAG010B
0	Carbon tetrachloride	<0.0198	µg/L	GE	EPAG010B
0	alpha-Chloroethane	<0.0198	µg/L	GE	EPAG010B
0	gamma-Chloroethane	<0.0198	µg/L	GE	EPAG010B
0	4-Chloroaniline	<10.0	µg/L	GE	EPAG010B
0	Chlorobenzene	<10.0	µg/L	GE	EPAG010B
0	Chloro-m-cresol	<10.0	µg/L	GE	EPAG010B
0	Chloromethane	<10.0	µg/L	GE	EPAG010B
0	Chloromethane (Vinyl chloride)	<10.0	µg/L	GE	EPAG010B
0	Chloroform	<10.0	µg/L	GE	EPAG010B
0	Chloromethane	<10.0	µg/L	GE	EPAG010B
0	2-Chloronaphthalene	<10.0	µg/L	GE	EPAG010B

ESH-EMS-990520

B-93

First Quarter 1999

Well CSB 7D collected on 03/19/99 (cont.)

F	Analyte	Result	Unit	Lab	Method
0	2-Chlorophenol	<10.0	µg/L	GE	EPAG270C
0	4-Chlorophenyl phenyl ether	<10.0	µg/L	GE	EPAG270C
0	Chromium, total recoverable	<0.629	µg/L	GE	EPAG010B
0	Chrysene	<10.0	µg/L	GE	EPAG270C
0	Cobalt, total recoverable	<0.955	µg/L	GE	EPAG010B
0	Copper, total recoverable	3.00	µg/L	GE	EPAG010B
0	m/p-Cresol	<10.0	µg/L	GE	EPAG270C
0	o-Cresol (2-Methylphenol)	<10.0	µg/L	GE	EPAG270C
0	Cyanide	<0.0396	µg/L	GE	EPAG012A
0	p,p'-DDD	<0.0396	µg/L	GE	EPAG081A
0	p,p'-DDE	<0.0396	µg/L	GE	EPAG081A
0	p,p'-DDE	<0.0396	µg/L	GE	EPAG081A
0	Dibenz(a,h)anthracene	<10.0	µg/L	GE	EPAG270C
0	Dibenz(b,h)anthracene	<10.0	µg/L	GE	EPAG270C
0	Di-n-butyl phthalate	<10.0	µg/L	GE	EPAG270C
0	1,2-Dichlorobenzene	<10.0	µg/L	GE	EPAG270C
0	1,3-Dichlorobenzene	<10.0	µg/L	GE	EPAG270C
0	1,4-Dichlorobenzene	<10.0	µg/L	GE	EPAG270C
0	3,3'-Dichlorobenzidine	<20.0	µg/L	GE	EPAG270C
0	1,1-Dichloroethane	<1.00	µg/L	GE	EPAG260B
0	1,2-Dichloroethane	<1.00	µg/L	GE	EPAG260B
0	1,1-Dichloroethylene	<1.00	µg/L	GE	EPAG260B
0	1,2-Dichloroethylene	<1.00	µg/L	GE	EPAG260B
0	Dichloromethane	<5.00	µg/L	GE	EPAG270C
0	2,4-Dichlorophenol	<10.0	µg/L	GE	EPAG270C
0	1,2-Dichloropropane	<1.00	µg/L	GE	EPAG260B
0	trans-1,3-Dichloropropene	<1.00	µg/L	GE	EPAG260B
0	cis-1,3-Dichloropropene	<1.00	µg/L	GE	EPAG260B
0	Dieldrin	<0.0396	µg/L	GE	EPAG270C
0	Diethyl phthalate	<10.0	µg/L	GE	EPAG270C
0	2,4-Dimethyl phenol	<10.0	µg/L	GE	EPAG270C
0	Dimethyl phthalate	<10.0	µg/L	GE	EPAG270C
0	2,4-Dinitrophenol	<20.0	µg/L	GE	EPAG270C
0	2,4-Dinitrotoluene	<10.0	µg/L	GE	EPAG270C
0	2,6-Dinitrotoluene	<10.0	µg/L	GE	EPAG270C
0	Di-n-octyl phthalate	<10.0	µg/L	GE	EPAG270C
0	Endosulfan sulfate	<0.0396	µg/L	GE	EPAG081A
0	Endosulfan I	<0.0198	µg/L	GE	EPAG081A
0	Endosulfan II	<0.0396	µg/L	GE	EPAG081A
0	Endrin	<0.0396	µg/L	GE	EPAG081A
0	Endrin ketone	<0.0396	µg/L	GE	EPAG081A
0	Endrin aldehyde	<0.0396	µg/L	GE	EPAG081A
0	Ethylbenzene	<10.0	µg/L	GE	EPAG270C
0	Fluoranthene	<10.0	µg/L	GE	EPAG270C
0	Fluorene	<10.0	µg/L	GE	EPAG270C
0	Heptachlor	<0.0198	µg/L	GE	EPAG081A
0	Heptachlor epoxide	<0.0198	µg/L	GE	EPAG081A
0	Hexachlorobenzene	<10.0	µg/L	GE	EPAG270C
0	Hexachlorobenzene	<10.0	µg/L	GE	EPAG270C
0	Hexachlorocyclopentadiene	<10.0	µg/L	GE	EPAG270C
0	Hexachlorocyclopentadiene	<10.0	µg/L	GE	EPAG270C
0	2-Hexanone	<5.00	µg/L	GE	EPAG260B
0	Indeno(1,2,3-c,d)pyrene	<10.0	µg/L	GE	EPAG270C
0	Iron, total recoverable	57.9	µg/L	GE	EPAG010B
0	Isophorone	<10.0	µg/L	GE	EPAG270C
0	Lead, total recoverable	<5.00	µg/L	GE	EPAG010B
0	Lindane	<0.0198	µg/L	GE	EPAG081A
0	Magnesium, total recoverable	902	µg/L	GE	EPAG010B
2	Manganese, total recoverable	143	µg/L	GE	EPAG010B
0	Mercury, total recoverable	<0.0382	µg/L	GE	EPAG010B
0	Methoxychlor	<0.198	µg/L	GE	EPAG010B
0	2-Methyl-4,6-dinitrophenol	<10.0	µg/L	GE	EPAG010B
0	Methyl ethyl ketone	<5.00	µg/L	GE	EPAG260B
0	Methyl isobutyl ketone	<5.00	µg/L	GE	EPAG260B
0	2-Methylpropanethiolane	<10.0	µg/L	GE	EPAG270C
0	Naphthalene	<10.0	µg/L	GE	EPAG270C
0	Nickel, total recoverable	2.58	µg/L	GE	EPAG010B
0	m-Nitroaniline	<10.0	µg/L	GE	EPAG270C
0	o-Nitroaniline	<10.0	µg/L	GE	EPAG270C
0	p-Nitroaniline	<10.0	µg/L	GE	EPAG270C
0	Nitrobenzene	<10.0	µg/L	GE	EPAG270C
0	2-Nitrophenol	<10.0	µg/L	GE	EPAG270C
0	4-Nitrophenol	<10.0	µg/L	GE	EPAG270C
0	N-Nitrosodiphenylamine	<10.0	µg/L	GE	EPAG270C



## ANALYTICAL RESULTS

Well CSB 7D collected on 03/19/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 N-Nitrosodipropylamine	<10.0	U			10.0	µg/L	GE	EPAS270C
0 PCB 1016	<0.100	U			0.100	µg/L	GE	EPAS270C
0 PCB 1221	<0.100	U			0.100	µg/L	GE	EPAS270C
0 PCB 1232	<0.100	U			0.100	µg/L	GE	EPAS270C
0 PCB 1242	<0.100	U			0.100	µg/L	GE	EPAS270C
0 PCB 1248	<0.100	U			0.100	µg/L	GE	EPAS270C
0 PCB 1254	<0.100	U			0.100	µg/L	GE	EPAS270C
0 PCB 1260	<0.100	U			0.100	µg/L	GE	EPAS270C
0 Pentachlorophenol	<20.0	U			20.0	µg/L	GE	EPAS270C
0 Phenanthrene	<10.0	U			10.0	µg/L	GE	EPAS270C
0 Potassium, total recoverable	55.4	U			10.0	µg/L	GE	EPAS270C
0 Pyrene	<10.0	U			10.0	µg/L	GE	EPAS270C
0 Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPAS270C
0 Silver, total recoverable	<5.00	U			5.00	µg/L	GE	EPAS270C
0 Sodium, total recoverable	5.350	U			100	µg/L	GE	EPAS270C
0 Styrene	<1.00	U			1.00	µg/L	GE	EPAS270C
0 Tetrachloroethylene	<1.00	U			1.00	µg/L	GE	EPAS270C
0 Toluene	<1.00	U			1.00	µg/L	GE	EPAS270C
0 Total organic halogens	8.02	U			10.0	µg/L	GE	EPAS270C
0 Triphenylene	<0.390	U			0.390	µg/L	GE	EPAS270C
0 1,2,4-Trichlorobenzene	<1.00	U			1.00	µg/L	GE	EPAS270C
0 1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPAS270C
0 1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPAS270C
0 Trichloroethylene	34.7	U			10.0	µg/L	GE	EPAS270C
0 2,4,5-Trichlorophenol	<10.0	U			10.0	µg/L	GE	EPAS270C
0 2,4,6-Trichlorophenol	<10.0	U			10.0	µg/L	GE	EPAS270C
0 Vanadium, total recoverable	<5.00	U			5.00	µg/L	GE	EPAS270C
0 Vinyl acetate	<2.00	U			2.00	µg/L	GE	EPAS270C
0 Xylenes	21.1	U			5.00	µg/L	GP	EPAS270C
0 Zinc, total recoverable	1.58E-08±1.11E-08	U			1.66E-08	µg/L	GP	EPAS270C
0 Actinium-228	-3.37E-09±5.23E-09	U			8.98E-09	µg/L	GP	EPAS270C
0 Antimony-125	1.07E-09±4.14E-09	U			7.08E-09	µg/L	GP	EPAS270C
0 Carbon-14	6.81E-09±2.15E-08	U			2.40E-08	µg/L	GP	EPAS270C
0 Cesium-134	-1.76E-10±1.89E-09	U			3.36E-09	µg/L	GP	EPAS270C
0 Cesium-137	-4.47E-10±1.31E-09	U			3.88E-09	µg/L	GP	EPAS270C
0 Cobalt-57	8.47E-10±1.68E-09	U			3.88E-09	µg/L	GP	EPAS270C
0 Cobalt-60	-2.08E-09±5.61E-09	U			9.21E-09	µg/L	GP	EPAS270C
0 Europium-152	-1.82E-09±5.15E-09	U			9.21E-09	µg/L	GP	EPAS270C
0 Europium-154	4.17E-09±2.31E-09	U			1.31E-08	µg/L	GP	EPAS270C
0 Europium-155	1.31E-09±8.66E-10	U			6.58E-10	µg/L	GP	EPAS270C
0 Gross alpha	5.04E-10±4.12E-10	U			8.18E-10	µg/L	GP	EPAS270C
0 Iodine-129	2.02E-09±4.06E-09	U			7.05E-09	µg/L	GP	EPAS270C
0 Lead-212	-2.78E-10±1.76E-09	U			3.11E-09	µg/L	GP	EPAS270C
0 Manganese-54	1.26E-09±6.15E-10	U			4.04E-09	µg/L	GP	EPAS270C
0 Nonvolatile beta	6.71E-10±4.01E-08	U			3.69E-08	µg/L	GP	EPAS270C
0 Potassium-40	9.75E-10±1.99E-09	U			4.32E-09	µg/L	GP	EPAS270C
0 Promethium-144	-5.63E-10±2.43E-09	U			2.58E-08	µg/L	GP	EPAS270C
0 Ruthenium-106	-5.47E-09±1.47E-08	U			3.31E-08	µg/L	GP	EPAS270C
0 Sodium-22	-6.47E-10±1.83E-09	U			1.80E-08	µg/L	GP	EPAS270C
0 Strontium-90	4.77E-10±7.94E-09	U			6.74E-08	µg/L	GP	EPAS270C
0 Technetium-99	1.54E-08±5.28E-07	U			6.74E-07	µg/L	GP	EPAS270C
0 Tritium	6.34E-10±2.43E-09	U			4.78E-09	µg/L	GP	EPAS270C
0 Tlrium-88	2.88E-09±4.44E-09	U			8.13E-09	µg/L	GP	EPAS270C
0 Zinc-65		U					GP	EPAS270C

## WELL CSB 8D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/19/99  
 Depth to water: 69.3 ft (21.12 m) below TOC  
 Water elevation: Not available  
 pH: 5.2  
 Sp. conductance: 44 µS/cm  
 Turbidity: 14 NTU  
 Water evacuated from the well prior to sampling: 76 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Acenaphthene	<10.0	JU	LQ		10.0	µg/L	GE	EPAS270C
0 Acenaphthylene	<10.0	JU	Q		10.0	µg/L	GE	EPAS270C

ESH-EMS-990520

B-94

Well CSB 8D collected on 03/19/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Acetone	<5.00	JU	L		5.00	µg/L	GE	EPAS260B
0 Aluminum	<0.0200	U			0.0200	µg/L	GE	EPAS260B
0 Antimony, total recoverable	365	U			50.0	µg/L	GE	EPAS260B
0 Anthracene	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Arsenic, total recoverable	<5.00	U			5.00	µg/L	GE	EPAS260B
0 Barium, total recoverable	16.8	U			5.00	µg/L	GE	EPAS260B
0 Benzene	<1.00	JU	L		1.00	µg/L	GE	EPAS260B
0 alpha-Benzene hexachloride	<0.0200	U			0.0200	µg/L	GE	EPAS260B
0 beta-Benzene hexachloride	<0.0200	U			0.0200	µg/L	GE	EPAS260B
0 delta-Benzene hexachloride	<0.0200	U			0.0200	µg/L	GE	EPAS260B
0 Benzidine	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Benzo(a)anthracene	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Benzo(b)fluoranthene	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Benzo(k)fluoranthene	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Benzoic acid	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Benzo(g,h,i)perylene	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Benzyl alcohol	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Benzylpyrene	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Beryllium, total recoverable	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Bis(2-chloroethyl) methane	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Bis(2-chloroethyl) ether	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Bis(2-ethylhexyl) phthalate	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Bromodichloromethane	<1.00	JU	L		1.00	µg/L	GE	EPAS260B
0 Bromoform	<1.00	JU	L		1.00	µg/L	GE	EPAS260B
0 Bromomethane	<1.00	JU	L		1.00	µg/L	GE	EPAS260B
0 4-Bromophenyl phenyl ether	<1.00	JU	L		1.00	µg/L	GE	EPAS260B
0 Butylbenzyl phthalate	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Cadmium, total recoverable	<5.00	JU	Q		5.00	µg/L	GE	EPAS260B
0 Calcium, total recoverable	2.360	U			100	µg/L	GE	EPAS260B
0 Carbon disulfide	<5.00	JU	L		5.00	µg/L	GE	EPAS260B
0 Carbon tetrachloride	<1.00	JU	L		1.00	µg/L	GE	EPAS260B
0 alpha-Chlordane	<0.0200	U			0.0200	µg/L	GE	EPAS260B
0 gamma-Chlordane	<0.0200	U			0.0200	µg/L	GE	EPAS260B
0 4-Chloroaniline	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 Chlorobenzene	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 Chlorobenzene	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 Chloroethane (Vinyl chloride)	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 Chloroform	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 Chloronaphthalene	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 2-Chlorophenol	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 2-Chlorophenyl phenyl ether	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 Chromium, total recoverable	<5.00	JU	Q		5.00	µg/L	GE	EPAS260B
0 Chrysene	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 Cobalt, total recoverable	<0.938	JU	Q		5.00	µg/L	GE	EPAS260B
0 m/p-Cresol	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 o-Cresol (2-Methylphenol)	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 p,p'-DDE	<0.0400	JU	Q		0.0400	µg/L	GE	EPAS260B
0 p,p'-DDD	<0.0400	JU	Q		0.0400	µg/L	GE	EPAS260B
0 p,p'-DDE	<0.0400	JU	Q		0.0400	µg/L	GE	EPAS260B
0 p,p'-DDT	<0.0400	JU	Q		0.0400	µg/L	GE	EPAS260B
0 p,p'-DDT	<0.0400	JU	Q		0.0400	µg/L	GE	EPAS260B
0 Benzo(a)anthracene	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 Dibenz(a,h)anthracene	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 Di-n-butyl phthalate	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 1,2-Dichlorobenzene	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 1,3-Dichlorobenzene	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 1,4-Dichlorobenzene	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 3,3'-Dichlorobenzidine	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 1,1-Dichloroethane	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 1,2-Dichloroethane	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 1,1-Dichloroethylene	7.44	JU	Q		1.00	µg/L	GE	EPAS260B
0 1,2-Dichloroethylene	<5.00	JU	Q		5.00	µg/L	GE	EPAS260B
0 Dichloromethane	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 2,4-Dichlorophenol	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 1,2-Dichloropropane	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 cis-1,3-Dichloropropene	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 trans-1,3-Dichloropropene	<0.0400	JU	Q		0.0400	µg/L	GE	EPAS260B
0 Diethyl phthalate	<1.00	JU	Q		1.00	µg/L	GE	EPAS260B
0 2,4-Dimethyl phenol	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 Dimethyl phthalate	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B
0 2,4-Dinitrophenol	<20.0	JU	Q		20.0	µg/L	GE	EPAS260B
0 2,4-Dinitrotoluene	<10.0	JU	Q		10.0	µg/L	GE	EPAS260B

First Quarter 1999



Well CS8 8D collected on 03/19/99 (cont.)

Result	FG	S	EMS	SQL	Unit	Lab	Method	F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
<10.0	JU	Q	10.0	10.0	µg/L	GE	EPAB270C	0	Cerium-144	-8.48E-09±1.40E-08	U		2.39E-08	µCi/mL	GP	EPAB-013	
<10.0	JU	Q	10.0	10.0	µg/L	GE	EPAB270C	0	Cerium-134	-2.28E-09±2.19E-09	U		3.58E-08	µCi/mL	GP	EPAB-013	
<0.0400	JU	Q	0.0400	0.0400	µg/L	GE	EPAB081A	0	Cesium-137	1.08E-09±1.91E-09	U		3.67E-09	µCi/mL	GP	EPAB-013	
<0.0200	JU	Q	0.0200	0.0200	µg/L	GE	EPAB081A	0	Cobalt-57	-5.11E-10±1.94E-09	U		3.22E-09	µCi/mL	GP	EPAB-013	
<0.0400	JU	Q	0.0400	0.0400	µg/L	GE	EPAB081A	0	Cobalt-60	3.34E-10±2.09E-09	U		4.10E-08	µCi/mL	GP	EPAB-013	
<0.0400	JU	Q	0.0400	0.0400	µg/L	GE	EPAB081A	0	Europium-152	1.26E-09±6.33E-09	U		1.10E-08	µCi/mL	GP	EPAB-013	
<0.0400	JU	Q	0.0400	0.0400	µg/L	GE	EPAB081A	0	Europium-154	1.16E-08±6.08E-09	R		1.31E-08	µCi/mL	GP	EPAB-013	
<0.0400	JU	Q	0.0400	0.0400	µg/L	GE	EPAB081A	0	Europium-155	5.96E-10±7.30E-09	U		1.13E-08	µCi/mL	GP	EPAB-013	
<10.0	JU	Q	10.0	10.0	µg/L	GE	EPAB260B	0	Gadolinium alpha	1.53E-09±6.15E-10	J		4.63E-10	µCi/mL	GP	EPAB-001	
<10.0	JU	Q	10.0	10.0	µg/L	GE	EPAB270C	0	Iodine-129	2.37E-10±3.45E-10	J		5.94E-10	µCi/mL	GP	EPAB-006	
<10.0	JU	Q	10.0	10.0	µg/L	GE	EPAB270C	0	Lead-212	2.21E-09±4.80E-08	U		7.08E-09	µCi/mL	GP	EPAB-013	
<0.0200	JU	Q	0.0200	0.0200	µg/L	GE	EPAB081A	0	Manganesse-54	1.11E-10±1.86E-08	U		3.38E-09	µCi/mL	GP	EPAB-013	
<0.0200	JU	Q	0.0200	0.0200	µg/L	GE	EPAB081A	0	Nonvolatile beta	3.56E-09±7.22E-10	J		1.40E-08	µCi/mL	GP	EPAB-001	
<10.0	JU	Q	10.0	10.0	µg/L	GE	EPAB081A	0	Neonium-40	2.89E-09±2.03E-08	U		3.99E-08	µCi/mL	GP	EPAB-001	
<10.0	JU	Q	10.0	10.0	µg/L	GE	EPAB270C	0	Plutonium-144	2.89E-10±2.03E-08	U		4.43E-08	µCi/mL	GP	EPAB-013	
<10.0	JU	Q	10.0	10.0	µg/L	GE	EPAB270C	0	Plutonium-146	3.99E-10±2.42E-08	U		3.01E-08	µCi/mL	GP	EPAB-013	
<10.0	JU	Q	10.0	10.0	µg/L	GE	EPAB270C	0	Rhenium-108	-9.13E-09±1.75E-08	U		7.23E-09	µCi/mL	GP	EPAB-013	
<5.00	JU	Q	5.00	5.00	µg/L	GE	EPAB260B	0	Sodium-22	4.13E-09±2.14E-09	R		2.67E-09	µCi/mL	GP	EPAB-004	
<10.0	JU	Q	10.0	10.0	µg/L	GE	EPAB270C	0	Strontium-90	-1.55E-10±3.56E-10	U		7.23E-09	µCi/mL	GP	EPAB-004	
292	JU	Q	50.0	50.0	µg/L	GE	EPAG010B	2	Technetium-99	-1.14E-09±7.11E-09	U		1.92E-08	µCi/mL	GP	EPAB-005	
<10.0	JU	Q	10.0	10.0	µg/L	GE	EPAB270C	2	Trinium	5.62E-04±1.71E-09	U		1.79E-06	µCi/mL	GP	EPAB-002	
<2.30	JU	I	5.00	5.00	µg/L	GE	EPAG010B	0	Yttrium-88	-5.74E-10±2.04E-09	U		3.70E-09	µCi/mL	GP	EPAB-013	
<0.0200	JU	Q	0.0200	0.0200	µg/L	GE	EPAB081A	0	Zinc-65	-2.70E-09±5.06E-09	U		7.04E-09	µCi/mL	GP	EPAB-013	

**WELL CSB 9D**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/19/93  
Depth to water: 58.92 ft (20.92 m) below TOC  
Water elevation: Not available  
pH: 5.6  
Sp. conductance: 43  $\mu\text{S}/\text{cm}$   
Turbidity: 1.4 NTU  
Time: 10:03  
Water temperature: 20.9°C  
Air temperature: 17.8°C  
Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): V

Turbidity: 1.4 NTU  
Water evacuated from the well prior to sampling: 28 gal

## ANALYSES

F	Analyte	Result	FG	S	I	EMS	SQL	Unit	Lab	Method
0	Aceanaphthene	<10.0	JU	L			10.0	µg/L	GE	EPA8270C
0	Acenaphthylene	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Axetone	<5.00	U				5.00	µg/L	GE	EPA8260B
0	Aldrin	<0.0200	U				0.0200	µg/L	GE	EPA8081A
1	Aluminum, total recoverable	31.0	J	I			50.0	µg/L	GE	EPA610B
0	Anthracene	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Antimony, total recoverable	<10.0	U				10.0	µg/L	GE	EPA610B
0	Arsenic, total recoverable	<5.00	U				5.00	µg/L	GE	EPA610B
0	Barium, total recoverable	12.3	U				5.00	µg/L	GE	EPA610B
0	Benzene	<1.00	U				1.00	µg/L	GE	EPA8260B
0	alpha-Benzene hexachloride	<0.0200	U				0.0200	µg/L	GE	EPA8081A
0	beta-Benzene hexachloride	<0.0200	U				0.0200	µg/L	GE	EPA8081A
0	delta-Benzene hexachloride	<0.0200	U				50.0	µg/L	GE	EPA8270C
0	Benzofuran	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Benzofluoranthrene	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Benzokiluanthene	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Benzole acid	<20.0	U				20.0	µg/L	GE	EPA8270C
0	Benzog(h,i)perylene	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Benzofluorene	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Benzyl alcohol	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Beryllium	<5.00	U				5.00	µg/L	GE	EPA610B
0	Bis(2-chloroethoxy) methane	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Bis(2-chloroethyl) ether	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Bis(2-chloroisopropyl) ether	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Bis(2-ethylhexyl) phthalate	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Bromodichloromethane	<1.00	U				1.00	µg/L	GE	EPA8260B
0	Bromotoluene	<1.00	U				1.00	µg/L	GE	EPA8260B
0	Bromomethane	<1.00	U				1.00	µg/L	GE	EPA8260B
0	n-Bromophenyl phenyl ether	<10.0	U				10.0	µg/L	GE	EPA8270C
0	Burkholderia	<5.00	U				5.00	µg/L	GE	EPA8270C
0	Cadmium, total recoverable	2.990	U				100	µg/L	GE	EPA610B
0	Calcium, total recoverable	2.990	U				100	µg/L	GE	EPA610B
0	Carbon disulfide	<5.00	U				5.00	µg/L	GE	EPA8260B
0	Carbon tetrachloride	<1.00	U				1.00	µg/L	GE	EPA8260B
0	alpha-Chloroacrolein	<0.0200	U				0.0200	µg/L	GE	EPA8081A

0	Xylenes	370	6.04E-09±7.21E-09
0	Zinc, total recoverable		1.94E-09±5.35E-09
0	Actinium-228		9.52E-08±6.48E-09
0	Antimony-125		
0	Carbon-14		



## ANALYTICAL RESULTS

Well CSB 9D collected on 03/19/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	gamma-Chlorane	<0.0200	U		0.0200		µg/L	GE	EPA8081A
0	4-Chloroaniline	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Chlorobenzene	<10.0	U		10.0		µg/L	GE	EPA8260B
0	4-Chloro-m-cresol	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Chloroethane	<10.0	U		10.0		µg/L	GE	EPA8260B
0	Chloroethene (Vinyl chloride)	<10.0	U		10.0		µg/L	GE	EPA8260B
0	Chloroform	<10.0	U		10.0		µg/L	GE	EPA8260B
0	Chloromethane	<10.0	U		10.0		µg/L	GE	EPA8260B
0	2-Chloronaphthalene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	4-Chlorophenol	<10.0	U		10.0		µg/L	GE	EPA8270C
0	4-Chlorophenyl phenyl ether	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Chromium, total recoverable	<5.00	U		5.00		µg/L	GE	EPA8270C
0	Chrysene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Cobalt, total recoverable	<5.00	U		5.00		µg/L	GE	EPA8270C
0	Copper, total recoverable	<10.0	U		10.0		µg/L	GE	EPA8270C
0	m-Cresol	<10.0	U		10.0		µg/L	GE	EPA8270C
0	o-Cresol (2-Methylphenol)	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Cyanide	<10.0	U		10.0		µg/L	GE	EPA8270C
0	p,p'-DDD	<0.0400	U		0.0400		µg/L	GE	EPA8081A
0	p,p'-DDE	<0.0400	U		0.0400		µg/L	GE	EPA8081A
0	p,p'-DDT	<0.0400	U		0.0400		µg/L	GE	EPA8081A
0	Dibenz(a,h)anthracene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Dibenzofuran	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Dibromochloromethane	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Di-n-butyl phthalate	<10.0	U		10.0		µg/L	GE	EPA8270C
0	1,2-Dichlorobenzene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	1,3-Dichlorobenzene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	1,4-Dichlorobenzene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	3,3'-Dichlorobenzidine	<20.0	U		20.0		µg/L	GE	EPA8270C
0	1,1'-Dichloroethane	<10.0	U		10.0		µg/L	GE	EPA8270C
0	1,2-Dichloroethane	<10.0	U		10.0		µg/L	GE	EPA8270C
0	1,2-Dichloroethylene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	1,2-Dichloroethyne	<10.0	U		10.0		µg/L	GE	EPA8270C
0	1,2-Dichloropropane	<10.0	U		10.0		µg/L	GE	EPA8270C
0	1,2-Dichloropropane	<10.0	U		10.0		µg/L	GE	EPA8270C
0	trans-1,3-Dichloropropene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Dieldrin	<0.0400	U		0.0400		µg/L	GE	EPA8270C
0	Diethyl phthalate	<10.0	U		10.0		µg/L	GE	EPA8270C
0	2,4-Dimethyl phenol	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Dimethyl phthalate	<10.0	U		10.0		µg/L	GE	EPA8270C
0	2,4-Dinitrophenol	<10.0	U		10.0		µg/L	GE	EPA8270C
0	2,6-Dinitrotoluene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Di-n-octyl phthalate	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Endosulfan sulfate	<0.0200	U		0.0200		µg/L	GE	EPA8270C
0	Endosulfan I	<0.0200	U		0.0200		µg/L	GE	EPA8270C
0	Endosulfan II	<0.0200	U		0.0200		µg/L	GE	EPA8270C
0	Endrin aldehyde	<0.0400	U		0.0400		µg/L	GE	EPA8270C
0	Endrin ketone	<0.0400	U		0.0400		µg/L	GE	EPA8270C
0	Ethylbenzene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Fluoranthene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Fluorene	<0.0200	U		0.0200		µg/L	GE	EPA8270C
0	Heptachlor epoxide	<0.0200	U		0.0200		µg/L	GE	EPA8270C
0	Heptachlorobenzene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Hexachlorobutadiene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Hexachlorocyclopentadiene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Hexachloroethane	<10.0	U		10.0		µg/L	GE	EPA8270C
0	2-Hexanone	<5.00	U		5.00		µg/L	GE	EPA8270C
0	Indeno(1,2,3-c-d)pyrene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Iron, total recoverable	<50.0	U		50.0		µg/L	GE	EPA8270C
0	Isophorone	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Lead, total recoverable	<5.00	U		5.00		µg/L	GE	EPA8270C
0	Lindane	<0.0200	U		0.0200		µg/L	GE	EPA8270C
0	Magnesium, total recoverable	<35.0	U		35.0		µg/L	GE	EPA8270C
0	Manganese, total recoverable	<2.5	U		2.5		µg/L	GE	EPA8270C
0	Methyl acetate	<0.0400	U		0.0400		µg/L	GE	EPA8270C
0	2-Methyl-4,6-dinitrophenol	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Methyl ethyl ketone	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Methyl isobutyl ketone	<10.0	U		10.0		µg/L	GE	EPA8270C
0	2-Methylnaphthalene	<10.0	U		10.0		µg/L	GE	EPA8270C

ESH-EMS-990520

B-96

First Quarter 1999

Well CSB 9D collected on 03/19/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Naphthalene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Nickel, total recoverable	2.33	U		5.00		µg/L	GE	EPA8010B
0	m-Nitroaniline	<10.0	U		10.0		µg/L	GE	EPA8270C
0	p-Nitroaniline	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Nitrobenzene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	2-Nitrophenol	<10.0	U		10.0		µg/L	GE	EPA8270C
0	4-Nitrophenol	<10.0	U		10.0		µg/L	GE	EPA8270C
0	N-Nitrosodiphenylamine	<10.0	U		10.0		µg/L	GE	EPA8270C
0	N-Nitrosodipropylamine	<10.0	U		10.0		µg/L	GE	EPA8270C
0	PCB 116	<0.100	U		0.100		µg/L	GE	EPA8082
0	PCB 121	<0.100	U		0.100		µg/L	GE	EPA8082
0	PCB 122	<0.100	U		0.100		µg/L	GE	EPA8082
0	PCB 124	<0.100	U		0.100		µg/L	GE	EPA8082
0	PCB 126	<0.100	U		0.100		µg/L	GE	EPA8082
0	Pentachlorophenol	<20.0	U		20.0		µg/L	GE	EPA8270C
0	Phenanthrene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Phenol	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Potassium, total recoverable	246	U		100		µg/L	GE	EPA8010B
0	Pyrene	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Selenium, total recoverable	<5.00	U		5.00		µg/L	GE	EPA8010B
0	Silver, total recoverable	<5.00	U		5.00		µg/L	GE	EPA8010B
0	Sodium, total recoverable	5.080	U		100		µg/L	GE	EPA8010B
0	Styrene	<10.0	U		10.0		µg/L	GE	EPA8260B
0	1,1,2,2-Tetrachloroethane	<10.0	U		10.0		µg/L	GE	EPA8260B
0	Tetrachloroethylene	<10.0	U		10.0		µg/L	GE	EPA8260B
0	Thallium, total recoverable	<5.00	U		5.00		µg/L	GE	EPA8010B
0	Toluene	<10.0	U		10.0		µg/L	GE	EPA8260B
0	Total organic halogens	483	U		100		µg/L	GE	EPA8260B
0	Trichlorobenzene	<10.0	U		10.0		µg/L	GE	EPA8081A
0	1,1,1-Trichloroethane	<10.0	U		10.0		µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	2.04	U		10.0		µg/L	GE	EPA8260B
0	Trichloroethylene	<10.0	U		10.0		µg/L	GE	EPA8260B
0	2,4,5-Trichlorophenol	<10.0	U		10.0		µg/L	GE	EPA8270C
0	2,4,6-Trichlorophenol	<10.0	U		10.0		µg/L	GE	EPA8270C
0	Vanadium, total recoverable	<5.00	U		5.00		µg/L	GE	EPA8010B
0	Vinyl acetate	<2.00	U		2.00		µg/L	GE	EPA8260B
0	Xylenes	261	U		5.00		µg/L	GE	EPA8010B
0	Zinc, total recoverable	2,31E-09±0.62E-09	U		5.00		µg/L	GE	EPA8010B
0	Actinium-228	1.35E-09±0.53E-09	U		5.00		µg/L	GE	EPA8010B
0	Antimony-125	7.21E-09	U		5.00		µg/L	GE	EPA8010B
0	Barium-14	2.69E-09±0.06E-09	U		5.00		µg/L	GE	EPA8010B
0	Carbon-14	2.24E-09	U		5.00		µg/L	GE	EPA8010B
0	Cesium-134	1.55E-09±1.90E-09	U		5.00		µg/L	GE	EPA8010B
0	Cobalt-57	3.55E-10±1.11E-09	U		5.00		µg/L	GE	EPA8010B
0	Cobalt-60	3.80E-10±1.02E-09	U		5.00		µg/L	GE	EPA8010B
0	Europium-152	3.86E-09±0.02E-09	U		5.00		µg/L	GE	EPA8010B
0	Europium-154	2.25E-10±5.36E-09	U		5.00		µg/L	GE	EPA8010B
0	Gross alpha	1.52E-10±7.00E-09	U		5.00		µg/L	GE	EPA8010B
0	Iodine-129	4.78E-10±4.53E-10	U		5.00		µg/L	GE	EPA8010B
0	Lead-212	5.97E-10±6.82E-10	U		5.00		µg/L	GE	EPA8010B
0	Manganese-54	5.33E-09±5.54E-09	U		5.00		µg/L	GE	EPA8010B
0	Nonvolatile beta	3.15E-10±1.97E-09	U		5.00		µg/L	GE	EPA8010B
0	Potassium-40	2.54E-10±6.09E-10	U		5.00		µg/L	GE	EPA8010B
0	Promethium-144	1.27E-08±2.49E-08	U		5.00		µg/L	GE	EPA8010B
0	Promethium-146	1.68E-09±1.95E-09	U		5.00		µg/L	GE	EPA8010B
0	Ruthenium-106	9.39E-10±2.78E-09	U		5.00		µg/L	GE	EPA8010B
0	Selenium-75	1.22E-09±1.51E-09	U		5.00		µg/L	GE	EPA8010B
0	Sodium-22	3.65E-11±1.91E-09	U		5.00		µg/L	GE	EPA8010B
0	Strontium-90	3.65E-10±3.84E-09	U		5.00		µg/L	GE	EPA8010B
0	Technetium-99	6.84E-09±9.95E-09	U		5.00		µg/L	GE	EPA8010B
0	Thallium-208	6.71E-10±2.35E-09	U		5.00		µg/L	GE	EPA8010B
0	Yttrium-88	5.61E-09±5.14E-09	U		5.00		µg/L	GE	EPA8010B
0	Zinc-65	5.61E-09±5.14E-09	U		5.00		µg/L	GE	EPA8010B



## WELL CSD 8D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/03/99  
 Depth to water: 58.9 ft (17.95 m) below TOC  
 Water elevation: 245 ft (74.68 m) msl  
 pH: 4.6  
 Sp. conductance: 29 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 85 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	54.9	J	I	146	µg/L	WA	EP46010B	
0	Arsenic, total recoverable	<40.0	U		40.0	µg/L	WA	EP46010B	
0	Carbon tetrachloride	<1.00	U		1.00	µg/L	WA	EP48021B	
0	Chloroform	<1.00	U		1.00	µg/L	WA	EP48021B	
0	cis-1,2-Dichloroethylene	<5.00	U		5.00	µg/L	WA	EP48026B	
0	Iron, total recoverable	46.9	J	I	74.0	µg/L	WA	EP46010B	
0	Selenium, total recoverable	<66.0	J	I	66.0	µg/L	WA	EP46010B	
0	Tetrachloroethylene	<250	R	L	500	µg/L	WA	EP48026B	
1	Trichloroethylene	74.7	J	I	250	µg/L	WA	EP48026B	
1	Total organic halogens	<1.00	J	I	120	µg/L	WA	EP48026B	
0	1,1,1-Trichloroethane	<1.00	U		1.00	µg/L	WA	EP48021B	
0	Trichloroethylene	<3.65	U		1.00	µg/L	WA	EP48021B	

## WELL CSR 2D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/03/99  
 Depth to water: 42.26 ft (12.88 m) below TOC  
 Water elevation: Not available  
 pH: 6.4  
 Sp. conductance: 49 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 47 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	170			146		µg/L	WA	EP46010B
0	Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EP46010B
0	Barium, total recoverable	36.4			1.80		µg/L	WA	EP46010B
0	Boron, total recoverable	<266	U		266		µg/L	WA	EP46010B
0	Cadmium, total recoverable	<4.7	U		4.7		µg/L	WA	EP46010B
0	Calcium, total recoverable	3,420			210		µg/L	WA	EP46010B
0	Chloride	3,160			210		µg/L	WA	EP46010B
0	Chromium, total recoverable	<0.800	JU		7.00		µg/L	WA	EP46010B
0	Fluoride	<52.9	U		40.0		µg/L	WA	EP46010B
0	Iron, total recoverable	38.6	U	Y	40.0		µg/L	WA	EP46010B
0	Lead, total recoverable	<47.0	U	I	47.0		µg/L	WA	EP46010B
0	Lithium, total recoverable	<1.50	U		2.70		µg/L	WA	EP46010B
0	Magnesium, total recoverable	288	U		7.80		µg/L	WA	EP46010B
0	Mercury, total recoverable	<0.450	U		0.450		µg/L	WA	EP46010B
0	Nitrate-nitrite as nitrogen	1,140	J	I	100		µg/L	WA	EP47470A
0	Potassium, total recoverable	1,180			100		µg/L	WA	EP46010B
0	Selenium, total recoverable	<66.0	U		66.0		µg/L	WA	EP46010B
0	Silica, total recoverable	14,300			1,350		µg/L	WA	EP46010B
0	Silver, total recoverable	<5.00	U		5.00		µg/L	WA	EP46010B
0	Sodium, total recoverable	3,010			285		µg/L	WA	EP46010B
0	Sulfate	678			340		µg/L	WA	EP46010B
0	Total dissolved solids	10,000	J	I	50,000		µg/L	WA	EP46010B
0	Total organic carbon	699	J	I	1,000		µg/L	WA	EP46010B
0	Total organic halogens	<120	J		120		µg/L	WA	EP46010B
0	Total phosphates (as P)	7.00E-10	J	I	67.0		µg/L	WA	EP46010B
0	Gross alpha	7.00E-10	U		8.70E-10		µCi/mL	TM	EP4900.0M
0	Gross beta	5.00E-10	U		8.60E-10		µCi/mL	TM	EP4900.0M
0	Nonvolatile beta	1.32E-09	U		1.70E-09		µCi/mL	TM	EP4900.0M
0	Nonvolatile beta	3.24E-06	U		5.80E-07		µCi/mL	TM	EP4906.0M
0	Tritium	3.06E-06			5.90E-07		µCi/mL	TM	EP4906.0M

ESH-EMS-990520

B-97

First Quarter 1999

## WELL CSR 5D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/03/99  
 Depth to water: 16 ft (4.88 m) below TOC  
 Water elevation: Not available  
 pH: 4.4  
 Sp. conductance: 310 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 19 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	668	J	I	146	µg/L	WA	EP46010B	
0	Arsenic, total recoverable	8.90			40.0	µg/L	WA	EP46010B	
0	Barium, total recoverable	21.7			1.80	µg/L	WA	EP46010B	
0	Boron, total recoverable	62.8	J	I	266	µg/L	WA	EP46010B	
0	Cadmium, total recoverable	<4.70	U		4.70	µg/L	WA	EP46010B	
0	Calcium, total recoverable	33,300			470	µg/L	WA	EP46010B	
0	Chloride	8,720			210	µg/L	WA	EP46010B	
0	Chromium, total recoverable	2.80	J	I	7.00	µg/L	WA	EP46010B	
0	Fluoride	178			40.0	µg/L	WA	EP46010B	
1	Iron, total recoverable	195			74.0	µg/L	WA	EP46010B	
1	Lead, total recoverable	<32.6	J	I	47.0	µg/L	WA	EP46010B	
0	Lithium, total recoverable	<1.50	U	V	2.70	µg/L	WA	EP46010B	
0	Magnesium, total recoverable	8,060			74.0	µg/L	WA	EP46010B	
2	Manganese, total recoverable	178			7.80	µg/L	WA	EP46010B	
0	Mercury, total recoverable	<0.450	U		0.450	µg/L	WA	EP46010B	
0	Nitrate-nitrite as nitrogen	139			20.0	µg/L	WA	EP47470A	EP4353.2
0	Potassium, total recoverable	3,040	U		187	µg/L	WA	EP46010B	
0	Selenium, total recoverable	<66.0	U		66.0	µg/L	WA	EP46010B	
0	Silica, total recoverable	15,100	U		1,350	µg/L	WA	EP46010B	
0	Silver, total recoverable	<5.00	U		5.00	µg/L	WA	EP46010B	
0	Sodium, total recoverable	136,000	J	I	210	µg/L	WA	EP46010B	
0	Sulfate	193,000			50,000	µg/L	WA	EP46010B	
0	Total dissolved solids	2,380	J	I	1,000	µg/L	WA	EP46010B	
0	Total organic carbon	40.3	J	I	120	µg/L	WA	EP46010B	
0	Total organic halogens	24.1	J	I	67.0	µg/L	WA	EP46010B	
0	Total phosphates (as P)	8.39E-09±2.18E-09			1.79E-09	µCi/mL	WA	EP4353.2	
1	Gross alpha	6.29E-09±1.55E-09			2.17E-09	µCi/mL	TM	EP4900.0M	
0	Nonvolatile beta	2.83E-06±5.20E-07			2.17E-07	µCi/mL	TM	EP4900.0M	
0	Tritium				6,20E-07	µCi/mL	TM	EP4906.0M	

## WELL CSR 6D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/23/99  
 Depth to water: 24.05 ft (7.33 m) below TOC  
 Water elevation: Not available  
 pH: 4.8  
 Sp. conductance: 22 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 30 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	<146	U		146		µg/L	WA	EP46010B
0	Aluminum, total recoverable	<146	U		146		µg/L	WA	EP46010B
0	Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EP46010B
0	Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EP46010B
0	Barium, total recoverable	28.6			1.80		µg/L	WA	EP46010B
0	Barium, total recoverable	29.1			1.80		µg/L	WA	EP46010B
0	Boron, total recoverable	<266	U		266		µg/L	WA	EP46010B
0	Boron, total recoverable	<266	U		266		µg/L	WA	EP46010B
0	Cadmium, total recoverable	<4.70	U		4.70		µg/L	WA	EP46010B
0	Cadmium, total recoverable	<4.70	U		4.70		µg/L	WA	EP46010B
0	Calcium, total recoverable	323	J	I	471		µg/L	WA	EP46010B
0	Calcium, total recoverable	327	J	I	471		µg/L	WA	EP46010B
0	Chloride	3,080			210		µg/L	WA	EP46010B
0	Chromium, total recoverable	<7.00	U		7.00		µg/L	WA	EP46010B
0	Chromium, total recoverable	1.70	J	I	7.00		µg/L	WA	EP46010B
0	Fluoride	<32.7	U	V	40.0		µg/L	WA	EP4340.2



## ANALYTICAL RESULTS

Well CSR 6D collected on 03/23/99 (cont.)

## WELL DBP 3

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 618 ft (1.88 m) below TOC  
 Water elevation: 122.12 ft (37.22 m) msl  
 pH: 4.3  
 Conductance: 63 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 78 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQ	Unit	Lab	Method
2	Aluminum, total recoverable	50.3	J	I	146		µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EPA6010B
0	Barium, total recoverable	20.8	U		1.80		µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U		4.70		µg/L	WA	EPA6010B
0	Calcium, total recoverable	897	U		471		µg/L	WA	EPA6010B
0	Carbon tetrachloride	<1.00	U		1.00		µg/L	WA	EPA6021B
0	Chloroform	<1.00	U		1.00		µg/L	WA	EPA6021B
0	cis-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPA6021B
0	Lead, total recoverable	<17.4	U		17.4		µg/L	WA	EPA6010B
0	Magnesium, total recoverable	282	U		74.0		µg/L	WA	EPA6010B
0	Mercury, total recoverable	19.3	U		7.80		µg/L	WA	EPA6010B
0	Nitrate-nitrite as nitrogen	<0.450	U		0.450		µg/L	WA	EPA353.2
0	Potassium, total recoverable	383	U		20.0		µg/L	WA	EPA6010B
0	Selenium, total recoverable	<66.0	U		66.0		µg/L	WA	EPA6010B
0	Silver, total recoverable	9.480	U		5.00		µg/L	WA	EPA6010B
0	Sodium, total recoverable	<5.00	U		285		µg/L	WA	EPA6010B
0	Tetrachloroethylene	<120	U		5.00		µg/L	WA	EPA6020B
0	Total organic halogens	<1.00	U		120		µg/L	WA	EPA6020B
0	1,1,1-Trichloroethane	<1.00	U		1.00		µg/L	WA	EPA6021B
0	Trichloroethylene	<1.00	U		1.00		µg/L	WA	EPA6021B

Time: 10:33  
 Water temperature: 14°C  
 Air temperature: 12.8°C  
 Total alkalinity (as CaCO<sub>3</sub>): 2 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

## WELL DBP 2

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 9.36 ft (2.86 m) below TOC  
 Water elevation: 116.92 ft (35.64 m) msl  
 pH: 4.3  
 Conductance: 160 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 89 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQ	Unit	Lab	Method
2	Aluminum, total recoverable	942	U		146		µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<4.70	U		1.80		µg/L	WA	EPA6010B
0	Barium, total recoverable	4.650	U		4.70		µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<1.00	U		1.00		µg/L	WA	EPA6010B
0	Carbon tetrachloride	<1.00	U		1.00		µg/L	WA	EPA6021B
0	Chloroform	<1.00	U		1.00		µg/L	WA	EPA6021B
0	cis-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPA6021B
0	Lead, total recoverable	456	U		74.0		µg/L	WA	EPA6010B
0	Magnesium, total recoverable	11.4	U		74.0		µg/L	WA	EPA6010B
0	Mercury, total recoverable	0.443	U		0.450		µg/L	WA	EPA353.2
0	Potassium, total recoverable	1.260	U		187		µg/L	WA	EPA6010B
0	Selenium, total recoverable	<66.0	U		66.0		µg/L	WA	EPA6010B
0	Silver, total recoverable	9.520	U		5.00		µg/L	WA	EPA6010B
0	Sodium, total recoverable	37.300	U		285		µg/L	WA	EPA6010B
0	Tetrachloroethylene	<5.00	U		3.400		µg/L	WA	EPA6021B
0	1,1,1-Trichloroethane	<1.00	U		5.00		µg/L	WA	EPA6021B
0	Trichloroethylene	<1.00	U		1.00		µg/L	WA	EPA6021B

Time: 12:34  
 Water temperature: 19°C  
 Air temperature: 13.3°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

## WELL DBP 5

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 17.6 ft (5.36 m) below TOC  
 Water elevation: 117 ft (35.66 m) msl  
 pH: 4.3  
 Conductance: 49 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 22 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQ	Unit	Lab	Method
1	Aluminum, total recoverable	44.8	J	I	146		µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EPA6010B
0	Barium, total recoverable	18.8	U		1.80		µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U		4.70		µg/L	WA	EPA6010B
0	Calcium, total recoverable	532	U		471		µg/L	WA	EPA6010B
0	Carbon tetrachloride	<1.00	U		1.00		µg/L	WA	EPA6021B
0	Chloroform	6.060	U		210		µg/L	WA	EPA6021B
0	cis-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	WA	EPA6021B
0	Fluoride	<30.2	U		40.0		µg/L	WA	EPA6021B
0	Iron, total recoverable	<47.0	U		47.0		µg/L	WA	EPA6010B
0	Lead, total recoverable	0.470	U		2.70		µg/L	WA	EPA6010B
0	Magnesium, total recoverable	1.000	U		74.0		µg/L	WA	EPA6010B
0	Mercury, total recoverable	<0.450	U		0.450		µg/L	WA	EPA353.2
0	Nitrate-nitrite as nitrogen	2.180	U		187		µg/L	WA	EPA6010B
0	Potassium, total recoverable	463	U		66.0		µg/L	WA	EPA6010B
0	Selenium, total recoverable	<66.0	U		66.0		µg/L	WA	EPA6010B
0	Silver, total recoverable	7.920	U		5.00		µg/L	WA	EPA6010B
0	Sodium, total recoverable	4.410	U		285		µg/L	WA	EPA6010B
0	Tetrachloroethylene	<5.00	U		5.00		µg/L	WA	EPA6020B
0	Total dissolved solids	35.000	J	IQ	50,000		µg/L	WA	EPA160.1
0	Total organic halogens	<120	U		120		µg/L	WA	EPA6020B

Time: 11:03  
 Water temperature: 18.8°C  
 Air temperature: 13.7°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): V

ESH-EMS-990520

B-98

First Quarter 1999



## ANALYTICAL RESULTS

Well DBP 5 collected on 03/12/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Total phosphates (as P)	16.4	J	I		67.0	µg/L	WA	EPA365.2
0 1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	WA	EPA8021B
0 Trichloroethylene	1.81E-09±0.60E-10	U			1.00	µg/L	WA	EPA8021B
0 Nonvolatile beta	9.40E-10±0.40E-10	U			1.50E-09	µCi/mL	TM	EPA900.0M
0 Gross alpha					1.58E-09	µCi/mL	TM	EPA900.0M

## WELL DCB 4A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/06/99  
 Depth to water: 11.65 ft (3.55 m) below TOC  
 Water elevation: 117.85 ft (35.92 m) msl  
 pH: 3.6  
 Sp. conductance: 920 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 93 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	72.700				146	µg/L	WA	EPA6010B
2 Arsenic, total recoverable	70.900				146	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	<40.0	J	I		40.0	µg/L	WA	EPA6010B
0 Carbon tetrachloride	4.50	J	I		4.70	µg/L	WA	EPA6010B
0 Chloroform	4.20	J	I		4.70	µg/L	WA	EPA6010B
0 cis-1,2-Dichloroethylene	<1.00	U			1.00	µg/L	WA	EPA6010B
0 Fluoride	<5.00	U			5.00	µg/L	WA	EPA340.2
2 Iron, total recoverable	1.140				40.0	µg/L	WA	EPA6010B
2 Lead, total recoverable	1.910				74.0	µg/L	WA	EPA6010B
0 Manganese, total recoverable	1.850				47.0	µg/L	WA	EPA6010B
2 Selenium, total recoverable	3.020				7.80	µg/L	WA	EPA6010B
0 Sulfate, total recoverable	6.950				66.0	µg/L	WA	EPA6010B
2 Sulfide, total recoverable	<66.0	U			66.0	µg/L	WA	EPA6010B
0 Tetrachloroethylene	788.000				34.000	µg/L	WA	EPA9056
0 Trichloroethylene	<5.00	U			5.00	µg/L	WA	EPA8010
0 1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	WA	EPA8010
0 Gross alpha	1.82E-08±3.57E-09	U			3.44E-09	µCi/mL	TM	EPA900.0M
0 Gross alpha	1.68E-08±3.34E-09				3.24E-09	µCi/mL	TM	EPA900.0M

## WELL DCB 5A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/06/99  
 Depth to water: 5.4 ft (1.65 m) below TOC  
 Water elevation: 117.5 ft (35.81 m) msl  
 pH: 3.6  
 Sp. conductance: 720 µS/cm  
 Turbidity: 7 NTU  
 Water evacuated from the well prior to sampling: 74 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	41.800				146	µg/L	WA	EPA6010B
0 Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	3.60	J	I		4.70	µg/L	WA	EPA6010B
0 Carbon tetrachloride	<1.00	U			1.00	µg/L	WA	EPA8010
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8010
0 cis-1,2-Dichloroethylene	166				74.0	µg/L	WA	EPA6010B
0 Iron, total recoverable	5.10	J	I		47.0	µg/L	WA	EPA6010B
0 Lead, total recoverable	3.750				7.80	µg/L	WA	EPA6010B
0 Manganese, total recoverable	<66.0	U			66.0	µg/L	WA	EPA6010B

ESH-EMS-990520

B-99

First Quarter 1999

Well DCB 5A collected on 01/06/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Sulfate	446.000				34.000	µg/L	WA	EPA9056
0 Tetrachloroethylene	<5.00	U			5.00	µg/L	WA	EPA8021B
0 1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	WA	EPA8010
2 Trichloroethylene	24.7	J	K	I	1.00	µg/L	WA	EPA8010
0 Gross alpha	2.44E-09±1.68E-09	U			2.59E-09	µCi/mL	TM	EPA900.0M

## WELL DCB 8

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/06/99  
 Depth to water: 12.2 ft (3.72 m) below TOC  
 Water elevation: 124.6 ft (37.98 m) msl  
 pH: 4.6  
 Sp. conductance: 32 µS/cm  
 Turbidity: 3 NTU  
 Water evacuated from the well prior to sampling: 46 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	58.3				146	µg/L	WA	EPA6010B
0 Arsenic, total recoverable	<40.0	J	I		40.0	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	<1.00	U			1.00	µg/L	WA	EPA8010
0 Carbon tetrachloride	<1.00	U			1.00	µg/L	WA	EPA8010
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8010
0 cis-1,2-Dichloroethylene	1.210	U			74.0	µg/L	WA	EPA6010B
2 Iron, total recoverable	<66.0	U			66.0	µg/L	WA	EPA6010B
0 Seleniun, total recoverable	<5.00	U			5.00	µg/L	WA	EPA8021B
0 Tetrachloroethylene	<1.00	U			1.00	µg/L	WA	EPA8010
0 1,1,1-Trichloroethane	1.44	J	K	I	1.00	µg/L	WA	EPA8010

## WELL DCB 12

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
 Depth to water: 7.9 ft (2.41 m) below TOC  
 Water elevation: 109 ft (33.22 m) msl  
 pH: 3.6  
 Sp. conductance: 180 µS/cm  
 Turbidity: 3 NTU  
 Water evacuated from the well prior to sampling: 29 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	804				146	µg/L	WA	EPA6010B
0 Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPA6010B
0 Cadmium, total recoverable	<1.00	U			1.00	µg/L	WA	EPA8021B
0 Carbon tetrachloride	<1.00	U			1.00	µg/L	WA	EPA8021B
0 Chloroform	<5.00	U			5.00	µg/L	WA	EPA8021B
0 cis-1,2-Dichloroethylene	1.150	U			74.0	µg/L	WA	EPA6010B
2 Iron, total recoverable	<47.0	U			47.0	µg/L	WA	EPA6010B
0 Lead, total recoverable	127				86.0	µg/L	WA	EPA6010B
0 Manganese, total recoverable	<66.0	U			66.0	µg/L	WA	EPA8021B
0 Seleniun, total recoverable	<5.00	U			5.00	µg/L	WA	EPA8021B
0 Tetrachloroethylene	<1.00	U			1.00	µg/L	WA	EPA8021B
0 1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	WA	EPA8021B
2 Trichloroethylene	4.87E-05±1.65E-06				5.90E-07	µCi/mL	TM	EPA906.0M
2 Tritium	5.38E-05±1.79E-06				6.30E-07	µCi/mL	TM	EPA906.0M



## ANALYTICAL RESULTS

## WELL DCB 13

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/25/99  
Depth to water: 9.81 ft (2.99 m) below TOC  
Water elevation: 119.99 ft (36.57 m) msl  
pH: 5.8  
Sp. conductance: 640 µS/cm  
Turbidity: 14 NTU  
Water evacuated from the well prior to sampling: 4 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1	Aluminum, total recoverable	25.0	J	I	146	µg/L	µg/L	WA	EPA6010B
1	Arsenic, total recoverable	33.3	J	I	40.0	µg/L	µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U	U	4.70	µg/L	µg/L	WA	EPA6010B
0	Carbon tetrachloride	10,700	U	U	420	µg/L	µg/L	WA	EPA9058
0	Chloride	<1.00	U	U	1.00	µg/L	µg/L	WA	EPA6021B
0	cis-1,2-Dichloroethylene	4.880	U	U	5.00	µg/L	µg/L	WA	EPA6021B
2	Iron, total recoverable	<47.0	U	U	74.0	µg/L	µg/L	WA	EPA6010B
2	Lithium, total recoverable	351	U	U	47.0	µg/L	µg/L	WA	EPA6010B
0	Manganese, total recoverable	314	U	U	7.80	µg/L	µg/L	WA	EPA6010B
0	Selenium, total recoverable	<60.000	U	U	68.0	µg/L	µg/L	WA	EPA6010B
0	Sulfate	205,000	U	U	17,000	µg/L	µg/L	WA	EPA9058
0	Tetrachloroethylene	<5.00	U	U	5.00	µg/L	µg/L	WA	EPA9058
0	Total organic halogens	28.0	J	I	240	µg/L	µg/L	WA	EPA9020B
0	Total phosphates (as P)	35.7	J	I	67.0	µg/L	µg/L	WA	EPA385.2
0	1,1,1-Trichloroethane	<1.00	U	U	1.00	µg/L	µg/L	WA	EPA6021B
0	Trichloroethylene	1.95E-08±2.29E-09	U	U	1.00	µg/L	µg/L	WA	EPA6021B
0	Nonvolatile beta	2.11E-08±2.35E-09	U	U	3.00E-10	µCi/mL	µCi/mL	TM	EPA900.0M

## WELL DCB 16R

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/12/99  
Depth to water: 20.1 ft (6.13 m) below TOC  
Water elevation: Not available  
pH: 4  
Sp. conductance: 1,100 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 27 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	7,140	JU	I	146	µg/L	µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<5.80	U	U	40.0	µg/L	µg/L	WA	EPA6010B
0	Barium, total recoverable	33.9	U	U	1.80	µg/L	µg/L	WA	EPA6010B
0	Boron, total recoverable	654	U	U	266	µg/L	µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U	U	4.70	µg/L	µg/L	WA	EPA6010B
0	Calcium, total recoverable	113,000	U	U	471	µg/L	µg/L	WA	EPA6010B
0	Chloride	6,100	U	U	210	µg/L	µg/L	WA	EPA9058
0	Chromium, total recoverable	<7.00	U	U	7.00	µg/L	µg/L	WA	EPA6010B
1	Fluoride	3,480	U	U	40.0	µg/L	µg/L	WA	EPA340.2
2	Iron, total recoverable	12,800	U	U	74.0	µg/L	µg/L	WA	EPA6010B
0	Lithium, total recoverable	<47.0	U	U	47.0	µg/L	µg/L	WA	EPA6010B
0	Magnesium, total recoverable	15.5	U	U	2.70	µg/L	µg/L	WA	EPA6010B
2	Manganese, total recoverable	19,100	U	U	74.0	µg/L	µg/L	WA	EPA6010B
0	Mercury, total recoverable	0.277	U	U	0.450	µg/L	µg/L	WA	EPA6010B
0	Nitrate-nitrite as nitrogen	<0.450	U	U	0.450	µg/L	µg/L	WA	EPA1710A
0	Potassium, total recoverable	185	U	U	187	µg/L	µg/L	WA	EPA385.2
0	Selenium, total recoverable	<60.0	U	U	68.0	µg/L	µg/L	WA	EPA6010B
0	Sulfate	16,000	U	U	1,370	µg/L	µg/L	WA	EPA6010B
0	Sodium, total recoverable	<5.00	U	U	5.00	µg/L	µg/L	WA	EPA6010B
2	Sulfate	11,300	U	U	285	µg/L	µg/L	WA	EPA9058

ESH-EMS-990520

B-100

First Quarter 1999

Well DCB 16R collected on 03/12/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Total dissolved solids	936,000	J	Q	50,000	µg/L	µg/L	WA	EPA160.1
1	Total organic carbon	2,230	J	I	1,000	µg/L	µg/L	WA	EPA9060
1	Total organic halogens	99.8	J	I	120	µg/L	µg/L	WA	EPA9020B
0	Total phosphates (as P)	41.8	J	I	67.0	µg/L	µg/L	WA	EPA385.2
1	Gross alpha	9.82E-09±2.44E-09	J	I	4.30E-10	µCi/mL	µCi/mL	TM	EPA900.0M
1	Gross alpha	1.03E-08±2.70E-09	J	I	2.10E-09	µCi/mL	µCi/mL	TM	EPA900.0M
1	Nonvolatile beta	1.27E-08±2.54E-09	J	I	3.82E-09	µCi/mL	µCi/mL	TM	EPA900.0M
2	Nonvolatile beta	2.78E-05±1.24E-06	J	I	5.60E-07	µCi/mL	µCi/mL	TM	EPA906.0M
2	Tritium	2.74E-05±1.24E-06	J	I	5.60E-07	µCi/mL	µCi/mL	TM	EPA906.0M

## WELL FCB 2

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/26/99  
Depth to water: 95.08 ft (28.98 m) below TOC  
Water elevation: 212.22 ft (64.69 m) msl  
pH: 4.1  
Sp. conductance: 23 µS/cm  
Turbidity: 4 NTU  
Water evacuated from the well prior to sampling: 29 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	126	J	I	146	µg/L	µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U	U	40.0	µg/L	µg/L	WA	EPA6010B
0	Carbon tetrachloride	<1.00	U	U	1.00	µg/L	µg/L	WA	EPA6010B
0	Chloroform	<1.00	U	U	1.00	µg/L	µg/L	WA	EPA6010B
0	cis-1,2-Dichloroethylene	<5.00	U	U	5.00	µg/L	µg/L	WA	EPA6010B
2	Iron, total recoverable	3,490	J	I	74.0	µg/L	µg/L	WA	EPA6010B
1	Lead, total recoverable	33.6	J	I	47.0	µg/L	µg/L	WA	EPA6010B
0	Selenium, total recoverable	<66.0	U	U	66.0	µg/L	µg/L	WA	EPA6010B
0	Tetrachloroethylene	<5.00	U	U	5.00	µg/L	µg/L	WA	EPA6010B
0	Total organic halogens	<120	U	U	120	µg/L	µg/L	WA	EPA9020B
0	1,1,1-Trichloroethane	<1.00	U	U	1.00	µg/L	µg/L	WA	EPA6010B
0	Trichloroethylene	<1.00	U	U	1.00	µg/L	µg/L	WA	EPA6010B

## WELL FCB 5

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/26/99  
Depth to water: 74.6 ft (22.74 m) below TOC  
Water elevation: Not available  
pH: 4.3  
Sp. conductance: 29 µS/cm  
Turbidity: 2.8 NTU  
Water evacuated from the well prior to sampling: 9 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	60.4	J	I	146	µg/L	µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U	U	40.0	µg/L	µg/L	WA	EPA6010B
2	Iron, total recoverable	552	U	U	74.0	µg/L	µg/L	WA	EPA6010B
0	Selenium, total recoverable	<66.0	U	U	66.0	µg/L	µg/L	WA	EPA6010B



## WELL FET 1D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/29/99  
 Depth to water: 45.93 ft (14 m) below TOC  
 Water elevation: 224.07 ft (68.3 m) msl  
 pH: 4.8  
 Sp. conductance: Not available  
 Phenolphthalein alkalinity: Not available  
 Turbidity: Not available  
 Water evacuated from the well prior to sampling: 9 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	500			146		µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U		4.70		µg/L	WA	EPA6010B
2	Iron, total recoverable	666			74.0		µg/L	WA	EPA6010B
0	Lead, total recoverable	<12.2	J	I	47.0		µg/L	WA	EPA6010B
0	Manganese, total recoverable	<49.0	U		80.0		µg/L	WA	EPA6010B
0	Selenium, total recoverable	<47.0	U		66.0		µg/L	WA	EPA6010B
0	Total organic halogens	<120	U		120		µg/L	WA	EPA6020B
0	Total organic halogens	<120	U		120		µg/L	WA	EPA6020B

## WELL FET 2D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/29/99  
 Depth to water: 46.93 ft (14.3 m) below TOC  
 Water elevation: 223.07 ft (67.99 m) msl  
 pH: 4.5  
 Sp. conductance: 48 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 30 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	55.1	J	I	146		µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U		4.70		µg/L	WA	EPA6010B
0	Iron, total recoverable	<17.0	J	I	74.0		µg/L	WA	EPA6010B
0	Lead, total recoverable	<47.0	U		47.0		µg/L	WA	EPA6010B
0	Selenium, total recoverable	<46.0	U		66.0		µg/L	WA	EPA6010B
0	Total organic halogens	<120	U		120		µg/L	WA	EPA6020B

## WELL FET 4D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/29/99  
 Depth to water: 63.6 ft (19.39 m) below TOC  
 Water elevation: 223.3 ft (68.06 m) msl  
 pH: 4.8  
 Sp. conductance: 68 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 40 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1	Aluminum, total recoverable	34.4	J	I	146		µg/L	WA	EPA6010B
0	Arsenic, total recoverable	<40.0	U		40.0		µg/L	WA	EPA6010B
0	Cadmium, total recoverable	<4.70	U		4.70		µg/L	WA	EPA6010B
0	Iron, total recoverable	<11.6	J	I	74.0		µg/L	WA	EPA6010B
0	Lead, total recoverable	<47.0	U		47.0		µg/L	WA	EPA6010B
0	Selenium, total recoverable	<46.0	U		66.0		µg/L	WA	EPA6010B
0	Total organic halogens	<120	U		120		µg/L	WA	EPA6020B

ESH-EMS-990520

B-101

## WELL FIN 2TK

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: Not available  
 Water elevation: Not available  
 pH: 3.3  
 Sp. conductance: 1,500 µS/cm  
 Turbidity: 1 NTU  
 The well was continuously pumping.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	483			15.0		µg/L	GE	EPA6020
0	Arsenic, total recoverable	<0.200	U		0.200		µg/L	GE	EPA6020
0	Barium, total recoverable	14.8	U		3.00		µg/L	GE	EPA6020
0	Benzene	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Bis(2-ethylhexyl) phthalate	<10.8	U		10.8		µg/L	GE	EPA8270C
0	Bromodichloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Bromochloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Bromomethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Cadmium, total recoverable	0.254	J	I	1.00		µg/L	GE	EPA8260B
0	Carbon tetrachloride	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Chloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Chloroethene (Vinyl chloride)	<1.00	U		1.00		µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<5.00	U		5.00		µg/L	GE	EPA8260B
0	Chloroform	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Chloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Chromium, total recoverable	<3.00	U		3.00		µg/L	GE	EPA8260B
0	Cobalt, total recoverable	3.54	U		0.200		µg/L	GE	EPA6020
0	Copper, total recoverable	1.94	U		1.00		µg/L	GE	EPA6020
0	Cyanide	<10.0	JU	L	10.0		µg/L	GE	EPA9012A
0	Dibromochloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	1,1-Dichloroethylene	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Diis-1,2-Dichloroethylene	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Diis-1,3-Dichloropropene	<1.00	U		1.00		µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Iron, total recoverable	58.3	J	K	15.0		µg/L	GE	EPA8260B
0	Lead, total recoverable	<2.00	U		2.00		µg/L	GE	EPA6020
0	Mercury, total recoverable	<0.200	U		0.200		µg/L	GE	EPA6020
0	Nickel, total recoverable	1.78	J	I	2.00		µg/L	GE	EPA9086
0	Phenols	<5.00	U		5.00		µg/L	GE	EPA6020
0	Selenium, total recoverable	<5.00	U		5.00		µg/L	GE	EPA6020
0	Silver, total recoverable	<1.00	U		1.00		µg/L	GE	EPA6020
0	1,1,2,2-Tetrachloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Tetrachloroethylene	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Toluene	<1.00	J	I	2.50		µg/L	GE	EPA6020
0	1,1,1-Trichloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Trichloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<5.00	U		5.00		µg/L	GE	EPA8260B
0	Zinc, total recoverable	<10.0	U		10.0		µg/L	GE	EPA6020
0	Arsenic-228	2.74E-09±0.56E-09	U		1.55E-08		µCi/mL	GP	EPA-013
0	Americium-241	8.21E-10±3.77E-10	J	I	3.42E-10		µCi/mL	GP	EPA-011
0	Americium-125	-4.83E-10±3.37E-09	U		8.57E-09		µCi/mL	GP	EPA-003
0	Carbon-14	2.63E-08±4.68E-09	J	L	6.79E-09		µCi/mL	GP	EPA-013
0	Cesium-134	4.70E-09±1.31E-08	U		2.33E-08		µCi/mL	GP	EPA-013
0	Cesium-137	-5.54E-10±1.85E-09	U		3.22E-09		µCi/mL	GP	EPA-013
0	Cobalt-57	2.31E-10±1.93E-09	U		3.55E-09		µCi/mL	GP	EPA-013
0	Cobalt-60	8.25E-10±1.62E-09	U		2.91E-09		µCi/mL	GP	EPA-013
0	Curium-242	-1.42E-09±1.47E-09	U		2.27E-09		µCi/mL	GP	EPA-011
0	Curium-243/244	1.37E-10±3.01E-10	U		2.63E-10		µCi/mL	GP	EPA-011
0	Curium-245/246	6.10E-10±3.01E-10	J	I	2.08E-10		µCi/mL	GP	EPA-011
0	Europium-152	9.98E-11±6.39E-11	U		2.08E-10		µCi/mL	GP	EPA-011
0	Europium-152	1.10E-08±5.22E-09	U		9.10E-09		µCi/mL	GP	EPA-013

First Quarter 1999



## ANALYTICAL RESULTS

Well FIN 2TK collected on 01/13/99 (cont.)

F	Analyte	Result	PG	S	EMS	SQL	Unit	Lab	Method
1	Europium-154	7.09E-10±4.35E-09	U			8.69E-09	µCi/mL	GP	EPA-013
2	Europium-155	1.10E-09±7.34E-09	U			1.29E-08	µCi/mL	GP	EPA-013
3	Gross alpha	9.70E-09±4.59E-09	J	IL		5.33E-09	µCi/mL	GP	EPA-001
4	Gross alpha	1.06E-08±5.87E-09	J	IL		7.43E-09	µCi/mL	GP	EPA-001
5	Lead-129	1.00E-07±1.23E-08	U			1.67E-09	µCi/mL	GP	EPA-006
6	Lead-212	3.99E-09±3.43E-09	U			6.22E-09	µCi/mL	GP	EPA-013
7	Manganesse-54	2.30E-09±1.44E-09	U			3.91E-09	µCi/mL	GP	EPA-001
8	Nonvolatille beta	1.40E-08±4.44E-09	J	IL		7.68E-09	µCi/mL	GP	EPA-001
9	Nonvolatille beta	1.50E-08±4.57E-09	J	IL		6.89E-09	µCi/mL	GP	EPA-001
10	Plutonium-238	9.03E-11±1.17E-10	J			2.1E-10	µCi/mL	GP	EPA-011
11	Plutonium-239/240	6.30E-12±5.59E-08	F		4	2.1E-10	µCi/mL	GP	EPA-011
12	Potassium-40	3.55E-10±1.59E-09	F			3.75E-09	µCi/mL	GP	EPA-013
13	Radium-226	1.62E-10±2.73E-09	U			2.42E-09	µCi/mL	GP	EPA-013
14	Radium-228	7.12E-10±4.35E-09	J			4.40E-09	µCi/mL	GP	EPA-008
15	Radium-228	1.44E-09±4.63E-10	U			4.37E-10	µCi/mL	GP	EPA-008
16	Ruthenium-106	2.24E-09±1.80E-08	U			1.47E-09	µCi/mL	GP	EPA-009
17	Sodium-22	2.57E-10±1.55E-09	U			2.93E-08	µCi/mL	GP	EPA-013
18	Sr-90	5.38E-09±7.99E-10	U			3.10E-09	µCi/mL	GP	EPA-013
19	Sr-90	3.86E-08±1.18E-08	J			1.04E-09	µCi/mL	GP	EPA-004
20	Technetium-99	8.19E-10±6.65E-10	J			2.08E-08	µCi/mL	GP	EPA-005
21	Thorium-228	6.85E-10±4.63E-10	J			1.01E-09	µCi/mL	GP	EPA-012
22	Thorium-230	<0.00E+00	U			2.22E-10	µCi/mL	GP	EPA-012
23	Thorium-232	3.19E-08±8.92E-10	J			2.32E-10	µCi/mL	GP	EPA-011
24	Uranium-232/234	6.21E-09±1.30E-09	U			3.33E-10	µCi/mL	GP	EPA-011
25	Uranium-235	6.21E-09±1.30E-09	U			1.59E-10	µCi/mL	GP	EPA-011
26	Uranium-238	2.60E-10±1.90E-09	U			3.79E-09	µCi/mL	GP	EPA-013
27	Yttrium-88	<0.00E+00	U			6.81E-09	µCi/mL	GP	EPA-013
28	Zinc-65	-2.11E-09±4.68E-09	U					GP	EPA-013

**WELL FIN 2TK**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/17/99  
Depth to water: Not available  
Water elevation: Not available  
pH: 3.7  
Sp. conductance: 800 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 1 gal  
The well was continuously pumping.

## ANALYSES

Analyste	Result	PG	\$	EMS	SQL	Unit	Lab	Method
Aluminum, total recoverable	553			15.0		µg/L	GE	EPA6020
Aluminum, total recoverable	<0.200	U		0.200		µg/L	GE	EPA6020
Arsenic, total recoverable	<3.00	U		3.00		µg/L	GE	EPA6020
Barium, total recoverable	14.2			2.00		µg/L	GE	EPA6020
Benzene	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA8260B
Bis(2-ethylhexyl) phthalate	<10.0	JU	LQ	O	10.0	µg/L	GE	EPA8270C
Bromodichloromethane	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA8260B
Bromomethane	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA8260B
Bromomethane	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA8260B
Calcium, total recoverable	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA6020
Calcium, total recoverable	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA6020
Chlorobenzene	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA8260B
Chloroethane	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA8260B
Chloroethane (Vinyl chloride)	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA8260B
2-Chloroethyl vinyl ether	<5.00	JU	LQ	O	5.00	µg/L	GE	EPA8260B
Chloroform	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA8260B
Chloromethane	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA8260B
Chromium, total recoverable	<3.00	JU	LQ	O	3.00	µg/L	GE	EPA8260B
Cobalt, total recoverable	7.52			0.200		µg/L	GE	EPA6020
Copper, total recoverable	5.96	U		1.00		µg/L	GE	EPA6020
Cyanide	<1.00			1.00		µg/L	GE	EPA6020
Dibromochloromethane	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA8260B
1,1-Dichloroethane	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA8260B
1,2-Dichloromethane	<1.00	JU	LQ	O	1.00	µg/L	GE	EPA8260B

Well FIN 2TK collected on 02/17/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0.1-Dichloroethylene	<1.00	JU	LQ	0	1.00	µg/L	GE	EPA8260B
0. trans-1,2-Dichloroethylene	<1.00	JU	LQ	0	1.00	µg/L	GE	EPA8260B
0. Dichloromethane	<2.29	JU	LQ	0	5.00	µg/L	GE	EPA8260B
0. 1,2-Dichloropropane	<1.00	JU	LOV	0	1.00	µg/L	GE	EPA8260B
0. dis-1,3-Dichloropropene	<1.00	JU	LQ	0	1.00	µg/L	GE	EPA8260B
0. trans-1,3-Dichloropropene	<1.00	JU	LQ	0	1.00	µg/L	GE	EPA8260B
0. Ethylbenzene	<1.00	JU	LQ	0	1.00	µg/L	GE	EPA8260B
0. Iron, total recoverable	25.7	JU	LQ	0	15.0	µg/L	GE	EPA8620
0. Lead, total recoverable	<2.00	JU	LQ	0	2.00	µg/L	GE	EPA8620
0. Mercury, total recoverable	0.144	J	I		0.200	µg/L	GE	EPA7470A
0. Nickel, total recoverable	2.33	J	I		2.00	µg/L	GE	EPA8620
0. Phenols	<5.00	U			5.00	µg/L	GE	EPA8686
0. Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8686
0. Silver, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8620
0. 1,1,2,1-tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPA8620
0. trachloroethylene	<1.00	JU	LQ	0	1.00	µg/L	GE	EPA8260B
0. Thallium, total recoverable	0.046	JU	LQ	0	2.50	µg/L	GE	EPA8260B
0. Toluene	<1.00	JU	LQ	0	1.00	µg/L	GE	EPA8620
0. 1,1,2-trichloroethane	<1.00	JU	LQ	0	1.00	µg/L	GE	EPA8260B
0. 1,1,2-Trichloroethane	<1.00	JU	LQ	0	1.00	µg/L	GE	EPA8260B
0. Trichloroethylene	<1.00	JU	LQ	0	1.00	µg/L	GE	EPA8260B
0. Trichlorofluoromethane	<5.00	JU	LQ	0	5.00	µg/L	GE	EPA8260B
0. Vanadium, total recoverable	<10.0	U	LQ	0	10.0	µg/L	GE	EPA8620
0. Znc, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8620
0. Acetium-228	4.51E-09±6.80E-09	U			1.31E-08	µCi/mL	GP	EPA-013
0. Americium-241	5.49E-10±7.57E-10	U			1.42E-09	µCi/mL	GP	EPA-011
0. Antimony-125	4.82E-09±5.12E-09	U			8.12E-09	µCi/mL	GP	EPA-003
0. Carbon-14	1.69E-08±6.18E-08	J	I		9.68E-09	µCi/mL	GP	EPA-003
0. Cerium-144	1.25E-08±1.69E-08	U			2.33E-08	µCi/mL	GP	EPA-013
0. Cesium-134	1.90E-09±2.20E-09	U			3.09E-09	µCi/mL	GP	EPA-013
0. Cesium-137	7.00E-10±1.96E-09	U			3.43E-09	µCi/mL	GP	EPA-013
0. Cobalt-57	3.13E-11±1.91E-09	U			3.15E-09	µCi/mL	GP	EPA-013
0. Cobalt-60	1.59E-09±1.98E-09	U			3.78E-09	µCi/mL	GP	EPA-013
0. Curium-242	1.45E-10±4.68E-10	U			1.40E-09	µCi/mL	GP	EPA-011
0. Curium-243/244	8.50E-11±1.04E-09	U			2.22E-09	µCi/mL	GP	EPA-011
0. Curium-244/246	9.12E-12±1.11E-09	U			9.64E-09	µCi/mL	GP	EPA-011
0. Europium-152	5.93E-09±5.21E-09	U			1.12E-08	µCi/mL	GP	EPA-013
0. Europium-154	5.93E-09±5.21E-09	U			1.12E-08	µCi/mL	GP	EPA-013
0. Europium-155	2.94E-09±8.17E-09	U			1.35E-08	µCi/mL	GP	EPA-013
1. Gross alpha	1.11E-08±3.74E-09	J	IK	C	3.84E-09	µCi/mL	GP	EPA-001
2. Iodine-129	4.59E-08±6.42E-09	U			1.88E-09	µCi/mL	GP	EPA-006
0. Lead-129	2.93E-09±6.41E-09	U			7.00E-09	µCi/mL	GP	EPA-013
0. Lead-212	2.08E-10±1.73E-09	U			3.19E-09	µCi/mL	GP	EPA-013
0. Manganese-54	1.60E-08±4.89E-09	J	IL	I	8.53E-09	µCi/mL	GP	EPA-001
0. Nonvolatile beta	1.18E-10±1.23E-10	U			4.32E-10	µCi/mL	GP	EPA-011
0. Plutonium-238	-5.10E-11±1.01E-10	U			3.47E-10	µCi/mL	GP	EPA-013
0. Plutonium-239/240	2.93E-09±2.42E-08	U			3.28E-09	µCi/mL	GP	EPA-013</

**ESH-EMS-990520**

**B-102**

**First Quarter 1999**



## WELL FIN 2TK

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/22/99  
Depth to water: Not available  
Water elevation: Not available  
pH: 3.9  
Sp. conductance: 850 µS/cm  
Turbidity: 0 NTU  
The well was continuously pumping.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2	Aluminum, total recoverable	383	J	K	I	15.0	µg/L	GE	EPA8020
0	Antimony, total recoverable	<0.166	JU		4	0.892	µg/L	GE	EPA8020
0	Arsenic, total recoverable	<1.03	U			3.00	µg/L	GE	EPA8020
0	Barium, total recoverable	<1.03				1.00	µg/L	GE	EPA8020
0	Bis(2-ethylhexyl) phthalate	<10.0	JU	L	O	10.0	µg/L	GE	EPA8270C
0	Bromodichloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Bromoform	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Bromomethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Cadmium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8020
0	Carbon tetrachloride	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Chloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Chloroethene (Vinyl chloride)	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Chloroform	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Chloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Chromium, total recoverable	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	Cobalt, total recoverable	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	Copper, total recoverable	3.02	JU	L	O	1.00	µg/L	GE	EPA8020
0	Cyanide	6.10	JU	L	O	1.00	µg/L	GE	EPA8020
0	Dichloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	1,1-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	1,2-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	trans-1,2-Dichloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	Dichloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	1,2-Dichloropropane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	cis-1,3-Dichloropropene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	trans-1,3-Dichloropropene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	Ethylbenzene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	Iron, total recoverable	<15.0	JU	L	O	15.0	µg/L	GE	EPA8020
0	Lead, total recoverable	<2.00	JU	L	O	2.00	µg/L	GE	EPA8020
0	Mercury, total recoverable	0.0648	JU	L	O	0.0648	µg/L	GE	EPA8020
0	Nickel, total recoverable	<2.00	JU	L	O	2.00	µg/L	GE	EPA8020
0	Phenols	<3.00	JU	L	O	3.00	µg/L	GE	EPA8020
0	Silver, total recoverable	<3.00	JU	L	O	3.00	µg/L	GE	EPA8020
0	Solvent, total recoverable	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	1,1,2-Tetrachloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	Tetrachloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	Thallium, total recoverable	0.682	JU	L	O	0.682	µg/L	GE	EPA8020
0	Toluene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	1,1,1-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	1,1,2-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	Trichloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	Trichlorofluoromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8020
0	Vanadium, total recoverable	<10.0	JU	L	O	10.0	µg/L	GE	EPA8020
0	Zinc, total recoverable	<10.0	JU	L	O	10.0	µg/L	GE	EPA8020
0	Actinium-228	9.79E-10±3.70E-09	U			1.39E-08	µCi/mL	GP	EPIA-013
0	Actinium-228	3.13E-09±1.09E-08	U			1.54E-08	µCi/mL	GP	EPIA-013
0	Americium-241	6.01E-10±5.87E-10	U			1.25E-09	µCi/mL	GP	EPIA-011
0	Americium-241	8.07E-11±5.78E-10	U			1.24E-09	µCi/mL	GP	EPIA-011
0	Antimony-125	4.42E-09±5.23E-09	U			8.73E-09	µCi/mL	GP	EPIA-013
0	Antimony-125	1.62E-09±3.54E-09	U			5.33E-09	µCi/mL	GP	EPIA-013
0	Carbon-14	8.95E-10±1.05E-09	U			1.82E-08	µCi/mL	GP	EPIA-013
0	Carbon-14	4.09E-09±1.36E-08	U			2.41E-08	µCi/mL	GP	EPIA-013
0	Carbon-144	6.03E-09±1.33E-08	U			2.35E-08	µCi/mL	GP	EPIA-013
0	Cesium-134	1.70E-09±1.82E-09	U			2.67E-09	µCi/mL	GP	EPIA-013
0	Cesium-134	3.17E-10±1.93E-09	U			3.08E-09	µCi/mL	GP	EPIA-013
0	Cesium-137	1.58E-09±1.94E-09	U			3.82E-09	µCi/mL	GP	EPIA-013
0	Cesium-137	3.06E-10±2.24E-09	U			3.88E-09	µCi/mL	GP	EPIA-013
0	Cobalt-57	8.64E-11±1.66E-09	U			2.91E-09	µCi/mL	GP	EPIA-013

ESH-EMS-990520

B-103

First Quarter 1999

Well FIN 2TK collected on 03/22/99 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Cobalt-57	-6.60E-11±1.72E-09	U			2.99E-09	µCi/mL	GP	EPIA-013
0	Cobalt-60	2.23E-09±2.16E-09	U			4.64E-09	µCi/mL	GP	EPIA-013
0	Cobalt-60	5.38E-10±2.29E-09	U			4.33E-09	µCi/mL	GP	EPIA-013
0	Curium-242	2.30E-10±5.19E-10	U			1.06E-09	µCi/mL	GP	EPIA-011
0	Curium-242	-1.00E-10±4.74E-10	U			1.13E-09	µCi/mL	GP	EPIA-011
0	Curium-243/244	5.13E-10±3.68E-10	J			1.93E-10	µCi/mL	GP	EPIA-011
0	Curium-243/244	4.77E-10±3.41E-10	J			1.78E-10	µCi/mL	GP	EPIA-011
0	Curium-245/246	4.49E-10±3.43E-10	J			1.92E-10	µCi/mL	GP	EPIA-011
0	Curium-245/246	5.36E-10±3.62E-10	J			1.78E-10	µCi/mL	GP	EPIA-011
0	Europium-152	-1.41E-09±3.25E-09	U			8.94E-09	µCi/mL	GP	EPIA-013
0	Europium-152	5.07E-09±2.25E-09	U			1.10E-08	µCi/mL	GP	EPIA-013
0	Europium-154	1.25E-09±7.9E-09	U			1.11E-08	µCi/mL	GP	EPIA-013
0	Europium-154	1.28E-08±1.19E-08	R			1.24E-08	µCi/mL	GP	EPIA-013
0	Europium-155	1.45E-09±7.41E-09	U			1.31E-08	µCi/mL	GP	EPIA-013
0	Gross alpha	6.71E-09±3.85E-09	U			7.07E-09	µCi/mL	GP	EPIA-001
1	Gross alpha	7.71E-09±3.85E-09	U			5.12E-09	µCi/mL	GP	EPIA-001
2	Iodine-129	3.77E-09±5.15E-09	J			1.41E-09	µCi/mL	GP	EPIA-006
2	Iodine-129	3.60E-09±4.94E-09	U			1.36E-09	µCi/mL	GP	EPIA-006
0	Lead-212	5.72E-09±5.79E-09	U			7.75E-09	µCi/mL	GP	EPIA-013
0	Lead-212	7.80E-09±4.31E-09	R			7.76E-09	µCi/mL	GP	EPIA-013
0	Manganese-54	3.22E-10±1.99E-09	U			3.65E-09	µCi/mL	GP	EPIA-013
0	Manganese-54	1.90E-09±3.13E-09	U			3.54E-09	µCi/mL	GP	EPIA-013
0	Nonradioactive beta	1.23E-08±6.88E-09	U			1.27E-08	µCi/mL	GP	EPIA-001
0	Nonradioactive beta	1.07E-09±3.85E-09	U			1.15E-08	µCi/mL	GP	EPIA-001
0	Plutonium-238	-2.09E-10±3.30E-10	U			8.04E-10	µCi/mL	GP	EPIA-011
0	Plutonium-238	1.09E-10±3.10E-10	U			4.51E-10	µCi/mL	GP	EPIA-011
0	Plutonium-239/240	1.76E-10±2.51E-10	J			1.58E-10	µCi/mL	GP	EPIA-011
0	Plutonium-239/240	5.28E-10±3.42E-10	U			3.85E-08	µCi/mL	GP	EPIA-013
0	Potassium-40	4.17E-09±3.48E-08	U			4.12E-08	µCi/mL	GP	EPIA-013
0	Potassium-40	2.18E-08±4.90E-08	U			3.17E-09	µCi/mL	GP	EPIA-013
0	Promethium-144	1.07E-10±1.73E-09	U			3.41E-09	µCi/mL	GP	EPIA-013
0	Promethium-144	-7.57E-10±2.03E-09	U			3.17E-09	µCi/mL	GP	EPIA-013
0	Promethium-146	1.45E-10±2.20E-09	U			4.00E-09	µCi/mL	GP	EPIA-013
0	Promethium-146	-2.07E-09±2.42E-09	U			4.00E-09	µCi/mL	GP	EPIA-013
0	Radium-226	1.43E-09±7.85E-10	J			8.33E-10	µCi/mL	GP	EPIA-008
0	Radium-226	1.60E-09±7.60E-10	J			2.55E-10	µCi/mL	GP	EPIA-008
0	Radium-228	-5.56E-10±4.52E-10	U			1.09E-09	µCi/mL	GP	EPIA-009
0	Radium-228	9.47E-12±5.10E-10	U			1.14E-09	µCi/mL	GP	EPIA-009
0	Rutherfordium-106	-2.76E-09±1.57E-08	U			2.82E-08	µCi/mL	GP	EPIA-013
0	Rutherfordium-106	-8.60E-09±1.71E-08	U			2.86E-08	µCi/mL	GP	EPIA-013
0	Sodium-22	1.81E-09±1.87E-08	U			3.48E-09	µCi/mL	GP	EPIA-013
0	Sodium-22	4.34E-10±2.06E-08	U			3.94E-09	µCi/mL	GP	EPIA-013
0	Sr-90	2.70E-09±7.10E-10	U			1.26E-09	µCi/mL	GP	EPIA-004
0	Sr-90	2.70E-09±7.10E-10	U			7.59E-10	µCi/mL	GP	EPIA-004
0	Technetium-99	6.39E-09±3.20E-09	U			6.50E-09	µCi/mL	GP	EPIA-005
0	Technetium-99	3.49E-09±3.83E-09	U			6.50E-09	µCi/mL	GP	EPIA-005
0	Thorium-228	7.75E-10±7.13E-10	U			1.16E-09	µCi/mL	GP	EPIA-012
0	Thorium-228	8.66E-10±8.08E-10	U			1.23E-09	µCi/mL	GP	EPIA-012
0	Thorium-230	6.41E-10±5.83E-10	U			8.91E-10	µCi/mL	GP	EPIA-012
0	Thorium-230	1.74E-10±4.58E-10	U			1.02E-09	µCi/mL	GP	EPIA-012
0	Thorium-232	-1.75E-10±3.46E-10	U			1.06E-09	µCi/mL	GP	EPIA-012
0	Thorium-232	1.17E-10±2.35E-10	U			3.52E-10	µCi/mL	GP	EPIA-012
0	Uranium-233/234	3.78E-09±1.38E-09	U			8.39E-10	µCi/mL	GP	EPIA-012
0	Uranium-233/234	3.05E-09±1.26E-09	U			3.65E-10	µCi/mL	GP	EPIA-012
0	Uranium-235	2.23E-10±3.16E-10	U			3.34E-10	µCi/mL	GP	EPIA-011
0	Uranium-235	4.89E-12±2.89E-10	U			9.23E-10	µCi/mL	GP	EPIA-011
0	Uranium-238	4.00E-09±1.38E-09	U			3.33E-10	µCi/mL	GP	EPIA-011
0	Uranium-238	3.65E-09±1.38E-09	U			3.85E-10	µCi/mL	GP	EPIA-011
0	Yttrium-88	6.63E-10±2.05E-09	U			4.24E-09	µCi/mL	GP	EPIA-013
0	Yttrium-88	-8.27E-10±1.38E-09	U			3.46E-09	µCi/mL	GP	EPIA-013
0	Zinc-65	9.37E-10±1.10E-09	U			5.69E-09	µCi/mL	GP	EPIA-013
0	Zinc-65	9.81E-09±1.40E-08	R			8.58E-09	µCi/mL	GP	EPIA-013



## ANALYTICAL RESULTS

## WELL FNB 2

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/02/99  
 Depth to water: 102.89 ft (31.36 m) below TOC  
 Water elevation: 184.91 ft (56.36 m) msl  
 pH: 3.7  
 Sp. conductance: 110 µS/cm  
 Turbidity: 7 NTU  
 Water evacuated from the well prior to sampling: 43 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	1,590				146	µg/L	WA	EPAS010B
0	Arsenic, total recoverable	<40.0	U	U		40.0	µg/L	WA	EPAS010B
0	Barium, total recoverable	<4.70	U	U		4.70	µg/L	WA	EPAS010B
0	Cadmium, total recoverable	<1.00	U	U		1.00	µg/L	WA	EPAS021B
0	Carbon tetrachloride	<1.00	U	U		1.00	µg/L	WA	EPAS021B
0	Chloroform	<5.00	U	U		5.00	µg/L	WA	EPAS021B
0	cis-1,2-Dichloroethylene	19.0	U	U		74.0	µg/L	WA	EPAS021B
0	Iron, total recoverable	<47.0	U	U		47.0	µg/L	WA	EPAS010B
2	Manganese, total recoverable	156				0.80	µg/L	WA	EPAS010B
0	Mercury, total recoverable	0.942				0.450	µg/L	WA	EPAS010B
1	Nitrate-nitrite as nitrogen	7,750				25.0	µg/L	WA	EPAS010B
0	Selenium, total recoverable	<66.0				66.0	µg/L	WA	EPAS010B
0	Tetrachloroethylene	<66.0				66.0	µg/L	WA	EPAS010B
1	1,1,1-Trichloroethane	<4.00	U	U		5.00	µg/L	WA	EPAS010B
1	Trichloroethylene	4.91				1.00	µg/L	WA	EPAS021B
2	Gross alpha	3,69E-09±1.97E-09				1.18E-09	µCi/mL	TM	EPAS00.0M
2	Gross beta	1.41E-07±1.11E-09				1.83E-09	µCi/mL	TM	EPAS00.0M
2	Nonvolatile beta	3.93E-05±1.60E-06				1.09E-06	µCi/mL	TM	EPAS00.0M
0	Tridium								

## WELL FRB 1

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/04/99  
 Depth to water: 53.06 ft (16.17 m) below TOC  
 Water elevation: 226.64 ft (69.03 m) msl  
 pH: 4.3  
 Sp. conductance: 47 µS/cm  
 Turbidity: 4 NTU  
 Water evacuated from the well prior to sampling: 59 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	164				146	µg/L	WA	EPAS010B
0	Arsenic, total recoverable	<40.0	U	U		40.0	µg/L	WA	EPAS010B
0	Barium, total recoverable	7.00	U	U		1.80	µg/L	WA	EPAS010B
0	Boron, total recoverable	<266	U	U		266	µg/L	WA	EPAS010B
0	Cadmium, total recoverable	<4.70	U	U		4.70	µg/L	WA	EPAS010B
0	Chloride	1,050				471	µg/L	WA	EPAS056
0	Chromium, total recoverable	3,210				210	µg/L	WA	EPAS056
0	Fluoride	<25.7	U	U		40.0	µg/L	WA	EPAS010B
1	Iron, total recoverable	225				74.0	µg/L	WA	EPAS010B
0	Lead, total recoverable	<47.0	U	U		47.0	µg/L	WA	EPAS010B
0	Lithium, total recoverable	<0.880	U	U		2.70	µg/L	WA	EPAS010B
0	Manganese, total recoverable	952				74.0	µg/L	WA	EPAS010B
0	Mercury, total recoverable	3.70				0.450	µg/L	WA	EPAS010B
0	Nitrate-nitrite as nitrogen	<0.450	U	U		1.00	µg/L	WA	EPAS010B
0	Potassium, total recoverable	189				66.0	µg/L	WA	EPAS010B
0	Selenium, total recoverable	<66.0	U	U		66.0	µg/L	WA	EPAS010B
0	Silica, total recoverable	7.330				1.350	µg/L	WA	EPAS010B
0	Silver, total recoverable	<0.660	U	U		5.00	µg/L	WA	EPAS010B
0	Sulfate	3,180				285	µg/L	WA	EPAS056
0	Total dissolved solids	480				340	µg/L	WA	EPAS056
0	Total organic carbon	25,000				50,000	µg/L	WA	EPAS056
0	Total organic halogens (as P)	874				1,200	µg/L	WA	EPAS056
0	Total phosphates (as P)	120				67.0	µg/L	WA	EPAS056
0	Gross alpha	6.12E-09±1.19E-09				6.00E-10	µCi/mL	TM	EPAS00.0M
0	Gross beta	6.13E-09±1.19E-09				6.00E-10	µCi/mL	TM	EPAS00.0M
0	Nonvolatile beta	3.08E-09±1.16E-09				1.78E-09	µCi/mL	TM	EPAS00.0M
0	Tridium	5.29E-09±1.26E-09				1.78E-09	µCi/mL	TM	EPAS00.0M
0	Tridium	6.37E-06±6.60E-07				6.00E-07	µCi/mL	TM	EPAS00.0M

ESH-EMS-990520

B-104

First Quarter 1999

Well FRB 1 collected on 03/04/99 (cont.)

## F Analyte

0 Tritium

## WELL FRB 2

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/04/99  
 Depth to water: 49.3 ft (15.03 m) below TOC  
 Water elevation: 225.1 ft (68.61 m) msl  
 pH: 4.5  
 Sp. conductance: 78 µS/cm  
 Turbidity: 3 NTU  
 Water evacuated from the well prior to sampling: 17 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	68.0	J	I		146	µg/L	WA	EPAS010B
0	Arsenic, total recoverable	<40.0	U	U		40.0	µg/L	WA	EPAS010B
0	Barium, total recoverable	<3.8	U	U		1.80	µg/L	WA	EPAS010B
0	Boron, total recoverable	<266	U	U		266	µg/L	WA	EPAS010B
0	Cadmium, total recoverable	<4.70	U	U		4.70	µg/L	WA	EPAS010B
0	Calcium, total recoverable	1,720				471	µg/L	WA	EPAS056
0	Chloride	4,780				210	µg/L	WA	EPAS056
0	Chromium, total recoverable	6.90	J	I		7.00	µg/L	WA	EPAS010B
0	Fluoride	<24.8	U	U		40.0	µg/L	WA	EPAS010B
0	Iron, total recoverable	108				74.0	µg/L	WA	EPAS010B
0	Lead, total recoverable	9.50	U	U		47.0	µg/L	WA	EPAS010B
0	Lithium, total recoverable	<1.80	U	U		2.70	µg/L	WA	EPAS010B
0	Magnesium, total recoverable	1,820				74.0	µg/L	WA	EPAS010B
1	Mercury, total recoverable	45.9	J	I		0.450	µg/L	WA	EPAS010B
1	Nitrate-nitrite as nitrogen	0.0900				200	µg/L	WA	EPAS010B
0	Potassium, total recoverable	5,870				187	µg/L	WA	EPAS010B
0	Selenium, total recoverable	<66.0	U	U		66.0	µg/L	WA	EPAS010B
0	Silica, total recoverable	6.010				1.350	µg/L	WA	EPAS010B
0	Silver, total recoverable	<0.660	U	U		5.00	µg/L	WA	EPAS010B
0	Sodium, total recoverable	6.75				340	µg/L	WA	EPAS056
0	Total dissolved solids	41,000	J	I		50,000	µg/L	WA	EPAS056
0	Total organic carbon	<120	U	U		120	µg/L	WA	EPAS056
0	Total organic halogens (as P)	8.80	J	I		1,000	µg/L	WA	EPAS056
0	Gross alpha	5.09E-09±1.14E-09				6.50E-10	µCi/mL	TM	EPAS00.0M
0	Nonvolatile beta	2.57E-09±1.15E-09				1.79E-09	µCi/mL	TM	EPAS00.0M
0	Tridium	6.76E-06±6.60E-07				5.80E-07	µCi/mL	TM	EPAS00.0M

## WELL FRB 3

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/04/99  
 Depth to water: 47.45 ft (14.46 m) below TOC  
 Water elevation: 224.75 ft (68.5 m) msl  
 pH: 4.9  
 Sp. conductance: 61 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 49 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1	Aluminum, total recoverable	43.3	J	I		146	µg/L	WA	EPAS010B
0	Arsenic, total recoverable	<40.0	U	U		40.0	µg/L	WA	EPAS010B
0	Barium, total recoverable	5.70	U	U		1.80	µg/L	WA	EPAS010B
0	Boron, total recoverable	<266	U	U		266	µg/L	WA	EPAS010B
0	Cadmium, total recoverable	<4.70	U	U		4.70	µg/L	WA	EPAS010B
0	Calcium, total recoverable	573				471	µg/L	WA	EPAS056
0	Chloride	3,160				210	µg/L	WA	EPAS056
0	Chromium, total recoverable	1.60	J	I		7.00	µg/L	WA	EPAS010B
0	Fluoride	<19.7	U	U		40.0	µg/L	WA	EPAS010B
0	Iron, total recoverable	113				74.0	µg/L	WA	EPAS010B
0	Lead, total recoverable	<47.0	U	U		47.0	µg/L	WA	EPAS010B
0	Lithium, total recoverable	<0.820	U	U		2.70	µg/L	WA	EPAS010B
0	Magnesium, total recoverable	538				74.0	µg/L	WA	EPAS010B
0	Mercury, total recoverable	6.40	J	I		0.450	µg/L	WA	EPAS010B



Well FRB 3 collected on 03/04/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Mercury, total recoverable	<0.450	U			0.450	µg/L	WA	EPA7470A
0 Nitrate-nitrite as nitrogen	3.280				100	µg/L	WA	EPA353.2
0 Potassium, total recoverable	242				187	µg/L	WA	EPA6010B
0 Selenium, total recoverable	<68.0	U			68.0	µg/L	WA	EPA6010B
0 Silver, total recoverable	6.000				1.350	µg/L	WA	EPA6010B
0 Sodium, total recoverable	<0.560	U	V		5.00	µg/L	WA	EPA6010B
0 Sulfate	9.260				285	µg/L	WA	EPA6010B
0 Total dissolved solids	3.190				340	µg/L	WA	EPA9056
0 Total organic carbon	19.000	J	IQ		50.000	µg/L	WA	EPA160.1
0 Total organic halogens	814	J			1,000	µg/L	WA	EPA8260B
0 Total phosphates (as P)	<120	U			120	µg/L	WA	EPA353.2
0 Total phosphates (as P)	149				67.0	µg/L	WA	EPA353.2
0 Total phosphates (as P)	1.30E-09±6.20E-10	J	I		6.30E-10	µCi/mL	TM	EPA900.0M
0 Gross alpha	1.80E-10±1.00E-09	U			1.78E-09	µCi/mL	TM	EPA900.0M
0 Nonvolatile beta	6.80E-06±6.70E-07				5.80E-07	µCi/mL	TM	EPA906.0M
0 Tritium								

## WELL FRB 4

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 03/04/99  
 Depth to water: 46.17 ft (14.07 m) below TOC  
 Water elevation: 224.93 ft (68.56 m) msl  
 pH: 4.7  
 Sp. conductance: 48 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 55 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	97.3	J	I		146	µg/L	WA	EPA8010B
0 Arsenic, total recoverable	<40.0	U			40.0	µg/L	WA	EPA8010B
0 Boron, total recoverable	<262	U			262	µg/L	WA	EPA8010B
0 Cadmium, total recoverable	<4.70	U			4.70	µg/L	WA	EPA8010B
0 Chromium, total recoverable	1.010				471	µg/L	WA	EPA8010B
0 Chloride	3.180				210	µg/L	WA	EPA8010B
0 Chromium, total recoverable	<19.0	JU	4		7.00	µg/L	WA	EPA340.2
0 Fluoride	207	U	V		40.0	µg/L	WA	EPA340.2
0 Lead, total recoverable	<47.0	U			74.0	µg/L	WA	EPA8010B
0 Lithium, total recoverable	<650	U			2.70	µg/L	WA	EPA8010B
0 Magnesium, total recoverable	983				74.0	µg/L	WA	EPA8010B
0 Manganese, total recoverable	17.5				7.80	µg/L	WA	EPA8010B
0 Mercury, total recoverable	<0.450	U			0.450	µg/L	WA	EPA7470A
0 Nitrate-nitrite as nitrogen	2.840				100	µg/L	WA	EPA353.2
0 Potassium, total recoverable	243				187	µg/L	WA	EPA6010B
0 Selenium, total recoverable	<68.0	U			68.0	µg/L	WA	EPA6010B
0 Silver, total recoverable	6.710				1.350	µg/L	WA	EPA6010B
0 Sodium, total recoverable	<190	U			285	µg/L	WA	EPA6010B
0 Sulfate	1,400				340	µg/L	WA	EPA9056
0 Total dissolved solids	15,000	J	IQ		50,000	µg/L	WA	EPA160.1
0 Total organic carbon	16,000	J			50,000	µg/L	WA	EPA160.1
0 Total organic halogens	1,130				1,000	µg/L	WA	EPA9060
0 Total phosphates (as P)	<120	U			120	µg/L	WA	EPA9020B
0 Total phosphates (as P)	74.9				67.0	µg/L	WA	EPA353.2
0 Gross alpha	3.07E-09±8.70E-10	J	I		6.10E-10	µCi/mL	TM	EPA900.0M
0 Nonvolatile beta	1.93E-09±1.10E-09				1.78E-09	µCi/mL	TM	EPA900.0M
0 Tritium	7.19E-06±7.00E-07				6.10E-07	µCi/mL	TM	EPA906.0M

## WELL FRB 76

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/06/99  
 Depth to water: 74.54 ft (22.72 m) below TOC  
 Water elevation: 219.66 ft (66.95 m) msl  
 pH: 4.4  
 Sp. conductance: 92 µS/cm  
 Turbidity: 15 NTU  
 Water evacuated from the well prior to sampling: 146 gal

## ESH-EMS-990520

B-105

First Quarter 1999

Well FRB 76 collected on 01/06/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	411	JU			15.0	µg/L	GE	EPA6020
0 Antimony, total recoverable	<0.608	U			0.892	µg/L	GE	EPA6020
0 Arsenic, total recoverable	<3.00				3.00	µg/L	GE	EPA6020
0 Barium, total recoverable	18.2				2.00	µg/L	GE	EPA6020
0 Benzene	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<10.5	JU			10.5	µg/L	GE	EPA8270C
0 Bromodichloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Bromoform	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Bromomethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Cadmium, total recoverable	<0.313	JU			1.00	µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chloroethene (Vinyl chloride)	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<5.00	JU			5.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	<2.58	U			3.00	µg/L	GE	EPA6020
0 Cobalt, total recoverable	516				1.00	µg/L	GE	EPA6020
1 Copper, total recoverable	<10.0	U			10.0	µg/L	GE	EPA6020
0 Cyanide	<1.00	U			1.00	µg/L	GE	EPA9012A
0 Dibromochloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethylene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethylene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Iron, total recoverable	<316	JU			15.0	µg/L	GE	EPA6020
1 Lead, total recoverable	49.2	U			2.00	µg/L	GE	EPA6020
0 Mercury, total recoverable	<0.200	U			0.200	µg/L	GE	EPA7470A
0 Nickel, total recoverable	4.74				2.00	µg/L	GE	EPA6020
2 Nitrate-nitrite as nitrogen	10.100				500	µg/L	GE	EPA353.1
2 Nitrate-nitrite as nitrogen	10.100				500	µg/L	GE	EPA353.1
2 Nitrate-nitrite as nitrogen	10.200				500	µg/L	GE	EPA353.1
0 pH	4.49	J	Q		0.100	pH	GE	EPA9040B
0 Phenols	<5.00	U			5.00	µg/L	GE	EPA9066
0 Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA6020
0 Silver, total recoverable	<122	U			1.00	µg/L	GE	EPA9050A
0 Specific conductance	92				1.00	µS/cm	GE	EPA8260B
0 1,1,2,2-tetrachloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 trachloroethylene	<2.50	JU			2.50	µg/L	GE	EPA8260B
0 Toluene, total recoverable	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Trichloroethylene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Trichlorofluoromethane	<5.00	JU			5.00	µg/L	GE	EPA6020
0 Vanadium, total recoverable	116	U			10.0	µg/L	GE	EPA6020
0 Zinc, total recoverable	2.72E-09±1.04E-08	U			1.71E-08	µCi/mL	GP	EPA-013
0 Actinium-228	2.14E-10±3.11E-10	U			5.41E-10	µCi/mL	GP	EPA-011
0 Americium-241	2.37E-09±6.74E-09	U			1.23E-08	µCi/mL	GP	EPA-013
0 Antimony-125	2.14E-09±4.41E-09	U			7.71E-09	µCi/mL	GP	EPA-003
0 Carbon-14	-1.24E-09±1.78E-08	U			3.06E-08	µCi/mL	GP	EPA-013
0 Cerium-144	1.96E-09±2.66E-09	JU			4.39E-09	µCi/mL	GP	EPA-013
0 Cesium-134	-8.31E-10±2.67E-09	JU			3.86E-09	µCi/mL	GP	EPA-013
0 Cesium-137	-8.31E-10±2.67E-09	U			4.11E-09	µCi/mL	GP	EPA-013
0 Cobalt-57	<0.00E+00	U			2.84E-10	µCi/mL	GP	EPA-011
0 Cobalt-60	<0.00E+00	U			5.75E-10	µCi/mL	GP	EPA-011
0 Cesium-134	2.97E-09±7.16E-09	U			1.23E-08	µCi/mL	GP	EPA-013
0 Cesium-137	-7.96E-09±9.88E-09	U			1.23E-08	µCi/mL	GP	EPA-013
0 Europium-152	-1.06E-08±1.05E-08	U			1.57E-08	µCi/mL	GP	EPA-013
0 Europium-155	2.15E-08±1.88E-08	U			7.47E-08	µCi/mL	GP	EPA-013
2 Gross alpha	6.08E-09±5.46E-09	U			8.08E-09	µCi/mL	GP	EPA-006
0 Iodine-129	-1.20E-09±2.63E-09	U			4.37E-09	µCi/mL	GP	EPA-013
0 Lead-212	1.36E-09±1.18E-09	U			1.12E-09	µCi/mL	GP	EPA-001
0 Manganese-54	-1.25E-11±4.39E-11	U			9.65E-11	µCi/mL	GP	EPA-011
0 Nonvolatile beta	5.26E-11±6.64E-11	U						
0 Plutonium-238		U						
0 Plutonium-239/240		U						







## ANALYTICAL RESULTS

Well FSB 76B collected on 01/06/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Chloroethane	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	Chloroethane (Vinyl chloride)	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	2-Chloroethyl vinyl ether	<5.00	JU	L	0	5.00	µg/L	GE	EPAS260B
0	Chloroform	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	Chloromethane	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	Chromium, total recoverable	<1.29	JU	L	0	3.00	µg/L	GE	EPAS260B
0	Cobalt, total recoverable	<0.0350	JU	L	6	0.200	µg/L	GE	EPAS260B
0	Copper, total recoverable	9.12	JU	L	4	1.00	µg/L	GE	EPAS260B
0	Cyanide	<10.0	JU	L	0	10.0	µg/L	GE	EPAS260B
0	Dibromochloromethane	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	1,1-Dichloroethane	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	1,2-Dichloroethane	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	1,1-Dichloroethylene	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	trans-1,2-Dichloroethylene	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	Dichloromethane	<5.00	JU	L	0	5.00	µg/L	GE	EPAS260B
0	1,2-Dichloropropane	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	trans-1,3-Dichloropropane	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	Ethylbenzene	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	Iron, total recoverable	<111	JU	L	0	15.0	µg/L	GE	EPAS260B
0	Lead, total recoverable	<2.00	JU	L	0	2.00	µg/L	GE	EPAS260B
0	Mercury, total recoverable	<0.200	JU	L	0	0.200	µg/L	GE	EPAS260B
0	Nickel, total recoverable	<2.00	JU	L	0	2.00	µg/L	GE	EPAS260B
0	pH	5.00	JU	L	0	5.00	pH	GE	EPAS260B
0	Nitrate-nitrite as nitrogen	6.69	JU	L	0	0.100	pH	GE	EPAS260B
0	Phenols	<5.00	JU	L	0	5.00	µg/L	GE	EPAS260B
0	Selenium, total recoverable	<5.00	JU	L	0	5.00	µg/L	GE	EPAS260B
0	Silver, total recoverable	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	Specific conductance	142	JU	L	0	1.00	µS/cm	GE	EPAS260B
0	1,1,2,2-Tetrachloroethane	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	Trachloroethylene	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	Thallium, total recoverable	<5.00	JU	L	0	5.00	µg/L	GE	EPAS260B
0	Toluene	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	1,1,1-Trichloroethane	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	1,1,2-Trichloroethane	<1.00	JU	L	0	1.00	µg/L	GE	EPAS260B
0	Trichloroethylene	1.02	JU	L	0	1.00	µg/L	GE	EPAS260B
0	Trichlorofluoromethane	<5.00	JU	L	0	5.00	µg/L	GE	EPAS260B
0	Vanadium, total recoverable	<10.0	JU	L	0	10.0	µg/L	GE	EPAS260B
0	Zinc, total recoverable	<10.0	JU	L	0	10.0	µg/L	GE	EPAS260B
0	Actinium-228	4.19E-09±3.9E-08	JU	L	0	1.25E-08	µCi/mL	GP	EPAS260B
0	Americium-241	7.63E-11±8.97E-11	JU	L	0	8.56E-11	µCi/mL	GP	EPAS260B
0	Antimony-125	-8.41E-11±5.18E-09	JU	L	0	9.40E-09	µCi/mL	GP	EPAS260B
0	Carbon-14	2.50E-09±1.30E-08	JU	L	0	7.28E-09	µCi/mL	GP	EPAS260B
0	Carbon-144	1.00E-09±1.80E-09	JU	L	0	2.29E-09	µCi/mL	GP	EPAS260B
0	Cesium-134	-2.55E-09±2.24E-09	JU	L	0	2.93E-09	µCi/mL	GP	EPAS260B
0	Cesium-137	-4.86E-10±1.88E-09	JU	L	0	3.30E-09	µCi/mL	GP	EPAS260B
0	Cobalt-57	-3.36E-10±1.73E-09	JU	L	0	3.01E-09	µCi/mL	GP	EPAS260B
0	Cobalt-60	2.11E-09±1.40E-09	JU	L	0	3.32E-09	µCi/mL	GP	EPAS260B

**ESH-EMS-990520**

**B-107**

**First Quarter 1999**



## ANALYTICAL RESULTS

Well FSB 76C collected on 01/06/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method	F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	trans-1,2-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B	0	Carbon-14	7.90E-09±0.08E-09	U			8.57E-09	µCi/mL	GP	EPIA-003
0	trans-1,2-Dichloroethene	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Carbon-14	2.02E-07±0.07E-07	R			1.73E-07	µCi/mL	TM	ENICM
0	Dichloromethane	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Carbon-14	9.48E-08±0.03E-08	U			2.07E-08	µCi/mL	GP	EPIA-013
0	1,2-Dichloroethane	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cerium-144	5.81E-09±1.18E-09	U			2.65E-08	µCi/mL	TM	EPAS01.1M
0	cis-1,3-Dichloropropene	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cerium-144	6.44E-09±1.50E-09	U			2.67E-08	µCi/mL	GP	EPAS01.1M
0	cis-1,3-Dichloropropene	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cerium-144	4.62E-11±1.85E-09	U			4.74E-09	µCi/mL	GP	EPAS01.1M
0	cis-1,3-Dichloropropene	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cesium-134	2.00E-10±2.50E-09	U			4.74E-09	µCi/mL	GP	EPAS01.1M
0	trans-1,3-Dichloropropene	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cesium-137	4.75E-10±1.68E-09	U			4.80E-09	µCi/mL	GP	EPAS01.1M
0	trans-1,3-Dichloropropene	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cesium-137	2.15E-09±2.75E-09	U			5.05E-09	µCi/mL	GP	EPAS01.1M
0	Ethylbenzene	<3.00	JU	L	O	3.00	µg/L	WA	EPAS260B	0	Cobalt-57	1.07E-09±2.75E-09	U			4.90E-09	µCi/mL	GP	EPAS01.1M
0	Iron, total recoverable	<27.6	JU	L	O	27.6	µg/L	GE	EPAS260B	0	Cobalt-57	3.39E-10±1.51E-09	U			2.64E-09	µCi/mL	GP	EPAS01.1M
0	Iron, total recoverable	<27.6	JU	L	O	27.6	µg/L	WA	EPAS260B	0	Cobalt-57	1.18E-09±2.00E-09	U			3.57E-09	µCi/mL	GP	EPAS01.1M
0	Iron, total recoverable	<27.6	JU	L	O	27.6	µg/L	WA	EPAS260B	0	Cobalt-57	1.51E-09±1.95E-09	U			3.30E-09	µCi/mL	TM	EPAS01.1M
0	Lead, total recoverable	0.826	JU	L	O	74.0	µg/L	GE	EPAS260B	0	Cobalt-57	2.70E-10±3.22E-09	U			4.75E-09	µCi/mL	TM	EPAS01.1M
0	Lead, total recoverable	<47.0	JU	L	O	2.00	µg/L	GE	EPAS260B	0	Cobalt-58	3.26E-09±3.29E-09	U			4.36E-09	µCi/mL	GP	EPAS01.1M
0	Lead, total recoverable	<47.0	JU	L	O	47.0	µg/L	WA	EPAS260B	0	Cobalt-60	4.88E-10±1.52E-09	U			2.94E-09	µCi/mL	GP	EPAS01.1M
0	Mercury, total recoverable	<0.200	JU	L	O	0.200	µg/L	GE	EPAS260B	0	Cobalt-60	2.40E-10±2.27E-09	U			4.33E-09	µCi/mL	TM	EPAS01.1M
0	Mercury, total recoverable	<0.450	JU	L	O	0.450	µg/L	WA	EPAS260B	0	Cobalt-60	1.28E-09±2.52E-09	U			4.94E-09	µCi/mL	GP	EPAS01.1M
0	Nickel, total recoverable	<26.0	JU	L	O	26.0	µg/L	GE	EPAS260B	0	Cobalt-60	<0.00E-00	U			4.10E-10	µCi/mL	GP	EPAS01.1M
0	Nickel, total recoverable	<26.0	JU	L	O	26.0	µg/L	WA	EPAS260B	0	Cobalt-60	7.00E-11±5.00E-11	U			4.10E-10	µCi/mL	GP	EPAS01.1M
0	Nickel, total recoverable	<26.0	JU	L	O	26.0	µg/L	GE	EPAS260B	0	Cobalt-60	1.20E-10±2.00E-10	U			3.90E-10	µCi/mL	GP	EPAS01.1M
0	Nitrate-nitrite as nitrogen	1.710	JU	L	O	50.0	µg/L	GE	EPAS260B	0	Cobalt-60	1.00E-10±2.30E-10	U			8.98E-11	µCi/mL	GP	EPAS01.1M
0	Nitrate-nitrite as nitrogen	1.280	JU	L	O	100	µg/L	WA	EPAS260B	0	Cobalt-60	1.00E-10±2.30E-10	U			8.10E-10	µCi/mL	GP	EPAS01.1M
0	Nitrate-nitrite as nitrogen	1.280	JU	L	O	100	µg/L	GE	EPAS260B	0	Cobalt-60	3.32E-11±6.7E-11	U			9.97E-11	µCi/mL	GP	EPAS01.1M
0	pH	5.98	JU	L	O	0.100	pH	WA	EPAS260B	0	Cobalt-60	2.74E-09±4.84E-09	U			8.48E-09	µCi/mL	GP	EPAS01.1M
0	pH	6.11	JU	L	O	0.100	pH	WA	EPAS260B	0	Cobalt-60	5.21E-09±3.63E-08	U			3.54E-08	µCi/mL	GP	EPAS01.1M
0	pH	6.23	JU	L	O	0.100	pH	WA	EPAS260B	0	Cobalt-60	7.30E-09±1.59E-08	U			3.18E-08	µCi/mL	GP	EPAS01.1M
0	Phenols	<37.0	JU	L	O	37.0	µg/L	GE	EPAS260B	0	Cobalt-60	2.63E-09±4.40E-09	U			7.58E-09	µCi/mL	GP	EPAS01.1M
0	Phenols	<37.0	JU	L	O	37.0	µg/L	WA	EPAS260B	0	Cobalt-60	3.88E-09±7.19E-09	U			1.42E-08	µCi/mL	GP	EPAS01.1M
0	Selenium, total recoverable	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cobalt-60	2.51E-09±6.39E-09	U			1.14E-08	µCi/mL	GP	EPAS01.1M
0	Selenium, total recoverable	<66.0	JU	L	O	66.0	µg/L	WA	EPAS260B	0	Cobalt-60	8.01E-09±1.18E-08	U			1.38E-08	µCi/mL	GP	EPAS01.1M
0	Selenium, total recoverable	<66.0	JU	L	O	66.0	µg/L	WA	EPAS260B	0	Cobalt-60	5.11E-09±6.45E-09	U			1.18E-08	µCi/mL	GP	EPAS01.1M
0	Silver, total recoverable	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cobalt-60	9.64E-09±7.93E-09	U			1.32E-08	µCi/mL	GP	EPAS01.1M
0	Silver, total recoverable	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cobalt-60	2.36E-10±3.36E-10	U			6.73E-10	µCi/mL	GP	EPAS01.1M
0	Silver, total recoverable	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cobalt-60	2.71E-10±3.55E-10	U			7.12E-10	µCi/mL	GP	EPAS01.1M
0	Specific conductance	34.3	JU	L	O	10.0	µS/cm	WA	EPAS260B	0	Cobalt-60	7.60E-10±6.00E-10	U			8.80E-10	µCi/mL	GP	EPAS01.1M
0	Specific conductance	33.1	JU	L	O	10.0	µS/cm	WA	EPAS260B	0	Cobalt-60	6.96E-10±7.76E-10	U			9.00E-10	µCi/mL	GP	EPAS01.1M
0	1,1,2,2-Tetrachloroethane	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cobalt-60	1.00E-10±2.30E-10	U			1.20E-09	µCi/mL	GP	EPAS01.1M
0	1,1,2,2-Tetrachloroethane	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cobalt-60	3.00E-10±3.60E-09	U			1.01E-08	µCi/mL	GP	EPAS01.1M
0	Tetrachloroethene	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cobalt-60	9.48E-10±3.13E-09	U			5.49E-09	µCi/mL	GP	EPAS01.1M
0	Tetrachloroethene	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cobalt-60	1.84E-09±4.40E-09	U			6.90E-09	µCi/mL	GP	EPAS01.1M
0	Toluene	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cobalt-60	1.74E-09±4.40E-09	U			6.62E-09	µCi/mL	GP	EPAS01.1M
0	1,1,1-Trichloroethane	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cobalt-60	2.17E-09±2.82E-09	U			2.59E-09	µCi/mL	GP	EPAS01.1M
0	1,1,1-Trichloroethane	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cobalt-60	2.02E-09±2.95E-09	U			5.20E-09	µCi/mL	GP	EPAS01.1M
0	1,1,2-Trichloroethane	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cobalt-60	2.31E-09±5.54E-09	U			5.20E-09	µCi/mL	GP	EPAS01.1M
0	1,1,2-Trichloroethane	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cobalt-60	7.63E-10±6.59E-10	U			9.84E-09	µCi/mL	GP	EPAS01.1M
0	1,1,2-Trichloroethane	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cobalt-60	2.02E-09±6.30E-08	U			1.09E-07	µCi/mL	GP	EPAS01.1M
0	Trichloroethene	2.90	JU	L	O	1.00	µg/L	GE	EPAS260B	0	Cobalt-60	7.63E-10±6.59E-10	U			1.38E-09	µCi/mL	GP	EPAS01.1M
0	Trichloroethene	2.88	JU	L	O	1.00	µg/L	WA	EPAS260B	0	Cobalt-60	9.97E-10±6.12E-10	U			1.20E-09	µCi/mL	GP	EPAS01.1M
0	Trichloroethene	2.80	JU	L	O	1.00	µg/L	GE	EPAS260B	0	Cobalt-60	1.40E-10±1.08E-09	U			1.86E-09	µCi/mL	GP	EPAS01.1M
0	Trichloroethene	2.80	JU	L	O	1.00	µg/L	WA	EPAS260B	0	Cobalt-60	5.10E-10±1.08E-09	U			1.86E-09	µCi/mL	GP	EPAS01.1M
0	Vanadium, total recoverable	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cobalt-60	<0.00E-00	U			1.83E-10	µCi/mL	GP	EPAS01.1M
0	Vanadium, total recoverable	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cobalt-60	2.90E-10±2.40E-10	U			3.30E-10	µCi/mL	GP	EPAS01.1M
0	Vanadium, total recoverable	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cobalt-60	1.39E-11±1.63E-11	U			1.48E-10	µCi/mL	GP	EPAS01.1M
0	Vanadium, total recoverable	<5.00	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cobalt-60	4.00E-11±6.00E-11	U			2.20E-10	µCi/mL	GP	EPAS01.1M
0	Xylenes	15.1	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cobalt-60	<0.00E-00	U			5.90E-08	µCi/mL	GP	EPAS01.1M
0	Zinc, total recoverable	23.8	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cobalt-60	9.30E-09±3.86E-08	U			5.20E-08	µCi/mL	GP	EPAS01.1M
0	Zinc, total recoverable	23.8	JU	L	O	5.00	µg/L	GE	EPAS260B	0	Cobalt-60	5.60E-10±2.84E-08	U			5.30E-08	µCi/mL	GP	EPAS01.1M
0	Zinc, total recoverable	23.8	JU	L	O	5.00	µg/L	WA	EPAS260B	0	Cobalt-60	5.92E-10±1.57E-08	U			5.30E-08	µCi/mL	GP	EPAS01.1M
0	Actinium-228	7.50E-09±1.21E-08	JU	L	O	1.68E-08	µCi/mL	GP	EPIA-013	0	Cobalt-60	1.93E-09±2.84E-09	U			2.88E-09	µCi/mL	GP	EPAS01.1M
0	Actinium-228	7.50E-09±1.21E-08	JU	L	O	1.68E-08	µCi/mL	GP	EPIA-013	0	Cobalt-60	2.50E-09±2.38E-09	U			4.14E-09	µCi/mL	GP	EPAS01.1M
0	Actinium-228	7.50E-09±1.21E-08	JU	L	O	1.68E-08	µCi/mL	GP	EPIA-013	0	Cobalt-60	4.08E-11±1.93E-09	U			5.07E-09	µCi/mL	GP	EPAS01.1M
0	Americium-241/Curium-246	9.03E-11±2.10E-10	JU	L	O	5.10E-10	µCi/mL	GP	EPIA-011	0	Cobalt-60	3.46E-09±5.14E-09	U			3.50E-09	µCi/mL	GP	EPAS01.1M
0	Americium-241/Curium-246	1.40E-10±2.50E-10	JU	L	O	5.10E-10	µCi/mL	GP	EPIA-011	0	Cobalt-60	2.00E-09±7.12E-09	U			8.34E-09	µCi/mL	GP	EPAS01.1M
0	Antimony-124	2.49E-09±3.27E-09	JU	L	O	5.24E-09	µCi/mL	GP	EPIA-011	0	Cobalt-60	1.50E-10±1.50E-10	U			1.83E-10	µCi/mL	GP	EPAS01.1M
0	Antimony-125	1.46E-09±4.56E-09	JU	L	O	7.61E-09	µCi/mL	GP	EPIA-011	0	Cobalt-60	2.00E-10±1.60E-10	U			2.20E-10	µCi/mL	GP	EPAS01.1M
0	Antimony-125	3.58E-09±4.56E-09	JU	L	O	1.13E-08	µCi/mL	GP	EPIA-011	0	Cobalt-60	7.74E-10±6.03E-10	U			1.18E-09	µCi/mL	GP	EPAS01.1M
0	Antimony-125	2.80E-10±6.28E-09	JU	L	O	1.09E-08	µCi/mL	GP	EPIA-011	0	Cobalt-60	7.30E-10±6.03E-10	U			2.04E-09	µCi/mL	GP	EPAS01.1M
0	Antimony-125	1.14E-09±3.53E-09	JU	L	O	5.20E-08	µCi/mL	GP	EPIA-011	0	Cobalt-60	1.71E-09±9.49							







## ANALYTICAL RESULTS

Well FSB 77 collected on 01/12/99 (cont.)

WELL FSB 77  
MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 59.44 ft (18.12 m) below TOC  
Water elevation: 213.86 ft (65.19 m) msl  
pH: 3  
Sp. conductance: 600  $\mu$ S/cm  
Turbidity: 3 NTU  
Water evacuated from the well prior to sampling: 112 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	37,100			300		$\mu$ g/L	GE	EPA8200
0	Antimony, total recoverable	<0.200			0.200		$\mu$ g/L	GE	EPA8200
0	Arsenic, total recoverable	<60.0			60.0		$\mu$ g/L	GE	EPA8200
0	Barium, total recoverable	118			2.00		$\mu$ g/L	GE	EPA8200
0	Benzene	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Bis(2-ethylhexyl) phthalate	<9.90			9.90		$\mu$ g/L	GE	EPA8200
0	Bromodichloromethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Bromofluoromethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Bromomethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Cadmium, total recoverable	<9.76			1.00		$\mu$ g/L	GE	EPA8200
0	Carbon tetrachloride	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Chlorobenzene	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Chloroethane (Vinyl chloride)	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	2-Chloroethyl vinyl ether	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Chloromethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Chloroform	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Chromium, total recoverable	<5.00			5.00		$\mu$ g/L	GE	EPA8200
0	Chromium, total recoverable	<3.00			3.00		$\mu$ g/L	GE	EPA8200
0	Cobalt, total recoverable	11.6			0.200		$\mu$ g/L	GE	EPA8200
0	Copper, total recoverable	<10.0			10.0		$\mu$ g/L	GE	EPA8200
0	Cyanide	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Dibromochloromethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	1,1-Dichloroethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	1,2-Dichloroethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	1,1-Dichloroethylene	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	trans-1,2-Dichloroethylene	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Dichloromethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	1,2-Dichloropropane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	cis-1,3-Dichloropropane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	trans-1,3-Dichloropropane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Iron, total recoverable	38.3			15.0		$\mu$ g/L	GE	EPA8200
0	Lead, total recoverable	1.37			2.00		$\mu$ g/L	GE	EPA8200
0	Mercury, total recoverable	3.68			0.200		$\mu$ g/L	GE	EPA8200
0	Nickel, total recoverable	14.7			2.00		$\mu$ g/L	GE	EPA8200
0	Nitrate-nitrite as nitrogen	63,300			1,250		$\mu$ g/L	GE	EPA8200
1	pH	3.70			0.100		pH	GE	EPA8200
0	Phenols	<5.00			5.00		$\mu$ g/L	GE	EPA8200
0	Selenium, total recoverable	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Silver, total recoverable	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Specific conductance	716			1.00		$\mu$ S/cm	GE	EPA8200
0	1,1,2,2-Tetrachloroethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Tetrachloroethylene	<1.00			2.50		$\mu$ g/L	GE	EPA8200
0	Thallium, total recoverable	0.297			1.00		$\mu$ g/L	GE	EPA8200
0	Toluene	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	1,1,1-Trichloroethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	1,1,2-Trichloroethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Trichloroethylene	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Trichlorofluoromethane	<1.00			5.00		$\mu$ g/L	GE	EPA8200
0	Vanadium, total recoverable	<10.0			10.0		$\mu$ g/L	GE	EPA8200
0	Zinc, total recoverable	45.9			1.00		$\mu$ g/L	GE	EPA8200
0	Actinium-228	1,39E-08			1,98E-08		$\mu$ Ci/mL	GP	EPA-013
0	Americium-241	1,38E-08			2,55E-10		$\mu$ Ci/mL	GP	EPA-011
0	Antimony-125	1,11E-09			1,05E-08		$\mu$ Ci/mL	GP	EPA-013

ESH-EMS-990520

B-110

First Quarter 1999

## WELL FSB 78

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/11/99  
Depth to water: 63.45 ft (19.34 m) below TOC  
Water elevation: 209.15 ft (63.75 m) msl  
pH: 3.9  
Sp. conductance: 1,000  $\mu$ S/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling: 35 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	20,700			15.0		$\mu$ g/L	GE	EPA8200
0	Antimony, total recoverable	<3.00			0.100		$\mu$ g/L	GE	EPA8200
0	Arsenic, total recoverable	<3.00			2.00		$\mu$ g/L	GE	EPA8200
0	Barium, total recoverable	474			2.00		$\mu$ g/L	GE	EPA8200
0	Benzene	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Bis(2-ethylhexyl) phthalate	<1.00			10.0		$\mu$ g/L	GE	EPA8200
0	Bromodichloromethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Bromofluoromethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Bromomethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Cadmium, total recoverable	21.0			1.00		$\mu$ g/L	GE	EPA8200
0	Carbon tetrachloride	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Chlorobenzene	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Chloroethane	<1.00			1.00		$\mu$ g/L	GE	EPA8200
0	Chloroethane (Vinyl chloride)	<1.00			1.00		$\mu$ g/L	GE	EPA8200

Time: 14:00  
Water temperature: 20.3°C  
Air temperature: 15.2°C  
Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifier(s): V



## ANALYTICAL RESULTS

Well FSB 78 collected on 01/11/199 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 2-Chloroethyl vinyl ether	<5.00	JU	L	O	5.00	µg/L	GE	EPA8260B
0 Chloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Chloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	1.96	JU	L	O	3.00	µg/L	GE	EPA8260B
0 Cobalt, total recoverable	12.8	J	L	O	0.200	µg/L	GE	EPA8260B
0 Copper, total recoverable	43.6	J	L	O	1.00	µg/L	GE	EPA8260B
0 Cyanide	<10.0	J	L	O	1.00	µg/L	GE	EPA8260B
0 Dibromochloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Dichloromethane	<5.28	JU	L	O	1.00	µg/L	GE	EPA8260B
0 1,2-Dichloropropane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Lead, total recoverable	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Iron, total recoverable	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Manganese, total recoverable	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Mercury, total recoverable	0.403	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Nickel, total recoverable	16.8	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Nitrate-nitrite as nitrogen	12.000	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Phenols	3.39	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Selenium, total recoverable	<5.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Silver, total recoverable	<5.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Specific conductance	1.150	JU	L	O	1.00	µS/cm	GE	EPA8260B
0 1,1,2-Tetrachloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Tetrachloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Thallium, total recoverable	0.371	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Toluene	<0.662	JU	L	O	1.00	µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Trichloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Trichloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Vanadium, total recoverable	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Zinc, total recoverable	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B

## WELL FSB 78A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 116.14 ft (35.4 m) below TOC  
 Water elevation: 156.46 ft (47.69 m) msl  
 pH: 7.2  
 Sp. conductance: 110 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 247 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	14.1	J	L	O	15.0	µg/L	GE	EPA8260B
0 Arsenic, total recoverable	<3.00	J	L	O	3.00	µg/L	GE	EPA8260B
0 Barium, total recoverable	21.8	J	L	O	2.00	µg/L	GE	EPA8260B
0 Benzene	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<10.3	J	L	O	10.3	µg/L	GE	EPA8260B
0 Bromodichloromethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Bromoform	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Bromomethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Cadmium, total recoverable	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Chloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Chloroethene (vinyl chloride)	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	0.927	J	L	O	3.00	µg/L	GE	EPA8260B
0 Cobalt, total recoverable	<0.143	J	L	O	1.00	µg/L	GE	EPA8260B
0 Copper, total recoverable	4.59	J	L	O	1.00	µg/L	GE	EPA8260B
0 Cyanide	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Dibromochloromethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethylene	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Dichloromethane	<1.55	J	L	O	1.00	µg/L	GE	EPA8260B
0 1,2-Dichloropropane	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Iron, total recoverable	353	J	L	O	15.0	µg/L	GE	EPA8260B
0 Lead, total recoverable	<2.00	J	L	O	2.00	µg/L	GE	EPA8260B
0 Mercury, total recoverable	<2.00	J	L	O	2.00	µg/L	GE	EPA8260B
0 Nickel, total recoverable	330	J	L	O	5.00	µg/L	GE	EPA8260B
0 Nitrate-nitrite as nitrogen	6.56	J	L	O	5.00	µg/L	GE	EPA8260B
0 Phenols	<5.00	J	L	O	5.00	µg/L	GE	EPA8260B
0 Selenium, total recoverable	<5.00	J	L	O	5.00	µg/L	GE	EPA8260B
0 Silver, total recoverable	<5.00	J	L	O	5.00	µg/L	GE	EPA8260B
0 Specific conductance	124	J	L	O	1.00	µS/cm	GE	EPA8260B
0 1,1,2,2-Tetrachloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Tetrachloroethylene	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Thallium, total recoverable	0.890	J	L	O	1.00	µg/L	GE	EPA8260B
0 Toluene	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Trichloroethylene	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Trichloromethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Vanadium, total recoverable	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Zinc, total recoverable	<1.00	J	L	O	1.00	µg/L	GE	EPA8260B
0 Aqueous ammonia	6.44E-08±0.08E-08	JU	L	O	1.00E-08	µM	GP	EPA-013
0 Ammonium-nitrate	1.24E-10	JU	L	O	1.00E-10	µM	GP	EPA-011
0 Ammonium-nitrite	5.27E-10±0.03E-10	JU	L	O	1.00E-10	µM	GP	EPA-013
0 Ammonium-125	2.50E-09±0.27E-09	JU	L	O	1.00E-09	µM	GP	EPA-013
0 Carbon-14		JU	L	O			GP	EPA-013

ESH-EMS-990520

B-111

First Quarter 1999



## ANALYTICAL RESULTS

Well FSB 78A collected on 01/07/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Cesium-144	1.35E-09±1.14E-08	U			2.03E-08	µCi/mL	GP	EPA8260B
0 Cesium-134	9.69E-10±1.58E-09	U			2.52E-09	µCi/mL	GP	EPA8260B
0 Cesium-137	1.53E-09±3.45E-09	U			2.52E-09	µCi/mL	GP	EPA8260B
0 Cobalt-57	5.73E-10±1.58E-09	U			3.01E-09	µCi/mL	GP	EPA8260B
0 Cobalt-60	6.90E-11±1.39E-10	U			2.07E-10	µCi/mL	GP	EPA8260B
0 Curium-242	4.72E-11±5.51E-11	U			4.55E-10	µCi/mL	GP	EPA8260B
0 Curium-243/244	<0.00E+00	U			1.96E-10	µCi/mL	GP	EPA8260B
0 Europium-152	3.74E-09±4.74E-09	U			8.44E-09	µCi/mL	GP	EPA8260B
0 Europium-154	2.95E-10±4.35E-09	U			7.74E-09	µCi/mL	GP	EPA8260B
0 Europium-155	6.43E-09±1.03E-08	U			1.21E-08	µCi/mL	GP	EPA8260B
0 Gross alpha	1.29E-09±6.03E-10	U			8.04E-10	µCi/mL	GP	EPA8260B
0 Iodine-129	6.89E-10±7.99E-10	U			1.35E-09	µCi/mL	GP	EPA8260B
0 Lead-212	5.47E-09±3.36E-09	U			2.49E-09	µCi/mL	GP	EPA8260B
0 Manganese-54	1.00E-09±1.49E-09	U			1.18E-09	µCi/mL	GP	EPA8260B
0 Nonvolatile beta	1.90E-09±6.80E-10	U			1.22E-09	µCi/mL	GP	EPA8260B
0 Plutonium-238	1.82E-10±1.65E-10	U			1.22E-09	µCi/mL	GP	EPA8260B
0 Plutonium-239/240	<0.00E+00	U			1.22E-09	µCi/mL	GP	EPA8260B
0 Potassium-40	7.20E-10±2.49E-08	U			2.53E-08	µCi/mL	GP	EPA8260B
0 Promethium-144	1.99E-10±1.40E-09	U			2.34E-09	µCi/mL	GP	EPA8260B
0 Radium-146	9.74E-10±2.12E-09	U			1.63E-10	µCi/mL	GP	EPA8260B
0 Radium-228	8.39E-10±3.68E-10	U			8.78E-10	µCi/mL	GP	EPA8260B
0 Radium-228	8.41E-09±1.33E-08	U			2.49E-08	µCi/mL	GP	EPA8260B
0 Radium-228	2.76E-09	U			2.76E-09	µCi/mL	GP	EPA8260B
0 Strontium-90	1.20E-10±1.55E-09	U			1.42E-09	µCi/mL	GP	EPA8260B
0 Technetium-99	7.55E-08±1.39E-08	U			1.98E-08	µCi/mL	GP	EPA8260B
0 Thorium-228	4.86E-11±1.23E-10	U			2.70E-10	µCi/mL	GP	EPA8260B
0 Thorium-232	2.79E-11±1.29E-10	U			1.07E-10	µCi/mL	GP	EPA8260B
0 Tritium	<0.00E+00	U			6.15E-07	µCi/mL	GP	EPA8260B
0 Uranium-233/234	6.14E-06±5.67E-07	U			2.19E-07	µCi/mL	GP	EPA8260B
0 Uranium-235	2.62E-10±1.88E-10	U			1.81E-10	µCi/mL	GP	EPA8260B
0 Uranium-238	1.51E-11±6.14E-11	U			8.69E-11	µCi/mL	GP	EPA8260B
0 Yttrium-88	5.79E-11±8.23E-11	U			3.37E-09	µCi/mL	GP	EPA8260B
0 Zinc-65	3.77E-10±1.78E-09	U			5.88E-09	µCi/mL	GP	EPA8260B
0 Zinc-65	5.47E-10±3.75E-09	U						

## WELL FSB 78B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 117.84 ft (35.92 m) below TOC  
 Water elevation: 154.96 ft (47.23 m) msl  
 pH: 7.6  
 Sp. conductance: 220 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 199 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	14.1	U			15.0	µg/L	GE	EPA8260B
0 Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0 Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8260B
0 Barium, total recoverable	42.4	U			2.00	µg/L	GE	EPA8260B
0 Benzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<10.0	U			10.0	µg/L	GE	EPA8260B
0 Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Bromoform	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Bromomethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Cadmium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chloroethane (Vinyl chloride)	<1.00	U			1.00	µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<5.00	U			5.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	2.04	U			3.00	µg/L	GE	EPA8260B
0 Cobalt, total recoverable	0.261	U			0.200	µg/L	GE	EPA8260B
0 Copper, total recoverable	1.19	U			1.00	µg/L	GE	EPA8260B
0 Cyanide	<10.0	U			10.0	µg/L	GE	EPA8260B

ESH-EMS-990520

B-112

First Quarter 1999

Well FSB 78B collected on 01/07/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Dibromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethylene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Dichloromethane	<5.00	U			5.00	µg/L	GE	EPA8260B
0 1,2-Dichloropropane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	905	U			15.0	µg/L	GE	EPA8260B
2 Iron, total recoverable	0.519	J			2.00	µg/L	GE	EPA8260B
0 Lead, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0 Mercury, total recoverable	5.33	U			2.00	µg/L	GE	EPA8260B
0 Nickel, total recoverable	9.800	U			2.50	µg/L	GE	EPA8260B
1 Nitrate-nitrite as nitrogen	5.34	U			5.00	µg/L	GE	EPA8260B
0 Phenols	<5.00	U			5.00	µg/L	GE	EPA8260B
0 Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0 Silver, total recoverable	272	U			1.00	µS/cm	GE	EPA8260B
1 Sulfate as sulfate	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1,2,2-Tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Tetrachloroethylene	0.286	U			2.50	µg/L	GE	EPA8260B
0 Toluene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Trichloroethylene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Trichlorofluoromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Vanadium, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8260B
0 Zinc, total recoverable	6.81E-09±5.88E-09	U			1.37E-08	µCi/mL	GP	EPA8260B
0 Actinium-228	1.55E-10±2.23E-10	U			2.60E-10	µCi/mL	GP	EPA8260B
0 Americium-241	2.84E-09±4.41E-09	U			7.00E-09	µCi/mL	GP	EPA8260B
0 Antimony-125	5.25E-09±3.40E-09	U			1.84E-08	µCi/mL	GP	EPA8260B
0 Carbon-14	3.07E-10±1.65E-09	U			2.61E-09	µCi/mL	GP	EPA8260B
0 Cesium-134	4.55E-10±4.20E-09	U			3.22E-09	µCi/mL	GP	EPA8260B
0 Cesium-137	-4.60E-10±1.22E-09	U			2.13E-09	µCi/mL	GP	EPA8260B
0 Cobalt-57	2.60E-09±2.48E-09	U			3.72E-09	µCi/mL	GP	EPA8260B
0 Cobalt-60	<0.00E+00	U			2.74E-10	µCi/mL	GP	EPA8260B
0 Curium-242	8.66E-11±1.74E-10	U			2.80E-10	µCi/mL	GP	EPA8260B
0 Curium-243/244	-3.44E-09±5.04E-09	U			8.19E-09	µCi/mL	GP	EPA8260B
0 Europium-152	-3.70E-09±5.13E-09	U			8.21E-09	µCi/mL	GP	EPA8260B
0 Europium-154	1.40E-09±5.13E-09	U			9.28E-09	µCi/mL	GP	EPA8260B
0 Europium-155	2.61E-09±7.91E-10	U			6.64E-10	µCi/mL	GP	EPA8260B
0 Gross alpha	1.46E-09±3.72E-10	U			1.19E-09	µCi/mL	GP	EPA8260B
2 Iodine-129	1.74E-09±3.65E-09	U			5.55E-09	µCi/mL	GP	EPA8260B
0 Lead-212	-8.72E-10±1.73E-09	U			2.94E-09	µCi/mL	GP	EPA8260B
0 Manganese-54	3.14E-09±7.50E-10	U			3.20E-09	µCi/mL	GP	EPA8260B
0 Nonvolatile beta	<0.00E+00	U			3.31E-10	µCi/mL	GP	EPA8260B
0 Plutonium-238	5.00E-09±1.01E-10	U			3.31E-10	µCi/mL	GP	EPA8260B
0 Plutonium-239/240	6.00E-09±1.22E-08	U			2.58E-08	µCi/mL	GP	EPA8260B
0 Potassium-40	1.75E-09±3.22E-09	U			2.71E-09	µCi/mL	GP	EPA8260B
0 Promethium-144	1.09E-09±3.30E-09	U			4.11E-09	µCi/mL	GP	EPA8260B
0 Radium-146	1.14E-09±6.81E-10	U			8.54E-10	µCi/mL	GP	EPA8260B
0 Radium-228	1.33E-09±5.34E-10	U			9.70E-10	µCi/mL	GP	EPA8260B
0 Radium-228	-5.04E-09±1.51E-08	U			2.66E-08	µCi/mL	GP	EPA8260B
0 Radium-228	-1.30E-09±1.73E-09	U			2.93E-09	µCi/mL	GP	EPA8260B
0 Strontium-90	1.89E-10±6.54E-10	U			1.47E-09	µCi/mL	GP	EPA8260B
0 Technetium-99	1.05E-07±1.54E-08	U			1.93E-08	µCi/mL	GP	EPA8260B
0 Thorium-228	7.15E-11±1.75E-10	U			4.01E-10	µCi/mL	GP	EPA8260B
0 Thorium-230	2.59E-11±8.80E-11	U			2.62E-10	µCi/mL	GP	EPA8260B
0 Thorium-232	2.59E-11±8.80E-11	U			2.62E-10	µCi/mL	GP	EPA8260B
2 Tritium	2.57E-04±5.07E-06	U			1.11E-06	µCi/mL	GP	EPA8260B
0 Uranium-233/234	2.32E-10±1.99E-10	U			2.78E-10	µCi/mL	GP	EPA8260B
0 Uranium-235	8.80E-11±1.21E-10	U			2.38E-10	µCi/mL	GP	EPA8260B
0 Uranium-238	7.60E-11±1.21E-10	U			2.12E-10	µCi/mL	GP	EPA8260B
0 Yttrium-88	5.71E-10±1.77E-09	U			3.67E-09	µCi/mL	GP	EPA8260B
0 Zinc-65	-5.08E-09±4.16E-09	U			6.01E-09	µCi/mL	GP	EPA8260B



## WELL FSB 78C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 65.5 ft (19.99 m) below TOC  
 Water elevation: Not available  
 pH: 4.2  
 Conductance: 2000  $\mu\text{S}/\text{cm}$   
 Turbidity: 0.6 NTU  
 Water evacuated from the well prior to sampling: 44 gal  
 The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	22,800	J		CI	300	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Antimony, total recoverable	<0.200	J			0.200	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Arsenic, total recoverable	<60.0	J			60.0	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Barium, total recoverable	704	J			2.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Benzene	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Bis(2-ethylhexyl) phthalate	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8270C
2	Bromochloromethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Bromomethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Cadmium, total recoverable	17.7	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Carbon tetrachloride	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Chlorobenzene	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Chloroethene (Vinyl chloride)	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Chloroform	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Chromium, total recoverable	3.66	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Cobalt, total recoverable	242	J			3.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Copper, total recoverable	8.45	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Cyanide	<10.0	J			10.0	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Dibromochloromethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	1,1-Dichloroethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	1,2-Dichloroethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	1,1-Dichloroethylene	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	trans-1,2-Dichloroethylene	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	cis-1,3-Dichloropropene	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Ethylbenzene	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Iron, total recoverable	455	J			15.0	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Lead, total recoverable	7.56	J			0.200	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Mercury, total recoverable	<0.200	J			2.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Nickel, total recoverable	112	J			2.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Nitrate-nitrite as nitrogen	284,000	J			10,000	$\mu\text{g}/\text{L}$	GE	EPA8020
2	pH	4.04	J			0.100	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Phenols	<5.00	J			5.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Selenium, total recoverable	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Silver, total recoverable	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Specific conductance	2,550	J			1.00	$\mu\text{S}/\text{cm}$	GE	EPA8020
2	1,1,2,2-Tetrachloroethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Trichloroethylene	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	1,1,1-Trichloroethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Trichloromethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Vanadium, total recoverable	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Zinc, total recoverable	457	J			10.0	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Americium-241	1.25E-08±1.31E-08	J			1.61E-08	$\mu\text{Ci}/\text{mL}$	GE	EPA8020
2	Antimony-125	1.14E-08±5.25E-09	J			1.56E-08	$\mu\text{Ci}/\text{mL}$	GE	EPA8020
2	Carbon-14	4.46E-08±5.73E-09	J			9.97E-09	$\mu\text{Ci}/\text{mL}$	GE	EPA8020
2	Cesium-134	3.94E-08±1.0E-09	J			6.93E-09	$\mu\text{Ci}/\text{mL}$	GE	EPA8020
2	Cesium-137	-3.86E-08±1.37E-08	J			2.36E-08	$\mu\text{Ci}/\text{mL}$	GE	EPA8020
2	Cobalt-57	-9.70E-10±2.21E-09	J			3.29E-09	$\mu\text{Ci}/\text{mL}$	GE	EPA8020
2	Cobalt-60	2.53E-09±2.07E-09	J			3.05E-09	$\mu\text{Ci}/\text{mL}$	GE	EPA8020
2	Curium-242	-5.88E-10±1.55E-09	J			3.20E-09	$\mu\text{Ci}/\text{mL}$	GE	EPA8020
2	Curium-244	1.86E-09±1.95E-09	J			4.07E-09	$\mu\text{Ci}/\text{mL}$	GE	EPA8020
2	Curium-246	2.71E-09±1.1E-09	J			1.56E-09	$\mu\text{Ci}/\text{mL}$	GE	EPA8020
2	Europium-152	5.08E-09±1.1E-09	J			1.55E-09	$\mu\text{Ci}/\text{mL}$	GE	EPA8020
2	Europium-154	4.51E-09±6.12E-09	J			9.83E-09	$\mu\text{Ci}/\text{mL}$	GE	EPA8020
2	Europium-156	3.33E-10±5.60E-09	J			1.02E-08	$\mu\text{Ci}/\text{mL}$	GE	EPA8020

ESH-EMS-990520

B-113

Well FSB 78C collected on 01/13/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Europium-155	3.89E-09±4.8E-09	J			1.51E-08	$\mu\text{Ci}/\text{mL}$	GP	EPA-013
2	Gross alpha	2.21E-07±1.98E-08	J			8.70E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-001
2	Iodine-129	1.17E-07±1.44E-08	J			3.90E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-006
2	Lead-212	5.45E-09±5.88E-09	J			5.56E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-013
2	Manganese-54	3.90E-10±1.99E-09	J			3.41E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-013
2	Nonvolatile beta	1.22E-06±2.94E-08	J			9.44E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-011
2	Plutonium-238	1.42E-10±4.78E-10	J			1.13E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-011
2	Plutonium-239/240	3.53E-10±3.80E-10	J			5.73E-10	$\mu\text{Ci}/\text{mL}$	GP	EPA-011
2	Potassium-40	3.22E-08±3.31E-08	J			2.59E-08	$\mu\text{Ci}/\text{mL}$	GP	EPA-013
2	Promethium-144	1.45E-08±1.68E-09	J			3.46E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-013
2	Promethium-146	5.74E-08±2.39E-09	J			4.43E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-013
2	Radium-223	1.64E-09±2.51E-10	J			1.36E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-008
2	Radium-226	6.97E-09±1.68E-09	J			3.02E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-013
2	Ruthenium-106	1.23E-10±2.00E-09	J			3.65E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-013
2	Sodium-22	4.41E-07±8.89E-09	J			1.82E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-004
2	Strontium-90	2.73E-07±2.40E-08	J			2.08E-08	$\mu\text{Ci}/\text{mL}$	GP	EPA-005
2	Technetium-99	3.88E-10±2.68E-10	J			5.94E-10	$\mu\text{Ci}/\text{mL}$	GP	EPA-012
2	Thorium-230	2.53E-10±2.46E-10	J			2.80E-10	$\mu\text{Ci}/\text{mL}$	GP	EPA-012
2	Thorium-232	-1.27E-11±2.57E-11	J			2.80E-10	$\mu\text{Ci}/\text{mL}$	GP	EPA-012
2	Tritium	9.90E-03±1.82E-04	J			8.28E-06	$\mu\text{Ci}/\text{mL}$	GP	EPA-002
2	Uranium-233/234	6.49E-08±8.91E-09	J			4.52E-10	$\mu\text{Ci}/\text{mL}$	GP	EPA-011
2	Uranium-235	5.31E-09±1.12E-09	J			5.02E-10	$\mu\text{Ci}/\text{mL}$	GP	EPA-011
2	Uranium-238	7.58E-08±7.98E-09	J			5.01E-10	$\mu\text{Ci}/\text{mL}$	GP	EPA-011
2	Yttrium-88	6.59E-11±1.98E-09	J			3.64E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-013
2	Zinc-65	2.64E-09±3.36E-09	J			6.10E-09	$\mu\text{Ci}/\text{mL}$	GP	EPA-013

## WELL FSB 79

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
 Depth to water: 15.41 ft (4.7 m) below TOC  
 Water elevation: 202.39 ft (61.69 m) msf  
 pH: 3.2  
 Conductance: 760  $\mu\text{S}/\text{cm}$   
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 50 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	53,100	J			300	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Antimony, total recoverable	<0.200	J			0.200	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Arsenic, total recoverable	<60.0	J			60.0	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Barium, total recoverable	361	J			2.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Benzene	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Bis(2-ethylhexyl) phthalate	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8270C
2	Bromodichloromethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Bromochloromethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Bromomethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Cadmium, total recoverable	5.17	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Carbon tetrachloride	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Chlorobenzene	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Chloroethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Chloroethene (Vinyl chloride)	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	2-Chloroethyl vinyl ether	<5.00	J			5.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Chloroform	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Chloromethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Chromium, total recoverable	54.1	J			3.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Cobalt, total recoverable	22.9	J			0.200	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Copper, total recoverable	39.0	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Cyanide	<10.0	J			10.0	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Dibromochloromethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	1,1-Dichloroethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	1,2-Dichloroethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	trans-1,2-Dichloroethylene	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Dichloromethane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	1,2-Dichloropropane	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	cis-1,3-Dichloropropene	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Ethylbenzene	<1.00	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8260B
2	Lead, total recoverable	395	J			1.00	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Mercury, total recoverable	<0.366	J			0.366	$\mu\text{g}/\text{L}$	GE	EPA8020
2	Nickel, total recoverable	67.6	J			2.00	$\mu\text{g}/\text{L}$	GE	EPA8020

First Quarter 1999



## ANALYTICAL RESULTS

Well FSB 79 collected on 01/12/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Nitrate-nitrite as nitrogen	74.300					µg/L	GE	EPA353.1
1 pH	3.68					pH	GE	EPA9040B
0 Phenols	3.68	J	Q			pH	GE	EPA9040B
0 Selenium, total recoverable	<5.00	U	Q			µg/L	GE	EPA9066
0 Silver, total recoverable	<5.00	U				µg/L	GE	EPA9066
0 Specific conductance	<100	U				µS/cm	GE	EPA6020
0 1,1,2,2-Tetrachloroethane	793	U				µg/L	GE	EPA9050A
0 Tetrachloroethylene	<1.00	U				µg/L	GE	EPA9050A
0 Toluene	<1.51	U				µg/L	GE	EPA9050A
0 1,1,1-Trichloroethane	<1.00	U				µg/L	GE	EPA9050A
0 1,1,2-Trichloroethane	<1.00	U				µg/L	GE	EPA9050A
0 Trichloromethane	<1.00	U				µg/L	GE	EPA9050A
0 Vanadium, total recoverable	<100	U				µg/L	GE	EPA9050A
0 Zinc, total recoverable	<100	U				µg/L	GE	EPA9050A
0 Actinium-228	84.5	U				µg/L	GE	EPA9050A
2 Americium-241	1.60E-08±0.44E-09	R				µCi/mL	GP	EPA-013
2 Antimony-125	2.29E-08±3.76E-09	U				µCi/mL	GP	EPA-011
0 Carbon-14	1.24E-09±4.87E-09	U				µCi/mL	GP	EPA-011
0 Cerium-144	7.72E-08±5.97E-09	U				µCi/mL	GP	EPA-013
0 Cesium-134	6.83E-09±1.28E-08	U				µCi/mL	GP	EPA-013
0 Cesium-137	3.88E-10±1.62E-09	U				µCi/mL	GP	EPA-013
0 Cobalt-57	-2.10E-10±1.76E-09	U				µCi/mL	GP	EPA-013
0 Cobalt-60	1.30E-09±2.81E-09	U				µCi/mL	GP	EPA-013
0 Curium-242	3.20E-09±2.14E-09	U				µCi/mL	GP	EPA-011
2 Curium-243/244	5.30E-10±7.37E-10	U				µCi/mL	GP	EPA-011
2 Curium-245/246	5.06E-08±6.85E-09	U				µCi/mL	GP	EPA-011
0 Europium-152	2.28E-10±2.65E-10	U				µCi/mL	GP	EPA-011
0 Europium-154	4.39E-10±4.77E-09	U				µCi/mL	GP	EPA-011
0 Europium-155	2.89E-09±4.77E-09	U				µCi/mL	GP	EPA-011
0 Gross alpha	3.30E-07±1.35E-08	U				µCi/mL	GP	EPA-011
0 Lead-212	8.90E-09±4.83E-09	U				µCi/mL	GP	EPA-011
0 Manganese-54	3.66E-10±1.75E-09	U				µCi/mL	GP	EPA-011
0 Nonradioactive beta	4.67E-07±6.99E-09	U				µCi/mL	GP	EPA-011
0 Plutonium-238	1.40E-10±3.94E-10	U				µCi/mL	GP	EPA-011
0 Plutonium-239/240	1.07E-10±1.53E-10	U				µCi/mL	GP	EPA-011
0 Potassium-40	1.63E-08±1.80E-08	U				µCi/mL	GP	EPA-013
0 Promethium-144	4.65E-10±1.55E-09	U				µCi/mL	GP	EPA-013
0 Radium-226	1.81E-10±1.90E-09	U				µCi/mL	GP	EPA-013
2 Radium-228	2.42E-08±2.18E-08	U				µCi/mL	GP	EPA-013
0 Ruthenium-106	7.26E-09±1.01E-09	U				µCi/mL	GP	EPA-013
0 Ruthenium-108	1.34E-08±1.46E-08	U				µCi/mL	GP	EPA-013
0 Strontium-90	1.72E-09±1.70E-09	U				µCi/mL	GP	EPA-013
0 Technetium-99	7.57E-08±1.59E-08	U				µCi/mL	GP	EPA-013
0 Thorium-230	1.38E-10±3.75E-10	U				µCi/mL	GP	EPA-011
0 Thorium-232	1.34E-11±6.09E-11	U				µCi/mL	GP	EPA-011
2 Tritium	3.29E-03±6.37E-05	U				µCi/mL	GP	EPA-012
2 Uranium-233/234	9.23E-08±1.26E-08	U				µCi/mL	GP	EPA-012
1 Uranium-235	1.04E-08±2.29E-08	U				µCi/mL	GP	EPA-011
0 Uranium-238	2.12E-07±2.72E-08	U				µCi/mL	GP	EPA-011
0 Yttrium-88	-4.54E-10±1.78E-09	U				µCi/mL	GP	EPA-013
0 Zinc-65	2.43E-08±3.52E-09	U				µCi/mL	GP	EPA-013

## WELL FSB 79A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/11/99

Depth to water: 59.5 ft (18.14 m) below TOC

Water elevation: 158.6 ft (48.34 m) msl

pH: 5.6

Sp. conductance: 80 µS/cm

Turbidity: 0 NTU

Water evacuated from the well prior to sampling: 221 gal

Time: 11:36

Air temperature: 19.5°C

Water temperature: 11.5°C

Total alkalinity (as CaCO<sub>3</sub>): 23 mg/L

Phenolphthalein alkalinity: 0 mg/L

Field Qualifier(s): S

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<15.0	U				µg/L	GE	EPA6020
0 Arsenic, total recoverable	15.3	U				µg/L	WA	EPA6010B
0 Antimony, total recoverable	<0.200	U				µg/L	GE	EPA6020

## ESH-EMS-990520

Well FSB 79A collected on 01/11/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Antimony, total recoverable	<27.0	U				µg/L	WA	EPA6010B
0 Arsenic, total recoverable	<3.00	U				µg/L	WA	EPA6020
0 Barium, total recoverable	<40.0	U				µg/L	WA	EPA6020
0 Barium, total recoverable	22.5	U				µg/L	WA	EPA6010B
0 Benzene	<1.00	U				µg/L	WA	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<10.0	U				µg/L	WA	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<10.0	U				µg/L	WA	EPA8260B
0 Bromochloromethane	<1.00	U				µg/L	WA	EPA8260B
0 Bromochloromethane	<1.00	U				µg/L	WA	EPA8260B
0 Bromoform	<1.00	U				µg/L	WA	EPA8260B
0 Bromomethane	<1.00	U				µg/L	WA	EPA8260B
0 Cadmium, total recoverable	<10.0	U				µg/L	WA	EPA8260B
0 Carbon tetrachloride	<4.70	U				µg/L	WA	EPA8260B
0 Carbon tetrachloride	<1.00	U				µg/L	WA	EPA8260B
0 Chlorobenzene	<5.00	U				µg/L	WA	EPA8260B
0 Chloroethane	<1.00	U				µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<1.00	U				µg/L	WA	EPA8260B
0 Chloroethane (Vinyl chloride)	<1.00	U				µg/L	WA	EPA8260B
0 2-Chloroethyl vinyl ether	<1.00	U				µg/L	WA	EPA8260B
0 Chloroform	<1.00	U				µg/L	WA	EPA8260B
0 Chloroform	<1.00	U				µg/L	WA	EPA8260B
0 Chromium, total recoverable	<10.0	U				µg/L	WA	EPA8260B
0 Chromium, total recoverable	<10.0	U				µg/L	WA	EPA8260B
0 Cobalt, total recoverable	<0.0480	U				µg/L	WA	EPA8260B
0 Cobalt, total recoverable	<4.50	U				µg/L	WA	EPA8260B
0 Copper, total recoverable	<0.964	U				µg/L	WA	EPA8260B
0 Copper, total recoverable	<15.0	U				µg/L	WA	EPA8260B
0 Cyanide	<10.0	U				µg/L	WA	EPA8260B
0 Cyanide	<15.2	U				µg/L	WA	EPA8260B
0 Dibromochloromethane	<1.00	U				µg/L	WA	EPA8260B
0 Dibromochloromethane	<5.00	U				µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<1.00	U				µg/L	WA	EPA8260B
0 1,1-Dichloroethane	<5.00	U				µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<1.00	U				µg/L	WA	EPA8260B
0 1,2-Dichloroethane	<5.00	U				µg/L	WA	EPA8260B
0 1,1-Dichloroethylene	<1.00	U				µg/L	WA	EPA8260B
0 trans-1,2-Dichloroethylene	<1.00	U				µg/L	WA	EPA8260B
0 Dichloromethane	<4.44	U				µg/L	WA	EPA8260B
0 Dichloromethane	<5.00	U				µg/L	WA	EPA8260B
0 1,2-Dichloropropane	<1.00	U				µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropane	<1.00	U				µg/L	WA	EPA8260B
0 cis-1,3-Dichloropropane	<5.00	U				µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropane	<1.00	U				µg/L	WA	EPA8260B
0 trans-1,3-Dichloropropane	<5.00	U				µg/L	WA	EPA8260B
0 Ethylbenzene	<1.00	U				µg/L	WA	EPA8260B
0 Iron, total recoverable	<8.77	U				µg/L	WA	EPA8260B
0 Iron, total recoverable	<8.70	U				µg/L	WA	EPA8260B
0 Lead, total recoverable	<2.00	U				µg/L	WA	EPA8260B
0 Lead, total recoverable	<47.0	U				µg/L	WA	EPA8260B
0 Mercury, total recoverable	<0.200	U				µg/L	WA	EPA8260B
0 Nickel, total recoverable	<0.450	U				µg/L	WA	EPA8260B
0 Nickel, total recoverable	<26.0	U				µg/L	WA	EPA8260B
0 Nitrate as nitrogen	530	U				µg/L	WA	EPA8260B
0 Nitrate-nitrite as nitrogen	530	U				µg/L	WA	EPA8260B
0 pH	6.42	U				pH	WA	EPA8260B
0 pH	6.43	U				pH	WA	EPA8260B
0 Phenols	6.62	U				µg/L	WA	EPA8260B
0 Phenols	<5.00	U				µg/L	WA	EPA8260B
0 Selenium, total recoverable	<37.0	U				µg/L	WA	EPA8260B
0 Selenium, total recoverable	<66.0	U				µg/L	WA	EPA8260B
0 Silver, total recoverable	<1.00	U				µg/L	WA	EPA8260B
0 Silver, total recoverable	<5.00	U				µg/L	WA	EPA8260B

## B-114

First Quarter 1999



## ANALYTICAL RESULTS

Well FSB 79A collected on 01/11/99 (cont.)

F Analyte	Lab	Unit	EMS	S	FG	Result
Specific conductance	GE	µS/cm	1.00			89.1
Specific conductance	GE	µS/cm	1.00			88.7
Specific conductance	WA	µS/cm	8.90			68.4
1,1,2,2-Tetrachloroethane	GE	µg/L	1.00		JU	<1.00
1,1,2,2-Tetrachloroethane	WA	µg/L	5.00			<1.00
1,1,2,2-Tetrachloroethane	GE	µg/L	1.00		JU	<1.00
1,1,2,2-Tetrachloroethane	WA	µg/L	5.00		JU	<1.00
Tetrachloroethylene	GE	µg/L	5.00		JU	<1.00
Tetrachloroethylene	WA	µg/L	5.00		JU	<1.00
Thallium, total recoverable	GE	µg/L	55.0		JU	<0.547
Thallium, total recoverable	WA	µg/L	55.0		JU	<0.547
Toluene	GE	µg/L	1.00		JU	<0.702
Toluene	WA	µg/L	1.00		JU	<0.702
1,1,1-Trichloroethane	GE	µg/L	5.00		JU	<1.00
1,1,1-Trichloroethane	WA	µg/L	5.00		JU	<1.00
1,1,2-Trichloroethane	GE	µg/L	5.00		JU	<1.00
1,1,2-Trichloroethane	WA	µg/L	5.00		JU	<1.00
Trichloroethylene	GE	µg/L	5.00		JU	<1.00
Trichloroethylene	WA	µg/L	5.00		JU	<1.00
Trichloroethylene	GE	µg/L	5.00		JU	<1.00
Trichloroethylene	WA	µg/L	5.00		JU	<1.00
Vanadium, total recoverable	GE	µg/L	10.00		JU	<10.0
Vanadium, total recoverable	WA	µg/L	10.00		JU	<10.0
Xylenes	GE	µg/L	5.00		JU	<10.0
Zinc, total recoverable	GE	µg/L	5.00		JU	<10.0
Zinc, total recoverable	WA	µg/L	5.00		JU	<10.0
Actinium-228	GP	µCi/mL	53.0			5.92E-09±6.95E-09
Actinium-228	TM	µCi/mL	1.85E-08			1.50E-08±1.90E-08
Actinium-228	GP	µCi/mL	1.85E-08			1.05E-09±9.65E-09
Actinium-228	TM	µCi/mL	1.85E-08			6.09E-11±6.55E-11
Americium-241	GP	µCi/mL	4.10E-10			8.70E-10±4.20E-10
Americium-241	TM	µCi/mL	4.10E-10			3.80E-10±3.20E-10
Americium-241/Curium-246	GP	µCi/mL	5.10E-09			1.00E-09±2.87E-09
Americium-241/Curium-246	TM	µCi/mL	5.10E-09			1.00E-09±3.30E-09
Antimony-124	GP	µCi/mL	1.07E-08			3.02E-09±5.5E-09
Antimony-124	TM	µCi/mL	1.13E-08			8.30E-10±2.87E-09
Antimony-125	GP	µCi/mL	4.82E-09			1.39E-09±3.05E-09
Antimony-125	TM	µCi/mL	7.52E-09			1.70E-09±4.30E-09
Barium-133	GP	µCi/mL	1.79E-07			9.13E-09±1.03E-07
Barium-133	TM	µCi/mL	1.79E-07			3.53E-09±1.03E-07
Carbon-14	GP	µCi/mL	1.78E-07			9.13E-09±1.03E-07
Carbon-14	TM	µCi/mL	1.78E-07			3.53E-09±1.03E-07
Cerium-144	GP	µCi/mL	2.74E-08			7.57E-09±1.73E-08
Cerium-144	TM	µCi/mL	2.74E-08			3.42E-09±1.58E-08
Cesium-134	GP	µCi/mL	3.16E-09			5.62E-10±2.09E-09
Cesium-134	TM	µCi/mL	3.16E-09			1.12E-09±2.81E-09
Cesium-134	GP	µCi/mL	4.62E-09			5.00E-11±2.71E-09
Cesium-134	TM	µCi/mL	4.62E-09			1.60E-09±1.85E-09
Cesium-137	GP	µCi/mL	2.98E-09			1.34E-09±2.70E-09
Cesium-137	TM	µCi/mL	4.85E-09			6.80E-10±2.62E-09
Cobalt-57	GP	µCi/mL	2.91E-09			9.77E-10±1.61E-09
Cobalt-57	TM	µCi/mL	3.34E-09			9.90E-10±1.95E-09
Cobalt-57	GP	µCi/mL	3.34E-09			3.40E-10±1.95E-09
Cobalt-57	TM	µCi/mL	4.81E-09			5.40E-10±2.91E-09
Cobalt-60	GP	µCi/mL	4.22E-09			9.52E-10±1.63E-09
Cobalt-60	TM	µCi/mL	2.77E-09			1.54E-09±2.80E-09
Cobalt-60	GP	µCi/mL	4.33E-09			9.00E-11±2.47E-09
Cobalt-60	TM	µCi/mL	1.78E-09			1.23E-11±2.50E-11
Curium-242	GP	µCi/mL	1.60E-10			<0.00E+00
Curium-242	TM	µCi/mL	3.70E-10			0.00E+00±1.10E-10
Curium-242	GP	µCi/mL	1.65E-10			1.56E-11±5.95E

**ESH-EMS-990520**

**B-115**

**First Quarter 1999**



## ANALYTICAL RESULTS

First Quarter 1999

B-116

ESH-EMS-990520

WELL FSB 79A Replicate  
MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/11/99  
Depth to water: 59.5 ft (18.14 m) below TOC  
Water elevation: 158.6 ft (48.34 m) msl  
pH: 5.6  
Sp. conductance: 80 µS/cm  
Hardness: 0 NTU  
Water evacuated from the well prior to sampling: 221 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	<15.0	U			15.0	µg/L	GE	EPA8260B
0	Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0	Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8260B
0	Barium, total recoverable	20.7	U			2.00	µg/L	GE	EPA8260B
0	Benzene	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Bis(2-ethylhexyl) phthalate	<10.0	U			10.0	µg/L	GE	EPA8260B
0	Bromodichloromethane	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Bromomethane	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Cadmium, total recoverable	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Carbon tetrachloride	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Chloroethane	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Chloroform	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Chloromethane	0.856	J			1.00	µg/L	GE	EPA8260B
0	Chromium, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0	Cobalt, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Copper, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Cyanide	<10.0	U			10.0	µg/L	GE	EPA8260B
0	Dibromochloromethane	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Dichloromethane	<13.1	JU	L		1.00	µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Ethylbenzene	<98.2	U			15.0	µg/L	GE	EPA8260B
0	Ion, total recoverable	<2.00	U			2.00	µg/L	GE	EPA8260B
0	Lead, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0	Manganese, total recoverable	<2.00	U			2.00	µg/L	GE	EPA8260B
0	Nickel, total recoverable	<2.00	U			2.00	µg/L	GE	EPA8260B
0	Nitrate-nitrite as nitrogen	1.180	U			50.0	µg/L	GE	EPA8260B
0	pH	6.59	J	Q		0.100	pH	GE	EPA8260B
0	Phenols	6.59	U			0.100	pH	GE	EPA8260B
0	Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Silver, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Specific conductance	95.1	U			1.00	µS/cm	GE	EPA8260B
0	Specific conductance	95.2	U			1.00	µS/cm	GE	EPA8260B
0	1,1,2,2-Tetrachloroethane	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Tetrachloroethylene	<2.50	JU	L		2.50	µg/L	GE	EPA8260B
0	Thallium, total recoverable	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Toluene	<1.00	JU	L		1.00	µg/L	GE	EPA8260B

Well FSB 79A collected on 01/11/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	1,1,1-Trichloroethane	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Trichloroethylene	<5.00	JU	L		5.00	µg/L	GE	EPA8260B
0	Trichlorofluoromethane	<10.0	JU	L		10.0	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8260B
0	Zinc, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8260B
0	Actinium-228	5.53E-09±8.89E-09	U			1.53E-08	µCi/mL	GP	EPA-013
0	Actinium-228	2.80E-09±6.77E-09	U			1.28E-08	µCi/mL	GP	EPA-013
0	Actinium-241	4.16E-11±1.54E-10	JU	L		4.56E-10	µCi/mL	GP	EPA-013
0	Antimony-125	-5.57E-10±5.07E-09	U			9.20E-09	µCi/mL	GP	EPA-013
0	Antimony-125	7.12E-10±5.08E-09	U			9.20E-09	µCi/mL	GP	EPA-013
0	Carbon-14	-1.69E-09±5.38E-09	U			9.36E-09	µCi/mL	GP	EPA-003
0	Carbon-14	-1.03E-08±1.38E-08	U			9.44E-08	µCi/mL	GP	EPA-003
0	Cerium-144	1.45E-08±1.38E-08	U			2.43E-08	µCi/mL	GP	EPA-003
0	Cerium-144	1.04E-08±1.40E-08	U			2.43E-08	µCi/mL	GP	EPA-003
0	Cesium-134	8.08E-10±2.10E-09	U			3.52E-09	µCi/mL	GP	EPA-013
0	Cesium-137	8.06E-10±2.10E-09	U			3.52E-09	µCi/mL	GP	EPA-013
0	Cesium-137	8.06E-10±2.10E-09	U			3.52E-09	µCi/mL	GP	EPA-013
0	Cobalt-57	-1.15E-09±1.80E-09	U			3.55E-09	µCi/mL	GP	EPA-013
0	Cobalt-57	-1.33E-09±1.74E-09	U			2.99E-09	µCi/mL	GP	EPA-013
0	Cobalt-60	-1.54E-10±1.71E-09	U			2.77E-09	µCi/mL	GP	EPA-013
0	Cobalt-60	-1.84E-10±2.02E-09	U			3.88E-09	µCi/mL	GP	EPA-013
0	Cobalt-60	-8.43E-10±1.64E-09	U			2.92E-09	µCi/mL	GP	EPA-013
0	Curtium-242	2.42E-11±1.66E-10	JU	L		4.35E-10	µCi/mL	GP	EPA-013
0	Curtium-243/244	6.22E-11±1.02E-10	JU	L		1.86E-10	µCi/mL	GP	EPA-013
0	Curtium-245/246	7.05E-11±1.01E-10	JU	L		1.06E-10	µCi/mL	GP	EPA-013
0	Europium-152	1.47E-09±6.39E-09	U			9.94E-09	µCi/mL	GP	EPA-013
0	Europium-152	-1.15E-09±5.73E-09	U			9.58E-09	µCi/mL	GP	EPA-013
0	Europium-154	3.55E-09±4.01E-09	U			1.10E-08	µCi/mL	GP	EPA-013
0	Europium-154	3.26E-09±4.01E-09	U			1.05E-08	µCi/mL	GP	EPA-013
0	Europium-155	4.34E-09±4.08E-09	U			1.27E-08	µCi/mL	GP	EPA-013
0	Europium-155	2.79E-09±4.02E-09	U			1.14E-08	µCi/mL	GP	EPA-013
0	Gross alpha	2.62E-09±4.78E-09	U			7.13E-09	µCi/mL	GP	EPA-006
0	Lead-210	1.31E-08±4.37E-09	J			5.94E-09	µCi/mL	GP	EPA-013
0	Manganese-54	-7.98E-10±2.08E-09	J			3.52E-09	µCi/mL	GP	EPA-013
0	Manganese-54	2.01E-10±1.83E-09	J			3.35E-09	µCi/mL	GP	EPA-013
0	Nonvolatile beta	1.82E-09±7.35E-10	J			1.37E-09	µCi/mL	GP	EPA-001
0	Plutonium-238	3.79E-12±2.20E-11	U			1.63E-10	µCi/mL	GP	EPA-011
0	Plutonium-239/240	-1.90E-11±2.98E-11	U			1.04E-10	µCi/mL	GP	EPA-011
0	Potassium-40	8.09E-10±5.77E-08	U			3.36E-08	µCi/mL	GP	EPA-013
0	Potassium-40	2.20E-09±2.47E-08	U			5.05E-08	µCi/mL	GP	EPA-013
0	Promethium-144	-4.11E-10±1.95E-09	U			3.43E-09	µCi/mL	GP	EPA-013
0	Promethium-144	1.38E-09±1.90E-09	U			3.29E-09	µCi/mL	GP	EPA-013
0	Promethium-146	-2.47E-09±2.30E-09	U			3.77E-09	µCi/mL	GP	EPA-013
0	Promethium-146	7.01E-10±4.58E-10	J			5.44E-10	µCi/mL	GP	EPA-013
0	Radium-226	-3.67E-10±3.12E-10	J			1.13E-09	µCi/mL	GP	EPA-008
0	Radium-228	-2.04E-10±4.20E-10	U			9.24E-10	µCi/mL	GP	EPA-009
0	Ruthenium-106	-1.10E-08±2.01E-08	U			2.91E-08	µCi/mL	GP	EPA-013
0	Ruthenium-106	1.57E-08±1.48E-09	U			2.91E-08	µCi/mL	GP	EPA-013
0	Sodium-22	1.33E-09±1.79E-09	U			3.76E-09	µCi/mL	GP	EPA-013
0	Sodium-22	8.34E-10±2.71E-09	U			1.49E-09	µCi/mL	GP	EPA-013
0	Technetium-99	1.45E-09±4.81E-09	U			2.03E-08	µCi/mL	GP	EPA-005
0	Thorium-230	3.70E-11±6.81E-11	U			1.36E-10	µCi/mL	GP	EPA-012
0	Thorium-232	2.31E-11±4.07E-11	U			8.11E-11	µCi/mL	GP	EPA-012
0	Tritium	<0.00E+00	U			7.79E-07	µCi/mL	GP	EPA-002
0	Uranium-233/234	9.98E-06±6.51E-07	U			5.72E-07	µCi/mL	GP	EPA-002
0	Uranium-235	1.36E-11±5.15E-11	U			1.38E-11	µCi/mL	GP	EPA-011
0	Uranium-238	-4.10E-12±4.21E-12	U			9.02E-11	µCi/mL	GP	EPA-011
0	Yttrium-88	1.70E-11±3.41E-11	U			5.11E-11	µCi/mL	GP	EPA-011
0	Yttrium-88	-7.07E-10±2.00E-09	U			3.61E-09	µCi/mL	GP	EPA-013
0	Yttrium-88	-9.62E-12±2.54E-09	U			4.89E-09	µCi/mL	GP	EPA-013
0	Zinc-65	3.49E-09±2.08E-09	U			5.58E-09	µCi/mL	GP	EPA-013
0	Zinc-65	2.94E-10±4.20E-09	U			7.65E-09	µCi/mL	GP	EPA-013



## WELL FSB 79B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/06/99  
Depth to water: 59.43 ft (18.11 m) below TOC  
Water elevation: Not available  
pH: 6.4

Sp. conductance: 160 µS/cm  
Urbidity: 0.6 NTU  
Water evacuated from the well prior to sampling: 140 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Aluminum, total recoverable	<15.0	U		15.0		µg/L	GE	EPA8020
0	Antimony, total recoverable	<0.200	U		0.200		µg/L	GE	EPA8020
0	Arsenic, total recoverable	<3.00	U		3.00		µg/L	GE	EPA8020
0	Barium, total recoverable	27.9	U		2.00		µg/L	GE	EPA8020
0	Benzene	<1.00	JU	L	9.90		µg/L	GE	EPA8260B
0	Bis(2-ethylhexyl) phthalate	<8.90	JU	L	9.90		µg/L	GE	EPA8260B
0	Bromodichloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Bromomethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Bromotrichloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Cadmium, total recoverable	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Carbon tetrachloride	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Chloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Chloroform	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Chloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Chromium, total recoverable	1.72	JU		3.00		µg/L	GE	EPA8020
0	Cobalt, total recoverable	<0.0490	JU		0.200		µg/L	GE	EPA8020
0	Copper, total recoverable	<0.920	JU	V	1.00		µg/L	GE	EPA8020
0	Cyanide	<10.0	U		10.0		µg/L	GE	EPA8012A
0	Dibromochloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	1,1-Dichloroethylene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Dichloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	1,2-Dichloropropane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Iron, total recoverable	<160	JU	L	15.0		µg/L	GE	EPA8020
0	Manganese, total recoverable	<2.00	JU	L	2.00		µg/L	GE	EPA8020
0	Mercury, total recoverable	<0.200	JU	L	0.200		µg/L	GE	EPA8020
0	Nickel, total recoverable	0.830	JU	L	2.00		µg/L	GE	EPA8020
0	Nitrate-nitrogen as nitrogen	7.210	JU	L	50.0		µg/L	GE	EPA353.1
0	pH	7.210	JU	L	0.100		pH	GE	EPA9066
0	Phenols	<5.00	JU	L	5.00		µg/L	GE	EPA8020
0	Selenium, total recoverable	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Silver, total recoverable	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Specific conductance	183	JU	L	1.00		µS/cm	GE	EPA9050A
0	1,1,2-Tetrachloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Tetrachloroethylene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Thallium, total recoverable	<2.50	JU	L	2.50		µg/L	GE	EPA8260B
0	Toluene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Trichloroethylene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Trichlorofluoromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Trichloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Zinc, total recoverable	<10.0	JU	L	10.0		µg/L	GE	EPA8020
0	Antimony-125	1.68E-08±1.14E-08	R		1.48E-08		µg/L	GP	EPA-013
0	Antimony-125	-9.25E-12±2.07E-12	U		9.11E-11		µg/L	GP	EPA-013
0	Carbon-14	2.10E-08±5.01E-09	U		9.15E-09		µg/L	GP	EPA-013
0	Cesium-134	-8.91E-10±1.34E-08	U		2.33E-08		µg/L	GP	EPA-013
0	Cesium-137	-1.16E-10±1.95E-09	U		3.10E-09		µg/L	GP	EPA-013
0	Cobalt-57	-2.14E-10±1.78E-09	U		3.05E-09		µg/L	GP	EPA-013
0	Cobalt-60	1.69E-10±1.74E-09	U		3.88E-09		µg/L	GP	EPA-013
0	Cobalt-242	6.83E-10±2.00E-09	U		9.84E-09		µg/L	GP	EPA-013
0	Curium-243/244	<0.00E+00	JU	L	9.12E-11		µg/L	GP	EPA-011
0	Curium-245/246	<0.00E+00	JU	L	9.11E-11		µg/L	GP	EPA-011
0	Europium-152	5.54E-09±5.78E-09	JU		1.06E-08		µg/L	GP	EPA-013

ESH-EMS-990520

B-117

Well FSB 79B collected on 01/06/99 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Europium-154	3.29E-09±5.24E-09	U		1.09E-08		µCi/mL	GP	EPA-013
0	Europium-155	-1.53E-10±7.92E-09	U		7.98E-08		µCi/mL	GP	EPA-013
0	Gross alpha	1.80E-09±8.66E-10	J		7.58E-10		µCi/mL	GP	EPA-001
0	Iodine-129	8.99E-10±7.56E-10	U		1.34E-09		µCi/mL	GP	EPA-013
0	Lead-212	5.38E-09±4.30E-09	U		7.04E-09		µCi/mL	GP	EPA-013
0	Manganese-54	1.89E-10±1.87E-09	U		3.43E-09		µCi/mL	GP	EPA-013
0	Nonvolatiles beta	2.68E-09±6.95E-10	U		1.14E-09		µCi/mL	GP	EPA-011
0	Plutonium-238	3.70E-11±7.45E-11	U		1.11E-10		µCi/mL	GP	EPA-011
0	Plutonium-239/240	1.73E-10±1.70E-10	U		2.08E-10		µCi/mL	GP	EPA-011
0	Potassium-40	8.94E-09±5.22E-08	R		3.81E-08		µCi/mL	GP	EPA-013
0	Promethium-144	8.53E-10±2.05E-09	U		4.56E-09		µCi/mL	GP	EPA-013
0	Promethium-146	-2.52E-11±2.50E-09	U		5.01E-10		µCi/mL	GP	EPA-013
0	Radium-226	6.34E-10±4.24E-09	U		2.94E-09		µCi/mL	GP	EPA-013
0	Radium-228	1.15E-09±1.86E-08	U		3.88E-09		µCi/mL	GP	EPA-013
0	Radium-228m	5.99E-10±4.27E-10	U		1.32E-09		µCi/mL	GP	EPA-013
0	Sodium-22	6.93E-09±1.01E-08	U		2.30E-08		µCi/mL	GP	EPA-005
0	Technetium-99	2.04E-10±1.07E-10	J		1.39E-10		µCi/mL	GP	EPA-012
0	Thorium-230	5.97E-11±5.38E-11	U		7.94E-11		µCi/mL	GP	EPA-012
0	Thorium-232	<0.00E+00	U		2.53E-11		µCi/mL	GP	EPA-002
0	Uranium-233/234	4.16E-05±1.20E-08	U		7.53E-11		µCi/mL	GP	EPA-011
0	Uranium-235	-3.20E-12±1.92E-11	U		6.53E-11		µCi/mL	GP	EPA-011
0	Uranium-238	2.99E-11±3.46E-11	U		5.57E-11		µCi/mL	GP	EPA-011
0	Yttrium-88	-1.26E-10±1.98E-09	U		3.81E-09		µCi/mL	GP	EPA-013
0	Zinc-65	-1.82E-10±4.77E-09	U		7.40E-09		µCi/mL	GP	EPA-013

## WELL FSB 79C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/04/99  
Depth to water: 21.77 ft (6.64 m) below TOC  
Water elevation: 196.63 ft (59.93 m) msl  
pH: 3.8

Sp. conductance: 1,040 µS/cm  
Urbidity: 0 NTU  
Water evacuated from the well prior to sampling: 70 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2	Aluminum, total recoverable	49,300	U		15.0		µg/L	GE	EPA8020
0	Antimony, total recoverable	<0.200	U		0.200		µg/L	GE	EPA8020
0	Arsenic, total recoverable	1.26	U		3.00		µg/L	GE	EPA8020
0	Barium, total recoverable	484	JU	L	2.00		µg/L	GE	EPA8260B
0	Benzene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Bis(2-ethylhexyl) phthalate	<10.0	JU	L	10.0		µg/L	GE	EPA8270C
0	Bromodichloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Bromofluoromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Bromomethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
2	Cadmium, total recoverable	14.2	JU	L	1.00		µg/L	GE	EPA8020
0	Carbon tetrachloride	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Chloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Chloroform	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Chloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Chromium, total recoverable	1.72	JU	L	3.00		µg/L	GE	EPA8020
2	Cobalt, total recoverable	112	JU	L	0.200		µg/L	GE	EPA8020
0	Copper, total recoverable	44.0	JU	L	1.00		µg/L	GE	EPA8020
0	Cyanide	<10.0	U		10.0		µg/L	GE	EPA8012A
0	Dibromochloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Dichloromethane	<1.88	JU	L	5.00		µg/L	GE	EPA8260B
0	1,2-Dichloropropane	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00	JU	L	1.00		µg/L	GE	EPA8260B
0	Iron, total recoverable	<160	JU	L	15.0		µg/L	GE	EPA8020
0	Lead, total recoverable	0.435	JU	L	0.200		µg/L	GE	EPA8020
1	Mercury, total recoverable	1.98	JU		0.200		µg/L	GE	EPA7470A

First Quarter 1999



## ANALYTICAL RESULTS

Well FSB 79C collected on 01/04/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Nickel, total recoverable	35.7				2.00	µg/L	GE	EPA8020
1	Nitrate-nitrogen as nitrogen	152.000				5.000	µg/L	GE	EPA353.1
1	pH	3.54				0.100	pH	GE	EPA9040B
0	Phenols	<5.00	J	Q		5.00	µg/L	GE	EPA9066
0	Selenium, total recoverable	13.2				5.00	µg/L	GE	EPA8020
0	Silver, total recoverable	<1.00				1.00	µg/L	GE	EPA8020
2	Specific conductance	1.370				1.00	µS/cm	GE	EPA9050A
0	1,1,2,2-Tetrachloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Tetrachloroethylene	<1.00				1.00	µg/L	GE	EPA8260B
0	Toluene	1.01	JU	L		1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Trichloroethylene	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Trichloroethane	<1.00	JU	L		1.00	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<3.00	JU	L		3.00	µg/L	GE	EPA8020
0	Zinc, total recoverable	<10.0	JU	L		10.0	µg/L	GE	EPA8020
2	Americium-241	2.22E-08±1.19E-08	R		4	2.00E-08	µCi/mL	GP	EPA8020
2	Americium-243	2.56E-08±3.20E-09				6.26E-08	µCi/mL	GP	EPA8020
2	Antimony-125	2.96E-09±5.95E-09				1.03E-08	µCi/mL	GP	EPA8020
0	Carbon-14	1.19E-07±7.24E-08				7.64E-09	µCi/mL	GP	EPA8020
0	Carbon-134	9.43E-09±1.55E-08				2.63E-08	µCi/mL	GP	EPA8020
0	Cesium-134	5.83E-10±2.54E-09				4.03E-09	µCi/mL	GP	EPA8020
0	Cesium-137	5.60E-10±2.43E-09				4.20E-09	µCi/mL	GP	EPA8020
0	Cobalt-57	1.59E-09±2.31E-09				3.63E-09	µCi/mL	GP	EPA8020
0	Cobalt-60	2.57E-09±3.1E-09				4.80E-09	µCi/mL	GP	EPA8020
0	Curium-242	1.01E-11±2.85E-10				5.94E-10	µCi/mL	GP	EPA8020
0	Curium-243/244	2.53E-08±3.15E-09				2.84E-10	µCi/mL	GP	EPA8020
0	Curium-245/246	9.02E-10±3.92E-10				1.23E-08	µCi/mL	GP	EPA8020
0	Europium-152	6.07E-09±8.72E-09				1.11E-08	µCi/mL	GP	EPA8020
0	Europium-154	7.09E-09±7.06E-09				1.57E-08	µCi/mL	GP	EPA8020
0	Europium-155	3.91E-09±4.72E-09				1.97E-07	µCi/mL	GP	EPA8020
0	Europium-156	5.38E-07±1.93E-07				6.00E-09	µCi/mL	GP	EPA8020
0	Gross alpha	1.01E-07±1.26E-08				6.00E-09	µCi/mL	GP	EPA8020
0	Iodine-129	2.33E-09±2.26E-09				4.35E-09	µCi/mL	GP	EPA8020
0	Lead-212	1.34E-08±2.98E-07				4.61E-07	µCi/mL	GP	EPA8020
0	Manganese-54	3.50E-11±4.97E-11				5.25E-11	µCi/mL	GP	EPA8020
0	Plutonium-238	5.25E-11±4.11E-11				5.25E-11	µCi/mL	GP	EPA8020
0	Plutonium-239/240	4.57E-08±4.57E-08				3.81E-08	µCi/mL	GP	EPA8020
0	Potassium-40	4.19E-10±2.12E-09				3.67E-09	µCi/mL	GP	EPA8020
0	Promethium-144	6.09E-10±2.68E-09				4.43E-10	µCi/mL	GP	EPA8020
0	Radium-146	4.53E-08±2.89E-09				2.47E-09	µCi/mL	GP	EPA8020
0	Radium-226	1.32E-08±1.97E-09				3.66E-08	µCi/mL	GP	EPA8020
0	Ruthenium-106	1.02E-08±1.97E-09				2.79E-09	µCi/mL	GP	EPA8020
0	Sodium-22	2.52E-09±2.51E-09				1.92E-08	µCi/mL	GP	EPA8020
0	Strontium-90	5.38E-07±1.24E-08				2.18E-08	µCi/mL	GP	EPA8020
0	Technetium-99	1.59E-07±1.84E-08				9.42E-11	µCi/mL	GP	EPA8020
0	Thorium-228	5.88E-10±2.28E-10				7.48E-10	µCi/mL	GP	EPA8020
0	Thorium-232	3.73E-11±5.42E-11				7.48E-10	µCi/mL	GP	EPA8020
0	Thorium-230	1.49E-11±3.00E-11				8.18E-10	µCi/mL	GP	EPA8020
0	Tellurium-128	8.05E-03±1.48E-04				8.18E-10	µCi/mL	GP	EPA8020
0	Tellurium-130	1.32E-09±3.95E-09				4.68E-09	µCi/mL	GP	EPA8020
0	Uranium-233/234	1.32E-09±3.95E-09				9.65E-09	µCi/mL	GP	EPA8020
0	Uranium-235	1.32E-09±3.95E-09							
0	Uranium-238	1.32E-09±3.95E-09							
0	Vanadium-51	1.32E-09±3.95E-09							
0	Zinc-65	3.03E-09±5.67E-09							

## WELL FSB 87A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 133.4 ft (40.66 m) below TOC  
 Water elevation: 154.4 ft (47.06 m) msl  
 pH: 6.2  
 Sp. conductivity: 86 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 259 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	13.5				15.0	µg/L	GE	EPA8020
0	Antimony, total recoverable	<0.200				0.200	µg/L	GE	EPA8020
0	Arsenic, total recoverable	<3.00				3.00	µg/L	GE	EPA8020
0	Barium, total recoverable	16.4				2.00	µg/L	GE	EPA8020

## ESH-EMS-990520

Well FSB 87A collected on 01/07/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Benzene	<1.00				1.00	µg/L	GE	EPA8260B
0	Bis(2-ethylhexyl) phthalate	<10.2				10.2	µg/L	GE	EPA8260B
0	Bromodichloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Bromomethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Bromotrichloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Cadmium, total recoverable	<1.00				1.00	µg/L	GE	EPA8260B
0	Carbon tetrachloride	<1.00				1.00	µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00				1.00	µg/L	GE	EPA8260B
0	Chloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Chloroethene (Vinyl chloride)	<1.00				1.00	µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00				1.00	µg/L	GE	EPA8260B
0	Chloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Chromium, total recoverable	<1.00				1.00	µg/L	GE	EPA8260B
0	Copper, total recoverable	<1.00				1.00	µg/L	GE	EPA8260B
0	Cyanoacrylate	<0.0020				0.0020	µg/L	GE	EPA8260B
0	Cyanoacrylate	<0.0020				0.0020	µg/L	GE	EPA8260B
0	Dibromochloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	<1.00				1.00	µg/L	GE	EPA8260B
0	Dichloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00				1.00	µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00				1.00	µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00				1.00	µg/L	GE	EPA8260B
2	Iron, total recoverable	305				15.0	µg/L	GE	EPA8020
0	Lead, total recoverable	<2.00				2.00	µg/L	GE	EPA8020
0	Mercury, total recoverable	<2.00				2.00	µg/L	GE	EPA8020
0	Nickel, total recoverable	2.23				2.00	µg/L	GE	EPA8020
0	Nitrate-nitrogen as nitrogen	1.00				5.00	µg/L	GE	EPA8020
0	Nitrate-nitrogen as nitrogen	1.00				5.00	µg/L	GE	EPA8020
0	Phenols	6.56				5.00	µg/L	GE	EPA8020
0	Selenium, total recoverable	<1.00				1.00	µg/L	GE	EPA8020
0	Silver, total recoverable	103				1.00	µS/cm	GE	EPA9050A
0	Specific conductance	<1.00				1.00	µg/L	GE	EPA8260B
0	1,1,2,2-Tetrachloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Tetrachloroethylene	<1.00				1.00	µg/L	GE	EPA8260B
0	Thallium, total recoverable	0.143				2.50	µg/L	GE	EPA8260B
0	Toluene	<1.00				1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Trichloroethylene	<1.00				1.00	µg/L	GE	EPA8260B
0	Trichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<5.00				5.00	µg/L	GE	EPA8260B
0	Zinc, total recoverable	<10.0				10.0	µg/L	GE	EPA8260B
0	Actinium-228	1.27E-09±7.17E-09				1.81E-08	µCi/mL	GP	EPA8020
0	Americium-241	1.27E-09±7.17E-09				1.81E-08	µCi/mL	GP	EPA8020
0	Antimony-125	2.30E-09±1.15E-09				7.39E-09	µCi/mL	GP	EPA8020
0	Carbon-14	1.93E-09±1.82E-09				2.70E-09	µCi/mL	GP	EPA8020
0	Cesium-134	1.81E-11±2.64E-10				4.00E-09	µCi/mL	GP	EPA8020
0	Cesium-137	8.73E-10±2.55E-09				3.53E-09	µCi/mL	GP	EPA8020
0	Cobalt-57	6.00E-10±2.26E-09				3.85E-09	µCi/mL	GP	EPA8020
0	Cobalt-60	1.26E-10±2.26E-09				4.51E-10	µCi/mL	GP	EPA8020
0	Curium-242	2.05E-11±4.12E-11				4.29E-10	µCi/mL	GP	EPA8020
0	Curium-243/244	1.95E-11±3.91E-11				2.43E-10	µCi/mL	GP	EPA8020
0	Curium-245/246	<0.00E+00				1.27E-08	µCi/mL	GP	EPA8020
0	Europium-152	1.16E-09±7.17E-09				1.15E-08	µCi/mL	GP	EPA8020
0	Europium-154	1.86E-09±4.48E-09				1.52E-08	µCi/mL	GP	EPA8020
0	Europium-155	1.36E-09±4.87E-09				6.62E-08	µCi/mL	GP	EPA8020
0	Gross alpha	1.09E-09±5.08E-10				1.27E-09	µCi/mL	GP	EPA8020
0	Iodine-128	6.47E-10±7.63E-10				7.98E-09	µCi/mL	GP	EPA8020
0	Lead-212	1.17E-08±4.52E-09				4.46E-09	µCi/mL	GP	EPA8020
0	Manganese-54	1.84E-10±5.25E-10				1.00E-09	µCi/mL	GP	EPA8020
0	Nonradioactive beta	9.96E-10±5.25E-10				1.84E-10	µCi/mL	GP	EPA8020
0	Plutonium-238	1.46E-10±1.32E-11				5.32E-09	µCi/mL	GP	EPA8020
0	Plutonium-239/240	2.47E-08±3.15E-09				3.88E-09	µCi/mL	GP	EPA8020
0	Promethium-144	1.10E-09±2.92E-09				5.41E-10	µCi/mL	GP	EPA8020
0	Promethium-146	2.14E-09±4.51E-10				1.09E-09	µCi/mL	GP	EPA8020
0	Radium-226	9.23E-10±5.65E-10				3.55E-08	µCi/mL	GP	EPA8020
0	Ruthenium-106	4.57E-09±2.06E-09				4.07E-09	µCi/mL	GP	EPA8020
0	Sodium-22	6.73E-10±2.31E-09							

## B-18

## First Quarter 1999



## ANALYTICAL RESULTS

Well FSB 87A collected on 01/07/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Strontium-90	1.63E-10±5.80E-10	U			1.30E-08	µCi/mL	GP	EPA-004
0 Technetium-99	2.80E-10±8.57E-09	U			2.09E-08	µCi/mL	GP	EPA-005
0 Thorium-228	2.78E-11±2.09E-10	U			5.31E-10	µCi/mL	GP	EPA-012
0 Thorium-230	4.85E-11±1.12E-10	U			2.63E-10	µCi/mL	GP	EPA-012
0 Thorium-232	2.73E-11±3.20E-11	U			6.09E-07	µCi/mL	GP	EPA-002
0 Uranium	1.49E-06±4.11E-07	U			2.45E-10	µCi/mL	GP	EPA-011
0 Uranium-233	1.14E-10±1.35E-11	U			2.45E-10	µCi/mL	GP	EPA-011
0 Uranium-235	1.30E-12±7.20E-11	U			2.45E-10	µCi/mL	GP	EPA-011
0 Uranium-238	1.10E-09±2.38E-09	U			4.06E-09	µCi/mL	GP	EPA-013
0 Uranium-86	9.82E-10±4.86E-09	U			7.93E-09	µCi/mL	GP	EPA-013
0 Zinc-65								

## WELL FSB 87B

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 136.4 ft (41.58 m) below TOC  
 Water elevation: 151.1 ft (46.06 m) nsl  
 pH: 5.6  
 Sp. conductance: 93 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 211 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1 Aluminum, total recoverable	32.3				15.0	µg/L	GE	EPA8020
0 Antimony, total recoverable	<0.200				0.200	µg/L	GE	EPA8020
0 Arsenic, total recoverable	<3.00				3.00	µg/L	GE	EPA8020
0 Barium, total recoverable	<1.00				1.00	µg/L	GE	EPA8020
0 Benzene	<1.00				1.00	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<1.00				1.00	µg/L	GE	EPA8260B
0 Bromochloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0 Bromomethane	<1.00				1.00	µg/L	GE	EPA8260B
0 Cadmium, total recoverable	<1.00				1.00	µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00				1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00				1.00	µg/L	GE	EPA8260B
0 Chloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0 Chloroethene (Vinyl chloride)	<1.00				1.00	µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<5.00				5.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00				1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	1.99				3.00	µg/L	GE	EPA8020
0 Cobalt, total recoverable	<0.0830				0.200	µg/L	GE	EPA8020
0 Copper, total recoverable	4.69				1.00	µg/L	GE	EPA8020
0 Dibromochloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0 1,1,2,2-Tetrachloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0 Dichloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0 1,2-Dichloropropane	<1.00				1.00	µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00				1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00				1.00	µg/L	GE	EPA8260B
1 Iron, total recoverable	278				15.0	µg/L	GE	EPA8020
0 Lead, total recoverable	1.50				2.00	µg/L	GE	EPA8020
0 Mercury, total recoverable	<0.200				0.200	µg/L	GE	EPA8020
0 Nickel, total recoverable	3.19				2.00	µg/L	GE	EPA8020
1 Nitrate-nitrite as nitrogen	8.800				250	µg/L	GE	EPA8020
0 pH	5.87				0.100	pH	GE	EPA8020
0 Phenols	<5.00				5.00	µg/L	GE	EPA8020
0 Selenium, total recoverable	<1.00				1.00	µg/L	GE	EPA8020
0 Silver, total recoverable	<1.00				1.00	µg/L	GE	EPA8020
0 Specific conductance	1.16				1.00	µm	GE	EPA8020
0 1,1,2,2-Tetrachloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0 Trichloroethylene	<1.00				1.00	µg/L	GE	EPA8260B
0 Toluene	<1.00				1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0 Trichlorofluoromethane	<1.00				1.00	µg/L	GE	EPA8260B
0 Vanadium, total recoverable	<10.0				10.0	µg/L	GE	EPA8020

## ESH-EMS-990520

Well FSB 87B collected on 01/07/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Zinc, total recoverable	<10.0				10.0	µg/L	GE	EPA8020
0 Actinium-228	7.20E-09±7.09E-09	U			1.43E-08	µCi/mL	GP	EPA-013
0 Americium-241	2.14E-10±3.10E-10	U			3.49E-10	µCi/mL	GP	EPA-013
0 Antimony-125	3.44E-09±4.43E-09	U			9.82E-09	µCi/mL	GP	EPA-013
0 Carbon-14	2.11E-09±4.35E-09	U			7.61E-09	µCi/mL	GP	EPA-013
0 Cerium-144	4.91E-10±1.38E-09	U			3.37E-09	µCi/mL	GP	EPA-013
0 Cesium-137	1.49E-10±2.66E-09	U			3.60E-09	µCi/mL	GP	EPA-013
0 Cobalt-60	1.69E-10±1.40E-09	U			2.96E-09	µCi/mL	GP	EPA-013
0 Cobalt-57	3.68E-10±1.70E-09	U			3.59E-09	µCi/mL	GP	EPA-013
0 Curium-242	5.89E-11±8.42E-11	U			7.63E-10	µCi/mL	GP	EPA-011
0 Curium-243/244	2.80E-11±5.63E-11	U			6.15E-10	µCi/mL	GP	EPA-011
0 Curium-245/246	1.18E-10±2.34E-10	U			3.49E-10	µCi/mL	GP	EPA-011
0 Europium-152	3.31E-09±6.05E-09	U			1.07E-08	µCi/mL	GP	EPA-013
0 Europium-154	1.04E-09±7.55E-09	U			8.11E-09	µCi/mL	GP	EPA-013
0 Europium-155	2.89E-09±7.62E-09	U			1.36E-08	µCi/mL	GP	EPA-013
0 Gross alpha	8.21E-10±4.73E-10	U			7.37E-10	µCi/mL	GP	EPA-001
0 Iodine-129	2.22E-10±8.06E-10	U			1.35E-09	µCi/mL	GP	EPA-006
0 Lead-212	4.48E-09±4.02E-09	U			6.82E-09	µCi/mL	GP	EPA-013
0 Manganese-54	1.57E-09±2.13E-09	U			2.83E-09	µCi/mL	GP	EPA-013
0 Neovoltalia beta	4.18E-09±7.42E-10	U			1.04E-09	µCi/mL	GP	EPA-011
0 Plutonium-238	6.88E-11±7.08E-11	U			1.34E-10	µCi/mL	GP	EPA-011
0 Plutonium-239/240	2.20E-10±3.05E-09	U			9.65E-11	µCi/mL	GP	EPA-011
0 Potassium-40	2.35E-09±3.05E-09	U			3.15E-09	µCi/mL	GP	EPA-013
0 Promethium-144	2.20E-09±3.80E-09	U			4.27E-09	µCi/mL	GP	EPA-013
0 Radium-226	1.66E-09±6.04E-10	U			1.55E-10	µCi/mL	GP	EPA-008
0 Radium-228	1.87E-09±6.80E-10	U			4.45E-10	µCi/mL	GP	EPA-008
0 Radium-228	1.87E-09±6.80E-10	U			4.45E-10	µCi/mL	GP	EPA-008
0 Ruthenium-106	7.29E-09±1.74E-08	U			9.80E-10	µCi/mL	GP	EPA-013
0 Sodium-22	3.71E-10±2.69E-09	U			2.60E-09	µCi/mL	GP	EPA-013
0 Strontium-90	7.17E-10±4.54E-10	U			1.20E-09	µCi/mL	GP	EPA-004
0 Technetium-99	6.03E-09±8.19E-09	U			1.86E-08	µCi/mL	GP	EPA-005
0 Thorium-228	1.57E-10±2.14E-10	U			2.81E-10	µCi/mL	GP	EPA-012
0 Thorium-230	1.49E-12±8.28E-11	U			1.2E-10	µCi/mL	GP	EPA-012
0 Thorium-232	<0.00E+00	U			1.2E-10	µCi/mL	GP	EPA-012
2 Tritium	1.44E-04±2.87E-06	U			8.18E-07	µCi/mL	GP	EPA-002
0 Uranium-233/234	1.21E-10±1.62E-10	U			3.10E-10	µCi/mL	GP	EPA-011
0 Uranium-235	7.20E-11±1.13E-10	U			2.19E-10	µCi/mL	GP	EPA-011
0 Uranium-238	7.93E-11±1.12E-10	U			1.98E-10	µCi/mL	GP	EPA-011
0 Uranium-86	4.11E-09±4.18E-09	U			3.19E-09	µCi/mL	GP	EPA-013
0 Zinc-65	4.36E-10±4.28E-09	U			6.97E-09	µCi/mL	GP	EPA-013

## WELL FSB 87C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 76.68 ft (23.43 m) below TOC  
 Water elevation: 210.82 ft (64.2 m) nsl  
 pH: 5.3  
 Sp. conductance: 88 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 171 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	16.6				15.0	µg/L	GE	EPA8020
0 Antimony, total recoverable	<0.200				0.200	µg/L	GE	EPA8020
0 Arsenic, total recoverable	<3.00				3.00	µg/L	GE	EPA8020
0 Barium, total recoverable	16.1				2.00	µg/L	GE	EPA8020
0 Benzene	<1.00				1.00	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<1.00				1.00	µg/L	GE	EPA8260B
0 Bromochloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0 Bromomethane	<1.00				1.00	µg/L	GE	EPA8260B
0 Cadmium, total recoverable	0.239				1.00	µg/L	GE	EPA8020
0 Carbon tetrachloride	<1.00				1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00				1.00	µg/L	GE	EPA8260B
0 Chloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<5.00				5.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00				1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	0.824				3.00	µg/L	GE	EPA8020
0 Cobalt, total recoverable	0.294				0.200	µg/L	GE	EPA8020

## B-119

First Quarter 1999











## ANALYTICAL RESULTS

Well FSB 88D collected on 01/14/99 (cont.)

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	8.780						GP	EPA8200
0	Antimony, total recoverable	<3.00	U				µg/L	GP	EPA8200
0	Arsenic, total recoverable	<3.00	U				µg/L	GP	EPA8200
0	Barium, total recoverable	67.1					µg/L	GP	EPA8200
0	Benzene	<1.00		L			µg/L	GP	EPA8200
0	Bis(2-ethylhexyl) phthalate	<8.90	U				µg/L	GP	EPA8200
0	Bromochloromethane	<1.00	U				µg/L	GP	EPA8200
0	Bromomethane	<1.00	U				µg/L	GP	EPA8200
0	Cadmium, total recoverable	0.960					µg/L	GP	EPA8200
0	Carbon tetrachloride	<1.00	J				µg/L	GP	EPA8200
0	Chlorobenzene	<1.00	U				µg/L	GP	EPA8200
0	Chloroethane	<1.00	U				µg/L	GP	EPA8200
0	2-Chloroethyl vinyl ether	<1.00	U				µg/L	GP	EPA8200
0	Chloroform	<1.00	U				µg/L	GP	EPA8200
0	Chloromethane	<1.00	U				µg/L	GP	EPA8200
0	Chromium, total recoverable	8.84					µg/L	GP	EPA8200
0	Cobalt, total recoverable	8.25					µg/L	GP	EPA8200
0	Copper, total recoverable	16.2					µg/L	GP	EPA8200
0	Cyanide	<10.0	U				µg/L	GP	EPA8200
0	Dibromochloromethane	<1.00	U				µg/L	GP	EPA8200
0	1,1-Dichloroethane	<1.00	U				µg/L	GP	EPA8200
0	1,2-Dichloroethane	<1.00	U				µg/L	GP	EPA8200
0	1,1-Dichloroethylene	<1.00	U				µg/L	GP	EPA8200
0	trans-1,2-Dichloroethylene	<1.00	U				µg/L	GP	EPA8200
0	Dichloromethane	<1.74	U				µg/L	GP	EPA8200
0	1,2-Dichloropropane	<1.00	U				µg/L	GP	EPA8200
0	cis-1,3-Dichloropropene	<1.00	U				µg/L	GP	EPA8200
0	trans-1,3-Dichloropropene	<1.00	U				µg/L	GP	EPA8200
0	Ethylbenzene	90.7	U				µg/L	GP	EPA8200
0	Iron, total recoverable	5.45					µg/L	GP	EPA8200
0	Lead, total recoverable	3.76					µg/L	GP	EPA8200
2	Mercury, total recoverable	17.6					µg/L	GP	EPA8200
0	Nickel, total recoverable	33.300					µg/L	GP	EPA8200
1	Nitrate-nitrite as nitrogen	3.95					µg/L	GP	EPA8200
0	Phenols	<5.00	U				µg/L	GP	EPA8200
0	Selenium, total recoverable	<1.00	U				µg/L	GP	EPA8200
0	Silver, total recoverable	<1.00	U				µg/L	GP	EPA8200
0	Specific conductance	356					µS/cm	GP	EPA8200
0	1,1,2,2-Tetrachloroethane	<1.00	U				µg/L	GP	EPA8200
0	Tetrachloroethylene	<1.00	U				µg/L	GP	EPA8200
0	Thallium, total recoverable	<0.0820	U				µg/L	GP	EPA8200
0	Toluene	<1.00	U				µg/L	GP	EPA8200
0	1,1,1-Trichloroethane	<1.00	U				µg/L	GP	EPA8200
0	1,1,2-Trichloroethane	<1.00	U				µg/L	GP	EPA8200
0	Trichloroethylene	<1.00	U				µg/L	GP	EPA8200
0	Trichloromethane	<1.00	U				µg/L	GP	EPA8200
0	Vanadium, total recoverable	<1.00	U				µg/L	GP	EPA8200
0	Zinc, total recoverable	86.3					µg/L	GP	EPA8200
2	Acetone	1.28E-08±7.41E-09	U				µg/L	GP	EPA8200
2	Ammonium-241	1.15E-08±1.43E-09	U				µg/L	GP	EPA8200
0	Ammonium-125	5.22E-09±4.80E-09	U				µg/L	GP	EPA8200
0	Carbon-14	6.81E-09±1.31E-09	U				µg/L	GP	EPA8200
0	Cesium-134	9.77E-10±2.29E-09	U				µg/L	GP	EPA8200
0	Cesium-137	4.68E-10±2.14E-09	U				µg/L	GP	EPA8200
0	Cobalt-57	1.08E-09±1.72E-09	U				µg/L	GP	EPA8200
0	Cobalt-60	4.96E-10±2.15E-09	U				µg/L	GP	EPA8200
0	Cobalt-242	1.78E-11±2.52E-11	U				µg/L	GP	EPA8200
2	Curtium-243/244	3.23E-08±3.75E-09	U				µg/L	GP	EPA8200
0	Curtium-245/246	3.17E-10±1.06E-10	U				µg/L	GP	EPA8200
0	Europium-152	2.54E-09±5.69E-09	U				µg/L	GP	EPA8200
0	Europium-154	5.81E-09±1.99E-09	U				µg/L	GP	EPA8200
0	Europium-155	6.08E-10±7.32E-09	U				µg/L	GP	EPA8200
2	Gross alpha	8.29E-07±1.18E-06	U				µg/L	GP	EPA8200
2	Iodine-129	6.70E-09±3.88E-09	U				µg/L	GP	EPA8200
2	Lead-212	6.07E-10±1.91E-09	U				µg/L	GP	EPA8200
0	Neptunium-237	3.65E-07±7.98E-09	U				µg/L	GP	EPA8200
0	Nonstable beta	1.10E-11±1.02E-11	U				µg/L	GP	EPA8200
0	Plutonium-238	2.52E-11±5.74E-11	U				µg/L	GP	EPA8200
0	Plutonium-239/240	2.05E-08±2.28E-08	U				µg/L	GP	EPA8200
0	Potassium-40						µg/L	GP	EPA8200

## WELL FSB 89C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/20/99  
 Depth to water: 68.34 ft (20.83 m) below TOC  
 Water elevation: 212.36 ft (64.81 m) msal  
 pH: 5.9  
 Sp. conductance: 56 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 87 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	<15.0	U				µg/L	GP	EPA8200
0	Aluminum, total recoverable	<146	U				µg/L	GP	EPA8200
0	Aluminum, total recoverable	146	U				µg/L	GP	EPA8200
0	Antimony, total recoverable	1.22	U				µg/L	GP	EPA8200
0	Antimony, total recoverable	<7.10	U				µg/L	GP	EPA8200
0	Antimony, total recoverable	<4.80	U				µg/L	GP	EPA8200
0	Arsenic, total recoverable	<40.0	U				µg/L	GP	EPA8200
0	Arsenic, total recoverable	<40.0	U				µg/L	GP	EPA8200
0	Arsenic, total recoverable	12.7	U				µg/L	GP	EPA8200
0	Barium, total recoverable	15.1	U				µg/L	GP	EPA8200
0	Barium, total recoverable	<1.00	U				µg/L	GP	EPA8200
0	Benzene	<1.00	U				µg/L	GP	EPA8200
0	Bis(2-ethylhexyl) phthalate	<10.1	U				µg/L	GP	EPA8200
0	Bromochloromethane	<1.00	U				µg/L	GP	EPA8200
0	Bromochloromethane	<1.00	U				µg/L	GP	EPA8200
0	Bromomethane	<1.00	U				µg/L	GP	EPA8200
0	Cadmium, total recoverable	0.397	U				µg/L	GP	EPA8200
0	Cadmium, total recoverable	0.480	U				µg/L	GP	EPA8200
0	Cadmium, total recoverable	<4.70	U				µg/L	GP	EPA8200
0	Carbon tetrachloride	<1.00	U				µg/L	GP	EPA8200
0	Carbon tetrachloride	<5.00	U				µg/L	GP	EPA8200
0	Chlorobenzene	<5.00	U				µg/L	GP	EPA8200
0	Chloroethane	<1.00	U				µg/L	GP	EPA8200
0	Chloroethane	<1.00	U				µg/L	GP	EPA8200
0	Chloroethane (Vinyl chloride)	<1.00	U				µg/L	GP	EPA8200
0	Chloroethane (Vinyl chloride)	<1.00	U				µg/L	GP	EPA8200
0	2-Chloroethyl vinyl ether	<1.00	U				µg/L	GP	EPA8200
0	Chloroform	<1.00	U				µg/L	GP	EPA8200
0	Chloromethane	<1.00	U				µg/L	GP	EPA8200
0	Chloromethane	<1.00	U				µg/L	GP	EPA8200
0	Chromium, total recoverable	1.14	U				µg/L	GP	EPA8200
0	Chromium, total recoverable	2.30	U				µg/L	GP	EPA8200

ESH-EMS-990520

B-122

First Quarter 1999



## ANALYTICAL RESULTS

Well FSB 89C collected on 01/20/99 (cont.)

Well FSB 89C collected on 01/20/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Chromium, total recoverable	<7.00	U		7.00		µg/L	WA	EPAA6010B
0	Cobalt, total recoverable	0.417	U		0.200		µg/L	GE	EPAA6020
0	Cobalt, total recoverable	<4.50	U		4.50		µg/L	WA	EPAA6010B
0	Cobalt, total recoverable	<4.50	U		4.50		µg/L	WA	EPAA6010B
0	Copper, total recoverable	<1.70	U		1.00		µg/L	GE	EPAA6020
0	Copper, total recoverable	<3.40	U		15.0		µg/L	WA	EPAA6010B
0	Copper, total recoverable	<15.0	U		15.0		µg/L	WA	EPAA6010B
0	Copper, total recoverable	<10.0	U	L	10.0		µg/L	GE	EPAA9012A
0	Cyanide	<15.2	U		15.2		µg/L	WA	EPAA9014
0	Cyanide	<15.2	U		15.2		µg/L	WA	EPAA9014
0	Dibromochloromethane	<1.00	U		1.00		µg/L	GE	EPAA8260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	WA	EPAA8260B
0	Dibromochloromethane	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	1,1-Dichloroethane	<1.00	U		1.00		µg/L	WA	EPAA8260B
0	1,1-Dichloroethane	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	1,2-Dichloroethane	<1.00	U		1.00		µg/L	WA	EPAA8260B
0	1,2-Dichloroethane	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	1,1-Dichloroethylene	<1.00	U		1.00		µg/L	WA	EPAA8260B
0	1,1-Dichloroethylene	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	trans-1,2-Dichloroethylene	<1.00	U		1.00		µg/L	WA	EPAA8260B
0	trans-1,2-Dichloroethylene	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	trans-1,2-Dichloroethylene	<2.18	U	KV	2.18		µg/L	WA	EPAA8260B
0	Dichloromethane	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	Dichloromethane	<5.00	U		5.00		µg/L	WA	EPAA8260B
0	1,2-Dichloropropane	<1.00	U		1.00		µg/L	GE	EPAA8260B
0	1,2-Dichloropropane	<5.00	U		5.00		µg/L	WA	EPAA8260B
0	cis-1,3-Dichloropropene	<1.00	U		1.00		µg/L	GE	EPAA8260B
0	cis-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAA8260B
0	trans-1,3-Dichloropropene	<1.00	U		1.00		µg/L	GE	EPAA8260B
0	trans-1,3-Dichloropropene	<5.00	U		5.00		µg/L	WA	EPAA8260B
0	Ethylbenzene	<1.00	U		1.00		µg/L	GE	EPAA8260B
0	Ethylbenzene	<5.00	U		5.00		µg/L	WA	EPAA8260B
0	Ethylbenzene	29.7	U		15.0		µg/L	GE	EPAA8260B
0	Iron, total recoverable	21.6	U		7.40		µg/L	WA	EPAA6020
0	Iron, total recoverable	20.1	U		7.40		µg/L	GE	EPAA6020
0	Lead, total recoverable	<2.1	U		2.0		µg/L	WA	EPAA6020
0	Lead, total recoverable	<47.0	U		47.0		µg/L	GE	EPAA6020
0	Lead, total recoverable	<47.0	U		47.0		µg/L	WA	EPAA6020
0	Lead, total recoverable	<47.0	U		47.0		µg/L	GE	EPAA6020
0	Mercury, total recoverable	<0.200	U		0.200		µg/L	WA	EPAA6010B
0	Mercury, total recoverable	<0.450	U		0.450		µg/L	GE	EPAA7470A
0	Mercury, total recoverable	<0.450	U		0.450		µg/L	WA	EPAA7470A
0	Mercury, total recoverable	<0.450	U		0.450		µg/L	GE	EPAA7470A
0	Nickel, total recoverable	1.25	U		2.00		µg/L	WA	EPAA6020
0	Nickel, total recoverable	<26.0	U		26.0		µg/L	GE	EPAA6010B
0	Nickel, total recoverable	<26.0	U		26.0		µg/L	WA	EPAA6010B
0	Nickel, total recoverable	<26.0	U		26.0		µg/L	GE	EPAA6010B
0	Nitrate-nitrite as nitrogen	<10.0	U	V	50.0		µg/L	WA	EPAA353.1
0	Nitrate-nitrite as nitrogen	1.790	U		1.00		µg/L	GE	EPAA353.2
0	Nitrate-nitrite as nitrogen	5.90	U	Q	5.00		pH	WA	EPAA9040A
0	Phenols	8.23	U		0.100		pH	GE	EPAA9066
0	Phenols	<5.00	U		5.00		µg/L	GE	EPAA9066
0	Phenols	<5.00	U		5.00		µg/L	WA	EPAA9066
0	Phenols	<37.0	U		37.0		µg/L	GE	EPAA9066
0	Selenium, total recoverable	<37.0	U		37.0		µg/L	WA	EPAA9066
0	Selenium, total recoverable	<5.00	U		5.00		µg/L	GE	EPAA6020
0	Selenium, total recoverable	<5.00	U		5.00		µg/L	WA	EPAA6020
0	Selenium, total recoverable	<66.0	U		66.0		µg/L	GE	EPAA6010B
0	Silver, total recoverable	2.07	U		1.00		µg/L	WA	EPAA6020
0	Silver, total recoverable	1.80	U		5.00		µg/L	GE	EPAA6010B
0	Silver, total recoverable	<5.00	U		5.00		µg/L	WA	EPAA6010B
0	Silver, total recoverable	<5.00	U		5.00		µg/L	GE	EPAA6010B
0	Specific conductance	65.7	U		8.90		µS/cm	WA	EPAA9050A
0	Specific conductance	57.2	U		8.90		µS/cm	GE	EPAA9050A
0	1,1,2,2-Tetrachloroethane	<1.00	U		1.00		µg/L	WA	EPAA8260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	WA	EPAA8260B
0	1,1,2,2-Tetrachloroethane	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	Tetrachloroethylene	1.09	U		1.00		µg/L	WA	EPAA8260B
0	Tetrachloroethylene	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	Thallium, total recoverable	1.81	U		2.50		µg/L	WA	EPAA8020
0	Thallium, total recoverable	<5.0	U		5.00		µg/L	GE	EPAA8020
0	Thallium, total recoverable	<5.0	U		5.00		µg/L	WA	EPAA8020
0	Thallium, total recoverable	<5.0	U		5.00		µg/L	GE	EPAA8020
0	Toluene	<1.00	U		1.00		µg/L	WA	EPAA6010B
0	Toluene	<5.00	U		5.00		µg/L	GE	EPAA6010B
0	Toluene	<5.00	U		5.00		µg/L	WA	EPAA6010B
0	Toluene	<5.00	U		5.00		µg/L	GE	EPAA6010B
0	1,1,1-Trichloroethane	<1.00	U		1.00		µg/L	WA	EPAA8260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAA8260B
0	1,1,1-Trichloroethane	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	1,1,2-Trichloroethane	<1.00	U		1.00		µg/L	WA	EPAA8260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	WA	EPAA8260B
0	1,1,2-Trichloroethane	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	Trichloroethylene	1.04	U		1.00		µg/L	WA	EPAA8260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	WA	EPAA8260B
0	Trichloroethylene	<5.00	U		5.00		µg/L	GE	EPAA8260B
0	Vanadium, total recoverable	<10.0	U		10.0		µg/L	WA	EPAA6010B
0	Vanadium, total recoverable	<6.90	U		6.90		µg/L	GE	EPAA6010B
0	Vanadium, total recoverable	<6.90	U		6.90		µg/L	WA	EPAA6010B
0	Vanadium, total recoverable	<6.90	U		6.90		µg/L	GE	EPAA6010B
0	Zinc, total recoverable	14.4	U		14.4		µg/L	WA	EPAA6010B
0	Zinc, total recoverable	15.2	U		15.2		µg/L	GE	EPAA6010B
0	Zinc, total recoverable	16.0	U		16.0		µg/L	WA	EPAA6010B
0	Zinc, total recoverable	16.0	U		16.0		µg/L	GE	EPAA6010B
0	Adictum-228	6.49E-09±6.90E-09	U		6.49E-09±6.90E-09		µCi/mL	WA	EPAA0103
0	Adictum-228	5.81E-09±1.68E-08	U		5.81E-09±1.68E-08		µCi/mL	GE	EPAA0103
0	Adictum-228	1.22E-09±1.46E-08	U		1.22E-09±1.46E-08		µCi/mL	WA	EPAA0103
0	Adictum-228	5.50E-11±1.90E-10	U		5.50E-11±1.90E-10		µCi/mL	GE	EPAA0103
0	Adictum-228	2.70E-10±2.80E-10	U		2.70E-10±2.80E-10		µCi/mL	WA	EPAA0103
0	Adictum-228	4.00E-10±2.80E-10	U		4.00E-10±2.80E-10		µCi/mL	GE	EPAA0103
0	Adictum-228	3.87E-09±4.95E-09	U		3.87E-09±4.95E-09		µCi/mL	WA	EPAA0103
0	Adictum-228	4.99E-09±4.95E-09	U		4.99E-09±4.95E-09		µCi/mL	GE	EPAA0103
0	Adictum-228	1.18E-09±7.81E-09	U		1.18E-09±7.81E-09		µCi/mL	WA	EPAA0103
0	Adictum-228	2.17E-09±7.81E-09	U		2.17E-09±7.81E-09		µCi/mL	GE	EPAA0103
0	Adictum-228	3.22E-09±5.15E-09	U		3.22E-09±5.15E-09		µCi/mL	WA	EPAA0103
0	Adictum-228	3.27E-10±4.49E-09	U		3.27E-10±4.49E-09		µCi/mL	GE	EPAA0103
0	Adictum-228	3.10E-08±1.00E-07	U		3.10E-08±1.00E-07		µCi/mL	WA	EPAA0103
0	Adictum-228	3.06E-08±9.93E-08	U		3.06E-08±9.93E-08		µCi/mL	GE	EPAA0103
0	Adictum-228	1.12E-08±1.40E-08	U		1.12E-08±1.40E-08		µCi/mL	WA	EPAA0103
0	Adictum-228	4.74E-09±1.35E-08	U		4.74E-09±1.35E-08		µCi/mL	GE	EPAA0103
0	Adictum-228	5.12E-09±1.35E-08	U		5.12E-09±1.35E-08		µCi/mL	WA	EPAA0103
0	Adictum-228	1.22E-10±1.85E-09	U		1.22E-10±1.85E-09		µCi/mL	GE	EPAA0103
0	Adictum-228	3.75E-09±4.09E-09	U		3.75E-09±4.09E-09		µCi/mL	WA	EPAA0103
0	Adictum-228	4.10E-10±3.59E-09	U		4.10E-10±3.59E-09		µCi/mL	GE	EPAA0103
0	Adictum-228	1.35E-10±1.90E-09	U		1.35E-10±1.90E-09		µCi/mL	WA	EPAA0103
0	Adictum-228	2.90E-09±5.03E-09	U		2.90E-09±5.03E-09		µCi/mL	GE	EPAA0103
0	Adictum-228	3.96E-09±5.03E-09	U		3.96E-09±5.03E-09		µCi/mL	WA	EPAA0103
0	Adictum-228	7.48E-10±1.65E-09	U		7.48E-10±1.65E-09		µCi/mL	GE	EPAA0103
0	Adictum-228	3.00E-10±1.65E-09	U		3.00E-10±1.65E-09		µCi/mL	WA	EPAA0103
0	Adictum-228	5.50E-10±3.23E-09	U		5.50E-10±3.23E-09		µCi/mL	GE	EPAA0103
0	Adictum-228	3.00E-10±3.23E-09	U		3.00E-10±3.23E-09		µCi/mL	WA	EPAA0103
0	Adictum-228	1.28E-09±4.15E-09	U		1.28E-09±4.15E-09		µCi/mL	GE	EPAA0103
0	Adictum-228	5.07E-10±1.97E-09	U		5.07E-10±1.97E-09		µCi/mL	WA	EPAA0103
0	Adictum-228	1.10E-09±3.38E-09	U		1.10E-09±3.38E-09		µCi/mL	GE	EPAA0103
0	Adictum-228	8.72E-12±1.73E-10	U		8.72E-12±1.73E-10		µCi/mL	WA	EPAA0103
0	Adictum-228	8.72E-12±1.73E-10	U		8.72E-12±1.73E-10		µCi/mL	GE	EPAA0103
0	Adictum-228	2.90E-10	U		2.90E-10		µCi/mL	WA	EPAA0103
0	Adictum-228	1.00E-10±1.53E-11	U		1.00E-10±1.53E-11		µCi/mL	GE	EPAA0103
0	Adictum-228	2.04E-12±1.13E-10	U		2.04E-12±1.13E-10		µCi/mL	WA	EPAA0103
0	Adictum-228	1.80E-10±8.00E-11	U		1.80E-10±8.00E-11		µCi/mL	GE	EPAA0103
0	Adictum-228	2.40E-10±3.20E-11	U		2.40E-10±3.20E-11		µCi/mL	WA	EPAA0103
0	Adictum-228	1.53E-10±1.78E-10	U		1.53E-10±1.78E-10		µCi/mL	GE	EPAA0103
0	Adictum-228	1.17E-09±5.49E-09	U		1.17E-09±5.49E-09		µCi/mL	WA	EPAA0103
0	Adictum-228	5.09E-08±2.48E-08	U		5.09E-08±2.48E-08		µCi/mL	GE	EPAA0103
0	Adictum-228	3.97E-09±2.62E-08	U		3.97E-09±2.62E-08		µCi/mL	WA	EPAA0103
0	Adictum-228	3.97E-09±2.62E-08	U		3.97E-09±2.62E-08		µCi/mL	GE</	

**ESH-EMS-990520**

**B-123**

**First Quarter 1999**



## ANALYTICAL RESULTS

Well FSB 89C collected on 01/20/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Plutonium-239/240	<0.00E+00	U			3.10E-10	µCi/mL	TM	EMLPU02M
0 Potassium-40	2.89E-09±4.27E-08	U			1.90E-08	µCi/mL	GP	EPA901.1M
0 Potassium-40	7.33E-09±4.27E-08	U			7.50E-08	µCi/mL	GP	EPA901.1M
0 Potassium-40	9.62E-09±4.21E-08	U			7.58E-08	µCi/mL	GP	EPA901.1M
0 Potassium-144	8.00E-10±1.91E-09	U			3.56E-09	µCi/mL	GP	EPA901.1M
0 Potassium-144	4.10E-10±3.14E-09	U			5.52E-09	µCi/mL	GP	EPA901.1M
0 Potassium-144	1.72E-09±3.88E-09	U			5.32E-09	µCi/mL	GP	EPA901.1M
0 Potassium-146	4.19E-11±2.17E-09	U			3.98E-09	µCi/mL	GP	EPA901.1M
0 Potassium-146	3.18E-09±7.13E-09	U			1.08E-08	µCi/mL	GP	EPA901.1M
0 Potassium-146	2.49E-09±6.51E-09	U			1.04E-08	µCi/mL	GP	EPA901.1M
0 Radium-226	1.80E-10±1.90E-10	U			3.00E-10	µCi/mL	GP	EPA903.0M
0 Radium-226	2.00E-10±1.90E-10	U			3.00E-10	µCi/mL	GP	EPA903.0M
0 Radium-228	2.89E-10±6.71E-10	U			1.39E-09	µCi/mL	GP	EPA903.0M
0 Radium-228	5.30E-09±1.60E-08	U			2.33E-09	µCi/mL	GP	EPA904.0M
0 Radium-228	4.02E-09±1.60E-08	U			2.66E-09	µCi/mL	GP	EPA904.0M
0 Radium-228	1.32E-09±2.75E-08	U			4.63E-09	µCi/mL	GP	EPA901.1M
0 Radium-228	7.92E-09±2.92E-08	U			4.98E-08	µCi/mL	GP	EPA901.1M
0 Radium-228	1.40E-09±1.61E-09	U			3.53E-09	µCi/mL	GP	EPA901.1M
0 Radium-228	2.47E-09±4.15E-09	U			6.61E-09	µCi/mL	GP	EPA901.1M
0 Radium-228	1.50E-10±3.44E-09	U			6.38E-09	µCi/mL	GP	EPA901.1M
0 Radium-228	-3.68E-10±7.29E-10	U			1.70E-09	µCi/mL	GP	EPA901.1M
0 Radium-228	1.20E-10±5.70E-10	U			1.49E-09	µCi/mL	GP	EPA901.1M
0 Radium-228	1.60E-10±6.30E-10	U			1.55E-09	µCi/mL	GP	EPA901.1M
0 Radium-228	4.89E-10±6.96E-09	U			2.21E-08	µCi/mL	GP	EPA901.1M
0 Radium-228	2.71E-09±7.63E-09	U			1.30E-08	µCi/mL	GP	EPA901.1M
0 Radium-228	8.80E-09±1.00E-08	U			1.69E-08	µCi/mL	GP	EPA901.1M
0 Radium-228	2.23E-11±1.46E-10	U			4.39E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	1.50E-10±1.70E-10	U			5.10E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	1.40E-10±1.80E-10	U			5.50E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	1.46E-10±2.11E-11	U			2.78E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	8.30E-10±4.30E-10	U			2.40E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	9.97E-10±1.76E-11	U			1.93E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	1.50E-10±1.70E-10	U			3.20E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	3.00E-10±4.80E-10	U			3.90E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	1.57E-09±4.03E-09	U			6.14E-09	µCi/mL	GP	EPA901.1M
0 Radium-228	-3.69E-09±6.22E-09	U			6.41E-07	µCi/mL	GP	EPA901.1M
0 Radium-228	1.18E-05±7.25E-07	U			5.90E-07	µCi/mL	GP	EPA901.1M
0 Radium-228	1.42E-05±9.00E-07	U			5.90E-07	µCi/mL	GP	EPA901.1M
0 Radium-228	1.39E-05±8.80E-07	U			1.04E-07	µCi/mL	GP	EPA901.1M
0 Radium-228	3.48E-11±8.92E-11	U			5.90E-07	µCi/mL	GP	EPA901.1M
0 Radium-228	2.60E-10±2.00E-10	U			3.00E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	1.50E-10±1.50E-10	U			1.00E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	-1.66E-11±2.36E-11	U			2.16E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	<0.00E+00	U			3.00E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	5.00E-11±9.00E-11	U			1.30E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	3.46E-11±6.92E-11	U			1.04E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	4.00E-11±7.00E-11	U			2.20E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	1.50E-10±1.50E-10	U			2.20E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	2.73E-11±2.73E-11	U			4.89E-09	µCi/mL	GP	EPA901.1M
0 Radium-228	3.50E-09±7.47E-09	U			6.65E-09	µCi/mL	GP	EPA901.1M
0 Radium-228	4.43E-10±3.71E-09	U			7.61E-09	µCi/mL	GP	EPA901.1M
0 Radium-228	7.23E-09±7.84E-09	U			5.91E-09	µCi/mL	GP	EPA901.1M
0 Radium-228	-5.64E-09±7.88E-09	U			1.42E-08	µCi/mL	GP	EPA901.1M
0 Radium-228	2.40E-10±5.86E-09	U			1.19E-08	µCi/mL	GP	EPA901.1M
0 Radium-228	-5.16E-09±6.57E-09	U			1.03E-08	µCi/mL	GP	EPA901.1M

## WELL FSB 89C Replicate

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/20/99  
 Depth to water: 68.34 ft (20.83 m) below TOC  
 Water elevation: 212.36 ft (64.91 m) msf  
 pH: 5.9  
 Sp. conductivity: 56 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 87 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<15.0	U			15.0	µg/L	GE	EPA8200
0 Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8200

## ESH-EMS-990520

Well FSB 89C collected on 01/20/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8200
0 Barium, total recoverable	12.4	U			2.00	µg/L	GE	EPA8200
0 Benzene	<10.0	U			1.00	µg/L	GE	EPA8200
0 Bis(2-ethylhexyl) phthalate	<1.00	U			1.00	µg/L	GE	EPA8200
0 Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Bromoform	<1.00	U			1.00	µg/L	GE	EPA8200
0 Bromomethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Cadmium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8200
0 Carbon tetrachloride	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chloroethane (Vinyl chloride)	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chloroethene (Vinyl chloride)	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chloroethyl vinyl ether	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chloroform	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chromic acid	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chromium, total recoverable	0.851	U			3.00	µg/L	GE	EPA8200
0 Cobalt, total recoverable	<0.0330	U			0.200	µg/L	GE	EPA8200
0 Copper, total recoverable	<1.68	U			1.00	µg/L	GE	EPA8200
0 Cyanide	3.68	U			1.00	µg/L	GE	EPA8200
0 Dibromochloromethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 1,2-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 1,1-Dichloroethene	<1.00	U			1.00	µg/L	GE	EPA8200
0 trans-1,2-Dichloroethylene	<1.00	U			1.00	µg/L	GE	EPA8200
0 Dichloromethane	<4.33	U			1.00	µg/L	GE	EPA8200
0 Dichloropropane	<1.00	U			1.00	µg/L	GE	EPA8200
0 cis-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8200
0 Ethylbenzene	<1.00	U			1.00	µg/L	GE	EPA8200
0 Iron, total recoverable	28.1	U			5.00	µg/L	GE	EPA8200
0 Lead, total recoverable	0.06	U			1.00	µg/L	GE	EPA8200
0 Mercury, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8200
0 Nickel, total recoverable	1.50	U			2.00	µg/L	GE	EPA8200
0 Nitrate-nitrite as nitrogen	1.820	U			5.00	µg/L	GE	EPA8200
0 pH	5.98	U			0.100	PH	GE	EPA8200
0 Phenols	<5.00	U			5.00	µg/L	GE	EPA8200
0 Selenium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8200
0 Silver, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8200
0 Specific conductance	59.5	U			1.00	µS/cm	GE	EPA8200
0 1,1,2,2-Tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Tetrachloroethylene	<0.0590	U			2.50	µg/L	GE	EPA8200
0 Thallium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8200
0 Toluene	<1.00	U			1.00	µg/L	GE	EPA8200
0 1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Trichloroethylene	0.920	U			1.00	µg/L	GE	EPA8200
0 Trichlorofluoromethane	2.98	U			5.00	µg/L	GE	EPA8200
0 Zinc, total recoverable	<10.0	U			1.00	µg/L	GE	EPA8200
0 Antimony-241	2.08E-09±5.95E-09	U			1.08E-08	µCi/mL	GP	EPA901.1M
0 Antimony-125	6.07E-11±1.22E-10	U			5.20E-10	µCi/mL	GP	EPA901.1M
0 Carbon-14	1.07E-09±4.42E-09	U			7.32E-09	µCi/mL	GP	EPA901.1M
0 Carbon-14	3.15E-09±5.52E-09	U			9.42E-09	µCi/mL	GP	EPA901.1M
0 Carbon-14	-1.89E-10±1.08E-08	U			1.89E-08	µCi/mL	GP	EPA901.1M
0 Cesium-134	1.63E-09±2.12E-09	U			3.02E-09	µCi/mL	GP	EPA901.1M
0 Cesium-137	1.12E-09±1.70E-09	U			3.18E-09	µCi/mL	GP	EPA901.1M
0 Cobalt-57	-3.15E-10±1.45E-09	U			2.53E-09	µCi/mL	GP	EPA901.1M
0 Cobalt-60	-3.87E-11±1.44E-11	U			2.69E-09	µCi/mL	GP	EPA901.1M
0 Curium-242	-3.19E-11±6.39E-11	U			3.98E-10	µCi/mL	GP	EPA901.1M
0 Curium-243/244	1.82E-10±2.12E-10	U			1.82E-10	µCi/mL	GP	EPA901.1M
0 Curium-245/246	6.07E-11±1.22E-10	U			1.82E-10	µCi/mL	GP	EPA901.1M
0 Europium-152	5.96E-10±4.81E-09	U			8.22E-09	µCi/mL	GP	EPA901.1M
0 Europium-154	1.06E-09±4.14E-09	U			7.97E-09	µCi/mL	GP	EPA901.1M
0 Europium-155	2.08E-09±6.28E-09	U			1.13E-08	µCi/mL	GP	EPA901.1M
0 Gross alpha	5.69E-10±4.20E-10	U			6.19E-10	µCi/mL	GP	EPA901.1M
0 Iodine-129	4.47E-10±3.40E-10	U			4.61E-10	µCi/mL	GP	EPA901.1M
0 Lead-212	1.60E-09±4.55E-09	U			4.64E-09	µCi/mL	GP	EPA901.1M
0 Nonradioactive	7.20E-10±4.88E-10	U			1.21E-09	µCi/mL	GP	EPA901.1M
0 Plutonium-238	9.14E-11±3.58E-10	U			7.72E-10	µCi/mL	GP	EPA901.1M
0 Plutonium-239/240	4.71E-11±1.51E-10	U			3.65E-10	µCi/mL	GP	EPA901.1M
0 Promethium-144	7.21E-09±2.17E-08	U			2.88E-08	µCi/mL	GP	EPA901.1M
0 Promethium-146	-8.48E-10±1.57E-09	U			2.65E-09	µCi/mL	GP	EPA901.1M
0 Radium-226	-4.30E-10±2.00E-09	U			3.57E-09	µCi/mL	GP	EPA901.1M
0 Radium-226	3.84E-10±5.00E-10	U			8.29E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	6.34E-10±4.39E-10	U			2.15E-10	µCi/mL	GP	EPA901.1M
0 Radium-228	1.70E-10±5.19E-10	U			1.04E-09	µCi/mL	GP	EPA901.1M

## B-124

## First Quarter 1999



Well FSB 89C collected on 01/14/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Ruthenium-106	1.61E-09±1.43E-08	U			2.59E-08	µCi/mL	GP	EPIA-013
0 Strontium-90	3.82E-10±1.48E-09	U			2.86E-09	µCi/mL	GP	EPIA-013
0 Technetium-99	1.79E-11±7.70E-10	U			1.72E-09	µCi/mL	GP	EPIA-004
0 Thorium-228	3.20E-08±7.26E-09	U			2.53E-08	µCi/mL	GP	EPIA-005
0 Thorium-230	6.15E-11±1.01E-10	U			2.12E-10	µCi/mL	GP	EPIA-012
0 Thorium-232	7.10E-11±8.43E-11	U			1.48E-10	µCi/mL	GP	EPIA-012
0 Tritium	3.95E-12±7.93E-12	U			8.68E-11	µCi/mL	GP	EPIA-002
1 Tritium	1.40E-05±7.89E-07				6.53E-07	µCi/mL	GP	EPIA-002
0 Uranium-233/234	4.29E-10±2.35E-10	R			1.87E-10	µCi/mL	GP	EPIA-011
0 Uranium-235	8.91E-11±1.03E-10	U			8.91E-11	µCi/mL	GP	EPIA-011
0 Uranium-238	2.96E-11±5.93E-11	U			8.98E-11	µCi/mL	GP	EPIA-011
0 Yttrium-88	9.37E-10±1.91E-09	U			3.19E-09	µCi/mL	GP	EPIA-013
0 Zinc-65	3.14E-09±2.35E-09	U			6.35E-09	µCi/mL	GP	EPIA-013

## WELL FSB 89D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/14/99  
 Depth to water: 64.19 ft (19.56 m) below TOC  
 Water elevation: 217.02 ft (66.15 m) msl  
 pH: 3.2  
 Conductance: 250 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 37 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	3.770	U			15.0	µg/L	GE	EPA8200
0 Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8200
0 Arsenic, total recoverable	<3.0	U			3.0	µg/L	GE	EPA8200
0 Barium, total recoverable	37.8	U			2.00	µg/L	GE	EPA8200
0 Benzene	<1.00	JU	L		0	µg/L	GE	EPA8200
0 Bis(2-ethylhexyl) phthalate	<9.90	JU	L		0	µg/L	GE	EPA8200
0 Bromodichloromethane	<1.00	JU	L		0	µg/L	GE	EPA8200
0 Bromoform	<1.00	JU	L		0	µg/L	GE	EPA8200
0 Bromomethane	<1.00	JU	L		0	µg/L	GE	EPA8200
0 Cadmium, total recoverable	<1.00	JU	L		0	µg/L	GE	EPA8200
0 Carbon tetrachloride	<1.00	JU	L		0	µg/L	GE	EPA8200
0 Chlorobenzene	<1.00	JU	L		0	µg/L	GE	EPA8200
0 Chloroethane (Vinyl chloride)	<1.00	JU	L		0	µg/L	GE	EPA8200
0 2-Chloroethyl vinyl ether	<5.00	JU	L		0	µg/L	GE	EPA8200
0 Chloroform	<1.00	JU	L		0	µg/L	GE	EPA8200
0 Chloromethane	<1.00	JU	L		0	µg/L	GE	EPA8200
0 Chromium, total recoverable	2.41	J			0.200	µg/L	GE	EPA8200
0 Cobalt, total recoverable	24.1	J			0.200	µg/L	GE	EPA8200
0 Copper, total recoverable	10.7	U			1.00	µg/L	GE	EPA8200
0 Cyanide	<10.0	U			10.0	µg/L	GE	EPA9012A
0 Dibromochloromethane	<10.0	U			10.0	µg/L	GE	EPA9012A
0 1,1-Dichloroethane	<1.00	JU	L		0	µg/L	GE	EPA8200
0 1,2-Dichloroethane	<1.00	JU	L		0	µg/L	GE	EPA8200
0 1,1-Dichloroethene	<1.00	JU	L		0	µg/L	GE	EPA8200
0 trans-1,2-Dichloroethene	<1.00	JU	L		0	µg/L	GE	EPA8200
0 1,2-Dichloroethane	<1.00	JU	L		0	µg/L	GE	EPA8200
0 1,3-Dichloropropane	<1.00	JU	L		0	µg/L	GE	EPA8200
0 trans-1,3-Dichloropropane	<1.00	JU	L		0	µg/L	GE	EPA8200
0 Ethylbenzene	<1.00	JU	L		0	µg/L	GE	EPA8200
0 Iron, total recoverable	36.9	J			15.0	µg/L	GE	EPA8200
0 Lead, total recoverable	1.58	J			2.00	µg/L	GE	EPA8200
0 Mercury, total recoverable	9.60	J			0.200	µg/L	GE	EPA7470A
0 Nickel, total recoverable	6.12	U			2.00	µg/L	GE	EPA8200
0 Nitrate-nitrite as nitrogen	20,600	U			500	µg/L	GE	EPA8200
0 pH	4.02	U			0.100	pH	GE	EPA8200
0 Phenols	<5.00	U			5.00	µg/L	GE	EPA8200
0 Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8200
0 Silver, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8200

ESH-EMS-990520

B-125

First Quarter 1999

Well FSB 89D collected on 01/14/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1 Specific conductance	262	JU			1.00	µS/cm	GE	EPA9050A
0 Tetrachloroethane	<1.00	JU			1.00	µg/L	GE	EPA8200B
0 Toluene	<0.0550	JU			2.50	µg/L	GE	EPA8200B
0 1,1,1-Trichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8200B
0 1,1,2-Trichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8200B
0 Trichloroethene	<1.00	JU			1.00	µg/L	GE	EPA8200B
0 Trichlorofluoromethane	<5.00	JU			5.00	µg/L	GE	EPA8200B
0 Vanadium, total recoverable	<10.0	JU			10.0	µg/L	GE	EPA8200B
0 Zinc, total recoverable	22.9	U			10.0	µg/L	GE	EPA8200B
0 Antimony-125	1.38E-08±7.59E-09	U			1.38E-08	µCi/mL	GP	EPIA-011
0 Antimony-125	7.30E-09±4.68E-09	U			8.08E-11	µCi/mL	GP	EPIA-011
0 Carbon-14	2.06E-08±1.46E-08	U			6.91E-09	µCi/mL	GP	EPIA-003
0 Cesium-134	2.39E-08±1.46E-08	U			6.91E-09	µCi/mL	GP	EPIA-003
0 Cesium-137	2.85E-10±2.19E-09	U			2.41E-08	µCi/mL	GP	EPIA-013
0 Cobalt-60	6.05E-10±2.08E-09	U			3.72E-09	µCi/mL	GP	EPIA-013
0 Curium-242	3.84E-10±1.91E-09	U			3.25E-09	µCi/mL	GP	EPIA-013
0 Curium-244	1.56E-12±9.14E-12	U			3.93E-09	µCi/mL	GP	EPIA-013
0 Curium-244/244	4.39E-09±6.21E-10	U			5.70E-11	µCi/mL	GP	EPIA-011
0 Europium-152	2.02E-10±8.38E-11	R			2.43E-11	µCi/mL	GP	EPIA-011
0 Europium-154	4.07E-09±5.78E-09	U			9.65E-09	µCi/mL	GP	EPIA-013
0 Europium-155	2.59E-09±5.81E-09	U			1.01E-08	µCi/mL	GP	EPIA-013
2 Gross alpha	2.27E-09±8.78E-09	U			1.47E-08	µCi/mL	GP	EPIA-013
2 Iodine-129	1.62E-07±7.97E-09	J			9.38E-10	µCi/mL	GP	EPIA-001
0 Lead-212	4.42E-08±4.49E-09	U			1.21E-08	µCi/mL	GP	EPIA-006
0 Manganese-54	2.23E-09±4.39E-09	U			5.43E-09	µCi/mL	GP	EPIA-013
0 Nonradioactive	3.30E-10±1.74E-09	U			1.78E-09	µCi/mL	GP	EPIA-013
0 Nonradioactive	2.40E-07±4.39E-09	U			1.78E-09	µCi/mL	GP	EPIA-013
0 Plutonium-238/240	3.57E-11±4.89E-11	U			8.19E-10	µCi/mL	GP	EPIA-011
0 Potassium-40	1.75E-08±2.21E-08	U			4.47E-08	µCi/mL	GP	EPIA-013
0 Promethium-144	2.78E-10±1.73E-09	U			3.23E-09	µCi/mL	GP	EPIA-013
0 Promethium-146	6.81E-10±2.55E-09	U			4.37E-09	µCi/mL	GP	EPIA-013
0 Radium-226	3.68E-09±8.87E-10	U			1.51E-10	µCi/mL	GP	EPIA-008
0 Radium-228	2.67E-09±8.71E-10	J			1.59E-09	µCi/mL	GP	EPIA-008
0 Ruthenium-106	1.40E-10±2.26E-09	U			3.07E-08	µCi/mL	GP	EPIA-013
0 Strontium-90	1.48E-07±6.97E-09	U			3.10E-09	µCi/mL	GP	EPIA-004
0 Technetium-99	4.23E-08±1.25E-08	U			2.15E-08	µCi/mL	GP	EPIA-005
0 Thorium-228	1.30E-10±8.37E-11	R			1.18E-10	µCi/mL	GP	EPIA-012
0 Thorium-230	3.18E-11±3.22E-11	U			2.39E-11	µCi/mL	GP	EPIA-012
0 Thorium-232	4.03E-12±3.07E-12	U			5.03E-11	µCi/mL	GP	EPIA-012
2 Tritium	7.72E-04±1.51E-05	U			1.99E-08	µCi/mL	GP	EPIA-002
2 Uranium-233/234	4.66E-08±5.15E-09	U			1.51E-10	µCi/mL	GP	EPIA-011
2 Uranium-235	3.10E-08±6.07E-10	U			1.37E-10	µCi/mL	GP	EPIA-011
2 Uranium-238	6.03E-08±7.07E-08	U			4.70E-11	µCi/mL	GP	EPIA-011
2 Yttrium-88	4.45E-10±2.18E-09	U			4.18E-09	µCi/mL	GP	EPIA-013
0 Zinc-65	2.72E-09±3.30E-09	U			6.38E-09	µCi/mL	GP	EPIA-013

## WELL FSB 90C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 66.43 ft (20.25 m) below TOC  
 Water elevation: Not available  
 pH: 5.6  
 Sp. conductance: 200 µS/cm  
 Turbidity: 1.4 NTU  
 Water evacuated from the well prior to sampling: 35 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	1.050	U			15.0	µg/L	GE	EPA8200
0 Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8200
0 Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8200
0 Barium, total recoverable	49.7	U			2.00	µg/L	GE	EPA8200

Time: 9:35  
 Water temperature: 16.6°C  
 Air temperature: 13.8°C  
 Total alkalinity (as CaCO<sub>3</sub>): 1 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S



## ANALYTICAL RESULTS

Well FSB 90C collected on 01/07/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Benzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<10.0	JU	Q		10.0	µg/L	GE	EPA8270C
0 Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Bromoform	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Bromomethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Cadmium, total recoverable	0.836	J	I		1.00	µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chloroethene (Vinyl chloride)	<1.00	U			1.00	µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Cobalt, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Copper, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Dichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,2-Dichloropropane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
2 Iron, total recoverable	485	U			1.00	µg/L	GE	EPA8260B
0 Lead, total recoverable	9.76	U			1.00	µg/L	GE	EPA8260B
0 Mercury, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0 Nickel, total recoverable	18.7	U			0.200	µg/L	GE	EPA8260B
2 Nitrate-nitrite as nitrogen	6.40	J	Q		0.00	µg/L	GE	EPA8260B
pH	6.4	J			0.00	µg/L	GE	EPA8260B
0 Phenols	<5.00	U			5.00	µg/L	GE	EPA8260B
0 Selenium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Silver, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Specific conductance	217	U			1.00	µS/cm	GE	EPA8260B
0 1,1,2,2-Tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Tetrachloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Toluene	<0.0620	JU			1.00	µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Trichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Trichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Vanadium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0 Zinc, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8260B
0 Actinium-228	5.66E-09±1.59E-08	U			1.00	µg/L	GE	EPA8260B
0 Americium-241	9.36E-10±2.41E-09	U			1.00	µg/L	GE	EPA8260B
0 Antimony-125	9.36E-10±2.41E-09	U			1.00	µg/L	GE	EPA8260B
0 Carbon-14	7.39E-09±1.02E-08	U			1.00	µg/L	GE	EPA8260B
0 Cesium-134	7.39E-09±1.02E-08	U			1.00	µg/L	GE	EPA8260B
0 Cesium-137	4.45E-10±1.96E-09	JU			1.00	µg/L	GE	EPA8260B
0 Cobalt-57	1.67E-10±2.01E-09	JU			1.00	µg/L	GE	EPA8260B
0 Cobalt-60	6.93E-10±1.87E-09	JU			1.00	µg/L	GE	EPA8260B
0 Curium-242	-1.12E-09±2.16E-09	U			1.00	µg/L	GE	EPA8260B
0 Curium-243/244	<0.00E+00	U			1.00	µg/L	GE	EPA8260B
0 Curium-245/246	-4.27E-11±8.09E-11	U			1.00	µg/L	GE	EPA8260B
0 Europium-152	<0.00E+00	U			1.00	µg/L	GE	EPA8260B
0 Europium-154	7.76E-10±8.85E-09	U			1.00	µg/L	GE	EPA8260B
0 Europium-155	1.71E-09±8.94E-09	U			1.00	µg/L	GE	EPA8260B
0 Gross alpha	-2.87E-09±9.07E-09	U			1.00	µg/L	GE	EPA8260B
2 Iodine-129	6.93E-09±1.43E-09	J			1.00	µg/L	GE	EPA8260B
0 Lead-212	3.86E-09±1.23E-09	J			1.00	µg/L	GE	EPA8260B
0 Marganese-54	3.10E-10±4.01E-09	U			1.00	µg/L	GE	EPA8260B
0 Nonradioactive	4.57E-10±5.08E-09	U			1.00	µg/L	GE	EPA8260B
0 Plutonium-238	2.12E-09±1.46E-09	U			1.00	µg/L	GE	EPA8260B
0 Plutonium-239/240	-1.70E-12±6.68E-11	U			1.00	µg/L	GE	EPA8260B
0 Potassium-40	-7.70E-12±1.94E-11	U			1.00	µg/L	GE	EPA8260B
0 Promethium-144	3.04E-08±3.07E-08	U			1.00	µg/L	GE	EPA8260B
0 Promethium-146	2.42E-09±2.29E-09	U			1.00	µg/L	GE	EPA8260B
0 Radium-226	1.56E-09±1.15E-10	U			1.00	µg/L	GE	EPA8260B
0 Radium-228	6.63E-10±3.15E-10	J			1.00	µg/L	GE	EPA8260B
0 Ruthenium-106	-7.82E-09±1.78E-09	U			1.00	µg/L	GE	EPA8260B
0 Sodium-22	6.09E-10±2.12E-09	U			1.00	µg/L	GE	EPA8260B
1 Strontium-90	4.56E-09±1.11E-09	U			1.00	µg/L	GE	EPA8260B
0 Technetium-99	2.83E-08±1.08E-08	J			2.01E-08	µg/L	GE	EPA8260B

ESH-EMS-990520

B-126

First Quarter 1999

Well FSB 90C collected on 01/07/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Thorium-228	-8.79E-11±1.39E-10	U			4.80E-10	µCi/mL	GP	EPIA-012
0 Thorium-230	1.48E-12±8.21E-11	U			2.80E-10	µCi/mL	GP	EPIA-012
0 Thorium-232	3.70E-11±7.44E-11	U			1.11E-10	µCi/mL	GP	EPIA-012
2 Tritium	4.68E-04±9.20E-06	U			1.53E-06	µCi/mL	GP	EPIA-002
0 Uranium-233/234	1.40E-10±1.39E-10	JU			1.85E-10	µCi/mL	GP	EPIA-011
0 Uranium-235	1.39E-11±5.64E-11	JU			1.66E-10	µCi/mL	GP	EPIA-011
0 Uranium-238	7.45E-12±5.76E-11	JU			1.85E-10	µCi/mL	GP	EPIA-011
0 Yttrium-88	1.52E-09±2.56E-09	U			5.17E-09	µCi/mL	GP	EPIA-013
0 Zinc-65	-2.23E-09±5.28E-09	U			7.89E-09	µCi/mL	GP	EPIA-013

## WELL FSB 90D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/04/99  
 Depth to water: 70.26 ft (21.42 m) below TOC  
 Water elevation: 206.34 ft (62.5 m) nsl  
 BPT: 4.2  
 Conductance: 1,060 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 66 gal

ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	18.800	U			15.0	µg/L	GE	EPA8260B
0 Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0 Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8260B
0 Barium, total recoverable	151	U			2.00	µg/L	GE	EPA8260B
0 Benzene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<10.0	JU			10.0	µg/L	GE	EPA8260B
0 Bromodichloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Bromoform	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Bromomethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
2 Cadmium, total recoverable	8.27	JU			1.00	µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	6.32	JU			3.00	µg/L	GE	EPA8260B
0 Cobalt, total recoverable	17.1	U			0.200	µg/L	GE	EPA8260B
0 Copper, total recoverable	27.4	U			1.00	µg/L	GE	EPA8260B
0 Cyanide	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Dibromochloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Dichloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,2-Dichloropropane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Iron, total recoverable	60.1	JU			15.0	µg/L	GE	EPA8260B
0 Lead, total recoverable	13.9	J			2.00	µg/L	GE	EPA8260B
2 Mercury, total recoverable	17.0	JU			0.400	µg/L	GE	EPA8260B
0 Nickel, total recoverable	17.6	U			2.00	µg/L	GE	EPA8260B
2 Nitrate-nitrite as nitrogen	73.800	J			1.250	µg/L	GE	EPA8260B
pH	3.64	J			0.100	pH	GE	EPA8260B
0 Phenols	<5.00	J			5.00	µg/L	GE	EPA8260B
0 Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0 Silver, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
2 Specific conductance	703	U			1.00	µS/cm	GE	EPA8260B
0 1,1,2,2-Tetrachloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Tetrachloroethene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Toluene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Trichloroethene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Trichloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Vanadium, total recoverable	<10.0	JU			10.0	µg/L	GE	EPA8260B
0 Zinc, total recoverable	50.8	U			10.0	µg/L	GE	EPA8260B

Time: 15:40

Water temperature: 15.7°C

Air temperature: 15.7°C

Phosphatidylcholine alkalinity: 0 mg/L

Field Qualifier(s): S



## ANALYTICAL RESULTS

Well FSB 90D collected on 01/04/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method	F Analyte
0 Actinium-228	2.96E-08±1.29E-08	R		4	2.13E-08	µCi/mL	GP	EPIA-013	0 Copper, total recoverable
0 Actinium-230	1.58E-08±2.04E-09				5.33E-09	µCi/mL	GP	EPIA-011	0 Cyanide
0 Antimony-125	-4.68E-09±5.67E-09	U			9.28E-09	µCi/mL	GP	EPIA-003	0 Dibromochloromethane
0 Carbon-14	2.92E-08±5.01E-09	U			7.22E-09	µCi/mL	GP	EPIA-003	0 1,1-Dichloroethane
0 Cerium-134	-1.12E-08±1.56E-08	U			2.50E-08	µCi/mL	GP	EPIA-013	0 1,2-Dichloroethane
0 Cesium-134	-1.27E-09±2.33E-09	U			3.29E-09	µCi/mL	GP	EPIA-013	0 1,1-Dichloroethane
0 Cesium-137	1.11E-08±2.03E-08	U			3.73E-09	µCi/mL	GP	EPIA-013	0 Trans-1,2-Dichloroethylene
0 Cobalt-57	1.86E-09±2.24E-09	U			3.47E-09	µCi/mL	GP	EPIA-013	0 Dichloromethane
0 Cobalt-60	1.64E-09±1.42E-09	U			3.64E-09	µCi/mL	GP	EPIA-013	0 1,2-Dichloropropane
0 Curium-240	-1.71E-10±2.50E-10	U			9.05E-10	µCi/mL	GP	EPIA-011	0 cis-1,2-Dichloropropene
0 Curium-242/244	2.80E-10±1.15E-10	U			9.05E-10	µCi/mL	GP	EPIA-011	0 cis-1,2-Dichloropropene
0 Curium-244/246	2.80E-10±1.15E-10	U			1.22E-10	µCi/mL	GP	EPIA-011	0 Ethylbenzene
0 Europium-152	1.04E-09±5.70E-09	R		4	1.02E-08	µCi/mL	GP	EPIA-013	0 Iron, total recoverable
0 Europium-154	-3.04E-09±5.49E-09	U			9.17E-09	µCi/mL	GP	EPIA-013	0 Lead, total recoverable
0 Europium-155	7.97E-09±8.92E-09	U			1.56E-08	µCi/mL	GP	EPIA-013	0 Mercury, total recoverable
2 Gross alpha	5.29E-07±1.97E-07	J			2.15E-07	µCi/mL	GP	EPIA-001	0 Nickel, total recoverable
2 Iodine-129	1.93E-07±2.42E-08	U	I		4.36E-09	µCi/mL	GP	EPIA-006	0 Nitrate-nitrite as nitrogen
2 Iodine-131	1.98E-07±2.41E-08	U			4.19E-09	µCi/mL	GP	EPIA-006	0 Nitrate-nitrite as nitrogen
2 Lead-210	5.83E-09±5.39E-09	U			7.83E-09	µCi/mL	GP	EPIA-003	0 pH
2 Manganese-54	6.70E-10±2.02E-09	U			7.88E-09	µCi/mL	GP	EPIA-003	0 Phenols
0 Nonvolatile beta	1.28E-06±2.85E-07	U			5.52E-07	µCi/mL	GP	EPIA-001	0 Silver, total recoverable
0 Plutonium-238	2.33E-10±1.39E-11	J			1.03E-10	µCi/mL	GP	EPIA-003	0 Spent oil
0 Plutonium-239/240	4.77E-08±8.80E-08	J			1.03E-10	µCi/mL	GP	EPIA-011	0 1,1,2,2-Tetrachloroethane
0 Potassium-40	-9.23E-10±1.96E-09	U			3.42E-09	µCi/mL	GP	EPIA-013	0 Tetrachloroethane
0 Promethium-144	-3.34E-10±2.70E-09	U			4.11E-09	µCi/mL	GP	EPIA-013	0 Thallium, total recoverable
0 Radium-146	1.68E-08±1.83E-09	U			5.49E-10	µCi/mL	GP	EPIA-008	0 Toluene
2 Radium-226	2.37E-08±1.82E-09	U			2.21E-09	µCi/mL	GP	EPIA-009	0 1,1,1-Trichloroethane
0 Ruthenium-106	2.76E-08±1.62E-08	U			3.17E-08	µCi/mL	GP	EPIA-009	0 1,1,2-Trichloroethane
0 Sodium-22	-1.10E-09±1.96E-09	U			3.26E-09	µCi/mL	GP	EPIA-013	0 Trichloroethylene
2 Strontium-90	4.23E-07±1.11E-08	J	K		2.68E-09	µCi/mL	GP	EPIA-005	0 Trichlorofluoromethane
0 Technetium-99	1.20E-07±1.1E-08	U			1.89E-08	µCi/mL	GP	EPIA-005	0 Vanadium, total recoverable
0 Thorium-228	7.80E-10±2.42E-10	R		4	3.29E-10	µCi/mL	GP	EPIA-012	0 Zinc, total recoverable
0 Thorium-230	7.80E-12±4.71E-11	U			2.13E-10	µCi/mL	GP	EPIA-012	0 Actinium-228/230
0 Thorium-232	1.08E-11±3.63E-11	U			3.72E-09	µCi/mL	GP	EPIA-002	0 Antimony-125
2 Tritium	1.96E-07±2.3E-08	U			1.81E-09	µCi/mL	GP	EPIA-011	0 Carbon-14
2 Uranium-233/234	1.44E-09±3.58E-09	U			1.69E-09	µCi/mL	GP	EPIA-011	0 Cerium-144
2 Uranium-235	2.20E-07±2.60E-08	U			1.34E-09	µCi/mL	GP	EPIA-011	0 Cesium-134
2 Uranium-238	4.17E-10±2.31E-09	U			4.49E-09	µCi/mL	GP	EPIA-013	0 Cesium-137
2 Zinc-66	-1.14E-09±7.15E-09	U			6.95E-09	µCi/mL	GP	EPIA-013	

**WELL FSB 91C**

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/14/99  
Depth to water: 67.46 ft (20.56 m) below TOC  
Water elevation: Not available  
pH: 4.6  
Sp. conductance: 120 µS/cm  
Turbidity: 4.5 NTU  
Water evacuated from the well prior to sampling: 46 gal  
The well went dry during purging.

## ANALYSES

<i>F</i>	<i>Analyte</i>	<i>Result</i>	<i>FG</i>	<i>S</i>	<i>EMS</i>	<i>SOL</i>	<i>Unit</i>	<i>Lab</i>	<i>Method</i>
2	Aluminum, total recoverable	1.520				15.0	µg/L	GE	EP A6020
0	Antimony, total recoverable	<0.200				0.200	µg/L	GE	EP A6020
0	Arsenic, total recoverable	<0.200	U			30.0	µg/L	GE	EP A6020
0	Benzene	47.4				2.00	µg/L	GE	EP A6020
0	Bis(2-ethylhexyl) phthalate	<1.00	JU			1.00	µg/L	GE	EP A8270C08
0	Bis(2-ethylhexyl) phthalate	<9.90				9.90	µg/L	GE	EP A8270C08
0	Bromodichloromethane	<1.00	JU			1.00	µg/L	GE	EP A8260B08
0	Bromodichloromethane	<1.00	JU			1.00	µg/L	GE	EP A8260B08
0	Bromomethane	<1.00	JU			1.00	µg/L	GE	EP A8260B08
0	Bromomethane, total recoverable	2.08				1.00	µg/L	GE	EP A6020
0	Cadmium, total recoverable	<1.00	JU			1.00	µg/L	GE	EP A8260B08
0	Carbon tetrachloride	<1.00	JU			1.00	µg/L	GE	EP A8260B08
0	Chlorobenzene	<1.00	JU			1.00	µg/L	GE	EP A8260B08
0	Chloroethane	<1.00	JU			1.00	µg/L	GE	EP A8260B08
0	Chloroethane (Vinyl chloride)	<1.00	JU			1.00	µg/L	GE	EP A8260B08
0	Chloroethyl vinyl ether	<1.00	JU			5.00	µg/L	GE	EP A8260B08
0	Chloroform	<1.00	JU			1.00	µg/L	GE	EP A8260B08
0	Chloroform	<1.00	JU			1.00	µg/L	GE	EP A8260B08
0	Chloroform	<1.00	JU			1.00	µg/L	GE	EP A6020
0	Chromium, total recoverable	<3.00				3.00	µg/L	GE	EP A6020
0	Cobalt, total recoverable	9.98	JU			0.200	µg/L	GE	EP A6020

Well FSB 91C collected on 01/14/99 (cont.)

F Analyte	Result	PG	\$	EMS	SQL	Unit	Lab	Method
Copper, total recoverable	6.86				1.00	µg/L	GE	EPAS020
Cyanide	<1.0	J			10.0	µg/L	GE	EPAS012A
Dibromochloromethane	<1.00	J	L		1.00	µg/L	GE	EPAS260B
1,1-Dichloroethane	<1.00	J	L		1.00	µg/L	GE	EPAS260B
1,2-Dichloroethane	<1.00	J	L		1.00	µg/L	GE	EPAS260B
1,1-Dichloroethane	<1.00	J	L		1.00	µg/L	GE	EPAS260B
trans-1,2-Dichloroethane	<1.00	J	L		1.00	µg/L	GE	EPAS260B
Dichloromethane	<1.34	J	L		5.00	µg/L	GE	EPAS260B
1,2-Dichloropropane	<1.00	J	L		1.00	µg/L	GE	EPAS260B
cis-1,3-Dichloropropene	<1.00	J	L		1.00	µg/L	GE	EPAS260B
trans-1,3-Dichloropropene	<1.00	J	L		1.00	µg/L	GE	EPAS260B
Ethylbenzene	97.1	J	L		15.0	µg/L	GE	EPAS260B
Iron, total recoverable	87.1	J			2.00	µg/L	GE	EPAS020
Lead, total recoverable	40.217	J	V		2.00	µg/L	GE	EPAS020
Nickel, total recoverable	6.08	J			2.00	µg/L	GE	EPAS020
Nitrate-nitrogen	13.200	J			1.000	µg/L	GE	EPAS4770A
Nitrate-nitrite as nitrogen	12.800	J			1.000	µg/L	GE	EPAS353
Nitrate-nitrite as nitrogen	5.46	J			0.100	pH	GE	EPAS353
pH	<5.00	J			1.00	pH	GE	EPAS040B
Phenols	<1.00	J			5.00	µg/L	GE	EPAS065
Selenium, total recoverable	<1.00	J			1.00	µg/L	GE	EPAS020
Silver, total recoverable	<1.00	J			1.00	µg/L	GE	EPAS020
Specific conductance	221	J			1.00	µS/cm	GE	EPAS050A
1,1,2,2-Tetrachloroethane	<1.00	J	L		1.00	µg/L	GE	EPAS260B
Tetrachloroethylene	<1.00	J	L		1.00	µg/L	GE	EPAS260B
Thallium, total recoverable	<0.0530	J	V		2.50	µg/L	GE	EPAS020
Toluene	<1.00	J	L		1.00	µg/L	GE	EPAS260B
1,1,1-Trichloroethane	<1.00	J	L		1.00	µg/L	GE	EPAS260B
1,1,2-Trichloroethane	<1.00	J	L		1.00	µg/L	GE	EPAS260B
Trichloroethylene	<1.00	J	L		1.00	µg/L	GE	EPAS260B
Trichloroethylene	2.69	J	L		5.00	µg/L	GE	EPAS260B
Trichloroethylene	<1.00	J	L		1.00	µg/L	GE	EPAS260B
Vanadium, total recoverable	29.0	J	L		10.0	µg/L	GE	EPAS020
Zinc, total recoverable	2.95E-09±4.20E-09	J			1.39E-08	µCi/mL	GP	EPAS013
Adlinium-228	5.07E-11±1.42E-10	J			3.47E-10	µCi/mL	GP	EPAS011
Antimony-124	1.74E-09±4.94E-09	J			8.07E-09	µCi/mL	GP	EPAS011
Antimony-125	2.53E-08±5.60E-09	J			6.78E-09	µCi/mL	GP	EPAS011
Carbon-14	2.62E-08±4.70E-09	J			8.79E-09	µCi/mL	GP	EPAS011
Carbon-14	7.28E-09±1.20E-08	J			2.14E-08	µCi/mL	GP	EPAS011
Cesium-134	1.76E-09±1.65E-09	J			2.88E-09	µCi/mL	GP	EPAS011
Cesium-137	6.89E-10±1.80E-09	J			3.10E-09	µCi/mL	GP	EPAS011
Cobalt-57	7.11E-10±1.53E-09	J			2.27E-09	µCi/mL	GP	EPAS011
Cobalt-60	2.96E-10±1.47E-09	J			4.28E-10	µCi/mL	GP	EPAS011
Cobalt-60	9.42E-11±5.52E-11	J			4.88E-10	µCi/mL	GP	EPAS011
Curium-242	8.75E-11±1.89E-10	J			8.35E-09	µCi/mL	GP	EPAS011
Curium-243/244	4.33E-10±3.54E-09	J			8.35E-09	µCi/mL	GP	EPAS011
Curium-245/246	8.75E-11±1.89E-10	J			8.35E-09	µCi/mL	GP	EPAS011
Europium-152	4.33E-10±3.54E-09	J			8.35E-09	µCi/mL	GP	EPAS011
Europium-154	8.75E-11±1.89E-10	J			8.35E-09	µCi/mL	GP	EPAS011
Europium-155	3.34E-09±3.91E-09	J			1.32E-08	µCi/mL	GP	EPAS011
Gross alpha	2.41E-08±3.25E-09	J			1.35E-09	µCi/mL	GP	EPAS011
Iodine-129	1.70E-08±3.20E-09	J			1.39E-09	µCi/mL	GP	EPAS011
Lead-212	6.65E-09±4.80E-09	J			4.59E-09	µCi/mL	GP	EPAS011
Manganese-54	4.06E-10±1.51E-09	J			2.57E-09	µCi/mL	GP	EPAS011
Neptunium-237	2.41E-07±6.02E-09	J			1.82E-09	µCi/mL	GP	EPAS011
Nonvolatila beta	4.73E-11±1.01E-10	J			2.80E-10	µCi/mL	GP	EPAS011
Plutonium-238	2.51E-11±4.19E-11	J			1.80E-10	µCi/mL	GP	EPAS011
Plutonium-239/240	1.75E-09±1.67E-08	J			3.13E-08	µCi/mL	GP	EPAS011
Potassium-40	3.18E-10±1.55E-09	J			2.71E-09	µCi/mL	GP	EPAS011
Promethium-144	1.26E-09±2.10E-09	J			3.62E-09	µCi/mL	GP	EPAS011
Promethium-146	1.10E-08±1.50E-09	J			6.32E-10	µCi/mL	GP	EPAS011
Radium-226	3.20E-09±7.22E-10	J			1.16E-09	µCi/mL	GP	EPAS011
Radium-228	4.39E-10±1.45E-08	J			2.50E-08	µCi/mL	GP	EPAS011
Ruthenium-106	1.41E-10±1.62E-09	J			2.98E-09	µCi/mL	GP	EPAS011
Sodium-22	2.43E-08±4.02E-09	J			5.01E-08	µCi/mL	GP	EPAS011
Sroutium-90	2.43E-08±4.02E-09	J			5.01E-08	µCi/mL	GP	EPAS011
Thorium-230	4.14E-11±4.71E-11	J			1.07E-10	µCi/mL	GP	EPAS011
Thorium-232	6.15E-11±4.19E-11	J			2.05E-11	µCi/mL	GP	EPAS011
Thorium-230	6.83E-12±1.37E-11	J			1.06E-10	µCi/mL	GP	EPAS011
Thorium-232	2.39E-04±4.71E-06	J			8.11E-11	µCi/mL	GP	EPAS011
Tritium	7.38E-10±1.67E-10	J			6.40E-11	µCi/mL	GP	EPAS011
Uranium-233/234	2.56E-11±3.53E-11	J			5.61E-11	µCi/mL	GP	EPAS011
Uranium-235	5.26E-10±1.35E-10	J			3.41E-09	µCi/mL	GP	EPAS011
Uranium-238	4.41E-10±1.76E-09	J			3.41E-09	µCi/mL	GP	EPAS011
Yttrium-88	6.25E-10±3.33E-09	J			5.59E-09	µCi/mL	GP	EPAS011
Zinc-65								

**ESH-EMS-990520**

**B-127**

**First Quarter 1999**



## ANALYTICAL RESULTS

## WELL FSB 91D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/14/99  
 Depth to water: 64.55 ft (19.68 m) below TOC  
 Water elevation: 214.65 ft (65.43 m) msl  
 pH: 3.2  
 Conductance: 220 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 30 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	4.630			15.0		µg/L	GE	EPA8200
0	Antimony, total recoverable	<0.200			0.200		µg/L	GE	EPA8200
0	Arsenic, total recoverable	<3.00			3.00		µg/L	GE	EPA8200
0	Barium, total recoverable	32.6			2.00		µg/L	GE	EPA8200
0	Benzene	<1.00			1.00		µg/L	GE	EPA8200
0	Bis(2-ethylhexyl) phthalate	<9.90			9.90		µg/L	GE	EPA8270C
0	Bromodichloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0	Bromomethane	<1.00			1.00		µg/L	GE	EPA8260B
0	Cadmium, total recoverable	<0.070			0.070		µg/L	GE	EPA8260B
0	Carbon tetrachloride	<1.00			1.00		µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00			1.00		µg/L	GE	EPA8260B
0	Chloroethane (Vinyl chloride)	<1.00			1.00		µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00			1.00		µg/L	GE	EPA8260B
0	Chloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0	Chromium, total recoverable	<1.00			1.00		µg/L	GE	EPA8260B
0	Cobalt, total recoverable	<1.00			1.00		µg/L	GE	EPA8260B
0	Copper, total recoverable	<1.00			1.00		µg/L	GE	EPA8260B
0	Cyanide	<10.0			10.0		µg/L	GE	EPA8260B
0	Dibromochloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00			1.00		µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00			1.00		µg/L	GE	EPA8260B
0	1,1-Dichloroethylene	<1.00			1.00		µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	<1.00			1.00		µg/L	GE	EPA8260B
0	Dichloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0	1,2-Dichloropropane	<1.00			1.00		µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00			1.00		µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00			1.00		µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00			1.00		µg/L	GE	EPA8260B
0	Iron, total recoverable	<1.00			1.00		µg/L	GE	EPA8260B
0	Lead, total recoverable	<1.00			1.00		µg/L	GE	EPA8260B
0	Mercury, total recoverable	<0.245			0.200		µg/L	GE	EPA8260B
0	Nickel, total recoverable	2.09			2.00		µg/L	GE	EPA8260B
2	Nitrate-nitrite as nitrogen	12.200			5.00		µg/L	GE	EPA8260B
1	pH	3.89			0.100		pH	GE	EPA8260B
0	Phenols	<5.00			5.00		µg/L	GE	EPA8260B
0	Selenium, total recoverable	<1.00			1.00		µg/L	GE	EPA8260B
0	Silver, total recoverable	<1.00			1.00		µg/L	GE	EPA8260B
0	Specific conductance	182			1.00		µS/cm	GE	EPA8260B
0	1,1,2,2-Tetrachloroethane	<1.00			1.00		µg/L	GE	EPA8260B
0	Tetrachloroethylene	<1.00			1.00		µg/L	GE	EPA8260B
0	Thallium, total recoverable	<0.0600			0.0600		µg/L	GE	EPA8260B
0	Toluene	<1.00			1.00		µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00			1.00		µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00			1.00		µg/L	GE	EPA8260B
0	Trichloroethylene	<1.00			1.00		µg/L	GE	EPA8260B
0	Trichloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<0.200			0.200		µg/L	GE	EPA8260B
0	Zinc, total recoverable	9.41			10.0		µg/L	GE	EPA8260B
0	Actin-228	6.72E-09±1.03E-08			1.67E-08		µCi/mL	GP	EPA1013
0	Americium-241	1.44E-09±2.71E-10			6.24E-11		µCi/mL	GP	EPA1013
0	Antimony-125	1.09E-09±5.27E-09			9.46E-09		µCi/mL	GP	EPA1013
0	Carbon-14	9.51E-09±4.32E-09			6.93E-09		µCi/mL	GP	EPA1013
0	Cerium-144	3.40E-09±1.51E-08			2.59E-08		µCi/mL	GP	EPA1013
0	Cesium-134	5.37E-10±2.03E-09			3.35E-09		µCi/mL	GP	EPA1013
0	Cesium-137	3.18E-10±2.16E-09			3.96E-09		µCi/mL	GP	EPA1013
0	Cobalt-57	7.00E-10±1.86E-09			3.82E-09		µCi/mL	GP	EPA1013
0	Cobalt-60	4.23E-10±2.08E-09			5.74E-11		µCi/mL	GP	EPA1013
0	Curium-242	4.60E-12±9.21E-12			5.14E-11		µCi/mL	GP	EPA1013
0	Curium-243/244	9.99E-10±2.13E-10			2.44E-11		µCi/mL	GP	EPA1013
0	Curium-245/246	4.88E-11±4.02E-11			1.12E-08		µCi/mL	GP	EPA1013
0	Europium-152	5.16E-09±8.89E-09			1.18E-08		µCi/mL	GP	EPA1013
0	Europium-154	1.72E-09±6.05E-09			1.18E-08		µCi/mL	GP	EPA1013

ESH-EMS-990520

B-128

First Quarter 1999

Well FSB 91D collected on 01/14/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Europium-155	4.92E-09±7.87E-09			1.33E-08		µCi/mL	GP	EPA1013
2	Gross alpha	9.67E-08±3.39E-09			4.49E-10		µCi/mL	GP	EPA1001
2	Iodine-129	1.90E-08±2.92E-09			1.17E-09		µCi/mL	GP	EPA1006
0	Lead-212	2.19E-09±4.49E-09			5.72E-09		µCi/mL	GP	EPA1013
0	Manganese-54	3.84E-10±2.05E-09			3.61E-09		µCi/mL	GP	EPA1013
2	Nonvolatile beta	7.92E-08±2.05E-09			8.86E-10		µCi/mL	GP	EPA1001
0	Plutonium-238	9.13E-12±5.1E-11			1.38E-10		µCi/mL	GP	EPA1011
0	Plutonium-239/240	3.58E-11±4.17E-11			3.58E-11		µCi/mL	GP	EPA1011
0	Promethium-144	7.92E-09±2.89E-08			3.84E-09		µCi/mL	GP	EPA1013
0	Promethium-146	5.21E-10±2.42E-09			3.84E-09		µCi/mL	GP	EPA1013
1	Radium-226	2.70E-09±7.86E-10			1.12E-10		µCi/mL	GP	EPA1008
0	Radium-228	4.57E-09±7.83E-10			2.98E-09		µCi/mL	GP	EPA1009
0	Ruthenium-106	5.88E-10±2.16E-09			4.29E-08		µCi/mL	GP	EPA1013
2	Sodium-22	1.89E-08±5.69E-09			9.27E-09		µCi/mL	GP	EPA1013
0	Strontium-90	1.77E-08±3.58E-09			5.22E-09		µCi/mL	GP	EPA1004
0	Technetium-99	9.07E-09±4.58E-09			2.12E-08		µCi/mL	GP	EPA1005
0	Thorium-228	1.12E-10±7.3E-11			1.05E-10		µCi/mL	GP	EPA1012
0	Thorium-230	2.19E-11±3.18E-11			5.92E-11		µCi/mL	GP	EPA1012
0	Thorium-232	8.76E-12±1.73E-11			2.63E-11		µCi/mL	GP	EPA1012
2	Tritium	9.60E-05±1.93E-06			6.61E-07		µCi/mL	GP	EPA1011
2	Uranium-233/234	3.20E-08±3.69E-09			1.55E-10		µCi/mL	GP	EPA1011
0	Uranium-235	3.18E-09±5.37E-10			1.02E-10		µCi/mL	GP	EPA1011
2	Uranium-238	4.89E-08±5.63E-09			3.97E-11		µCi/mL	GP	EPA1011
0	Yttrium-88	2.35E-09±2.16E-09			4.96E-09		µCi/mL	GP	EPA1013
0	Zinc-65	3.47E-09±4.74E-09			8.44E-09		µCi/mL	GP	EPA1013

## WELL FSB 92C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/14/99  
 Depth to water: 65.13 ft (19.85 m) below TOC  
 Water elevation: Not available  
 pH: 5.2  
 Conductance: 260 µS/cm  
 Sp. conductivity: 3.0 NTU  
 Water evacuated from the well prior to sampling: 34 gal  
 The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	1.950			15.0		µg/L	GE	EPA8200
0	Antimony, total recoverable	<0.200			0.200		µg/L	GE	EPA8200
0	Arsenic, total recoverable	<60.0			60.0		µg/L	GE	EPA8200
0	Barium, total recoverable	116			2.00		µg/L	GE	EPA8200
0	Benzene	<1.00			1.00		µg/L	GE	EPA8260B
0	Bis(2-ethylhexyl) phthalate	<10.0			10.0		µg/L	GE	EPA8270C
0	Bromodichloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0	Bromomethane	<1.00			1.00		µg/L	GE	EPA8260B
2	Cadmium, total recoverable	6.96			1.00		µg/L	GE	EPA8200
0	Carbon tetrachloride	<1.00			1.00		µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00			1.00		µg/L	GE	EPA8260B
0	Chloroethane (Vinyl chloride)	<1.00			1.00		µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00			1.00		µg/L	GE	EPA8260B
0	Chloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0	Chromium, total recoverable	<3.00			3.00		µg/L	GE	EPA8200
0	Cobalt, total recoverable	43.3			0.200		µg/L	GE	EPA8200
0	Copper, total recoverable	6.65			1.00		µg/L	GE	EPA8200
0	Cyanide	<1.00			1.00		µg/L	GE	EPA8200
0	Dibromochloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00			1.00		µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00			1.00		µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	<1.00			1.00		µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	<1.00			1.00		µg/L	GE	EPA8260B
0	Dichloromethane	<1.22			5.00		µg/L	GE	EPA8260B
0	1,2-Dichloropropane	<1.00			1.00		µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00			1.00		µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00			1.00		µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00			1.00		µg/L	GE	EPA8260B
0	Iron, total recoverable	80.8			15.0		µg/L	GE	EPA8260B
0	Lead, total recoverable	1.05			2.00		µg/L	GE	EPA8200



## ANALYTICAL RESULTS

Well FSB 92C collected on 01/04/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Mercury, total recoverable	<0.215	U	V	0.200	µg/L	GE	EPA7470A	GE
0	Nickel, total recoverable	15.6	U	V	2.00	µg/L	GE	EPA6020	GE
2	Nitrate-nitrite as nitrogen	32.500	U	Q	1.250	µg/L	GE	EPA353.1	GE
0	pH	5.55	U	Q	0.100	pH	GE	EPA9040B	GE
0	Phenols	<5.00	U	U	5.00	µg/L	GE	EPA9066	GE
0	Selenium, total recoverable	<1.00	U	U	1.00	µg/L	GE	EPA6020	GE
0	Silver, total recoverable	380	U	U	1.00	µg/L	GE	EPA9050A	GE
1	Specific conductance	<1.00	U	U	1.00	µS/cm	GE	EPA6020	GE
0	1,1,2,2-Tetrachloroethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Tetrachloroethylene	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Toluene	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	1,1,1-Trichloroethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	1,1,2-Trichloroethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
1	Trichloroethane	3.44	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Trichloroethylene	1.89	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Vanadium, total recoverable	<10.0	U	U	10.0	µg/L	GE	EPA6020	GE
0	Zinc, total recoverable	88.6	U	U	10.0	µg/L	GE	EPA6020	GE
0	Arsenicum-241	4.13E-09±1.21E-08	U	U	1.64E-08	µg/L	GE	EPA-013	GE
0	Arsenicum-241	1.20E-10±1.64E-10	U	U	3.23E-10	µg/L	GE	EPA-013	GE
0	Antimony-125	-9.93E-10±5.49E-09	U	U	9.75E-09	µg/L	GE	EPA-013	GE
0	Carbon-14	1.62E-08±4.62E-09	U	U	7.08E-09	µg/L	GE	EPA-013	GE
0	Cerium-144	9.45E-10±1.60E-08	U	U	2.78E-08	µg/L	GE	EPA-013	GE
0	Cesium-134	2.62E-11±2.18E-08	U	U	3.41E-09	µg/L	GE	EPA-013	GE
0	Cesium-137	-7.00E-10±2.72E-09	U	U	4.07E-09	µg/L	GE	EPA-013	GE
0	Cobalt-57	6.64E-10±1.93E-09	U	U	3.41E-09	µg/L	GE	EPA-013	GE
0	Cobalt-60	-2.40E-10±2.03E-09	U	U	3.70E-09	µg/L	GE	EPA-013	GE
0	Cerium-242	-2.73E-11±1.02E-10	U	U	3.38E-10	µg/L	GE	EPA-013	GE
0	Cerium-243/244	8.44E-11±1.97E-10	U	U	4.41E-10	µg/L	GE	EPA-013	GE
0	Cerium-245/246	2.08E-11±5.63E-11	U	U	1.12E-08	µg/L	GE	EPA-013	GE
0	Europium-152	6.73E-10±6.64E-09	U	U	1.12E-08	µg/L	GE	EPA-013	GE
0	Europium-154	5.01E-10±6.85E-09	U	U	1.12E-08	µg/L	GE	EPA-013	GE
0	Europium-155	4.38E-08±2.73E-09	U	U	1.52E-08	µg/L	GE	EPA-013	GE
2	Gross alpha	1.47E-08±2.90E-09	U	U	1.23E-09	µg/L	GE	EPA-013	GE
2	Lead-210	3.97E-09±4.58E-09	U	U	7.28E-09	µg/L	GE	EPA-013	GE
0	Managanese-54	3.36E-09±2.27E-09	U	U	2.58E-09	µg/L	GE	EPA-013	GE
2	Nitrocellulose beta	2.96E-07±3.95E-09	U	U	8.83E-10	µg/L	GE	EPA-013	GE
0	Plutonium-238	8.43E-11±1.03E-11	U	U	1.92E-11	µg/L	GE	EPA-013	GE
0	Plutonium-239/240	4.12E-11±5.41E-11	U	U	9.27E-11	µg/L	GE	EPA-013	GE
0	Potassium-40	3.84E-08±4.19E-08	U	U	3.80E-08	µg/L	GE	EPA-013	GE
0	Promethium-144	-8.71E-10±1.91E-09	U	U	3.23E-09	µg/L	GE	EPA-013	GE
0	Promethium-146	1.84E-09±2.66E-09	U	U	5.00E-09	µg/L	GE	EPA-013	GE
1	Radium-226	2.22E-08±2.44E-09	U	U	6.26E-10	µg/L	GE	EPA-013	GE
1	Radium-228	1.84E-08±2.88E-10	U	U	1.00E-09	µg/L	GE	EPA-013	GE
0	Ruthenium-106	-1.84E-08±2.08E-08	U	U	3.97E-08	µg/L	GE	EPA-013	GE
0	Sodium-22	1.98E-07±1.00E-08	U	U	3.21E-08	µg/L	GE	EPA-013	GE
2	Strontium-90	4.51E-08±1.27E-08	U	U	2.73E-08	µg/L	GE	EPA-013	GE
0	Technetium-99	6.54E-11±8.95E-11	U	U	2.38E-11	µg/L	GE	EPA-013	GE
0	Thorium-228	1.94E-11±2.28E-11	U	U	4.79E-11	µg/L	GE	EPA-013	GE
0	Thorium-230	8.94E-04±1.75E-05	U	U	2.16E-06	µg/L	GE	EPA-013	GE
2	Tritium	1.45E-09±2.55E-10	U	U	6.70E-11	µg/L	GE	EPA-013	GE
0	Uranium-233/234	7.40E-12±4.09E-11	U	U	9.51E-11	µg/L	GE	EPA-013	GE
0	Uranium-235	1.05E-09±2.09E-10	U	U	7.98E-11	µg/L	GE	EPA-013	GE
0	Uranium-238	-8.29E-10±2.20E-09	U	U	4.11E-09	µg/L	GE	EPA-013	GE
0	Yttrium-88	1.59E-09±4.49E-09	U	U	7.70E-09	µg/L	GE	EPA-013	GE
0	Zinc-65								

## WELL FSB 92D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/04/99

Depth to water: 63.03 ft (19.21 m) below TOC

Water elevation: 212.87 ft (64.88 m) msl

pH: 4.5

Sp. conductance: 695 µS/cm

Turbidity: 1 NTU

Water evacuated from the well prior to sampling: 25 gal

Time: 12:30

Water temperature: 18.5°C

Air temperature: 6.1°C

Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L

Phenolphthalein alkalinity: 0 mg/L

Field Qualifier(s): V

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	18.500	U	U	15.0	µg/L	GE	EPA6020	GE
0	Antimony, total recoverable	<0.200	U	U	0.200	µg/L	GE	EPA6020	GE
0	Arsenic, total recoverable	<3.00	U	U	3.00	µg/L	GE	EPA6020	GE

## ESH-EMS-990502

Well FSB 92D collected on 01/04/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Barium, total recoverable	529	U	U	2.00	µg/L	GE	EPA6020	GE
0	Benzene	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Bis(2-ethylhexyl) phthalate	<1.00	U	U	1.00	µg/L	GE	EPA8270C	GE
0	Bromodichloromethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Bromofom	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Bromomethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
2	Cadmium, total recoverable	21.8	U	U	1.00	µg/L	GE	EPA6020	GE
0	Carbon tetrachloride	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Chlorobenzene	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Chloroethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	2-Chloroethyl Vinyl ether	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Chloroform	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Chloromethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Chromium, total recoverable	145	U	U	3.00	µg/L	GE	EPA6020	GE
0	Cobalt, total recoverable	12.7	U	U	0.200	µg/L	GE	EPA6020	GE
0	Copper, total recoverable	17.0	U	U	1.00	µg/L	GE	EPA6020	GE
0	Cyanide	<10.0	U	U	10.0	µg/L	GE	EPA6020	GE
0	Dibromochloromethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	1,1-Dichloroethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	1,2-Dichloroethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	trans-1,2-Dichloroethylene	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	trans-1,2-Dichloroethylene	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Dichloromethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	1,2-Dichloropropane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	cis-1,3-Dichloropropene	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	trans-1,3-Dichloropropene	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Ethylbenzene	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Iron, total recoverable	102	U	U	15.0	µg/L	GE	EPA8260B	GE
0	Lead, total recoverable	1.00	U	U	2.00	µg/L	GE	EPA6020	GE
0	Mercury, total recoverable	0.558	U	U	2.00	µg/L	GE	EPA6020	GE
0	Nickel, total recoverable	11.4	U	U	2.00	µg/L	GE	EPA6020	GE
2	Nitrate-nitrite as nitrogen	86.000	U	U	0.100	µg/L	GE	EPA9201	GE
1	pH	3.51	U	U	2.500	µg/L	GE	EPA9201	GE
1	pH	3.51	U	U	0.100	pH	GE	EPA9353	GE
0	Phenols	<5.00	U	U	0.100	pH	GE	EPA9040B	GE
0	Selenium, total recoverable	<1.00	U	U	5.00	µg/L	GE	EPA9066	GE
0	Silver, total recoverable	<1.00	U	U	1.00	µg/L	GE	EPA6020	GE
2	Specific conductance	793	U	U	1.00	µS/cm	GE	EPA9050A	GE
0	1,1,2,2-Tetrachloroethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Tetrachloroethylene	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Thallium, total recoverable	<1.00	U	U	2.50	µg/L	GE	EPA6020	GE
0	Toluene	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	1,1,1-Trichloroethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	1,1,2-Trichloroethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Trichloroethylene	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Trichlorobromomethane	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
0	Vanadium, total recoverable	<1.00	U	U	1.00	µg/L	GE	EPA8260B	GE
2	Zinc, total recoverable	70.9	U	U	5.00	µg/L	GE	EPA6020	GE
0	Arsenicum-228	2.19E-08±1.59E-08	R	U	2.19E-08	µg/L	GE	EPA6020	GE
0	Antimony-125	-2.72E-09±3.85E-09	U	U	5.93E-10	µg/L	GE	EPA-013	GE
0	Carbon-14	6.18E-08±3.92E-09	U	U	9.33E-09	µg/L	GE	EPA-013	GE
0	Cerium-144	-6.58E-09±1.48E-08	U	U	7.43E-09	µg/L	GE	EPA-013	GE
0	Cesium-134	5.87E-09±4.23E-09	U	U	2.62E-08	µg/L	GE	EPA-013	GE
0	Cesium-137	1.31E-09±2.04E-09	U	U	3.30E-09	µg/L	GE	EPA-013	GE
0	Cobalt-57	-2.34E-11±2.07E-09	U	U	3.81E-09	µg/L	GE	EPA-013	GE
0	Cobalt-60	9.35E-11±2.46E-10	U	U	4.80E-10	µg/L	GE	EPA-013	GE
0	Cerium-242	8.34E-09±1.41E-09	U	U	2.98E-10	µg/L	GE	EPA-011	GE
0	Cerium-243/244	-2.76E-10±2.10E-10	R	U	1.18E-10	µg/L	GE	EPA-011	GE
0	Cerium-245/246	-2.90E-09±6.18E-09	U	U	1.01E-08	µg/L	GE	EPA-011	GE
0	Europium-152	8.62E-09±4.88E-09	U	U	1.09E-08	µg/L	GE	EPA-013	GE
0	Europium-154	-8.59E-10±3.81E-09	U	U	1.54E-08	µg/L	GE	EPA-013	GE
0	Europium-155	4.63E-07±1.61E-07	U	U	1.96E-07	µg/L	GE	EPA-013	GE
2	Gross alpha	8.24E-08±7.42E-09	U	U	6.00E-09	µg/L	GE	EPA-001	GE
2	Iodine-129	5.24E-08±7.42E-09	U	U	2.02E-09	µg/L	GE	EPA-006	GE
0	Lead-210	2.48E-09±7.25E-09	R	U	1.94E-09	µg/L	GE	EPA-006	GE
0	Manganese-54	1.47E-08±3.02E-07	R	U	4.53E-09	µg/L	GE	EPA-013	GE
0	Monodactylate-210	<0.00E+00	U	U	1.11E-10	µg/L	GE	EPA-011	GE
0	Plutonium-238	<0.00E+00	U	U	1.11E-10	µg/L	GE	EPA-011	GE
0	Potassium-40	1.77E-08±2.11E-08	U	U	4.36E-08	µg/L	GE	EPA-011	GE
0	Promethium-144	9.76E-10±1.93E-09	U	U	3.62E-09	µg/L	GE	EPA-013	GE
0	Promethium-146	2.28E-09±5.4E-09	U	U	4.89E-09	µg/L	GE	EPA-013	GE
0	Radium-226	3.31E-08±2.48E-09	U	U	4.46E-10	µg/L	GE	EPA-009	GE
2	Radium-228	3.37E-08±2.32E-09	U	U	2.73E-09	µg/L	GE	EPA-009	GE
0	Ruthenium-106	1.11E-08±1.77E-08	U	U	3.19E-09	µg/L	GE	EPA-013	GE
0	Sodium-22	3.07E-09±1.73E-09	U	U	3.08E-09	µg/L	GE	EPA-013	GE



## ANALYTICAL RESULTS

Well FSB 92D collected on 01/04/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Strontium-90	4.55E-07±1.06E-08	J	K	C	2.35E-09	pCi/mL	GP	EPIA-004
0 Technetium-99	5.89E-08±1.26E-08				1.92E-08	pCi/mL	GP	EPIA-005
0 Thorium-230	1.61E-11±5.15E-11	R		4	2.66E-10	pCi/mL	GP	EPIA-012
0 Thorium-232	1.61E-11±5.15E-11	U			1.25E-10	pCi/mL	GP	EPIA-012
2 Tritium	2.40E-03±4.69E-05	U			3.93E-06	pCi/mL	GP	EPIA-002
2 Uranium-233/234	1.50E-07±1.79E-08				1.45E-09	pCi/mL	GP	EPIA-011
2 Uranium-235	1.01E-08±2.68E-09				4.54E-10	pCi/mL	GP	EPIA-011
2 Uranium-238	1.96E-07±2.27E-08				9.51E-10	pCi/mL	GP	EPIA-011
0 Yttrium-88	-1.86E-09±2.02E-09	U			3.01E-09	pCi/mL	GP	EPIA-013
0 Zinc-65	-2.90E-09±4.52E-09	U			6.45E-09	pCi/mL	GP	EPIA-013

## WELL FSB 93C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
 Depth to water: 66.53 ft (20.28 m) below TOC  
 Water elevation: 209.67 ft (63.91 m) msl  
 pH: 4.7  
 Sp. conductivity: 270 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 230 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1 Aluminum, total recoverable	38.5	U			15.0	µg/L	GE	EPA8020
0 Arsenic, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8020
0 Barium, total recoverable	<3.0	U			3.00	µg/L	GE	EPA8020
0 Benzene	<10.4	JU	L	O	10.4	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<1.00	JU	L	O	1.00	µg/L	GE	EPA8270C
0 Bromodichloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Bromoform	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Bromomethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Cadmium, total recoverable	1.19	JU	L	O	1.00	µg/L	GE	EPA8020
0 Carbon tetrachloride	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Chloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Chloroethane (Vinyl chloride)	<5.00	JU	L	O	5.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Chloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	<3.00	JU	L	O	3.00	µg/L	GE	EPA8020
0 Cobalt, total recoverable	2.72	U			0.200	µg/L	GE	EPA8020
0 Copper, total recoverable	3.88	U			1.00	µg/L	GE	EPA8020
0 Cyanide	<10.0	U			10.0	µg/L	GE	EPA9012A
0 Dibromochloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethylene	<1.52	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Dichloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 1,2-Dichloropropane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
1 Iron, total recoverable	175	JU	L	O	15.0	µg/L	GE	EPA8020
0 Lead, total recoverable	1.80	JU	L	O	2.00	µg/L	GE	EPA8020
0 Mercury, total recoverable	0.0933	JU	L	O	2.00	µg/L	GE	EPA8020A
0 Nickel, total recoverable	32.15	JU	L	O	2.00	µg/L	GE	EPA8020
2 Nitrate-nitrite as nitrogen	32.300	JU	L	O	1.250	µg/L	GE	EPA8331
0 Phenols	5.12	JU	L	O	0.100	µg/L	GE	EPA8066
0 Selenium, total recoverable	<5.00	JU	L	O	5.00	µg/L	GE	EPA8020
0 Silver, total recoverable	<1.00	JU	L	O	1.00	µg/L	GE	EPA8050A
1 Specific conductance	351	U			1.00	µS/cm	GE	EPA9050A
0 1,1,2,2-Tetrachloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Trichloroethylene	<0.129	JU	L	O	2.50	µg/L	GE	EPA8260B
0 Toluene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Trichloroethylene	2.49	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Trichlorofluoromethane	<5.00	JU	L	O	5.00	µg/L	GE	EPA8260B

ESH-EMS-990520

B-130

First Quarter 1999

Well FSB 93C collected on 01/12/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Vanadium, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8020
0 Zinc, total recoverable	76.6	U			10.0	µg/L	GE	EPA8020
0 Actinium-228	6.53E-09±1.16E-08	JU			1.58E-08	pCi/mL	GP	EPIA-013
0 Americium-241	2.21E-10±1.66E-10	JU			2.50E-10	pCi/mL	GP	EPIA-013
0 Antimony-125	-2.56E-09±5.44E-09	JU			9.53E-09	pCi/mL	GP	EPIA-013
0 Carbon-14	1.33E-08±4.34E-09	JU			6.79E-09	pCi/mL	GP	EPIA-013
0 Cerium-144	-1.63E-09±1.40E-08	JU			2.41E-08	pCi/mL	GP	EPIA-013
0 Cesium-134	-6.35E-10±2.26E-09	JU			3.45E-09	pCi/mL	GP	EPIA-013
0 Cesium-137	-1.90E-09±2.09E-09	JU			3.37E-09	pCi/mL	GP	EPIA-013
0 Cobalt-57	4.04E-10±1.86E-09	U			3.29E-09	pCi/mL	GP	EPIA-013
0 Cobalt-60	5.14E-10±1.86E-09	U			3.41E-09	pCi/mL	GP	EPIA-013
0 Curium-242	-1.37E-10±9.32E-11	JU			4.32E-10	pCi/mL	GP	EPIA-011
0 Curium-243/244	-4.38E-11±2.00E-10	JU			4.32E-10	pCi/mL	GP	EPIA-011
0 Europium-152	2.59E-10±3.46E-11	JU			1.08E-09	pCi/mL	GP	EPIA-013
0 Europium-154	-2.34E-09±3.96E-09	JU			8.85E-09	pCi/mL	GP	EPIA-013
0 Europium-155	-1.50E-09±1.43E-09	JU			1.25E-08	pCi/mL	GP	EPIA-013
0 Gross alpha	2.59E-09±8.09E-10	U			8.68E-10	pCi/mL	GP	EPIA-001
2 Iodine-129	8.75E-09±4.34E-09	U			1.13E-09	pCi/mL	GP	EPIA-001
2 Lead-212	-5.59E-10±1.93E-09	U			6.79E-09	pCi/mL	GP	EPIA-013
0 Manganese-54	6.35E-08±2.22E-09	JU			3.35E-09	pCi/mL	GP	EPIA-013
2 Nonvolatile beta	1.52E-11±3.05E-11	U			1.14E-09	pCi/mL	GP	EPIA-011
0 Plutonium-238	3.83E-11±3.40E-11	U			4.57E-11	pCi/mL	GP	EPIA-011
0 Plutonium-239/240	3.00E-08±2.34E-08	U			9.46E-11	pCi/mL	GP	EPIA-013
0 Potassium-40	-7.78E-10±1.95E-09	U			4.71E-08	pCi/mL	GP	EPIA-013
0 Promethium-144	5.16E-10±2.44E-09	U			3.37E-09	pCi/mL	GP	EPIA-013
0 Promethium-146	2.72E-09±7.94E-10	U			4.53E-09	pCi/mL	GP	EPIA-013
1 Radium-226	1.45E-09±5.01E-10	JU			1.64E-10	pCi/mL	GP	EPIA-009
0 Radium-228	8.43E-09±1.68E-08	JU			8.84E-10	pCi/mL	GP	EPIA-009
0 Ruthenium-106	-8.23E-10±1.77E-09	U			3.17E-09	pCi/mL	GP	EPIA-013
0 Sodium-22	2.27E-08±3.19E-09	U			3.33E-09	pCi/mL	GP	EPIA-013
2 Technetium-99	2.95E-08±1.03E-08	JU			2.87E-08	pCi/mL	GP	EPIA-004
0 Thorium-230	2.03E-11±1.10E-11	JU			8.95E-11	pCi/mL	GP	EPIA-012
0 Thorium-232	1.49E-10±3.93E-11	U			1.09E-10	pCi/mL	GP	EPIA-012
2 Tritium	1.01E-03±1.09E-05	U			2.33E-06	pCi/mL	GP	EPIA-002
0 Uranium-233/234	3.41E-11±5.34E-11	U			1.04E-10	pCi/mL	GP	EPIA-011
0 Uranium-235	-1.44E-11±1.45E-11	U			1.13E-10	pCi/mL	GP	EPIA-011
0 Uranium-238	2.63E-11±4.30E-11	U			7.90E-11	pCi/mL	GP	EPIA-011
0 Yttrium-88	-5.25E-10±2.26E-09	U			4.14E-09	pCi/mL	GP	EPIA-013
0 Zinc-65	-8.45E-09±6.54E-09	U			7.63E-09	pCi/mL	GP	EPIA-013

## WELL FSB 93D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 64.97 ft (19.8 m) below TOC  
 Water elevation: Not available  
 pH: 3.4  
 Sp. conductivity: 560 µS/cm  
 Turbidity: 2.3 NTU  
 Water evacuated from the well prior to sampling: 7 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	27.500	JU			15.0	µg/L	GE	EPA8020
0 Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8020
0 Barium, total recoverable	<2.77	U			2.00	µg/L	GE	EPA8020
0 Benzene	<25.0	JU	L	O	25.0	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<10.0	JU	L	O	10.0	µg/L	GE	EPA8270C
0 Bromodichloromethane	<25.0	JU	L	O	25.0	µg/L	GE	EPA8260B
0 Bromoform	<25.0	JU	L	O	25.0	µg/L	GE	EPA8260B
0 Bromomethane	9.64	JU	L	O	25.0	µg/L	GE	EPA8260B
2 Cadmium, total recoverable	<25.0	JU	L	O	25.0	µg/L	GE	EPA8020
0 Carbon tetrachloride	<25.0	JU	L	O	25.0	µg/L	GE	EPA8260B
0 Chlorobenzene	<25.0	JU	L	O	25.0	µg/L	GE	EPA8260B
0 Chloroethane	<25.0	JU	L	O	25.0	µg/L	GE	EPA8260B
0 Chloroethane (Vinyl chloride)	<125	JU	L	O	125	µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<25.0	JU	L	O	25.0	µg/L	GE	EPA8260B
0 Chloroform	<25.0	JU	L	O	25.0	µg/L	GE	EPA8260B
0 Chromium, total recoverable	1.13	JU	L	O	3.00	µg/L	GE	EPA8020



Well FSB 93D collected on 01/13/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Cobalt, total recoverable	8.78				0.200	µg/L	GE	EPA6020
0	Copper, total recoverable	28.1				1.00	µg/L	GE	EPA6020
0	Cyanide	<10.0				10.0	µg/L	GE	EPA9012A
0	Dibromochloromethane	<25.0				25.0	µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<25.0				25.0	µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<25.0				25.0	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<25.0				25.0	µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethene	<25.0				25.0	µg/L	GE	EPA8260B
0	Dichloromethane	3.14				5.00	µg/L	GE	EPA8260B
0	1,2-Dichloropropane	<25.0				25.0	µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<25.0				25.0	µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<25.0				25.0	µg/L	GE	EPA8260B
0	Ethylbenzene	<25.0				25.0	µg/L	GE	EPA8260B
0	Iron, total recoverable	54.3				15.0	µg/L	GE	EPA8260B
0	Lead, total recoverable	4.32				2.00	µg/L	GE	EPA8260B
0	Mercury, total recoverable	0.314				0.200	µg/L	GE	EPA7470A
0	Nickel, total recoverable	13.5				2.00	µg/L	GE	EPA6020
2	Nitrate-nitrite as nitrogen	79.000				5.000	µg/L	GE	EPA353.1
1	pH	3.76				0.100	pH	GE	EPA9040B
0	Phenols	<5.00				5.00	µg/L	GE	EPA9066
0	Selenium, total recoverable	9.13				5.00	µg/L	GE	EPA8020
0	Silver, total recoverable	<1.00				1.00	µg/L	GE	EPA9050A
2	Specific conductance	784				25.0	µS/cm	GE	EPA8260B
0	1,1,2-Tetrachloroethane	<25.0				25.0	µg/L	GE	EPA8260B
0	Tetrachloroethene	<0.0940				2.50	µg/L	GE	EPA8260B
0	Toluene	<25.0				25.0	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<25.0				25.0	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<25.0				25.0	µg/L	GE	EPA8260B
0	Trichloroethylene	<25.0				25.0	µg/L	GE	EPA8260B
0	Trichloromethane	<125				125	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<10.0				10.0	µg/L	GE	EPA8020
0	Zinc, total recoverable	69.7				10.0	µg/L	GE	EPA8020
0	Arsenic-228	6.59E-09±1.56E-08				1.34E-08	µCi/mL	GP	EPA-013
0	Arsenic-241	3.62E-09±1.16E-09				3.92E-09	µCi/mL	GP	EPA-011
0	Antimony-125	2.08E-09±6.80E-09				1.14E-08	µCi/mL	GP	EPA-013
0	Carbon-14	4.02E-09±5.10E-09				6.90E-09	µCi/mL	GP	EPA-003
0	Cerium-144	7.48E-09±1.51E-08				2.67E-08	µCi/mL	GP	EPA-013
0	Cesium-134	1.17E-09±2.31E-09				3.88E-09	µCi/mL	GP	EPA-013
0	Cesium-137	4.22E-10±2.30E-09				3.58E-09	µCi/mL	GP	EPA-013
0	Cobalt-57	4.17E-10±1.90E-09				3.55E-09	µCi/mL	GP	EPA-013
0	Cobalt-60	4.74E-09±6.38E-09				4.98E-09	µCi/mL	GP	EPA-013
0	Curium-242	<0.00E+00				2.56E-10	µCi/mL	GP	EPA-011
0	Curium-243/244	2.53E-09±9.40E-10				2.23E-10	µCi/mL	GP	EPA-011
0	Europium-152	<0.00E+00				2.23E-10	µCi/mL	GP	EPA-013
0	Europium-154	9.65E-10±5.66E-09				8.56E-09	µCi/mL	GP	EPA-013
0	Europium-155	1.51E-09±4.45E-09				9.78E-09	µCi/mL	GP	EPA-013
0	Gross alpha	4.35E-09±2.63E-08				1.78E-08	µCi/mL	GP	EPA-013
0	Lead-210	5.11E-09±2.82E-09				4.41E-09	µCi/mL	GP	EPA-013
0	Lead-213	6.53E-09±9.40E-09				1.45E-08	µCi/mL	GP	EPA-006
0	Mercurase-54	1.45E-09±2.15E-09				9.97E-10	µCi/mL	GP	EPA-013
0	Neptunium-238	8.97E-07±6.78E-09				4.13E-09	µCi/mL	GP	EPA-013
0	Plutonium-239/240	2.32E-10±3.86E-10				8.03E-10	µCi/mL	GP	EPA-011
0	Potassium-40	1.96E-11±3.93E-11				4.31E-10	µCi/mL	GP	EPA-013
0	Promethium-144	1.85E-08±2.18E-08				4.23E-08	µCi/mL	GP	EPA-013
0	Promethium-146	1.84E-09±2.10E-09				4.06E-09	µCi/mL	GP	EPA-013
0	Radium-226	1.82E-09±2.46E-09				4.24E-09	µCi/mL	GP	EPA-008
0	Radium-228	1.39E-08±1.93E-09				5.09E-10	µCi/mL	GP	EPA-009
0	Ruthenium-106	1.30E-08±1.13E-09				1.46E-09	µCi/mL	GP	EPA-013
0	Sodium-22	9.41E-09±1.77E-08				3.05E-08	µCi/mL	GP	EPA-013
0	Strontium-90	5.32E-10±1.59E-09				3.29E-09	µCi/mL	GP	EPA-013
0	Techetium-99	4.63E-07±9.23E-09				1.87E-09	µCi/mL	GP	EPA-004
0	Thorium-228	6.96E-08±1.43E-08				3.74E-08	µCi/mL	GP	EPA-013
0	Thorium-230	3.96E-10±2.75E-10				2.74E-10	µCi/mL	GP	EPA-013
0	Thorium-232	1.22E-10±1.33E-10				1.72E-11	µCi/mL	GP	EPA-012
0	Thorium-232	<0.00E+00				3.65E-08	µCi/mL	GP	EPA-012
0	Thorium-232/234	5.32E-03±4.92E-05				9.11E-05	µCi/mL	GP	EPA-002
0	Uranium-235	5.32E-03±4.92E-05				9.11E-05	µCi/mL	GP	EPA-011
0	Uranium-238	5.08E-08±1.12E-09				3.48E-10	µCi/mL	GP	EPA-011
0	Yttrium-88	9.05E-10±2.24E-09				5.91E-09	µCi/mL	GP	EPA-013
0	Zinc-65	1.43E-10±4.64E-09				8.32E-09	µCi/mL	GP	EPA-013

ESH-EMS-990520

B-131

## WELL FSB 94C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 72.55 ft (22.11 m) below TOC  
 Water elevation: Not available  
 pH: 3.8  
 Sp. conductivity: 2000 µS/cm  
 Turbidity: 2.4 NTU  
 Water evacuated from the well prior to sampling: 27 gal  
 The well went dry during purging.

Time: 14:05  
 Water temperature: 20.3°C  
 Air temperature: 22.6°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): VX

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	79.000				300	µg/L	GE	EPA6020
2	Antimony, total recoverable	70.700				15.0	µg/L	GE	EPA6020
2	Antimony, total recoverable	<60.00				60.00	µg/L	GE	EPA6020
0	Barium, total recoverable	762				2.00	µg/L	GE	EPA6020
0	Benzene	<1.00				1.00	µg/L	GE	EPA8260B
2	Beryllium, total recoverable	20.0				11.1	µg/L	GE	EPA8270C
0	Bis(2-ethylhexyl) phthalate	<11.1				11.1	µg/L	GE	EPA8260B
0	Bromodichloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Bromomethane	<1.00				1.00	µg/L	GE	EPA8260B
2	Cadmium, total recoverable	38.2				1.00	µg/L	GE	EPA6020
0	Carbon tetrachloride	<1.00				1.00	µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00				1.00	µg/L	GE	EPA8260B
0	Chloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Chloroethene (vinyl chloride)	<5.00				5.00	µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00				1.00	µg/L	GE	EPA8260B
0	Chloroform	<1.00				1.00	µg/L	GE	EPA8260B
0	Chloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Chromium, total recoverable	833				0.200	µg/L	GE	EPA6020
0	Cobalt, total recoverable	64.9				1.00	µg/L	GE	EPA6020
0	Copper	<10.0				10.0	µg/L	GE	EPA9012A
0	Cyanide	<10.0				10.0	µg/L	GE	EPA8260B
0	Dibromochloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethylene	<1.00				1.00	µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	2.48				5.00	µg/L	GE	EPA8260B
0	Dichloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0	dis-1,3-Dichloropropene	<1.00				1.00	µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00				1.00	µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00				1.00	µg/L	GE	EPA8260B
2	Iron, total recoverable	406				15.0	µg/L	GE	EPA6020
0	Lead, total recoverable	583				40.0	µg/L	GE	EPA6020
0	Mercury, total recoverable	13.8				0.200	µg/L	GE	EPA7470A
0	Nickel, total recoverable	<20.00				2.00	µg/L	GE	EPA6020
2	Nitrate-nitrite as nitrogen	172				10.000	µg/L	GE	EPA353.1
0	Phenols	4.04				5.00	µg/L	GE	EPA9066
0	Selenium, total recoverable	27.9				1.00	µg/L	GE	EPA8020
0	Silver, total recoverable	<1.00				1.00	µg/L	GE	EPA9050A
2	Specific conductance	2,760				1.00	µS/cm	GE	EPA8260B
0	1,1,2-Tetrachloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Tetrachloroethylene	<1.00				50.0	µg/L	GE	EPA6020
0	Thallium, total recoverable	27.0				1.00	µg/L	GE	EPA8260B
0	Toluene	<1.00				1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Trichloroethylene	<1.00				1.00	µg/L	GE	EPA8260B
0	Trichlorofluoromethane	<1.00				5.00	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<10.0				10.0	µg/L	GE	EPA6020
0	Zinc, total recoverable	345				1.00	µg/L	GE	EPA6020
0	Arsenic-228	1.77E-08±1.43E-08				4.16E-08	µCi/mL	GP	EPA-013
0	Arsenic-241	2.22E-09±1.14E-09				1.11E-08	µCi/mL	GP	EPA-011
0	Antimony-125	5.94E-10±4.16E-09				6.73E-09	µCi/mL	GP	EPA-003
0	Carbon-14	9.73E-08±3.62E-08				3.69E-08	µCi/mL	GP	EPA-013
0	Cerium-144	2.07E-08±1.31E-08				3.69E-08	µCi/mL	GP	EPA-013
0	Cesium-134	2.07E-08±2.41E-09				4.37E-09	µCi/mL	GP	EPA-013
0	Cesium-137	3.57E-10±1.85E-09				3.88E-09	µCi/mL	GP	EPA-013
0	Cobalt-57	1.15E-09±2.28E-09				4.88E-10	µCi/mL	GP	EPA-011
0	Cobalt-60	1.63E-10±3.26E-10							

First Quarter 1999



## ANALYTICAL RESULTS

Well FSB 94DR collected on 01/04/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Dichloromethane	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B
0	cis-1,3-Dichloropropene	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	trans-1,3-Dichloropropene	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Ethylbenzene	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Iron, total recoverable	62.8	J	L	O	15.0	µg/L	GE	EPAS260B
0	Lead, total recoverable	2.58	J	L	O	2.00	µg/L	GE	EPAS260B
0	Mercury, total recoverable	0.200	J	L	O	0.200	µg/L	GE	EPAS260B
0	Nickel, total recoverable	49.800	J	L	O	10.2	µg/L	GE	EPAS260B
2	Nitrate-nitrite as nitrogen	3.38	J	L	O	1.250	µg/L	GE	EPAS260B
1	pH	<5.00	J	L	O	5.00	pH	GE	EPAS260B
0	Selenium, total recoverable	<5.00	J	L	O	5.00	µg/L	GE	EPAS260B
0	Silver, total recoverable	<5.00	J	L	O	5.00	µg/L	GE	EPAS260B
0	Sulfate	551	J	L	O	1.00	µg/L	GE	EPAS260B
0	Tetrahydrofuran	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Toluene	0.224	J	L	O	1.00	µg/L	GE	EPAS260B
0	1,1,1-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	1,1,2-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Trichloroethylene	5.62	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Trichlorofluoromethane	<5.00	JU	L	O	5.00	µg/L	GE	EPAS260B
0	Vanadium, total recoverable	<10.0	JU	L	O	10.0	µg/L	GE	EPAS260B
0	Zinc, total recoverable	45.4	JU	L	O	10.0	µg/L	GE	EPAS260B
0	Acetum-228	1.71E-08±1.24E-08	U			1.81E-08	µCi/mL	GP	EPAS260B
0	Antimony-125	2.00E-08±3.03E-09	U			1.08E-08	µCi/mL	GP	EPAS260B
0	Antimony-241	4.58E-09±6.18E-09	U			1.08E-08	µCi/mL	GP	EPAS260B
0	Carbon-14	3.43E-08±3.20E-08	U			7.31E-08	µCi/mL	GP	EPAS260B
0	Cesium-134	5.41E-09±1.58E-09	U			2.38E-08	µCi/mL	GP	EPAS260B
0	Cesium-137	3.34E-08±1.85E-08	U			4.08E-08	µCi/mL	GP	EPAS260B
0	Cobalt-60	9.60E-10±1.38E-10	U			3.15E-09	µCi/mL	GP	EPAS260B
0	Codium-242	6.15E-10±5.98E-10	U			3.81E-09	µCi/mL	GP	EPAS260B
0	Codium-244/244	1.64E-10±5.08E-10	U			1.10E-09	µCi/mL	GP	EPAS260B
0	Europium-152	2.87E-08±3.93E-09	U			4.28E-10	µCi/mL	GP	EPAS260B
0	Europium-154	6.19E-10±3.79E-10	U			1.69E-10	µCi/mL	GP	EPAS260B
0	Europium-155	3.60E-09±6.23E-09	U			1.00E-08	µCi/mL	GP	EPAS260B
0	Gross alpha	1.22E-09±5.21E-09	U			1.01E-08	µCi/mL	GP	EPAS260B
0	Iodine-129	7.70E-10±8.11E-09	U			1.43E-08	µCi/mL	GP	EPAS260B
0	Lead-212	9.18E-07±3.34E-07	J			3.28E-07	µCi/mL	GP	EPAS260B
0	Manganese-54	3.46E-08±5.24E-09	R			2.88E-09	µCi/mL	GP	EPAS260B
0	Nonvolatile beta	8.72E-09±6.00E-09	R			7.92E-09	µCi/mL	GP	EPAS260B
0	Plutonium-238	3.80E-10±1.86E-09	J			3.38E-09	µCi/mL	GP	EPAS260B
0	Plutonium-239/240	7.83E-07±3.54E-07	J			6.53E-07	µCi/mL	GP	EPAS260B
0	Potassium-40	<0.00E+00	JU			1.37E-10	µCi/mL	GP	EPAS260B
0	Potassium-144	4.96E-11±9.19E-11	JU			4.71E-08	µCi/mL	GP	EPAS260B
0	Promethium-146	3.34E-08±2.18E-08	U			3.55E-09	µCi/mL	GP	EPAS260B
0	Radium-226	5.36E-09±2.42E-09	U			5.24E-10	µCi/mL	GP	EPAS260B
0	Radium-228	2.43E-08±1.57E-08	U			1.77E-09	µCi/mL	GP	EPAS260B
0	Ruthenium-106	2.58E-09±1.51E-09	U			2.86E-09	µCi/mL	GP	EPAS260B
0	Sodium-22	4.28E-10±1.86E-09	U			3.58E-09	µCi/mL	GP	EPAS260B
0	Strontium-90	1.41E-07±5.47E-09	J			2.83E-09	µCi/mL	GP	EPAS260B
0	Technetium-99	5.29E-08±1.23E-08	J			1.90E-08	µCi/mL	GP	EPAS260B
0	Thorium-228	5.24E-10±2.12E-10	R			2.27E-10	µCi/mL	GP	EPAS260B
0	Thorium-230	7.19E-10±3.00E-10	R			3.21E-10	µCi/mL	GP	EPAS260B
0	Thorium-232	6.90E-12±4.73E-11	U			1.24E-10	µCi/mL	GP	EPAS260B
0	Thorium-232	4.02E-13±6.99E-11	U			1.93E-10	µCi/mL	GP	EPAS260B
0	Tritium	1.42E-11±2.85E-11	U			4.27E-11	µCi/mL	GP	EPAS260B
0	Uranium-233/234	-1.02E-11±2.04E-11	U			1.27E-10	µCi/mL	GP	EPAS260B
0	Uranium-235	2.47E-03±4.78E-05	U			3.96E-06	µCi/mL	GP	EPAS260B
0	Uranium-238	1.86E-07±2.44E-08	U			2.42E-06	µCi/mL	GP	EPAS260B
0	Uranium-235	1.81E-06±4.59E-08	U			1.47E-09	µCi/mL	GP	EPAS260B
0	Uranium-238	4.79E-07±5.02E-08	U			6.99E-10	µCi/mL	GP	EPAS260B
0	Yttrium-88	2.39E-10±2.08E-09	U			4.17E-09	µCi/mL	GP	EPAS260B
0	Zinc-65	2.21E-09±3.38E-09	U			6.43E-09	µCi/mL	GP	EPAS260B

B-132

First Quarter 1999

Well FSB 94C collected on 01/13/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Cadmium-243/244	7.08E-10±7.32E-10	U			1.03E-09	µCi/mL	GP	EPAS260B
0	Cadmium-245/246	1.39E-10±2.78E-10	U			4.16E-10	µCi/mL	GP	EPAS260B
0	Europium-152	2.55E-09±6.59E-09	U			1.08E-08	µCi/mL	GP	EPAS260B
0	Europium-154	9.42E-10±6.95E-09	U			1.24E-08	µCi/mL	GP	EPAS260B
0	Europium-155	1.11E-09±8.47E-09	U			1.49E-08	µCi/mL	GP	EPAS260B
0	Gross alpha	2.03E-07±1.53E-08	U			2.42E-09	µCi/mL	GP	EPAS260B
0	Iodine-129	1.40E-07±1.75E-08	U			3.39E-09	µCi/mL	GP	EPAS260B
0	Lead-212	3.44E-09±4.01E-09	U			7.08E-09	µCi/mL	GP	EPAS260B
0	Manganese-54	1.75E-09±2.33E-09	U			3.70E-09	µCi/mL	GP	EPAS260B
0	Nonvolatile beta	2.08E-06±2.72E-08	R			4.46E-09	µCi/mL	GP	EPAS260B
0	Plutonium-238	8.32E-10±6.91E-10	JU			4.16E-10	µCi/mL	GP	EPAS260B
0	Plutonium-239/240	4.18E-10±4.84E-10	JU			4.16E-10	µCi/mL	GP	EPAS260B
0	Potassium-40	3.42E-08±2.54E-08	JU			3.29E-08	µCi/mL	GP	EPAS260B
0	Potassium-144	1.67E-10±1.95E-09	U			5.29E-09	µCi/mL	GP	EPAS260B
0	Promethium-146	7.42E-08±2.70E-08	U			8.37E-10	µCi/mL	GP	EPAS260B
0	Radium-226	1.79E-08±1.34E-08	U			8.70E-10	µCi/mL	GP	EPAS260B
0	Radium-228	6.34E-10±1.82E-08	J			1.65E-09	µCi/mL	GP	EPAS260B
0	Ruthenium-106	3.49E-10±2.48E-09	U			3.26E-09	µCi/mL	GP	EPAS260B
0	Sodium-22	9.21E-07±2.18E-08	U			4.42E-09	µCi/mL	GP	EPAS260B
0	Strontium-90	2.74E-07±2.42E-08	U			4.89E-09	µCi/mL	GP	EPAS260B
0	Technetium-99	7.17E-10±2.01E-10	U			2.11E-08	µCi/mL	GP	EPAS260B
0	Thorium-228	5.08E-11±4.78E-11	U			1.74E-08	µCi/mL	GP	EPAS260B
0	Thorium-230	8.08E-12±1.62E-11	U			6.36E-11	µCi/mL	GP	EPAS260B
0	Thorium-232	1.35E-02±2.61E-04	U			6.36E-11	µCi/mL	GP	EPAS260B
0	Tritium	5.13E-08±6.57E-09	U			1.09E-05	µCi/mL	GP	EPAS260B
0	Uranium-233/234	3.17E-09±1.08E-09	U			5.24E-10	µCi/mL	GP	EPAS260B
0	Uranium-235	4.85E-08±6.28E-09	U			6.40E-10	µCi/mL	GP	EPAS260B
0	Uranium-238	2.01E-09±2.44E-09	U			2.49E-10	µCi/mL	GP	EPAS260B
0	Yttrium-88	3.08E-09±5.80E-09	U			4.00E-09	µCi/mL	GP	EPAS260B
0	Zinc-65		U			9.83E-09	µCi/mL	GP	EPAS260B

## WELL FSB 94DR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/04/99  
 Depth to water: 70.26 ft (21.42 m) below TOC  
 Water elevation: Not available  
 pH: 4.4  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

Water evacuated from the well prior to sampling: 66 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	14.000				15.0	µg/L	GE	EPAS260B
0	Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPAS260B
0	Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPAS260B
0	Barium, total recoverable	261				2.00	µg/L	GE	EPAS260B
0	Benzene	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Bis(2-ethylhexyl) phthalate	<10.0	JU	L	O	10.0	µg/L	GE	EPAS260B
0	Bromodichloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Bromofluoromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Bromomethane	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Carbon tetrachloride	2.16	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Chlorobenzene	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Chloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	2-Chloroethyl vinyl ether	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Chloroform	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Chloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	Cobalt, total recoverable	1.31	J			0.200	µg/L	GE	EPAS260B
0	Copper, total recoverable	16.2	J			3.00	µg/L	GE	EPAS260B
0	Cyanide	<10.0	J			10.0	µg/L	GE	EPAS260B
0	Dibromochloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	1,1-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	1,2-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	1,1,1-Dichloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B
0	trans-1,2-Dichloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPAS260B

ESH-EMS-990520



## ANALYTICAL RESULTS

## WELL FSB 95CR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/04/99  
Depth to water: 75.85 ft (23.12 m) below TOC  
Water elevation: 208.15 ft (63.44 m) msl  
pH: 4.2

Sp. conductance: 1,040 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 91 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	64,900			15.0		µg/L	GE	EPA8020
0 Antimony, total recoverable	<0.200			0.200		µg/L	GE	EPA8020
0 Arsenic, total recoverable	1.75			3.00		µg/L	GE	EPA8020
0 Barium, total recoverable	972			2.00		µg/L	GE	EPA8020
0 Benzene	<1.00			1.00		µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<1.00			1.00		µg/L	GE	EPA8260B
0 Bromodichloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0 Bromoform	<1.00			1.00		µg/L	GE	EPA8260B
0 Bromomethane	<1.00			1.00		µg/L	GE	EPA8260B
2 Cadmium, total recoverable	<1.00			1.00		µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00			1.00		µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00			1.00		µg/L	GE	EPA8260B
0 Chloroethane (Vinyl chloride)	<1.00			1.00		µg/L	GE	EPA8260B
0 Chloroform	<1.00			1.00		µg/L	GE	EPA8260B
0 Chloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0 Chromium, total recoverable	1.38			3.00		µg/L	GE	EPA8020
2 Cobalt, total recoverable	447			1.00		µg/L	GE	EPA8020
0 Copper, total recoverable	<1.00			1.00		µg/L	GE	EPA8020
0 Cyanide	<1.00			1.00		µg/L	GE	EPA8020
0 Dibromochloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00			1.00		µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00			1.00		µg/L	GE	EPA8260B
0 1,1-Dichloroethylene	<1.00			1.00		µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethylene	<1.00			1.00		µg/L	GE	EPA8260B
0 Dichloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0 1,2-Dichloropropane	<1.00			1.00		µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00			1.00		µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00			1.00		µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00			1.00		µg/L	GE	EPA8260B
2 Lead, total recoverable	445			15.0		µg/L	GE	EPA8020
0 Lead, total recoverable	0.873			2.00		µg/L	GE	EPA8020
1 Mercury, total recoverable	99.0			5,000		µg/L	GE	EPA8020
1 Nickel, total recoverable	269,000			0.100		pH	GE	EPA353.1
1 Nitrate-nitrite as nitrogen	3.69			5.00		µg/L	GE	EPA9040B
1 pH	<5.00			5.00		µg/L	GE	EPA9068
0 Phenols	7.03			1.00		µg/L	GE	EPA8020
0 Selenium, total recoverable	<1.00			1.00		µg/L	GE	EPA8020
0 Silver, total recoverable	2.170			1.00		µg/L	GE	EPA9050A
2 Specific conductance	<1.00			1.00		µS/cm	GE	EPA8260B
0 1,1,2,2-Tetrachloroethane	<1.00			1.00		µg/L	GE	EPA8260B
0 Tetrachloroethylene	<1.00			1.00		µg/L	GE	EPA8260B
1 Toluene	<1.00			1.00		µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<1.00			1.00		µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00			1.00		µg/L	GE	EPA8260B
0 Trichloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0 Vanadium, total recoverable	<1.00			1.00		µg/L	GE	EPA8260B
0 Zinc, total recoverable	314			10.0		µg/L	GE	EPA8020
0 Aclum-228	4,06E-09±7.38E-09			1.28E-08		µCi/mL	GP	EPA-013
0 Americium-241	1.99E-08±2.78E-09			1.00E-08		µCi/mL	GP	EPA-013
0 Antimony-125	1.06E-09±5.49E-09			9.20E-09		µCi/mL	GP	EPA-011
0 Carbon-14	8.96E-08±6.47E-09			1.00E-07		µCi/mL	GP	EPA-003
0 Cerium-144	6.27E-09±1.49E-08			2.54E-08		µCi/mL	GP	EPA-013
0 Cesium-134	7.20E-11±2.71E-09			4.48E-09		µCi/mL	GP	EPA-013
0 Cesium-137	9.86E-10±2.97E-09			4.48E-09		µCi/mL	GP	EPA-013
0 Cobalt-57	9.31E-10±1.92E-09			3.71E-09		µCi/mL	GP	EPA-013
0 Cobalt-60	2.59E-10±2.30E-09			3.71E-09		µCi/mL	GP	EPA-013
0 Curium-242	4.61E-10±4.28E-10			1.01E-09		µCi/mL	GP	EPA-011
2 Curium-243/244	2.85E-08±3.63E-09			4.78E-10		µCi/mL	GP	EPA-011
0 Curium-245/246	7.45E-10±3.69E-10			1.31E-08		µCi/mL	GP	EPA-011
0 Europium-152	4.35E-09±3.31E-09			1.31E-08		µCi/mL	GP	EPA-013
0 Europium-154	2.24E-09±3.24E-09			9.38E-09		µCi/mL	GP	EPA-013

ESH-EMS-990520

B-133

Well FSB 95CR collected on 01/04/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Europium-155	5.17E-09±8.81E-09			1.59E-08		µCi/mL	GP	EPA-013
2 Gross alpha	1.13E-07±3.87E-07			4.27E-07		µCi/mL	GP	EPA-001
2 Iodine-129	1.36E-07±1.42E-08			3.94E-09		µCi/mL	GP	EPA-006
0 Lead-212	8.94E-09±5.64E-09			6.12E-09		µCi/mL	GP	EPA-013
0 Manganese-54	1.53E-10±2.08E-09			3.70E-09		µCi/mL	GP	EPA-013
0 Nonvolatile beta	2.11E-06±4.70E-07			6.70E-07		µCi/mL	GP	EPA-011
0 Plutonium-238	8.57E-11±1.31E-10			2.10E-10		µCi/mL	GP	EPA-011
0 Plutonium-239/240	4.56E-11±9.17E-11			1.37E-10		µCi/mL	GP	EPA-011
0 Potassium-40	1.06E-09±2.41E-08			3.98E-08		µCi/mL	GP	EPA-013
0 Promethium-144	3.40E-10±2.03E-09			3.71E-09		µCi/mL	GP	EPA-013
2 Radium-226	3.02E-09±2.78E-09			5.39E-09		µCi/mL	GP	EPA-013
2 Radium-228	1.14E-07±4.73E-09			5.49E-10		µCi/mL	GP	EPA-008
2 Ruthenium-106	2.69E-08±1.58E-09			1.44E-08		µCi/mL	GP	EPA-009
0 Sodium-22	8.19E-09±1.97E-09			3.33E-08		µCi/mL	GP	EPA-013
2 Strontium-90	5.24E-07±4.59E-09			1.90E-09		µCi/mL	GP	EPA-004
0 Technetium-99	2.83E-07±2.34E-08			1.90E-09		µCi/mL	GP	EPA-005
0 Thorium-228	6.42E-10±2.61E-10			2.91E-10		µCi/mL	GP	EPA-012
0 Thorium-230	5.78E-11±6.88E-11			1.04E-10		µCi/mL	GP	EPA-012
2 Thorium-232	2.47E-11±4.98E-04			8.97E-06		µCi/mL	GP	EPA-002
2 Tritium	1.07E-02±1.95E-04			1.12E-09		µCi/mL	GP	EPA-011
0 Uranium-233/234	3.98E-07±4.50E-08			1.12E-09		µCi/mL	GP	EPA-011
2 Uranium-235	3.14E-08±5.77E-08			1.12E-09		µCi/mL	GP	EPA-011
2 Uranium-238	4.48E-07±5.02E-08			3.58E-09		µCi/mL	GP	EPA-013
0 Yttrium-88	-1.91E-09±2.27E-09			7.72E-09		µCi/mL	GP	EPA-013
0 Zinc-65	2.29E-08±3.59E-09							

## WELL FSB 95CR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
Depth to water: 75.85 ft (23.12 m) below TOC  
Water elevation: 208.15 ft (63.44 m) msl  
pH: 3  
Sp. conductance: 2,000 µS/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 94 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	56,300			15.0		µg/L	GE	EPA8020
2 Beryllium, total recoverable	14.1			1.00		µg/L	GE	EPA8020
2 Iron, total recoverable	572			15.0		µg/L	GE	EPA8020

## WELL FSB 95DR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/04/99  
Depth to water: 73.53 ft (22.41 m) below TOC  
Water elevation: 210.57 ft (64.18 m) msl  
pH: 3.2  
Sp. conductance: 1,000 µS/cm  
Turbidity: 1 NTU  
Water evacuated from the well prior to sampling: 44 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	25,700			15.0		µg/L	GE	EPA8020
0 Antimony, total recoverable	<0.234			0.832		µg/L	GE	EPA8020
0 Arsenic, total recoverable	<3.00			3.00		µg/L	GE	EPA8020
0 Barium, total recoverable	294			2.00		µg/L	GE	EPA8020
0 Benzene	<1.00			1.00		µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<1.00			1.00		µg/L	GE	EPA8260B
0 Bromodichloromethane	<1.00			1.00		µg/L	GE	EPA8260B
0 Bromoform	<1.00			1.00		µg/L	GE	EPA8260B
0 Bromomethane	<1.00			1.00		µg/L	GE	EPA8260B
1 Cadmium, total recoverable	2.52			1.00		µg/L	GE	EPA8020
0 Carbon tetrachloride	<1.00			1.00		µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00			1.00		µg/L	GE	EPA8260B
0 Chloroethane (Vinyl chloride)	<1.00			1.00		µg/L	GE	EPA8260B
0 Chloroethane (Vinyl ether)	<1.00			5.00		µg/L	GE	EPA8260B

First Quarter 1999



## ANALYTICAL RESULTS

Well FSB 95DR collected on 01/04/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Chloroform	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Chloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	1.16				3.00	µg/L	GE	EPA8200
0 Cobalt, total recoverable	102				0.200	µg/L	GE	EPA8200
0 Copper, total recoverable	<1.00				1.00	µg/L	GE	EPA8200
0 Dichloromethane	<1.00	U	L	O	1.00	µg/L	GE	EPA8200
0 Dichloroethane	<1.00	U	L	O	1.00	µg/L	GE	EPA8200
0 1,1-Dichloroethane	<1.00	U	L	O	1.00	µg/L	GE	EPA8200
0 trans-1,2-Dichloroethane	<1.00	U	L	O	1.00	µg/L	GE	EPA8200
0 Dichloromethane	<1.00	U	L	O	1.00	µg/L	GE	EPA8200
0 cis-1,3-Dichloropropene	<1.00	U	L	O	1.00	µg/L	GE	EPA8200
0 trans-1,3-Dichloropropene	<1.00	U	L	O	1.00	µg/L	GE	EPA8200
0 Ethylbenzene	398				5.00	µg/L	GE	EPA8200
2 Iron, total recoverable	14.8				1.00	µg/L	GE	EPA8200
2 Lead, total recoverable	1.45				1.00	µg/L	GE	EPA8200
1 Mercury, total recoverable	1.45				1.00	µg/L	GE	EPA8200
2 Nickel, total recoverable	95.00				1.00	µg/L	GE	EPA8200
2 Nitrate-nitrite as nitrogen	4.16				1.00	µg/L	GE	EPA8200
0 Phenols	<5.00				5.00	µg/L	GE	EPA8200
0 Selenium, total recoverable	<5.00				5.00	µg/L	GE	EPA8200
0 Silver, total recoverable	<5.00				5.00	µg/L	GE	EPA8200
2 Specific conductance	848				1.00	µS/cm	GE	EPA8200
0 1,1,2,2-Tetrachloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 Tetrachloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 Thallium, total recoverable	0.283				2.50	µg/L	GE	EPA8200
0 Toluene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 1,1,1-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 1,1,2-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 Trichloroethylene	0.603				1.00	µg/L	GE	EPA8200
0 Vanadium, total recoverable	<5.00				5.00	µg/L	GE	EPA8200
0 Zinc, total recoverable	<5.00				5.00	µg/L	GE	EPA8200

## WELL FSB 96AR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/08/99  
 Depth to water: 127.77 ft (38.94 m) below TOC  
 Water elevation: 153.43 ft (46.77 m) msf  
 pH: 7  
 Sp. conductance: 160 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 265 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<15.0	U	U		15.0	µg/L	GE	EPA8200
0 Antimony, total recoverable	<0.200	U	U		0.200	µg/L	GE	EPA8200
0 Arsenic, total recoverable	<3.00	U	U		3.00	µg/L	GE	EPA8200
0 Barium, total recoverable	37.1				2.00	µg/L	GE	EPA8200
0 Benzene	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 Bis(2-ethylhexyl) phthalate	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 Bromodichloromethane	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 Bromoform	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 Bromomethane	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 Cadmium, total recoverable	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 Carbon tetrachloride	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 Chlorobenzene	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 Chloroethane	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 2-Chloroethyl vinyl ether	<5.00	U	U		5.00	µg/L	GE	EPA8200
0 Chloromethane	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 Chromium, total recoverable	1.55				3.00	µg/L	GE	EPA8200
0 Cobalt, total recoverable	<0.118	J	U		0.200	µg/L	GE	EPA8200
0 Copper, total recoverable	1.70				1.00	µg/L	GE	EPA8200
0 Cyanide	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 Dibromodichloromethane	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 1,1-Dichloroethane	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 1,2-Dichloroethane	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 1,1-Dichloroethylene	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 trans-1,2-Dichloroethylene	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 Dichloromethane	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 1,2-Dichloropropane	<1.00	U	U		1.00	µg/L	GE	EPA8200
0 cis-1,3-Dichloropropene	<1.00	U	U		1.00	µg/L	GE	EPA8200

ESH-EMS-990520

B-134

First Quarter 1999



## Well FSB 96AP collected on 01/08/99 (cont.)

MEASUREMENTS CONDUCTED IN THE FIELD												
Sample date: 01/06/99 Depth to water: 133.71 ft (40.75 m) below TOC Water elevation: Not available pH: 8.6 Specific conductance: 230 µS/cm Total alkalinity (as CaCO3): 3 mg/L Phenolphthalein alkalinity: 0 mg/L Time: 14:55 Water temperature: 19.1°C Air temperature: 8.0°C												
Water evacuated from the well prior to sampling: 100 gal												
ANALYSES												
F	Analyte	Unit	Lab	Method	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	trans-1,3-Dichloropropene	µg/L	GE	EPAS2608	11.3	J	I	15.0	µg/L	GE	EPAS2608	EPAS2608
0	trans-1,3-Dichloropropene	µg/L	GE	EPAS2608	<0.200	J	I	0.200	µg/L	GE	EPAS2608	EPAS2608
0	trans-1,3-Dichloropropene	µg/L	GE	EPAS2608	<3.00	J	I	3.00	µg/L	GE	EPAS2608	EPAS2608
0	Lead, total recoverable	µg/L	GE	EPAS2608	39.0	J	I	2.00	µg/L	GE	EPAS2608	EPAS2608
0	Mercury, total recoverable	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	Nickel, total recoverable	µg/L	GE	EPAS2608	<10.0	J	I	10.0	µg/L	GE	EPAS2608	EPAS2608
0	Nitrate-nitrite as nitrogen	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	pH	pH	GE	EPAS2608	<1.00	J	I	1.00	pH	GE	EPAS2608	EPAS2608
0	Phenols	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	Selenium, total recoverable	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	Silver, total recoverable	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	Specific conductance	µS/cm	GE	EPAS2608	<1.00	J	I	1.00	µS/cm	GE	EPAS2608	EPAS2608
0	1,1,2,2-tetrachloroethane	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	Tetrachloroethylene	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	Thallium, total recoverable	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	Toluene	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	1,1,1-Trichloroethane	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	1,1,2-Trichloroethane	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	Trichloroethylene	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	Vanadium, total recoverable	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	Zinc, total recoverable	µg/L	GE	EPAS2608	<1.00	J	I	1.00	µg/L	GE	EPAS2608	EPAS2608
0	Actinium-228	µCi/mL	GP	EPAS2608	5.77E-11±8.26E-11	J	I	8.00E-10	µCi/mL	GP	EPAS2608	EPAS2608
0	Actinium-241	µCi/mL	GP	EPAS2608	1.33E-09±4.90E-09	J	I	8.00E-10	µCi/mL	GP	EPAS2608	EPAS2608
0	Actinium-245	µCi/mL	GP	EPAS2608	6.32E-09±3.50E-09	J	I	8.00E-10	µCi/mL	GP	EPAS2608	EPAS2608
0	Actinium-134	µCi/mL	GP	EPAS2608	5.33E-10±2.05E-09	J	I	8.00E-10	µCi/mL	GP	EPAS2608	EPAS2608
0	Actinium-137	µCi/mL	GP	EPAS2608	3.66E-10±1.58E-09	J	I	8.00E-10	µCi/mL	GP	EPAS2608	EPAS2608
0	Cobalt-57	µCi/mL	GP	EPAS2608	9.08E-10±1.58E-09	J	I	8.00E-10	µCi/mL	GP	EPAS2608	EPAS2608
0	Cobalt-60	µCi/mL	GP	EPAS2608	4.21E-10±1.67E-09	J	I	8.00E-10	µCi/mL	GP	EPAS2608	EPAS2608
0	Curium-242	µCi/mL	GP	EPAS2608	1.79E-11±8.10E-11	J	I	2.28E-10	µCi/mL	GP	EPAS2608	EPAS2608
0	Curium-243/244	µCi/mL	GP	EPAS2608	5.01E-11±1.01E-10	J	I	2.11E-10	µCi/mL	GP	EPAS2608	EPAS2608
0	Curium-245/246	µCi/mL	GP	EPAS2608	<0.00E+00	J	I	1.00E-10	µCi/mL	GP	EPAS2608	EPAS2608
0	Europium-152	µCi/mL	GP	EPAS2608	-3.32E-09±5.79E-09	J	I	9.32E-09	µCi/mL	GP	EPAS2608	EPAS2608
0	Europium-154	µCi/mL	GP	EPAS2608	1.37E-09±5.08E-09	J	I	9.93E-09	µCi/mL	GP	EPAS2608	EPAS2608



## ANALYTICAL RESULTS

Well FSB 97A collected on 01/06/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Europium-155	2.55E-09±7.02E-09	U			1.26E-08	µCi/mL	GP	EPIA-013
0 Gross alpha	4.01E-09±1.03E-09				9.63E-10	µCi/mL	GP	EPIA-001
0 Iodine-129	1.24E-09±7.75E-10	J	I	4	9.33E-10	µCi/mL	GP	EPIA-006
0 Lead-212	7.24E-09±7.53E-09	R			6.28E-09	µCi/mL	GP	EPIA-013
0 Manganese-54	1.02E-09±1.89E-09	U			3.57E-09	µCi/mL	GP	EPIA-013
0 Nonvolatile beta	4.29E-09±8.34E-10	U			1.29E-09	µCi/mL	GP	EPIA-001
0 Plutonium-238	9.82E-11±1.15E-10	U			9.82E-11	µCi/mL	GP	EPIA-011
0 Plutonium-239/240	<0.00E+00	U			9.81E-11	µCi/mL	GP	EPIA-011
0 Potassium-40	2.33E-08±2.02E-08	U			4.28E-08	µCi/mL	GP	EPIA-013
0 Promethium-144	1.97E-10±1.89E-09	U			3.39E-09	µCi/mL	GP	EPIA-013
0 Promethium-146	8.84E-10±2.34E-09	U			4.37E-09	µCi/mL	GP	EPIA-013
2 Radium-226	1.85E-08±2.28E-09	U			8.55E-10	µCi/mL	GP	EPIA-008
0 Radium-228	1.23E-09±6.00E-10	J			1.11E-09	µCi/mL	GP	EPIA-008
0 Ruthenium-106	3.19E-09±1.77E-09	U			3.01E-09	µCi/mL	GP	EPIA-013
0 Selenium-75	4.93E-10±1.82E-10	U			3.54E-09	µCi/mL	GP	EPIA-013
0 Strontium-90	2.33E-10±5.82E-10	U			1.23E-09	µCi/mL	GP	EPIA-006
0 Technetium-99	3.92E-09±5.61E-09	U			1.23E-09	µCi/mL	GP	EPIA-006
0 Thorium-230	6.81E-11±4.51E-11	U			1.30E-10	µCi/mL	GP	EPIA-012
0 Thorium-232	3.84E-12±1.63E-11	U	V		2.20E-11	µCi/mL	GP	EPIA-012
2 Uranium-233/234	1.54E-10±6.94E-11	U			4.57E-11	µCi/mL	GP	EPIA-012
0 Uranium-235	5.28E-11	J	I		5.28E-11	µCi/mL	GP	EPIA-011
0 Uranium-238	6.62E-11	J	I		5.28E-11	µCi/mL	GP	EPIA-011
0 Yttrium-88	9.13E-11±5.39E-11	J			5.28E-11	µCi/mL	GP	EPIA-011
0 Zinc-65	-6.60E-09±1.88E-09	U			3.48E-09	µCi/mL	GP	EPIA-013
0 Zinc-65	-1.45E-09±4.48E-09	U			6.80E-09	µCi/mL	GP	EPIA-013

## WELL FSB 97C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/11/99  
 Depth to water: 76.95 ft (23.45 m) below TOC  
 Water temperature: 22.2°C  
 Air temperature: 14.4°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): VX

Sp. conductance: 820 µS/cm  
 Turbidity: 0.9 NTU  
 Water evacuated from the well prior to sampling: 1 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	33.600	U			15.0	µg/L	GE	EPA8200
2 Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8200
2 Arsenic, total recoverable	<30.0	U			30.0	µg/L	GE	EPA8200
2 Barium, total recoverable	265	JU			2.00	µg/L	GE	EPA8200
0 Benzene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 Bis(2-ethylhexyl) phthalate	<10.0	JU	L	O	1.00	µg/L	GE	EPA8200
0 Bromodichloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 Bromoform	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 Bromomethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
2 Cadmium, total recoverable	5.43	JU			1.00	µg/L	GE	EPA8200
0 Carbon tetrachloride	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 Chlorobenzene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 Chloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 Chloroethane (Vinyl chloride)	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 2-Chloroethyl vinyl ether	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 Chloroform	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
2 Chromium, total recoverable	2.03	JU			0.200	µg/L	GE	EPA8200
2 Copper, total recoverable	125	JU			1.00	µg/L	GE	EPA8200
0 Dibromochloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 1,1-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 1,2-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 1,1-Dichloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 trans-1,2-Dichloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 Dichloromethane	<5.79	JU	L	O	1.00	µg/L	GE	EPA8200
0 1,2-Dichloropropane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 cis-1,3-Dichloropropene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 trans-1,3-Dichloropropene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
0 Ethylbenzene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8200
2 Iron, total recoverable	424	JU			15.0	µg/L	GE	EPA8200
2 Lead, total recoverable	32.6	JU			2.00	µg/L	GE	EPA8200
0 Mercury, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8200

## ESH-EMS-990520

Well FSB 97C collected on 01/11/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Nickel, total recoverable	43.0	J			2.00	µg/L	GE	EPA8200
1 Nitrate-nitrite as nitrogen	123.000	J	L		2.500	µg/L	GE	EPA8200
2 pH	3.86	J			0.100	pH	GE	EPA8200
0 Phenols	<5.00	U			5.00	µg/L	GE	EPA8200
0 Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8200
0 Silver, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8200
2 Specific conductance	1.190	JU			1.00	µS/cm	GE	EPA8200
0 1,1,2,2-Tetrachloroethane	<1.00	JU	L		1.00	µg/L	GE	EPA8200
0 Tetrachloroethylene	<1.00	JU	L		1.00	µg/L	GE	EPA8200
0 Toluene	0.521	JU			2.50	µg/L	GE	EPA8200
0 1,1,1-Trichloroethane	<0.612	JU	L		1.00	µg/L	GE	EPA8200
0 1,1,2-Trichloroethane	<1.00	JU	L		1.00	µg/L	GE	EPA8200
2 Trichloroethylene	26.7	JU	L		1.00	µg/L	GE	EPA8200
0 Trichloroethene	<10.0	JU	L		1.00	µg/L	GE	EPA8200
0 Zinc, total recoverable	180	JU			10.0	µg/L	GE	EPA8200
0 Americium-241	7.68E-09±1.40E-08	U			1.73E-08	µCi/mL	GP	EPIA-011
0 Americium-241	1.19E-09±1.88E-09	U			2.32E-10	µCi/mL	GP	EPIA-011
0 Antimony-125	4.94E-09±6.27E-09	J			9.67E-09	µCi/mL	GP	EPIA-003
0 Carbon-14	4.17E-08±6.20E-09	U	L		7.01E-09	µCi/mL	GP	EPIA-003
0 Cerium-144	-1.94E-09±1.20E-08	U			2.10E-08	µCi/mL	GP	EPIA-013
0 Cesium-134	-1.72E-09±2.08E-09	U			2.96E-09	µCi/mL	GP	EPIA-013
0 Cesium-137	7.41E-09±2.68E-09	R			5.43E-09	µCi/mL	GP	EPIA-013
0 Cobalt-57	-1.87E-09±1.44E-09	U			2.39E-09	µCi/mL	GP	EPIA-013
0 Cobalt-60	1.07E-09±2.29E-09	U			4.49E-09	µCi/mL	GP	EPIA-013
0 Curium-242	-1.78E-11±6.52E-11	U			1.92E-10	µCi/mL	GP	EPIA-011
1 Curium-243/244	7.72E-09±1.14E-09	R			3.18E-10	µCi/mL	GP	EPIA-011
0 Curium-245/246	7.87E-10±2.47E-10	U			1.05E-10	µCi/mL	GP	EPIA-011
0 Europium-152	3.05E-09±5.63E-09	U			1.00E-08	µCi/mL	GP	EPIA-013
0 Europium-154	-4.59E-09±7.23E-09	U			1.04E-08	µCi/mL	GP	EPIA-013
0 Gross alpha	-1.54E-09±5.59E-09	U			9.84E-09	µCi/mL	GP	EPIA-013
2 Gross beta	3.89E-07±1.48E-08	J			1.85E-09	µCi/mL	GP	EPIA-008
2 Iodine-125	4.65E-09±5.52E-09	U			5.21E-09	µCi/mL	GP	EPIA-013
2 Lead-210	-3.40E-10±1.53E-09	U			3.40E-09	µCi/mL	GP	EPIA-013
0 Neptunium-237	4.51E-07±8.88E-08	J			1.96E-08	µCi/mL	GP	EPIA-011
2 Neptunium-237	6.55E-11±9.68E-11	U			1.83E-10	µCi/mL	GP	EPIA-011
0 Plutonium-238	4.11E-11±9.97E-11	U			1.04E-10	µCi/mL	GP	EPIA-011
0 Plutonium-239/240	4.78E-08±2.68E-08	U			5.42E-08	µCi/mL	GP	EPIA-013
0 Potassium-40	1.37E-10±5.53E-09	U			3.33E-09	µCi/mL	GP	EPIA-013
0 Promethium-144	1.63E-10±2.53E-09	U			4.34E-09	µCi/mL	GP	EPIA-013
0 Promethium-146	2.53E-08±2.28E-09	J	L		1.45E-10	µCi/mL	GP	EPIA-008
2 Radium-226	1.35E-08±1.06E-09	U			1.20E-09	µCi/mL	GP	EPIA-008
0 Ruthenium-106	7.27E-10±1.53E-08	U			2.82E-08	µCi/mL	GP	EPIA-013
0 Sodium-22	-1.65E-09±2.53E-09	U			3.70E-09	µCi/mL	GP	EPIA-013
2 Strontium-90	1.60E-07±9.98E-08	U			4.13E-09	µCi/mL	GP	EPIA-004
0 Technetium-99	7.89E-08±1.54E-08	J			2.23E-08	µCi/mL	GP	EPIA-005
0 Thorium-228	6.54E-10±3.29E-10	J			3.78E-10	µCi/mL	GP	EPIA-012
0 Thorium-230	5.04E-10±2.56E-10	J			1.81E-10	µCi/mL	GP	EPIA-012
0 Thorium-232	-1.45E-11±2.91E-11	J			5.38E-10	µCi/mL	GP	EPIA-012
2 Tritium	3.38E-07±7.58E-08	U			2.34E-06	µCi/mL	GP	EPIA-002
2 Uranium-233/234	1.33E-09±1.52E-09	J			7.51E-10	µCi/mL	GP	EPIA-011
2 Uranium-235	1.83E-07±2.31E-08	J	K		4.93E-10	µCi/mL	GP	EPIA-011
0 Uranium-238	1.87E-09±1.91E-09	U			4.36E-09	µCi/mL	GP	EPIA-013
0 Yttrium-88	9.22E-10±4.82E-09	U			7.78E-09	µCi/mL	GP	EPIA-013

## WELL FSB 97D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/11/99  
 Depth to water: 74.31 ft (22.65 m) below TOC  
 Water temperature: 19.9°C  
 Air temperature: 14.4°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): VX

Sp. conductance: 400 µS/cm  
 Turbidity: 4.4 NTU  
 Water evacuated from the well prior to sampling: 12 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	7.900	U			15.0	µg/L	GE	EPA8200
2 Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8200

## B-136

First Quarter 1999



## ANALYTICAL RESULTS

Well FSB 97D collected on 01/11/99 (cont.)

F	Analyte	Recovery
0	Aspic, total recoverable	<3.00
0	Barium, total recoverable	209
0	Bis(2-ethylhexyl) phthalate	<10.0
0	Bromodichloromethane	<1.00
0	Bromodimethane	<1.00
0	Bromomethane	<1.00
0	Cadmium, total recoverable	4.28
0	Carbon tetrachloride	<1.00
0	Chlorobenzene	<1.00
0	Chloroethane	<1.00
0	Chloroethane (Vinyl chloride)	<1.00
0	2-Chloroethyl vinyl ether	<3.00
0	Chloroform	<1.00
0	Chloromethane	<1.00
0	Chromium, total recoverable	3.34
0	Cis-1,2-Dichloroethane	79.3
0	Cis-1,2-Dichloropropene	<10.0
0	Cyclohexane	<1.00
0	Dibromochloromethane	<1.00
0	1,1-Dichloroethane	<1.00
0	1,2-Dichloroethane	<1.00
0	trans-1,2-Dichloroethane	<1.00
0	trans-1,2-Dichloroethylene	<5.23
0	Dichloromethane	<1.00
0	1,2-Dichloropropane	<1.00
0	cis-1,3-Dichloropropene	<1.00
0	trans-1,3-Dichloropropene	<1.00
0	Ethylbenzene	<1.00
0	Iron, total recoverable	313
0	Lead, total recoverable	5.9
0	Mercapty, total recoverable	<11.0
0	Nitrate, total recoverable	52.50
0	Nitrate-nitrite as nitrogen	4.34
0	Phenol	<5.00
0	Selenium, total recoverable	<5.00
0	Silver, total recoverable	<1.00
0	Specific conductance	495
0	1,1,2,2-Tetrachloroethane	<1.00
0	1,1,2,2-Tetrachloroethene	<1.00
0	Tetrachloroethane	<0.055
0	Thallium, total recoverable	<0.630
0	Toluene	<1.00
0	1,1,1-Trichloroethane	<1.00
0	1,1,2-Trichloroethane	<1.00
0	Trichloroethylene	<1.00
0	Trichlorofluoromethane	<3.00
0	Trichloromethane	<10.0
0	Zinc, total recoverable	6.61
0	Acetic acid-241	1.43
0	Acetone-125	4.25
0	Antimony-125	3.83
0	Carbon-14	4.59
0	Cesium-144	8.84
0	Cesium-134	3.05
0	Cesium-137	3.86
0	Cobalt-57	8.45
0	Cobalt-60	4.91
0	Curium-242	4.91
0	Curium-243/244	1.18
0	Curium-245/246	3.07
0	Europium-152	4.50
0	Europium-154	3.81
0	Europium-155	3.78
0	Gross alpha	3.09
0	Gross beta	4.93
0	Lead-212	5.44
0	Manganese-54	4.93
0	Nonvolatile beta	1.36
0	Plutonium-238	8.63
0	Plutonium-239/240	2.36
0	Potassium-40	1.68
0	Promethium-144	2.36
0	Promethium-146	2.36
0	Radium-226	1.23
0	Radium-228	1.05
0	Ruthenium-106	1.12
0	Ruthenium-106	6.29

**ESH-EMS-990520**

Well FSB 97D collected on 01/11/99 (cont.)

F Analyte	Result	F Analyte	Result
Sodium-22	-1.36E-05	Aluminum	17.3
Sodium-23	1.12E-05	Antimony	<0.200
Technetium-99	3.20E-05	Antimony, total recoverable	<3.00
Thorium-228	4.18E-05	Arsenic	33.8
Thorium-230	1.39E-05	Arsenic, total recoverable	<1.00
Thorium-232	<0.00E+00	Benzene	<8.90
Thorium-232	1.32E-05	Bis(2-ethylhexyl) phthalate	<1.00
Titanium	1.55E-05	Bromodichloromethane	<1.00
Uranium-233/234	8.86E-05	Bromomethane	<1.00
Uranium-235	3.88E-05	Calcium, total recoverable	<1.00
Uranium-238	5.81E-05	Carbon tetrachloride	<1.00
Yttrium-88	1.11E-05	Chloroacetaldehyde	<1.00
Zinc-65		Chloroethane	<1.00
		Chloroethene	<1.00
		Chloroethane (Vinyl chloride)	<1.00
		Chloroethene (Vinyl chloride)	<1.00
		Chloroform	<1.00
		Chloromethane	<1.00
		Chromium, total recoverable	2.02
		Cobalt, total recoverable	<0.078
		Copper, total recoverable	0.765
		Cyanide	<10.0
		Dibromochloromethane	<1.00
		1,1-Dichloroethane	<1.00
		1,2-Dichloroethane	<1.00
		1,1-Dichloroethene	<1.00
		trans-1,2-Dichloroethene	<1.00
		trans-1,2-Dichloroethene	<1.00
		trans-1,3-Dichloropropene	<1.00
		Ethylbenzene	<1.00
		Iron, total recoverable	109
		Lead, total recoverable	<0.071
		Mercury, total recoverable	1.23
		Nickel, total recoverable	3.48
		Nitrate-nitrite as nitrogen	<0.531
		pH	7.19
		Phenols	<5.00
		Selenium	<5.00
		Selenium, total recoverable	<1.00
		Silver, total recoverable	<1.00
		Specific conductance	189
		1,1,2,2-Tetrachloroethane	<1.00
		1,1,2,2-Tetrachloroethene	<1.00
		Toluene, total recoverable	<1.00
		Toluene	<1.00
		1,1,1-Trichloroethane	<1.00
		1,1,2-Trichloroethane	<1.00
		1,1,2-Trichloroethene	<1.00

**B-137**

## WELL FSB 98AR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/08/99  
Depth to water: 132.1 ft (40.26 m) below TOC  
Water elevation: 151.9 ft (46.3 m) msl  
pH: 6.6  
Sp. conductance: 160  $\mu$ S/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 260 gal

## ANALYSES

Analyte	Recovery
Aluminum, total recoverable	17.3
Antimony, total recoverable	-0.200
Arsenic, total recoverable	-3.00
Barium, total recoverable	33.6
Benzene	-11.00
Bis(2-ethylhexyl) phthalate	-8.90
Bromodichloromethane	-1.00
Bromofom	<1.00
Bromomethane	<1.00
Cadmium, total recoverable	<1.00
Carbon tetrachloride	<1.00
Chlorobenzene	<1.00
Chloroethane	<1.00
Chloroethane (Vinyl chloride)	<1.00
Chloroethoxy Vinyl ether	<1.00
Chloroethoxyethane	<1.00
Chromium, total recoverable	2.02
Cobalt, total recoverable	0.7659
Copper, total recoverable	<1.00
Cyanide	<10.0
Dibromochloromethane	<1.00
1,1-Dichloroethane	<1.00
1,2-Dichloroethane	<1.00
1,1-Dichloroethene	<1.00
trans-1,2-Dichloroethene	<1.00
Dichloromethane	<1.00
1,2-Dichloropropane	<1.00
cis-1,3-Dichloropropene	<1.00
trans-1,3-Dichloropropene	<1.00
Endrin	<1.00
Iron, total recoverable	109
Lead, total recoverable	-0.071
Mercury, total recoverable	1.23
Nickel, total recoverable	3.480
Nitrate-nitrite as nitrogen	7.19
pH	
Phenols	-5.00
Selenium	-5.00
Silver, total recoverable	<1.00
Specific conductance	189
1,1,2,2-Tetrachloroethane	<1.00
Tetrachloroethene	<1.00
Thallium, total recoverable	0.531
1,1,1-Trichloroethane	<1.00
1,1,2-Trichloroethane	<1.00
Trichloroethene	<1.00

**B-137**

Time: 7:50  
Water temperature: 19.9°C  
Air temperature: 6°C  
Total alkalinity (as CaCO<sub>3</sub>): 0  
Phenolphthalein alkalinity: 0  
Field Qualifier(s): S

## Time: 7:50

Depth to water: 132.1 ft (40.26 m) below TOC  
Water elevation: 151.9 ft (46.3 m) msl  
pH: 6.6  
Sp. conductance: 160  $\mu$ S/cm  
Turbidity: 0 NTU  
Water evacuated from the well prior to sampling: 260 gal

## ANALYSES

MS	SQL	Unit	Lab	Method
15.0	15.0	µg/L	GE	EPAS020
0.200	0.200	µg/L	GE	EPAS020
3.00	3.00	µg/L	GE	EPAS020
2.00	2.00	µg/L	GE	EPAS020
1.00	1.00	µg/L	GE	EPAS020
9.90	9.90	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
5.00	5.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
15.0	15.0	µg/L	GE	EPAS020
0.200	0.200	µg/L	GE	EPAS020
2.00	2.00	µg/L	GE	EPAS020
2.00	2.00	µg/L	GE	EPAS020
100	100	µg/L	GE	EPAS020
0.100	0.100	pH	GE	EPAS353.1
5.00	5.00	µg/L	GE	EPAS040B
5.00	5.00	µg/L	GE	EPAS068
5.00	5.00	µg/L	GE	EPAS068
1.00	1.00	µg/L	GE	EPAS020
1.00	1.00	µg/L	GE	EPAS020
1.00	1.00	µS/cm	GE	EPAS050A
1.00	1.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
2.50	2.50	µg/L	GE	EPAS020
1.00	1.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B
1.00	1.00	µg/L	GE	EPAS260B

## First Quarter 1999



## ANALYTICAL RESULTS

Well FSB 98AR collected on 01/08/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Trichloroethene	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8260B
0	Zinc, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8260B
0	Antimony-241	9.99E-09±7.11E-09	U			1.43E-08	µCi/mL	GP	EPA1013
0	Antimony-125	9.25E-12±1.71E-12	U			6.01E-11	µCi/mL	GP	EPA1013
0	Carbon-14	1.44E-10±5.00E-09	U			9.05E-09	µCi/mL	GP	EPA1013
0	Cesium-134	2.43E-09±4.23E-09	U			7.17E-09	µCi/mL	GP	EPA1013
0	Cesium-137	3.27E-09±1.23E-08	U			2.12E-08	µCi/mL	GP	EPA1013
0	Cesium-144	6.99E-10±2.06E-09	U			3.37E-09	µCi/mL	GP	EPA1013
0	Cobalt-57	1.90E-10±1.94E-09	U			3.04E-09	µCi/mL	GP	EPA1013
0	Cobalt-60	5.13E-10±1.54E-09	U			2.75E-09	µCi/mL	GP	EPA1013
0	Cobalt-60	4.29E-10±1.95E-09	U			3.51E-09	µCi/mL	GP	EPA1013
0	Curtium-242	<0.00E+00	U			6.21E-11	µCi/mL	GP	EPA1013
0	Curtium-243/244	2.00E-11±4.02E-11	U			6.01E-11	µCi/mL	GP	EPA1013
0	Curtium-245/246	4.00E-10±5.57E-09	U			6.01E-11	µCi/mL	GP	EPA1013
0	Europium-152	2.00E-09±3.57E-09	U			8.96E-09	µCi/mL	GP	EPA1013
0	Europium-154	2.86E-09±7.07E-09	U			1.27E-08	µCi/mL	GP	EPA1013
0	Europium-155	4.11E-10±3.38E-10	U			7.91E-10	µCi/mL	GP	EPA1013
0	Gadolinium-153	1.19E-09±3.68E-10	U			1.15E-09	µCi/mL	GP	EPA1013
0	Lead-212	1.79E-09±3.47E-09	U			6.08E-09	µCi/mL	GP	EPA1013
0	Manganese-54	3.24E-11±2.04E-09	U			3.61E-09	µCi/mL	GP	EPA1013
0	Nonvolatile beta	2.59E-09±7.98E-10	U			1.34E-09	µCi/mL	GP	EPA1013
0	Plutonium-238	1.01E-10±1.11E-10	U			1.95E-11	µCi/mL	GP	EPA1013
0	Plutonium-239/240	7.17E-12±3.25E-11	U			9.13E-11	µCi/mL	GP	EPA1013
0	Potassium-40	4.61E-09±3.08E-08	U			3.94E-08	µCi/mL	GP	EPA1013
0	Promethium-144	9.35E-10±1.79E-09	U			3.00E-09	µCi/mL	GP	EPA1013
0	Radium-146	4.27E-10±2.29E-09	U			4.17E-09	µCi/mL	GP	EPA1013
0	Radium-226	4.00E-10±5.40E-10	U			1.16E-09	µCi/mL	GP	EPA1013
0	Ruthenium-106	1.84E-09±1.61E-09	U			2.87E-08	µCi/mL	GP	EPA1013
0	Sodium-22	-2.66E-10±4.88E-10	U			1.63E-09	µCi/mL	GP	EPA1013
0	Strontium-90	9.33E-09±8.43E-09	U			1.63E-09	µCi/mL	GP	EPA1013
0	Technetium-99	1.85E-10±1.04E-10	U			1.27E-10	µCi/mL	GP	EPA1013
0	Thorium-228	2.49E-10±1.30E-10	U			3.07E-11	µCi/mL	GP	EPA1013
0	Thorium-230	3.89E-11±4.61E-11	U			6.99E-11	µCi/mL	GP	EPA1013
0	Thorium-232	5.09E-12±2.29E-11	U			6.45E-11	µCi/mL	GP	EPA1013
0	Titanium-232	<0.00E+00	U			3.33E-11	µCi/mL	GP	EPA1013
0	Titanium-233/234	1.93E-11±1.33E-10	U			6.77E-07	µCi/mL	GP	EPA1013
0	Uranium-233/234	6.93E-11±5.83E-11	U			3.48E-10	µCi/mL	GP	EPA1013
0	Uranium-235	8.00E-11±5.83E-11	U			8.08E-11	µCi/mL	GP	EPA1013
0	Uranium-238	8.29E-11±3.91E-11	U			3.85E-10	µCi/mL	GP	EPA1013
0	Uranium-238	9.95E-11±1.45E-10	U			7.13E-11	µCi/mL	GP	EPA1013
0	Yttrium-88	4.49E-12±3.08E-11	U			2.52E-10	µCi/mL	GP	EPA1013
0	Zinc-65	1.07E-09±4.47E-09	U			8.08E-11	µCi/mL	GP	EPA1013
0	Zinc-65	3.15E-09±4.47E-09	U			8.05E-09	µCi/mL	GP	EPA1013

## WELL FSB 98C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/17/99  
 Depth to water: 74.38 ft (22.67 m) below TOC  
 Water elevation: 210.12 ft (64.05 m) msl  
 pH: 3.2  
 Sp. conductance: 660 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 119 gal

## ANAL YSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	15.900	U			15.0	µg/L	GE	EPA8260B
0	Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0	Arsenic, total recoverable	<30.0	U			30.0	µg/L	GE	EPA8260B
0	Barium, total recoverable	188	U			2.00	µg/L	GE	EPA8260B
0	Benzene	<10.0	U			1.00	µg/L	GE	EPA8260B
0	Bis(2-ethylhexyl) phthalate	<10.0	U			1.00	µg/L	GE	EPA8260B
0	Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Bromofluoromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Bromomethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Bromotrichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Carbon tetrachloride	5.47	U			1.00	µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPA8260B

## ESH-EMS-990520

Well FSB 98C collected on 01/17/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Chloroethene (Vinyl chloride)	<1.00	JU			1.00	µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<5.00	JU			5.00	µg/L	GE	EPA8260B
0	Chloroform	<1.00	JU			1.00	µg/L	GE	EPA8260B
0	Chloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0	Chromium, total recoverable	0.713	J			3.00	µg/L	GE	EPA8260B
2	Cobalt, total recoverable	27.4	J			0.200	µg/L	GE	EPA8260B
0	Copper, total recoverable	<10.0	U			1.00	µg/L	GE	EPA8260B
0	Cyanide	<10.0	U			1.00	µg/L	GE	EPA8260B
0	Dibromochloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	cis-1,2-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Iron, total recoverable	61.1	J			15.0	µg/L	GE	EPA8260B
0	Lead, total recoverable	0.383	J			2.00	µg/L	GE	EPA8260B
0	Mercury, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0	Nickel, total recoverable	21.4	U			2.500	µg/L	GE	EPA8260B
2	Nitrate-nitrite as nitrogen	65.000	J			0.100	pH	GE	EPA9040B
1	pH	3.48	U			5.00	pH	GE	EPA9040B
0	Phenols	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Selenium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Silver, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
2	Specific conductance	714	U			1.00	µS/cm	GE	EPA8260B
0	1,1,2,2-Tetrachloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0	Tetrachloroethene	0.463	JU			2.50	µg/L	GE	EPA8260B
0	Toluene	<0.615	JU			1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
2	Trichloroethene	54.0	JU			5.00	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8260B
0	Zinc, total recoverable	71.2	U			10.0	µg/L	GE	EPA8260B
0	Americium-241	4.22E-09±1.03E-08	U			1.58E-08	µCi/mL	GP	EPA1013
0	Antimony-241	9.70E-09±2.98E-09	U			2.72E-09	µCi/mL	GP	EPA1013
0	Carbon-14	3.12E-10±5.23E-09	U			9.26E-09	µCi/mL	GP	EPA1013
0	Cesium-134	3.49E-08±5.52E-09	U			7.89E-09	µCi/mL	GP	EPA1013
0	Cesium-137	2.93E-09±1.56E-08	U			2.63E-08	µCi/mL	GP	EPA1013
0	Cesium-144	1.52E-09±2.06E-09	U			2.77E-09	µCi/mL	GP	EPA1013
0	Cobalt-57	1.09E-09±2.14E-09	U			3.50E-09	µCi/mL	GP	EPA1013
0	Cobalt-60	9.13E-10±2.05E-09	U			3.51E-09	µCi/mL	GP	EPA1013
0	Cobalt-60	4.87E-10±1.82E-09	U			3.48E-09	µCi/mL	GP	EPA1013
0	Curtium-242	3.83E-10±1.19E-09	U			2.58E-09	µCi/mL	GP	EPA1013
0	Curtium-243/244	6.65E-09±2.12E-09	U			1.03E-09	µCi/mL	GP	EPA1013
0	Curtium-245/246	3.42E-10±5.48E-10	U			4.08E-10	µCi/mL	GP	EPA1013
0	Europium-152	3.39E-09±5.68E-09	U			1.03E-08	µCi/mL	GP	EPA1013
0	Europium-154	6.32E-09±2.42E-09	U			1.52E-08	µCi/mL	GP	EPA1013
0	Europium-155	1.32E-09±3.63E-09	U			1.52E-08	µCi/mL	GP	EPA1013
0	Gadolinium-153	3.11E-09±5.15E-09	U			1.48E-09	µCi/mL	GP	EPA1013
0	Lead-212	4.02E-09±6.18E-09	U			5.91E-09	µCi/mL	GP	EPA1013
0	Manganese-54	5.05E-07±4.33E-09	U			3.13E-09	µCi/mL	GP	EPA1013
0	Nonvolatile beta	2.22E-09±2.33E-09	U			1.71E-09	µCi/mL	GP	EPA1013
0	Plutonium-238	4.63E-11±7.61E-11	U			2.36E-10	µCi/mL	GP	EPA1013
0	Plutonium-239/240	1.83E-11±3.66E-11	U			5.48E-11	µCi/mL	GP	EPA1013
0	Potassium-40	3.84E-09±1.97E-08	U			3.81E-08	µCi/mL	GP	EPA1013
0	Promethium-144	6.75E-10±1.98E-09	U			3.51E-09	µCi/mL	GP	EPA1013
0	Promethium-146	2.45E-10±2.69E-09	U			4.68E-09	µCi/mL	GP	EPA1013
2	Radium-226	2.28E-08±2.18E-09	U			4.93E-10	µCi/mL	GP	EPA1013
1	Radium-228	2.62E-09±7.32E-10	U			1.27E-09	µCi/mL	GP	EPA1013
0	Ruthenium-106	3.05E-09±7.54E-10	U			1.31E-09	µCi/mL	GP	EPA1013
0	Sodium-22	8.46E-09±1.74E-08	U			2.87E-08	µCi/mL	GP	EPA1013
0	Strontium-90	1.31E-09±2.35E-09	U			3.25E-09	µCi/mL	GP	EPA1013
0	Technetium-99	1.37E-07±4.56E-08	U			3.94E-08	µCi/mL	GP	EPA1013
0	Thorium-228	3.43E-10±1.07E-10	U			5.26E-10	µCi/mL	GP	EPA1013
0	Thorium-230	2.86E-10±2.21E-10	U			3.21E-10	µCi/mL	GP	EPA1013
0	Thorium-232	1.36E-11±2.77E-11	U			1.72E-10	µCi/mL	GP	EPA1013
0	Titanium	3.08E-03±5.87E-05	U			4.74E-06	µCi/mL	GP	EPA1013
2	Tritium	2.99E-03±5.78E-05	U			4.73E-06	µCi/mL	GP	EPA1013
2	Uranium-233/234	1.98E-07±2.70E-08	U			9.21E-10	µCi/mL	GP	EPA1013

## B-138

First Quarter 1999







## ANALYTICAL RESULTS

Well FSB 99A collected on 01/07/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Dichloromethane	<5.00	U			5.00	µg/L	GE	EPA8260B
0	1,2-Dichloropropane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
2	Iron, total recoverable	478	U			15.0	µg/L	GE	EPA8270C
0	Lead, total recoverable	0.510	U			2.00	µg/L	GE	EPA8260B
0	Mercury, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0	Nickel, total recoverable	4.32	U			2.00	µg/L	GE	EPA8260B
1	Nitrate-nitrite as nitrogen	5.400	U			250	µg/L	GE	EPA8260B
0	pH	6.74	U			0.100	pH	GE	EPA8260B
0	Phenols	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Silver, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Specific conductance	173	U			1.00	µS/cm	GE	EPA8260B
0	1,1,2,2-Tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Trichloroethylene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Thallium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Trichlorofluoromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8260B
0	Zinc, total recoverable	9.84	U			1.55E-08	µg/L	GE	EPA8260B
0	Acetaminophen	6.47E-09±0.07E-09	U			4.21E-10	µg/L	GE	EPA8260B
0	Antimony-125	3.78E-11±7.58E-11	U			9.84E-09	µg/L	GE	EPA8260B
0	Carbon-14	1.85E-09±5.26E-09	U			8.87E-09	µg/L	GE	EPA8260B
0	Cesium-134	9.80E-09±3.31E-09	U			2.31E-08	µg/L	GE	EPA8260B
0	Cesium-137	7.94E-09±1.36E-09	U			3.01E-08	µg/L	GE	EPA8260B
0	Cobalt-57	7.94E-09±1.36E-09	U			3.01E-08	µg/L	GE	EPA8260B
0	Cobalt-60	9.15E-10±1.91E-09	U			3.01E-08	µg/L	GE	EPA8260B
0	Cobalt-60	2.48E-10±1.73E-09	U			3.01E-08	µg/L	GE	EPA8260B
0	Cobalt-60	5.94E-10±1.73E-09	U			3.01E-08	µg/L	GE	EPA8260B
0	Cobalt-60	3.03E-11±3.73E-11	U			4.95E-10	µg/L	GE	EPA8260B
0	Cobalt-60	3.03E-11±3.73E-11	U			4.95E-10	µg/L	GE	EPA8260B
0	Cobalt-60	<0.00E+00	U			2.39E-10	µg/L	GE	EPA8260B
0	Cobalt-60	1.67E-09±0.00E-09	U			1.03E-08	µg/L	GE	EPA8260B
0	Cobalt-60	2.66E-09±1.97E-09	U			1.31E-08	µg/L	GE	EPA8260B
0	Cobalt-60	3.37E-09±2.28E-09	U			7.21E-10	µg/L	GE	EPA8260B
0	Cobalt-60	1.30E-09±6.62E-10	U			6.43E-10	µg/L	GE	EPA8260B
0	Cobalt-60	8.77E-11±3.99E-11	U			3.27E-09	µg/L	GE	EPA8260B
0	Cobalt-60	3.59E-09±5.01E-09	U			5.41E-09	µg/L	GE	EPA8260B
0	Cobalt-60	1.45E-09±2.00E-09	U			3.27E-09	µg/L	GE	EPA8260B
0	Cobalt-60	2.53E-09±6.62E-10	U			1.05E-09	µg/L	GE	EPA8260B
0	Cobalt-60	7.00E-11±3.87E-11	U			2.64E-10	µg/L	GE	EPA8260B
0	Cobalt-60	1.72E-11±3.44E-11	U			5.15E-11	µg/L	GE	EPA8260B
0	Cobalt-60	2.39E-09±3.61E-09	U			3.58E-08	µg/L	GE	EPA8260B
0	Cobalt-60	4.94E-10±1.82E-09	U			3.38E-08	µg/L	GE	EPA8260B
0	Cobalt-60	1.01E-09±2.47E-09	U			4.65E-09	µg/L	GE	EPA8260B
0	Cobalt-60	5.32E-10±2.89E-10	U			1.11E-10	µg/L	GE	EPA8260B
0	Cobalt-60	9.49E-10±1.63E-09	U			3.52E-08	µg/L	GE	EPA8260B
0	Cobalt-60	8.49E-10±1.73E-09	U			3.52E-08	µg/L	GE	EPA8260B
0	Cobalt-60	1.39E-09±1.73E-09	U			2.64E-09	µg/L	GE	EPA8260B
0	Cobalt-60	2.15E-11±1.43E-10	U			4.23E-08	µg/L	GE	EPA8260B
0	Cobalt-60	2.15E-11±1.43E-10	U			4.23E-08	µg/L	GE	EPA8260B
0	Cobalt-60	1.61E-04±3.21E-06	U			2.71E-10	µg/L	GE	EPA8260B
0	Cobalt-60	1.89E-10±1.70E-10	U			8.72E-07	µg/L	GE	EPA8260B
0	Cobalt-60	4.02E-11±3.27E-11	U			2.18E-10	µg/L	GE	EPA8260B
0	Cobalt-60	8.76E-12±6.78E-11	U			2.17E-10	µg/L	GE	EPA8260B
0	Cobalt-60	6.83E-10±2.05E-09	U			4.22E-09	µg/L	GE	EPA8260B
0	Cobalt-60	6.36E-10±4.48E-09	U			7.27E-09	µg/L	GE	EPA8260B

ESH-EMS-990520

B-140

First Quarter 1999

## WELL FSB 99C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/14/99  
 Depth to water: 78.91 ft (23.44 m) below TOC  
 Water elevation: 210.79 ft (64.25 m) msl  
 pH: 5  
 Specific conductance: 250 µS/cm  
 Specific Conductance: 250 µS/cm  
 Specific Conductance: 250 µS/cm  
 Field Qualifier(s): S

Time: 12:26  
 Water temperature: 20.4°C  
 Air temperature: 21.4°C  
 Total dissolved solids (CaCO<sub>3</sub>): 8 mg/L  
 Phosphate: 0.00 mg/L  
 Field Qualifier(s): S

Water evacuated from the well prior to sampling: 82 gal  
 ANAL YSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	68.9	U			15.0	µg/L	GE	EPA8260B
0	Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0	Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8260B
0	Barium, total recoverable	55.3	U			2.00	µg/L	GE	EPA8260B
0	Benzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Bis(2-ethylhexyl) phthalate	<9.90	U			9.90	µg/L	GE	EPA8270C
0	Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Bromomethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Calcium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Carbon tetrachloride	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Chloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Chloroethene (Vinyl chloride)	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Chloroform	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Chloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Chromium, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8260B
0	Cobalt, total recoverable	2.69	U			0.200	µg/L	GE	EPA8260B
0	Copper, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8260B
0	Cyanide	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Dibromochloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Dichloromethane	<5.00	U			5.00	µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Endrin	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Iron, total recoverable	101	U			15.0	µg/L	GE	EPA8260B
0	Lead, total recoverable	1.72	U			0.200	µg/L	GE	EPA8260B
0	Mercury, total recoverable	<0.179	U			0.200	µg/L	GE	EPA8260B
0	Nickel, total recoverable	2.36	U			2.00	µg/L	GE	EPA8260B
2	Nitrate-nitrite as nitrogen	28.300	U			1.250	µg/L	GE	EPA8260B
0	Phenols	5.53	U			0.100	pH	GE	EPA8260B
0	Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Silver, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
1	Specific conductance	304	U			1.00	µS/cm	GE	EPA8260B
0	1,1,2,2-Tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Thallium, total recoverable	<0.0410	U			2.50	µg/L	GE	EPA8260B
0	Toluene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
2	Trichloroethylene	2.62	U			5.00	µg/L	GE	EPA8260B
0	Trichlorofluoromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Zinc, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8260B
0	Acetaminophen	9.57E-09±5.8E-09	U			1.50E-08	µg/L	GE	EPA8260B
0	Antimony-125	2.16E-11±7.68E-11	U			1.73E-10	µg/L	GE	EPA8260B
0	Carbon-14	8.61E-09±4.21E-09	U			9.35E-09	µg/L	GE	EPA8260B
0	Cesium-134	1.09E-09±1.59E-08	U			2.46E-08	µg/L	GE	EPA8260B
0	Cesium-137	1.65E-10±2.13E-09	U			3.34E-09	µg/L	GE	EPA8260B
0	Cobalt-57	-1.15E-09±2.06E-09	U			3.49E-09	µg/L	GE	EPA8260B
0	Cobalt-60	3.07E-10±1.79E-09	U			3.08E-09	µg/L	GE	EPA8260B
0	Cobalt-60	4.10E-10±2.08E-09	U			3.62E-09	µg/L	GE	EPA8260B
0	Cobalt-60	4.91E-11±6.12E-11	U			1.58E-10	µg/L	GE	EPA8260B
0	Cobalt-60	7.77E-12±5.35E-11	U			1.53E-10	µg/L	GE	EPA8260B
0	Cobalt-60	<0.00E+00	U			4.42E-11	µg/L	GE	EPA8260B
0	Cobalt-60	-1.03E-09±6.17E-09	U			1.03E-08	µg/L	GE	EPA8260B
0	Cobalt-60	-1.33E-09±3.61E-09	U			1.03E-08	µg/L	GE	EPA8260B



Well FSB 99C collected on 01/14/99 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Europlutonium-155	7.19E-10±7.02E-09	U			1.20E-08	µCi/mL	GP	EPIA-013
2	Gross alpha	2.52E-08±1.99E-09	J	L	I	7.75E-10	µCi/mL	GP	EPIA-001
0	Iodine-129	1.18E-08±2.09E-09	J			1.20E-09	µCi/mL	GP	EPIA-006
0	Lead-212	4.60E-09±4.92E-09	U			7.60E-09	µCi/mL	GP	EPIA-013
0	Manganese-54	6.10E-10±1.83E-09	U			3.17E-09	µCi/mL	GP	EPIA-013
0	Nonvolatile beta	6.32E-08±1.85E-09	U			9.11E-10	µCi/mL	GP	EPIA-011
0	Plutonium-238	2.17E-10±2.27E-10	U			4.02E-10	µCi/mL	GP	EPIA-011
0	Plutonium-239/240	1.78E-11±7.17E-11	U			2.11E-10	µCi/mL	GP	EPIA-013
0	Potassium-40	1.15E-08±1.91E-08	U			3.88E-08	µCi/mL	GP	EPIA-013
0	Promethium-144	2.19E-10±2.61E-09	U			2.96E-09	µCi/mL	GP	EPIA-013
0	Promethium-146	7.51E-09±1.20E-09	U			4.72E-09	µCi/mL	GP	EPIA-013
2	Radium-228	1.90E-08±3.86E-09	J			7.26E-09	µCi/mL	GP	EPIA-013
0	Radium-228	1.90E-08±3.86E-09	J			7.26E-09	µCi/mL	GP	EPIA-013
0	Sodium-22	5.50E-10±2.00E-09	U			3.67E-09	µCi/mL	GP	EPIA-013
0	Sodium-22	1.29E-08±3.03E-09	U			3.65E-09	µCi/mL	GP	EPIA-013
0	Strontium-90	5.45E-08±1.30E-08	U			2.03E-08	µCi/mL	GP	EPIA-013
0	Thorium-230	6.73E-11±7.39E-11	U			1.30E-10	µCi/mL	GP	EPIA-012
0	Thorium-232	4.15E-11±3.71E-11	U			2.49E-11	µCi/mL	GP	EPIA-012
0	Thorium-232	8.32E-12±1.87E-11	U			2.49E-11	µCi/mL	GP	EPIA-012
0	Tritium	9.10E-04±1.77E-05	U			2.17E-06	µCi/mL	GP	EPIA-002
0	Uranium-233/234	5.76E-09±7.07E-10	U			7.43E-11	µCi/mL	GP	EPIA-011
0	Uranium-235	8.73E-10±1.86E-10	U			4.89E-11	µCi/mL	GP	EPIA-011
0	Uranium-238	6.55E-09±7.86E-10	U			2.32E-11	µCi/mL	GP	EPIA-011
0	Yttrium-88	5.87E-10±2.22E-09	U			4.12E-09	µCi/mL	GP	EPIA-013
0	Zinc-65	2.99E-09±4.44E-09	U			7.89E-09	µCi/mL	GP	EPIA-013

## WELL FSB 99D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 72.47 ft (22.09 m) below TOC  
 Water elevation: 215.13 ft (65.57 m) ms  
 pH: 4.6  
 Sp. conductance: 26 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 40 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2	Aluminum, total recoverable	84.1				15.0	µg/L	GE	EPA8200
0	Antimony, total recoverable	<0.200				0.200	µg/L	GE	EPA8200
0	Arsenic, total recoverable	<3.00				3.00	µg/L	GE	EPA8200
0	Barium, total recoverable	7.66				2.00	µg/L	GE	EPA8200
0	Benzene	<1.00				1.00	µg/L	GE	EPA8200
0	Bis(2-ethylhexyl) phthalate	<10.0				10.0	µg/L	GE	EPA8270C
0	Bromodichloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Bromoforn	<1.00				1.00	µg/L	GE	EPA8260B
0	Bromomethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Cadmium, total recoverable	<1.00				1.00	µg/L	GE	EPA8200
0	Carbon tetrachloride	<1.00				1.00	µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00				1.00	µg/L	GE	EPA8260B
0	Chloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00				1.00	µg/L	GE	EPA8260B
0	Chloroform	<1.00				1.00	µg/L	GE	EPA8260B
0	Chloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Chloromethane (Vinyl chloride)	<1.00				1.00	µg/L	GE	EPA8260B
0	Cobalt, total recoverable	<0.125				0.200	µg/L	GE	EPA8200
0	Copper, total recoverable	31.5				1.00	µg/L	GE	EPA8200
0	Cyanide	<10.0				10.0	µg/L	GE	EPA8200
0	Dibromochloromethane	<1.00				1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	<1.00				1.00	µg/L	GE	EPA8260B
0	Dichloromethane	<5.00				5.00	µg/L	GE	EPA8260B
0	1,2-Dichloropropane	<1.00				1.00	µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00				1.00	µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00				1.00	µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00				1.00	µg/L	GE	EPA8260B
0	Iron, total recoverable	<65.3				15.0	µg/L	GE	EPA8200
0	Lead, total recoverable	8.92				2.00	µg/L	GE	EPA8200
0	Mercury, total recoverable	<0.200				0.200	µg/L	GE	EPA8200
0	Nickel, total recoverable	1.14				2.00	µg/L	GE	EPA8200

## ESH-EMS-990520

Well FSB 99D collected on 01/07/99 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Nitrate-nitrite as nitrogen	1.340				50.0	µg/L	GE	EPA353.1
0	Nitrate-nitrite as nitrogen	1.350				50.0	µg/L	GE	EPA353.1
0	pH	5.38				0.100	pH	GE	EPA9066
0	Phenols	<5.00				5.00	µg/L	GE	EPA8020
0	Selenium	<5.00				5.00	µg/L	GE	EPA8020
0	Silver, total recoverable	<1.00				1.00	µS/cm	GE	EPA9050A
0	Specific conductance	34.0				1.00	µS/cm	GE	EPA8260B
0	1,1,2,2-Tetrachloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Tetrachloroethylene	<1.00				1.00	µg/L	GE	EPA8260B
0	Thallium, total recoverable	<2.50				2.50	µg/L	GE	EPA8260B
0	Toluene	<1.00				1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Trichloroethylene	<1.00				1.00	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<10.0				10.0	µg/L	GE	EPA8200
0	Zinc, total recoverable	25.6				10.0	µg/L	GE	EPA8200
0	Actinium-228	4.77E-09±7.17E-09	U			1.35E-08	µCi/mL	GP	EPIA-013
0	Americium-241	2.67E-11±7.25E-11	JU			3.14E-10	µCi/mL	GP	EPIA-011
0	Americium-241	9.33E-11±1.42E-10	JU			3.24E-10	µCi/mL	GP	EPIA-011
0	Antimony-125	1.95E-09±6.56E-09	U			1.07E-08	µCi/mL	GP	EPIA-013
0	Carbon-14	3.24E-09±4.23E-09	U			7.33E-09	µCi/mL	GP	EPIA-003
0	Cesium-134	5.14E-11±1.38E-08	U			2.40E-08	µCi/mL	GP	EPIA-013
0	Cesium-134	1.74E-09±2.10E-09	JU			3.80E-09	µCi/mL	GP	EPIA-013
0	Cesium-137	8.60E-10±2.13E-09	JU			3.64E-09	µCi/mL	GP	EPIA-013
0	Cobalt-57	2.74E-10±1.71E-09	JU			3.03E-09	µCi/mL	GP	EPIA-013
0	Cobalt-60	1.26E-09±1.86E-09	U			3.81E-09	µCi/mL	GP	EPIA-011
0	Curtium-242	1.50E-11±3.02E-11	U			3.31E-10	µCi/mL	GP	EPIA-011
0	Curtium-243/244	9.43E-11±2.87E-11	U			3.16E-10	µCi/mL	GP	EPIA-011
0	Curtium-243/244	1.81E-10±2.58E-10	U			6.25E-10	µCi/mL	GP	EPIA-011
0	Curtium-245/246	<0.00E+00	U			1.75E-10	µCi/mL	GP	EPIA-011
0	Curtium-245/246	6.25E-11±9.08E-11	U			1.58E-10	µCi/mL	GP	EPIA-011
0	Europlutonium-152	2.36E-09±6.46E-09	U			1.01E-08	µCi/mL	GP	EPIA-013
0	Europlutonium-154	5.81E-10±5.73E-09	U			1.05E-08	µCi/mL	GP	EPIA-013
0	Europlutonium-155	2.64E-09±7.73E-09	U			1.34E-08	µCi/mL	GP	EPIA-013
0	Gross alpha	9.38E-09±1.24E-09	U			6.88E-10	µCi/mL	GP	EPIA-001
0	Iodine-129	2.02E-10±3.84E-10	U			1.12E-09	µCi/mL	GP	EPIA-006
0	Lead-212	5.24E-09±4.18E-09	U			6.83E-09	µCi/mL	GP	EPIA-013
0	Manganese-54	8.77E-09±1.02E-09	U			3.41E-09	µCi/mL	GP	EPIA-001
0	Nonvolatile beta	6.25E-11±3.37E-11	U			1.51E-10	µCi/mL	GP	EPIA-011
0	Plutonium-238	3.92E-11±3.69E-11	U			9.89E-11	µCi/mL	GP	EPIA-011
0	Plutonium-239/240	5.39E-11±6.27E-11	U			5.39E-11	µCi/mL	GP	EPIA-011
0	Potassium-40	2.77E-08±2.35E-08	U			4.88E-08	µCi/mL	GP	EPIA-013
0	Promethium-144	6.18E-10±2.04E-09	U			3.48E-09	µCi/mL	GP	EPIA-013
0	Promethium-146	2.06E-09±2.04E-09	U			4.94E-09	µCi/mL	GP	EPIA-013
0	Radium-226	6.00E-10±3.78E-10	U			9.32E-10	µCi/mL	GP	EPIA-008
0	Radium-228	2.05E-10±4.78E-09	U			3.15E-09	µCi/mL	GP	EPIA-008
0	Sodium-22	2.12E-10±2.04E-09	U			3.72E-09	µCi/mL	GP	EPIA-013
0	Strontium-90	2.12E-09±7.76E-10	J			1.35E-09	µCi/mL	GP	EPIA-004
0	Technetium-99	1.83E-09±8.94E-09	J			2.14E-08	µCi/mL	GP	EPIA-005
0	Thorium-228	6.00E-11±1.12E-10	U			9.95E-10	µCi/mL	GP	EPIA-012
0	Thorium-230	1.59E-10±1.45E-10	U			1.98E-10	µCi/mL	GP	EPIA-012
0	Thorium-232	1.65E-11±6.73E-11	U			6.13E-07	µCi/mL	GP	EPIA-002
0	Tellurium-128	1.74E-05±8.24E-07	U			2.83E-10	µCi/mL	GP	EPIA-011
0	Uranium-233/234	1.98E-09±8.01E-10	J			2.16E-10	µCi/mL	GP	EPIA-011
0	Uranium-235	4.47E-10±2.61E-10	J			1.89E-10	µCi/mL	GP	EPIA-011
0	Uranium-238	4.52E-10±2.50E-10	J			1.84E-10	µCi/mL	GP	EPIA-011
0	Uranium-238	5.33E-09±1.14E-09	J			2.16E-10	µCi/mL	GP	EPIA-011
0	Uranium-238	5.07E-09±1.08E-09	J			3.72E-09	µCi/mL	GP	EPIA-011
0	Yttrium-88	9.41E-10±2.07E-09	J			1.84E-10	µCi/mL	GP	EPIA-011
0	Zinc-65	1.43E-09±4.47E-09	J			6.80E-09	µCi/mL	GP	EPIA-013

## B-141



## ANALYTICAL RESULTS

## WELL FSB100A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/08/99  
 Depth to water: 134.12 ft (40.88 m) below TOC  
 Water elevation: 151.88 ft (46.29 m) msl  
 pH: 7.4  
 Sp. conductance: 160 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 204 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<15.0	U		15.0		µg/L	GE	EPA8260B
0 Antimony, total recoverable	<0.200	U		0.200		µg/L	GE	EPA8260B
0 Arsenic, total recoverable	<3.00	U		3.00		µg/L	GE	EPA8260B
0 Barium, total recoverable	36.9	U		2.00		µg/L	GE	EPA8260B
0 Benzene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Bromodichloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Bromomethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Cadmium, total recoverable	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Chloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Chloroethene (Vinyl chloride)	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Chloroform	<1.00	U		1.00		µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Chromium	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Chromium, total recoverable	1.18	U		1.00		µg/L	GE	EPA8260B
0 Cobalt, total recoverable	<0.0320	U		0.0320		µg/L	GE	EPA8260B
0 Copper, total recoverable	0.574	U		1.00		µg/L	GE	EPA8260B
0 Cyanide	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Dibromochloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 1,1-Dichloroethylene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethylene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Dichloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 1,2-Dichloropropane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Iron, total recoverable	94.0	U		1.00		µg/L	GE	EPA8260B
0 Lead, total recoverable	0.432	U		1.00		µg/L	GE	EPA8260B
0 Mercury, total recoverable	<0.0578	U		0.0578		µg/L	GE	EPA8260B
0 Nickel, total recoverable	0.985	U		2.00		µg/L	GE	EPA8260B
0 Nitrate-nitrite as nitrogen	4.320	U		100		µg/L	GE	EPA8260B
0 Phenols	7.19	U		5.00		µg/L	GE	EPA8260B
0 Selenium, total recoverable	<5.00	U		5.00		µg/L	GE	EPA8260B
0 Silver, total recoverable	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Specific conductance	200	U		1.00		µS/cm	GE	EPA8260B
0 1,1,2,2-Tetrachloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Tetrachloroethylene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Toluene	<0.414	U		1.00		µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Trichloroethylene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Trichloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Vanadium, total recoverable	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Zinc, total recoverable	<1.00	U		1.00		µg/L	GE	EPA8260B
0 0.05E-09+4.25E-09	1.18E-08	U		1.18E-08		µCi/mL	GP	EPA8260B
0 Americium-241	1.83E-11+3.66E-11	U		1.83E-11		µCi/mL	GP	EPA8260B
0 Americium-241	2.25E-09+4.48E-09	U		2.25E-09		µCi/mL	GP	EPA8260B
0 Carbon-14	9.90E-09+4.51E-09	U		9.90E-09		µCi/mL	GP	EPA8260B
0 Cerium-144	1.77E-09+1.13E-09	U		1.77E-09		µCi/mL	GP	EPA8260B
0 Cesium-134	4.97E-10+1.72E-09	U		4.97E-10		µCi/mL	GP	EPA8260B
0 Cesium-137	2.41E-13+1.78E-09	U		2.41E-13		µCi/mL	GP	EPA8260B
0 Cobalt-57	9.28E-10+1.47E-09	U		9.28E-10		µCi/mL	GP	EPA8260B
0 Cobalt-60	4.22E-11+1.64E-09	U		4.22E-11		µCi/mL	GP	EPA8260B
0 Curium-242	<0.00E+00	U		0.00E+00		µCi/mL	GP	EPA8260B
0 Curium-243/244	1.83E-13+4.51E-11	U		1.83E-13		µCi/mL	GP	EPA8260B
0 Curium-245/246	5.50E-11+6.40E-11	U		5.50E-11		µCi/mL	GP	EPA8260B
0 Europium-152	3.11E-09+5.05E-09	U		3.11E-09		µCi/mL	GP	EPA8260B
0 Europium-154	3.59E-09+4.92E-09	U		3.59E-09		µCi/mL	GP	EPA8260B

ESH-EMS-990520

B-142

First Quarter 1999

Well FSB100A collected on 01/08/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Europium-155	-6.52E-09+6.08E-09	U		1.13E-08		µCi/mL	GP	EPA8260B
0 Gross alpha	8.39E-10	U		8.39E-10		µCi/mL	GP	EPA8260B
0 Iodine-129	1.39E-09+9.94E-10	U		1.01E-09		µCi/mL	GP	EPA8260B
0 Lead-212	3.48E-09+4.43E-09	U		4.47E-09		µCi/mL	GP	EPA8260B
0 Manganese-54	-1.91E-10+1.53E-09	U		2.68E-09		µCi/mL	GP	EPA8260B
0 Nonvolatiles beta	1.87E-09+7.54E-10	U		1.37E-09		µCi/mL	GP	EPA8260B
0 Plutonium-238	1.42E-11+1.19E-10	U		2.65E-10		µCi/mL	GP	EPA8260B
0 Plutonium-239/240	-3.11E-13+5.40E-11	U		1.49E-10		µCi/mL	GP	EPA8260B
0 Potassium-40	2.81E-08+2.58E-08	U		2.53E-08		µCi/mL	GP	EPA8260B
0 Promethium-144	-6.50E-11+1.54E-09	U		2.73E-09		µCi/mL	GP	EPA8260B
0 Promethium-146	-1.54E-09+2.41E-09	U		3.60E-09		µCi/mL	GP	EPA8260B
0 Radium-226	7.98E-10+3.59E-10	U		1.74E-10		µCi/mL	GP	EPA8260B
0 Radium-228	7.55E-09+1.71E-08	U		2.48E-08		µCi/mL	GP	EPA8260B
0 Radium-228	1.29E-08+1.71E-08	U		2.95E-08		µCi/mL	GP	EPA8260B
0 Sodium-22	4.89E-09+4.78E-09	U		1.13E-08		µCi/mL	GP	EPA8260B
0 Technetium-99	7.72E-09+8.79E-09	U		1.96E-08		µCi/mL	GP	EPA8260B
0 Thorium-230	3.44E-11+8.15E-11	U		1.67E-10		µCi/mL	GP	EPA8260B
0 Thorium-232	4.00E-11+4.04E-11	U		3.00E-11		µCi/mL	GP	EPA8260B
0 Thorium-234	7.47E-10+1.65E-08	U		6.78E-07		µCi/mL	GP	EPA8260B
2 Tritium	-5.05E-12+1.01E-11	U		8.82E-11		µCi/mL	GP	EPA8260B
0 Uranium-233/234	1.38E-10+2.91E-11	R		8.03E-11		µCi/mL	GP	EPA8260B
0 Uranium-235	-4.74E-12+2.45E-11	U		8.01E-11		µCi/mL	GP	EPA8260B
0 Uranium-238	4.12E-11+4.79E-11	U		3.57E-09		µCi/mL	GP	EPA8260B
0 Yttrium-88	9.83E-10+1.78E-09	U		5.22E-09		µCi/mL	GP	EPA8260B
0 Zinc-65	3.56E-09+2.26E-09	U				µCi/mL	GP	EPA8260B

## WELL FSB101A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/08/99  
 Depth to water: 133.11 ft (40.57 m) below TOC  
 Water elevation: 152.09 ft (46.36 m) msl  
 pH: 7.4  
 Sp. conductance: 160 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 299 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<15.0	U		15.0		µg/L	GE	EPA8260B
0 Antimony, total recoverable	<0.200	U		0.200		µg/L	GE	EPA8260B
0 Arsenic, total recoverable	<3.00	U		3.00		µg/L	GE	EPA8260B
0 Barium, total recoverable	29.8	U		2.00		µg/L	GE	EPA8260B
0 Benzene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Bromodichloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Bromomethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Bromochloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Chloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Chloroethene (Vinyl chloride)	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Chloroform	<1.00	U		1.00		µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Chromium	1.44	U		3.00		µg/L	GE	EPA8260B
0 Chromium, total recoverable	<0.200	U		0.200		µg/L	GE	EPA8260B
0 Cobalt, total recoverable	0.388	U		1.00		µg/L	GE	EPA8260B
0 Copper, total recoverable	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Cyanide	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Dibromochloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethylene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Dichloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	U		1.00		µg/L	GE	EPA8260B
0 Iron, total recoverable	87.7	U		15.0		µg/L	GE	EPA8260B
0 Lead, total recoverable	<0.0014	U		0.0014		µg/L	GE	EPA8260B
0 Mercury, total recoverable	<0.0014	U		0.0014		µg/L	GE	EPA8260B
0 Nickel, total recoverable	<2.00	U		2.00		µg/L	GE	EPA8260B

Time: 13:05  
 Air temperature: 19.6°C  
 Water temperature: 17.6°C  
 Total alkalinity (as CaCO3): 56 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

Sample date: 01/08/99  
 Depth to water: 133.11 ft (40.57 m) below TOC  
 Water elevation: 152.09 ft (46.36 m) msl  
 pH: 7.4  
 Sp. conductance: 160 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 299 gal

## ANALYSES

F Analyte	Result	PG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	<15.0	U			15.0	µg/L	GE	EPA8260B
0 Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0 Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8260B
0 Barium, total recoverable	29.8	U			2.00	µg/L	GE	EPA8260B
0 Benzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<1.00	U			1.00	µg/L	GE	EPA82700B
0 Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Bromoform	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Bromomethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Cadmium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chloroethene (Vinyl chloride)	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	1.44	U			3.00	µg/L	GE	EPA8260B
0 Cobalt, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8260B
0 Copper, total recoverable	0.388	U			1.00	µg/L	GE	EPA8260B
0 Cyanide	<10.0	U			10.0	µg/L	GE	EPA8260B
0 Dibromochloromethane	<1.00	U			1.00	µg/L	GE	EPA9012A
0 1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Dichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,2-Dichloropropane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Iron, total recoverable	87.7	U			15.0	µg/L	GE	EPA8260B
0 Lead, total recoverable	<2.00	U			2.00	µg/L	GE	EPA8260B
0 Mercury, total recoverable	<0.0814	U			0.200	µg/L	GE	EPA6020
0 Nickel, total recoverable	<2.00	U			2.00	µg/L	GE	EPA7470A
		U				µg/L	GE	EPA6020







## ANALYTICAL RESULTS

Well FSB102C collected on 01/08/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Technetium-99	4.03E-09±1.26E-08	J	I		2.24E-08	µCi/mL	GP	EPIA-005
0 Technetium-228	8.83E-11±1.68E-10	J			3.64E-10	µCi/mL	GP	EPIA-012
0 Thorium-230	2.82E-11±3.16E-11	J			1.69E-10	µCi/mL	GP	EPIA-012
0 Thorium-232	4.32E-09±1.65E-08	U			6.40E-07	µCi/mL	GP	EPIA-002
2 Tritium	2.69E-10±1.87E-10	J	I		1.82E-10	µCi/mL	GP	EPIA-011
0 Uranium-233/234	2.34E-11±5.33E-11	J			1.82E-10	µCi/mL	GP	EPIA-011
0 Uranium-235	1.78E-10±1.52E-10	J	I		4.99E-09	µCi/mL	GP	EPIA-013
0 Uranium-238	-4.16E-09±5.49E-09	U			7.60E-09	µCi/mL	GP	EPIA-013
0 Zinc-65								

## WELL FSB103C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/08/99  
 Depth to water: 41.26 ft (12.58 m) below TOC  
 Water elevation: 201.14 ft (61.31 m) msl  
 pH: 5.9  
 Sp. conductance: 220 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 98 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Aluminum, total recoverable	<15.0	U			15.0	µg/L	GE	EPA8200
0 Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8200
0 Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8200
0 Barium, total recoverable	37.5	U			2.00	µg/L	GE	EPA8200
0 Benzene	<10.0	U			10.0	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<10.0	U			1.00	µg/L	GE	EPA8270C
0 Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Bromoform	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Cadmium, total recoverable	0.262	U			1.00	µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chloroethane (Vinyl chloride)	<1.00	U			1.00	µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Cobalt, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Copper, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Dichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Diethylchloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Dichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Iron, total recoverable	112	U			15.0	µg/L	GE	EPA8260B
0 Lead, total recoverable	<0.0459	U			0.200	µg/L	GE	EPA8260B
0 Mercury, total recoverable	5.05	U			2.00	µg/L	GE	EPA8260B
0 Nickel, total recoverable	29.500	U			1.00	µg/L	GE	EPA8260B
2 Nitrate-nitrite as nitrogen	<5.00	U			5.00	µg/L	GE	EPA8260B
0 pH								
0 Silica, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Specific conductance	304	U			1.00	µS/cm	GE	EPA8260B
0 1,1,2,2-Tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Tetrachloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Toluene	<0.189	U			2.50	µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<0.582	U			1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Trichloroethylene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Vanadium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0 Zinc, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8260B

ESH-EMS-990520

B-144

First Quarter 1999

Well FSB103C collected on 01/08/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Actinium-228	1.74E-09±7.92E-09	U			1.14E-08	µCi/mL	GP	EPIA-013
0 Americium-241	6.99E-11±5.82E-11	R			3.96E-11	µCi/mL	GP	EPIA-011
0 Antimony-125	2.06E-09±4.77E-09	U			8.29E-09	µCi/mL	GP	EPIA-003
0 Carbon-14	1.40E-08±4.55E-08	U	I		7.13E-08	µCi/mL	GP	EPIA-003
0 Cerium-144	4.90E-09±1.12E-08	U			1.94E-08	µCi/mL	GP	EPIA-013
0 Cesium-134	7.25E-11±1.66E-09	U			2.65E-09	µCi/mL	GP	EPIA-013
0 Cesium-137	1.32E-08±3.17E-08	U			5.46E-09	µCi/mL	GP	EPIA-013
0 Cobalt-60	1.13E-10±1.52E-09	U			2.50E-09	µCi/mL	GP	EPIA-013
0 Cobalt-57	5.53E-10±1.52E-09	U			4.09E-11	µCi/mL	GP	EPIA-011
0 Curium-242	<0.00E+00	U			3.96E-11	µCi/mL	GP	EPIA-011
0 Curium-243/244	1.32E-11±2.64E-11	U			3.96E-11	µCi/mL	GP	EPIA-011
0 Curium-245/246	1.32E-11±2.64E-11	U			3.96E-11	µCi/mL	GP	EPIA-011
0 Europium-152	3.45E-09±4.85E-09	U			6.54E-09	µCi/mL	GP	EPIA-013
0 Europium-154	5.35E-09±4.47E-09	U			1.12E-08	µCi/mL	GP	EPIA-013
0 Europium-155	1.72E-09±6.88E-09	U			8.41E-10	µCi/mL	GP	EPIA-008
0 Iodine-129	2.45E-09±8.65E-10	U			1.89E-09	µCi/mL	GP	EPIA-008
0 Lead-212	2.24E-09±4.38E-09	U			2.65E-09	µCi/mL	GP	EPIA-013
0 Manganese-54	7.95E-09±1.13E-09	U			1.93E-09	µCi/mL	GP	EPIA-011
0 Neodymium-144	8.15E-11±1.05E-10	U			1.93E-10	µCi/mL	GP	EPIA-011
0 Plutonium-238/240	3.71E-08±2.94E-08	U			2.62E-08	µCi/mL	GP	EPIA-013
0 Potassium-40	5.05E-10±1.48E-09	U	I		2.72E-09	µCi/mL	GP	EPIA-013
0 Promethium-144	2.98E-10±2.12E-09	U			3.64E-09	µCi/mL	GP	EPIA-013
0 Radium-146	7.38E-10±4.24E-10	U			5.21E-10	µCi/mL	GP	EPIA-008
0 Radium-226	3.19E-09±1.47E-08	U			9.84E-10	µCi/mL	GP	EPIA-009
0 Ruthenium-106	4.15E-09±1.59E-09	U			2.58E-08	µCi/mL	GP	EPIA-013
0 Sodium-22	1.93E-10±5.30E-10	U			2.32E-09	µCi/mL	GP	EPIA-013
0 Strontium-90	4.92E-08±1.29E-08	U			1.23E-09	µCi/mL	GP	EPIA-004
0 Technetium-99	3.33E-10±2.87E-10	U			2.10E-08	µCi/mL	GP	EPIA-005
0 Thorium-228	2.09E-10±1.84E-10	U			4.69E-10	µCi/mL	GP	EPIA-012
0 Thorium-230	8.72E-10±1.23E-09	U			1.92E-10	µCi/mL	GP	EPIA-012
0 Thorium-232	3.97E-11±4.01E-11	U			1.29E-10	µCi/mL	GP	EPIA-012
2 Tritium	3.97E-11±4.01E-11	U			3.13E-10	µCi/mL	GP	EPIA-011
0 Uranium-233/234	7.26E-11±1.13E-10	U			1.18E-10	µCi/mL	GP	EPIA-011
0 Uranium-235	1.22E-10±1.48E-09	U			2.75E-09	µCi/mL	GP	EPIA-013
0 Uranium-238	1.68E-09±2.49E-09	U			5.13E-09	µCi/mL	GP	EPIA-013
0 Yttrium-88								
0 Zinc-65								

## WELL FSB104C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/08/99  
 Depth to water: 18.65 ft (5.68 m) below TOC  
 Water elevation: 200.45 ft (61.1 m) msl  
 pH: 4.9  
 Sp. conductance: 400 µS/cm  
 Turbidity: 3 NTU  
 Water evacuated from the well prior to sampling: 149 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2 Aluminum, total recoverable	51.8	U			15.0	µg/L	GE	EPA8200
0 Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8200
0 Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8200
0 Barium, total recoverable	86.3	U			2.00	µg/L	GE	EPA8200
0 Benzene	<10.0	U			10.0	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<1.00	U			1.00	µg/L	GE	EPA8270C
0 Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Bromoform	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Cadmium, total recoverable	0.873	U			1.00	µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chloroethane (Vinyl chloride)	<1.00	U			1.00	µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<5.00	U			5.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	<0.637	U			3.00	µg/L	GE	EPA8260B
0 Cobalt, total recoverable	0.538	U			1.00	µg/L	GE	EPA8260B
0 Copper, total recoverable	1.02	U			1.00	µg/L	GE	EPA8260B
0 Cyanide	<10.0	U			10.0	µg/L	GE	EPA8260B

Time: 10:30  
 Water temperature: 18.3°C  
 Air temperature: 9.3°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S



## WELL FSB104D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/26/99  
Depth to water: 14.46 ft (4.41 m) below TOC  
Water elevation: 204.74 ft (62.41 m) msl  
pH: 3.8  
Sp. conductance: 270  $\mu$ S/cm  
Turbidity: 1 NTU  
Time: 9:35  
Water temperature: 17.7°C  
Air temperature: 10.5°C  
Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
Phenolphthalein alkalinity: 0 mg/L  
Field Qualifiers: V

## ANALYSES

F Analyte	Result	PG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	9.920				15.0	µg/L	GE	EPA82020
2 Arsenic, total recoverable	<2.00				0.200	µg/L	GE	EPA82020
2 Barium, total recoverable	<3.00	U			3.00	µg/L	GE	EPA82020
2 Benzene	65.8	U			2.00	µg/L	GE	EPA82020
2 Bis(2-ethylhexyl) phthalate	<1.00	U			1.00	µg/L	GE	EPA82608
2 Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA82608
2 Bromomethane	<1.00	U			1.00	µg/L	GE	EPA82608
1 Cadmium, total recoverable	3.12	U			1.00	µg/L	GE	EPA82608
0 Carbon tetrachloride	<1.00	U			1.00	µg/L	GE	EPA82608
0 Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPA82608
0 Chloroethane	<1.00	U			1.00	µg/L	GE	EPA82608
0 Chloroethane (Vinyl chloride)	<5.00	U			5.00	µg/L	GE	EPA82608
0 2-Chloroethyl vinyl ether	<1.00	U			1.00	µg/L	GE	EPA82608
0 Chloroform	<1.00	U			1.00	µg/L	GE	EPA82608
0 Chromomethane	<1.00	U			1.00	µg/L	GE	EPA82608
0 Chromium, total recoverable	1.70				0.200	µg/L	GE	EPA82608
0 Cobalt, total recoverable	12.5				1.00	µg/L	GE	EPA82608
0 Copper, total recoverable	10.6				1.00	µg/L	GE	EPA82608
0 Dichloromethane	<1.00	U			1.00	µg/L	GE	EPA82608
0 Diethylchloromethane	<1.00	U			1.00	µg/L	GE	EPA82608
1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA82608
1,2-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA82608
1,1-Dichloroethylene	<1.00	U			1.00	µg/L	GE	EPA82608
trans-1,2-Dichloroethylene	<1.00	U			1.00	µg/L	GE	EPA82608
Dichloromethane	<1.97	U			1.00	µg/L	GE	EPA82608
0,1,2-Dichloropropane	<1.00	U			1.00	µg/L	GE	EPA82608
cis-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA82608
trans-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA82608
Ethylbenzene	<1.00	U			1.00	µg/L	GE	EPA82608
Iron, total recoverable	23.6	U			15.0	µg/L	GE	EPA82608
Iron, total recoverable	<2.00	U			2.00	µg/L	GE	EPA82608
Mercury, total recoverable	6.51	U			0.200	µg/L	GE	EPA82608
Nickel, total recoverable	24.000	U			1.250	µg/L	GE	EPA82608
2 Nitrate-nitrite as nitrogen	3.90				0.100	pH	GE	EPA82608
1 pH	7.17				5.00	pH	GE	EPA82608
0 Phenols	<5.00	U			5.00	µg/L	GE	EPA82608
0 Picolinic acid, total recoverable	<5.00	U			5.00	µg/L	GE	EPA82608
0 Silica, total recoverable	<1.00	U			1.00	µg/L	GE	EPA82608
Specific conductance	282				1.00	µS/cm	GE	EPA82608
Specific conductance	284				1.00	µS/cm	GE	EPA82608
0,1,2,2-Tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPA82608
Tetrachloroethylene	<1.00	U			1.00	µg/L	GE	EPA82608
Thallium, total recoverable	<0.0940	U			1.00	µg/L	GE	EPA82608
Toluene	<1.00	U			1.00	µg/L	GE	EPA82608
0,1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA82608
0,1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA82608
Trichloroethylene	<1.00	U			1.00	µg/L	GE	EPA82608
Trichlorofluoromethane	<5.00	U			5.00	µg/L	GE	EPA82608
Vanadium, total recoverable	<10.0	U			10.0	µg/L	GE	EPA82608
Zinc, total recoverable	21.7	U			1.00	µg/L	GE	EPA82608
Actinum-228	6.31E-09±1.08E-08	U			1.29E-08	µCi/mL	GP	EPA-013
Actinum-241	3.82E-09±1.12E-09	U			2.98E-10	µCi/mL	GP	EPA-011
Americium-125	1.82E-10±4.23E-09	U			7.28E-09	µCi/mL	GP	EPA-013
Carbon-14	1.33E-06±4.94E-09	U			1.78E-08	µCi/mL	GP	EPA-013
Carbon-14	4.32E-09±1.70E-09	U			2.65E-08	µCi/mL	GP	EPA-013
Cesium-134	1.33E-09±1.63E-09	U			2.58E-09	µCi/mL	GP	EPA-013
Cesium-137	1.48E-10±1.47E-09	U			2.58E-09	µCi/mL	GP	EPA-013
Cobalt-60	1.10E-09±1.58E-11	U			3.02E-09	µCi/mL	GP	EPA-011
Cobalt-60	3.06E-11±4.36E-11	U			3.97E-10	µCi/mL	GP	EPA-011
Curium-242	4.17E-09±1.91E-10	U			2.98E-10	µCi/mL	GP	EPA-011
Curium-243/244	5.64E-11±1.13E-10	U			1.68E-10	µCi/mL	GP	EPA-011
Curium-245/246		U					GP	EPA-011

**ESH-EMS-990520**

**B-145**

**First Quarter 1999**



## ANALYTICAL RESULTS

Well FSB104D collected on 01/28/89 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Europlum-152	-2.66E-09±4.98E-09	U			8.10E-09	µCi/mL	GP	EPIA-013
0	Europlum-154	-8.15E-10±4.35E-09	U			7.95E-09	µCi/mL	GP	EPIA-013
0	Europlum-155	1.58E-10±8.06E-09	U			1.07E-08	µCi/mL	GP	EPIA-013
0	Gross alpha	1.83E-07±6.57E-09	U			1.09E-09	µCi/mL	GP	EPIA-001
0	Iodine-129	5.74E-09±1.63E-09	U			1.33E-09	µCi/mL	GP	EPIA-006
0	Lead-212	7.68E-10±4.39E-09	U			5.01E-09	µCi/mL	GP	EPIA-013
0	Manganese-54	1.87E-09±1.53E-09	U			3.02E-09	µCi/mL	GP	EPIA-013
0	Nonvolatile beta	2.33E-07±5.06E-09	U			1.23E-09	µCi/mL	GP	EPIA-011
0	Plutonium-238	<0.00E+00	U			2.38E-10	µCi/mL	GP	EPIA-011
0	Plutonium-239/240	7.88E-11±1.58E-10	U			3.48E-09	µCi/mL	GP	EPIA-011
0	Potassium-40	2.37E-09±1.79E-08	U			5.34E-08	µCi/mL	GP	EPIA-011
0	Potassium-41	4.33E-10±1.46E-09	U			2.34E-08	µCi/mL	GP	EPIA-013
0	Promethium-144	5.65E-09±1.16E-09	U			3.38E-09	µCi/mL	GP	EPIA-013
0	Radium-226	4.08E-09±1.26E-09	U			6.41E-10	µCi/mL	GP	EPIA-013
0	Ruthenium-106	2.44E-09±1.37E-10	U			8.46E-10	µCi/mL	GP	EPIA-008
0	Sodium-22	-2.94E-10±1.57E-09	U			2.52E-08	µCi/mL	GP	EPIA-013
0	Strontium-90	5.60E-08±3.53E-09	U			2.87E-09	µCi/mL	GP	EPIA-013
0	Technetium-99	1.13E-08±1.07E-08	U			2.25E-09	µCi/mL	GP	EPIA-013
0	Thorium-228	-2.38E-11±1.40E-10	U			4.28E-10	µCi/mL	GP	EPIA-012
0	Thorium-230	2.39E-10±2.37E-10	U			1.83E-10	µCi/mL	GP	EPIA-012
0	Thorium-232	3.14E-11±9.04E-11	U			1.83E-10	µCi/mL	GP	EPIA-012
0	Thorium-232	-8.33E-12±1.67E-11	U			1.88E-06	µCi/mL	GP	EPIA-002
0	Tritium	-1.45E-11±2.07E-11	U			1.94E-06	µCi/mL	GP	EPIA-011
0	Uranium-232/234	7.84E-04±1.54E-05	U			3.25E-10	µCi/mL	GP	EPIA-011
0	Uranium-235	8.80E-08±1.27E-08	U			4.26E-09	µCi/mL	GP	EPIA-011
0	Uranium-238	1.19E-09±2.34E-09	U			4.42E-09	µCi/mL	GP	EPIA-013
0	Yttrium-88	-8.77E-10±1.93E-09	U			5.65E-09	µCi/mL	GP	EPIA-013
0	Zinc-65	-2.38E-10±3.69E-09	U					GP	EPIA-013

## WELL FSB105C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/89  
 Depth to water: 77.2 ft (23.53 m) below TOC  
 Water elevation: 208.6 ft (63.58 m) msl  
 pH: 3.9  
 Conductivity: 1,000 µS/cm  
 Specific gravity: 1 NTU  
 Water evacuated from the well prior to sampling: 106 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2	Aluminum, total recoverable	34,100				300	µg/L	GE	EPA8260B
0	Antimony, total recoverable	<0.293				0.892	µg/L	GE	EPA8260B
0	Arsenic, total recoverable	<60.0				60.0	µg/L	GE	EPA8260B
0	Barium, total recoverable	379				2.00	µg/L	GE	EPA8260B
0	Benzene	<10.0				1.00	µg/L	GE	EPA8260B
0	Bis(2-ethylhexyl) phthalate	<10.0				1.00	µg/L	GE	EPA8260B
0	Bromochloromethane	<10.0				1.00	µg/L	GE	EPA8260B
0	Bromodichloromethane	<10.0				1.00	µg/L	GE	EPA8260B
0	Bromofluoromethane	<10.0				1.00	µg/L	GE	EPA8260B
0	Bromomethane	<10.0				1.00	µg/L	GE	EPA8260B
0	Carbon tetrachloride	<10.0				1.00	µg/L	GE	EPA8260B
0	Chlorobenzene	<10.0				1.00	µg/L	GE	EPA8260B
0	Chloroethane (Vinyl chloride)	<10.0				1.00	µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<10.0				1.00	µg/L	GE	EPA8260B
0	Chloroform	<10.0				1.00	µg/L	GE	EPA8260B
0	Chloromethane	<10.0				1.00	µg/L	GE	EPA8260B
0	Chromium, total recoverable	1.05				3.00	µg/L	GE	EPA8260B
0	Cobalt, total recoverable	290				1.00	µg/L	GE	EPA8260B
0	Copper, total recoverable	47.3				1.00	µg/L	GE	EPA8260B
0	Cyanide	<10.0				1.00	µg/L	GE	EPA8260B
0	Dibromochloromethane	<10.0				1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<10.0				1.00	µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<10.0				1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethylene	<10.0				1.00	µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	<10.0				1.00	µg/L	GE	EPA8260B
0	Dichloromethane	<10.0				1.00	µg/L	GE	EPA8260B
0	1,2-Dichloropropane	<10.0				1.00	µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<10.0				1.00	µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<10.0				1.00	µg/L	GE	EPA8260B

## ESH-EMS-990520

Well FSB105C collected on 01/12/89 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Ethylbenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Iron, total recoverable	68.5				15.0	µg/L	GE	EPA8260B
0	Lead, total recoverable	0.396				2.00	µg/L	GE	EPA8260B
0	Mercury, total recoverable	<0.345				0.200	µg/L	GE	EPA7470A
0	Nickel, total recoverable	44.2				2.00	µg/L	GE	EPA8260B
0	Nitrate-nitrite as nitrogen	142,000				2,500	µg/L	GE	EPA8260B
1	pH	3.54				0.100		GE	EPA8260B
0	Phenols	<5.00				5.00	µg/L	GE	EPA8260B
0	Selenium, total recoverable	<1.00				1.00	µg/L	GE	EPA8260B
0	Silver, total recoverable	<1.00				1.00	µg/L	GE	EPA8260B
0	Spectrochemical methane	<1.00				1.00	µg/L	GE	EPA8260B
0	1,2,2-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Tetrachloroethylene	0.533				2.50	µg/L	GE	EPA8260B
0	Toluene	<1.46				1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8260B
0	Trichloroethylene	16.9				1.00	µg/L	GE	EPA8260B
0	Trichlorofluoromethane	<10.0				5.00	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<10.0				10.0	µg/L	GE	EPA8260B
0	Zinc, total recoverable	132				10.0	µg/L	GE	EPA8260B
0	Acetone	1.90E-08±1.41E-08	U			2.00E-08	µCi/mL	GP	EPIA-013
0	Acetone	1.29E-08±2.04E-09	U			7.60E-10	µCi/mL	GP	EPIA-011
0	Antimony-125	-1.21E-09±5.71E-09	U			1.00E-08	µCi/mL	GP	EPIA-013
0	Carbon-14	7.17E-08±5.71E-09	U			6.74E-09	µCi/mL	GP	EPIA-013
0	Cesium-134	-1.85E-08±1.60E-09	U			2.78E-08	µCi/mL	GP	EPIA-013
0	Cesium-137	-4.21E-09±2.43E-09	U			3.68E-09	µCi/mL	GP	EPIA-013
0	Cobalt-57	2.89E-09±3.22E-09	U			3.71E-09	µCi/mL	GP	EPIA-013
0	Cobalt-60	-2.55E-10±3.00E-09	U			3.91E-09	µCi/mL	GP	EPIA-013
0	Cromium-52	-2.31E-10±3.18E-10	U			7.83E-10	µCi/mL	GP	EPIA-011
0	Cromium-54/244	8.67E-09±1.53E-09	U			3.45E-10	µCi/mL	GP	EPIA-011
0	Cromium-54/246	4.55E-10±2.92E-10	U			1.37E-10	µCi/mL	GP	EPIA-011
0	Europlum-152	1.41E-09±6.47E-09	U			1.11E-08	µCi/mL	GP	EPIA-013
0	Europlum-154	3.00E-09±5.74E-09	U			1.19E-08	µCi/mL	GP	EPIA-013
0	Europlum-155	2.25E-09±4.78E-09	U			1.54E-08	µCi/mL	GP	EPIA-013
0	Gross alpha	3.17E-07±1.35E-08	U			1.06E-09	µCi/mL	GP	EPIA-001
0	Iodine-129	5.18E-08±6.90E-09	U			2.00E-09	µCi/mL	GP	EPIA-006
0	Lead-212	7.81E-09±5.86E-09	U			6.31E-09	µCi/mL	GP	EPIA-013
0	Manganese-54	1.90E-09±2.21E-09	U			4.27E-09	µCi/mL	GP	EPIA-013
0	Nonvolatile beta	5.86E-07±1.03E-08	U			1.63E-09	µCi/mL	GP	EPIA-001
0	Plutonium-238	2.19E-10±1.38E-10	U			1.53E-10	µCi/mL	GP	EPIA-011
0	Plutonium-239/240	-1.75E-13±1.30E-11	U			1.34E-10	µCi/mL	GP	EPIA-011
0	Potassium-40	2.97E-08±3.50E-08	U			4.58E-08	µCi/mL	GP	EPIA-013
0	Promethium-144	-6.03E-10±2.08E-09	U			3.58E-09	µCi/mL	GP	EPIA-013
0	Promethium-146	1.70E-08±1.53E-09	U			1.38E-09	µCi/mL	GP	EPIA-013
0	Radium-226	1.62E-08±1.53E-09	U			1.78E-09	µCi/mL	GP	EPIA-008
0	Ruthenium-106	2.43E-08±1.83E-09	U			3.48E-08	µCi/mL	GP	EPIA-013
0	Sodium-22	1.06E-09±2.03E-09	U			4.14E-09	µCi/mL	GP	EPIA-013
0	Strontium-90	3.19E-07±1.39E-08	U			4.06E-09	µCi/mL	GP	EPIA-004
0	Technetium-99	5.63E-10±3.39E-10	U			2.04E-08	µCi/mL	GP	EPIA-005
0	Thorium-228	1.07E-09±4.15E-10	U			4.98E-10	µCi/mL	GP	EPIA-012
0	Thorium-230	2.39E-10±1.75E-10	U			3.54E-10	µCi/mL	GP	EPIA-012
0	Thorium-232	1.34E-10±1.56E-10	U			2.60E-10	µCi/mL	GP	EPIA-012
0	Thorium-232	<0.00E+00	U			7.97E-11	µCi/mL	GP	EPIA-012
0	Tritium	5.73E-03±1.07E-04	U			8.94E-11	µCi/mL	GP	EPIA-002
0	Uranium-233/234	1.36E-07±1.64E-08	U			6.02E-06	µCi/mL	GP	EPIA-002
0	Uranium-235	1.37E-07±1.70E-08	U			4.80E-10	µCi/mL	GP	EPIA-011
0	Uranium-235	1.10E-08±2.07E-09	U			5.44E-10	µCi/mL	GP	EPIA-011
0	Uranium-235	1.31E-08±2.43E-09	U			3.98E-10	µCi/mL	GP	EPIA-011
0	Uranium-238	1.40E-07±1.68E-08	U			2.18E-10	µCi/mL	GP	EPIA-011
0	Uranium-238	5.76E-07±1.84E-08	U			4.89E-10	µCi/mL	GP	EPIA-011
0	Uranium-238	-4.86E-09±3.36E-09	U			5.54E-09	µCi/mL	GP	EPIA-013
0	Zinc-65		U			7.60E-09	µCi/mL	GP	EPIA-013

## B-146

First Quarter 1999



## WELL FSB105DR

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/19/99  
 Depth to water: 73.9 ft (22.55 m) below TOC  
 Water temperature: 20.3°C  
 Air temperature: 23°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): V

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2	Aluminum, total recoverable	528	J		15.0		µg/L	GE	EPA8020
0	Antimony, total recoverable	<0.200	U		0.200		µg/L	GE	EPA8020
0	Arsenic, total recoverable	<3.00	U		3.00		µg/L	GE	EPA8020
0	Barium, total recoverable	46.5	U		2.00		µg/L	GE	EPA8020
0	Benzene	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Bis(2-ethylhexyl) phthalate	<10.0	JU	L	1.00		µg/L	GE	EPA8020
0	Bromochloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Bromodichloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Bromomethane	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Carbon tetrachloride	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Chlorobenzene	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Chloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Chloroethane (Vinyl chloride)	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Chloroform	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Chloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Chromium, total recoverable	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Cobalt, total recoverable	2.01	JU	L	1.00		µg/L	GE	EPA8020
0	Copper, total recoverable	7.50	JU	L	1.00		µg/L	GE	EPA8020
0	Cyanide	<10.0	JU	L	1.00		µg/L	GE	EPA8020
0	Dibromochloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	1,1-Dichloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	1,2-Dichloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	trans-1,2-Dichloroethylene	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Dichloromethane	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	1,2-Dichloropropane	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	cis-1,2-Dichloropropene	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	1,1,1-Trichloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	1,1,2-Trichloroethane	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Trichloroethylene	<1.00	JU	L	1.00		µg/L	GE	EPA8020
0	Vanadium, total recoverable	<10.0	JU	L	1.00		µg/L	GE	EPA8020
0	Zinc, total recoverable	12.2	JU	L	1.00		µg/L	GE	EPA8020
0	Arsenic-228	1.47E-08±1.90E-09	U		1.79E-08		µg/L	GE	EPA8020
0	Arsenic-228	1.54E-08±1.17E-08	U		1.52E-08		µg/L	GE	EPA8020
0	Antimony-125	3.80E-10±2.90E-10	U		4.04E-10		µg/L	GE	EPA8020
0	Antimony-125	2.27E-09±5.53E-09	U		1.04E-08		µg/L	GE	EPA8020
0	Antimony-125	3.36E-10±5.68E-09	U		1.03E-08		µg/L	GE	EPA8020
0	Carbon-14	9.92E-09±4.57E-09	U		7.36E-09		µg/L	GE	EPA8020
0	Cerium-144	7.69E-09±1.49E-08	U		2.63E-08		µg/L	GE	EPA8020
0	Cerium-144	5.13E-09±1.39E-08	U		2.46E-08		µg/L	GE	EPA8020
0	Cesium-134	4.01E-10±2.17E-09	U		3.52E-09		µg/L	GE	EPA8020
0	Cesium-134	1.77E-10±2.32E-09	U		3.47E-09		µg/L	GE	EPA8020
0	Cesium-137	7.88E-10±1.86E-09	U		3.71E-09		µg/L	GE	EPA8020
0	Cobalt-57	1.55E-09±1.76E-09	U		2.96E-09		µg/L	GE	EPA8020
0	Cobalt-57	<1.00	U		<1.00		µg/L	GE	EPA8020

ESH-EMS-990520

Well FSB105DR collected on 01/19/99 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Cobalt-60	1.03E-09±1.96E-09	U		4.00E-09		µCi/mL	GP	EPA-013
0	Cobalt-60	4.65E-10±2.36E-09	U		4.41E-09		µCi/mL	GP	EPA-013
0	Curium-242	-4.17E-11±4.24E-11	U		3.28E-10		µCi/mL	GP	EPA-011
0	Curium-242/244	9.05E-11±2.59E-10	U		5.97E-10		µCi/mL	GP	EPA-011
0	Curium-245/246	<0.00E+00	U		1.19E-10		µCi/mL	GP	EPA-011
0	Europium-152	2.47E-09±4.39E-09	U		1.11E-08		µCi/mL	GP	EPA-013
0	Europium-152	-3.31E-09±4.14E-09	U		9.90E-09		µCi/mL	GP	EPA-013
0	Europium-154	-1.70E-09±4.77E-09	U		1.05E-08		µCi/mL	GP	EPA-013
0	Europium-154	4.80E-09±4.78E-09	U		1.20E-08		µCi/mL	GP	EPA-013
0	Europium-155	1.35E-10±4.05E-09	U		1.41E-08		µCi/mL	GP	EPA-013
0	Europium-155	6.45E-09±7.62E-09	U		7.80E-08		µCi/mL	GP	EPA-013
0	Gross alpha	1.15E-09±2.05E-09	U		9.57E-10		µCi/mL	GP	EPA-013
0	Lead-210	6.49E-09±4.61E-09	U		9.57E-10		µCi/mL	GP	EPA-013
0	Lead-212	9.13E-10±4.97E-09	U		6.54E-09		µCi/mL	GP	EPA-013
0	Manganese-54	-1.69E-11±2.11E-09	U		3.78E-09		µCi/mL	GP	EPA-013
0	Manganese-54	-1.68E-09±2.05E-09	U		3.26E-09		µCi/mL	GP	EPA-013
0	Neptunium-237	4.82E-09±2.13E-09	U		1.06E-09		µCi/mL	GP	EPA-011
0	Neptunium-238/240	5.12E-11±4.19E-11	U		1.10E-10		µCi/mL	GP	EPA-011
0	Plutonium-238	-4.82E-12±2.66E-08	U		8.16E-11		µCi/mL	GP	EPA-011
0	Potassium-40	5.58E-08±2.66E-08	U		5.84E-08		µCi/mL	GP	EPA-013
0	Promethium-144	-1.91E-10±2.03E-09	U		3.62E-09		µCi/mL	GP	EPA-013
0	Promethium-144	-1.56E-09±1.88E-09	U		3.03E-09		µCi/mL	GP	EPA-013
0	Promethium-146	-1.51E-09±2.61E-09	U		4.57E-09		µCi/mL	GP	EPA-013
0	Radium-226	3.21E-09±4.18E-10	U		3.98E-09		µCi/mL	GP	EPA-013
0	Radium-226	1.30E-09±3.48E-10	U		4.74E-10		µCi/mL	GP	EPA-013
0	Ruthenium-106	-1.70E-09±1.87E-09	U		3.91E-09		µCi/mL	GP	EPA-013
0	Sodium-22	-6.20E-10±2.05E-09	U		3.74E-09		µCi/mL	GP	EPA-013
0	Sodium-22	1.71E-09±3.12E-09	U		2.67E-09		µCi/mL	GP	EPA-013
0	Sodium-90	4.35E-09±4.31E-10	U		1.21E-09		µCi/mL	GP	EPA-013
0	Technetium-99	8.31E-09±4.79E-09	U		1.94E-08		µCi/mL	GP	EPA-013
0	Thorium-230	1.72E-10±2.13E-10	U		4.09E-10		µCi/mL	GP	EPA-012
0	Thorium-230	5.42E-11±4.88E-11	U		1.62E-10		µCi/mL	GP	EPA-012
0	Thorium-232	2.34E-11±4.34E-11	U		1.62E-10		µCi/mL	GP	EPA-012
0	Tritium	7.72E-05±1.64E-06	U		6.07E-07		µCi/mL	GP	EPA-002
0	Uranium-233/234	2.09E-08±3.63E-06	U		3.06E-10		µCi/mL	GP	EPA-011
0	Uranium-235	2.31E-09±7.97E-09	U		2.60E-10		µCi/mL	GP	EPA-011
0	Uranium-238	9.31E-10±2.53E-09	U		2.60E-10		µCi/mL	GP	EPA-011
0	Yttrium-88	-1.26E-09±1.87E-09	U		3.20E-09		µCi/mL	GP	EPA-013
0	Zinc-65	-1.34E-09±5.37E-09	U		7.92E-09		µCi/mL	GP	EPA-013
0	Zinc-65	5.73E-10±3.85E-09	U		6.53E-09		µCi/mL	GP	EPA-013

## WELL FSB106C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/20/99  
 Depth to water: 33.89 ft (10.33 m) below TOC  
 Water elevation: 201.21 ft (61.33 m) msl  
 Water temperature: 18.8°C  
 Air temperature: 22.4°C  
 Total alkalinity (as CaCO<sub>3</sub>): 2 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): V

Water evacuated from the well prior to sampling: 80 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2	Aluminum, total recoverable	3.860	JU		15.0		µg/L	GE	EPA8020
0	Antimony, total recoverable	<0.158	J		0.892		µg/L	GE	EPA8020
0	Arsenic, total recoverable	1.33	J		3.00		µg/L	GE	EPA8020
0	Barium, total recoverable	126	U		2.00		µg/L	GE	EPA8020
0	Benzene	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Bis(2-ethylhexyl) phthalate	<10.1	U		10.1		µg/L	GE	EPA8260B
0	Bromochloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Bromodichloromethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Bromomethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Cadmium, total recoverable	10.2	U		1.00		µg/L	GE	EPA8020
0	Carbon tetrachloride	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Chloroethane	<1.00	U		1.00		µg/L	GE	EPA8260B
0	Chloroethane (Vinyl chloride)	<1.00	U		1.00		µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00	U		5.00		µg/L	GE	EPA8260B
0	Chloroform	<1.00	U		1.00		µg/L	GE	EPA8260B

B-147

First Quarter 1999



## ANALYTICAL RESULTS

Well FSB106C collected on 01/20/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Chloromethane	<1.00	U	I		1.00	µg/L	GE	EPA8260B
0 Chloroethane	0.763	U			3.00	µg/L	GE	EPA8260B
0 Cobalt, total recoverable	47.0				0.200	µg/L	GE	EPA8260B
0 Copper, total recoverable	6.60				1.00	µg/L	GE	EPA8260B
0 Cyanide	<10.0	JU	L	I	1.00	µg/L	GE	EPA3012A
0 Dibromochloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Dichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Iron, total recoverable	0.34	U			1.00	µg/L	GE	EPA8260B
0 Lead, total recoverable	0.147	U			1.00	µg/L	GE	EPA8260B
0 Mercury, total recoverable	0.185	U			1.00	µg/L	GE	EPA8260B
0 Nickel, total recoverable	13.5	U			2.00	µg/L	GE	EPA8260B
2 Nitrate-nitro as nitrogen	67.500	J	I		2.00	µg/L	GE	EPA7470A
0 pH	5.15				2.500	µg/L	GE	EPA353.1
0 Phenols	<5.00	J	Q		0.100	µg/L	GE	EPA3040B
0 Selenium, total recoverable	<5.00	J			5.00	µg/L	GE	EPA3066
0 Silver, total recoverable	<0.487	JU			5.00	µg/L	GE	EPA8260B
2 Specific conductance	645	JU	L	I4	1.00	µg/L	GE	EPA8260B
0 1,1,2,2-Tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPA3050A
0 Tetrachloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Thallium, total recoverable	<0.430	U	V		2.50	µg/L	GE	EPA8260B
0 Toluene	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0 Trichloroethylene	1.46	J	K	O	1.00	µg/L	GE	EPA8260B
0 Trichloromethane	<5.00	U			10.0	µg/L	GE	EPA8260B
0 Vanadium, total recoverable	<10.0	U			1.00	µg/L	GE	EPA8260B
0 Zinc, total recoverable	42.13	U			1.00E-08	µg/L	GE	EPA8260B
0 Actinium-228	1.77E-10±2.77E-10	U			2.66E-10	µCi/mL	GP	EPA1013
0 Americium-241	1.77E-10±2.77E-10	U			2.66E-10	µCi/mL	GP	EPA1013
0 Americium-241	2.18E-10±2.52E-10	U			8.18E-10	µCi/mL	GP	EPA1013
0 Carbon-14	2.73E-09±5.12E-09	U			7.66E-09	µCi/mL	GP	EPA1013
0 Carbon-14	1.07E-07±6.68E-08	U			2.40E-08	µCi/mL	GP	EPA1013
0 Cesium-134	2.04E-08±1.56E-08	U			2.74E-09	µCi/mL	GP	EPA1013
0 Cesium-137	1.74E-09±2.02E-09	U			3.88E-09	µCi/mL	GP	EPA1013
0 Cobalt-57	1.29E-09±2.05E-09	U			3.06E-09	µCi/mL	GP	EPA1013
0 Cobalt-60	1.34E-09±1.75E-09	U			4.93E-09	µCi/mL	GP	EPA1013
0 Cobalt-60	1.86E-09±2.43E-09	U			7.47E-10	µCi/mL	GP	EPA1013
0 Curium-242	9.08E-11±1.82E-10	U			2.48E-10	µCi/mL	GP	EPA1013
0 Curium-242	<0.00E+00	U			6.58E-10	µCi/mL	GP	EPA1013
0 Curium-243/244	9.77E-11±2.98E-10	U			2.18E-10	µCi/mL	GP	EPA1013
0 Curium-243/244	<0.00E+00	U			2.66E-10	µCi/mL	GP	EPA1013
0 Curium-245/246	<0.00E+00	U			2.17E-10	µCi/mL	GP	EPA1013
0 Curium-245/246	<0.00E+00	U			9.45E-09	µCi/mL	GP	EPA1013
0 Europium-152	1.20E-09±2.08E-09	U			1.26E-08	µCi/mL	GP	EPA1013
0 Europium-154	4.37E-09±7.24E-09	U			1.26E-08	µCi/mL	GP	EPA1013
0 Europium-155	2.49E-09±3.59E-09	U			2.41E-08	µCi/mL	GP	EPA1013
2 Gross alpha	4.08E-09±1.02E-09	J	K	C	5.77E-09	µCi/mL	GP	EPA1013
2 Iodine-129	1.15E-09±1.75E-09	U			1.66E-09	µCi/mL	GP	EPA1013
0 Lead-212	5.64E-07±9.30E-08	U			9.90E-11	µCi/mL	GP	EPA1013
0 Neptunium-237	7.77E-12±3.52E-11	U			4.70E-11	µCi/mL	GP	EPA1013
0 Plutonium-238	<0.00E+00	U			4.88E-08	µCi/mL	GP	EPA1013
0 Plutonium-239/240	1.20E-08±2.47E-08	U			3.47E-09	µCi/mL	GP	EPA1013
0 Potassium-40	2.29E-10±1.96E-09	U			1.95E-10	µCi/mL	GP	EPA1013
0 Promethium-144	-1.35E-09±2.70E-09	U			8.90E-10	µCi/mL	GP	EPA1013
0 Radium-146	1.80E-08±2.23E-09	U			2.93E-08	µCi/mL	GP	EPA1013
0 Radium-226	2.27E-10±4.24E-10	U			3.38E-09	µCi/mL	GP	EPA1013
0 Ruthenium-106	-3.71E-09±1.66E-08	U			2.45E-08	µCi/mL	GP	EPA1013
0 Sodium-22	2.53E-07±1.08E-08	U			1.60E-10	µCi/mL	GP	EPA1013
0 Strontium-90	6.68E-11±1.80E-10	U			1.60E-10	µCi/mL	GP	EPA1013
0 Technetium-99	9.04E-11±1.05E-10	U			6.36E-07	µCi/mL	GP	EPA1013
0 Thorium-230	1.35E-10±3.58E-11	U			1.93E-10	µCi/mL	GP	EPA1013
0 Thorium-232	3.95E-10±3.97E-09	U			1.93E-10	µCi/mL	GP	EPA1013
0 Tritium	1.01E-10±1.29E-10	J	I		1.10E-10	µCi/mL	GP	EPA1013
0 Uranium-233/234	5.48E-10±2.90E-10	J						
0 Uranium-235								
0 Uranium-238								

ESH-EMS-990520

B-148

First Quarter 1999

Well FSB106C collected on 01/20/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Yttrium-88	-1.88E-09±2.69E-09	U			4.45E-09	µCi/mL	GP	EPIA-013
0 Zinc-65	1.13E-09±4.18E-09	U			7.83E-09	µCi/mL	GP	EPIA-013

## WELL FSB106D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
 Depth to water: 29.33 ft (8.94 m) below TOC  
 Water elevation: Not available  
 pH: 5.9  
 Sp. conductance: 130 µS/cm  
 Turbidity: 109.0 NTU  
 Water evacuated from the well prior to sampling: 1.25 gal  
 The well went dry during purging.

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	1.170	J	L	I	15.0	µg/L	GE	EPA8260B
0 Antimony, total recoverable	<0.518	J			0.892	µg/L	GE	EPA8260B
0 Arsenic, total recoverable	<3.00	JU			3.00	µg/L	GE	EPA8260B
0 Barium, total recoverable	20.0	JU			2.00	µg/L	GE	EPA8260B
0 Benzene	<10.2	JU	L	O	1.00	µg/L	GE	EPA8260B
0 Bis(2-ethylhexyl) phthalate	<1.00	JU			10.2	µg/L	GE	EPA8270C
0 Bromodichloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Bromoform	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Bromomethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Cadmium, total recoverable	0.321	J			1.00	µg/L	GE	EPA8260B
0 Carbon tetrachloride	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chloroethene (Vinyl chloride)	<5.00	JU			5.00	µg/L	GE	EPA8260B
0 2-Chloroethyl vinyl ether	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chloromethane	32.4	JU			3.00	µg/L	GE	EPA8260B
0 Chromium, total recoverable	9.928	JU			0.200	µg/L	GE	EPA8260B
0 Cobalt, total recoverable	<10.0	JU			1.00	µg/L	GE	EPA8260B
0 Copper, total recoverable	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Cyanide	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethane	<2.41	JU	L	V	5.00	µg/L	GE	EPA8260B
0 Dichloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,2-Dichloropropane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 trans-1,3-Dichloropropene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	JU			1.00	µg/L	GE	EPA8260B
2 Lead, total recoverable	2.050	JU			15.0	µg/L	GE	EPA8260B
0 Mercury, total recoverable	53.1	U			0.200	µg/L	GE	EPA8260B
0 Nickel, total recoverable	30.9	J			5.00	µg/L	GE	EPA8260B
0 Nitrate-nitrite as nitrogen	6.25	J	Q		0.100	µg/L	GE	EPA353.1
0 pH	<5.00	J			5.00	µg/L	GE	EPA3040B
0 Phenols	<5.00	JU			5.00	µg/L	GE	EPA3066
0 Selenium, total recoverable	<5.00	JU			5.00	µg/L	GE	EPA8260B
0 Silver, total recoverable	<0.487	JU			5.00	µg/L	GE	EPA8260B
0 Specific conductance	86.9	JU			1.00	µS/cm	GE	EPA3050A
0 Toluene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Thallium, total recoverable	<0.070	JU			2.50	µg/L	GE	EPA8260B
0 1,1,1-Trichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Trichloroethylene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Trichloromethane	<5.00	JU			5.00	µg/L	GE	EPA8260B
0 Vanadium, total recoverable	6.14	J			10.0	µg/L	GE	EPA8260B
0 Zinc, total recoverable	391	J			1.52E-08	µCi/mL	GP	EPIA-013
0 Actinium-228	1.05E-08±7.58E-09	JU			4.08E-10	µCi/mL	GP	EPIA-013
0 Americium-241	1.50E-10±2.03E-10	JU			7.80E-09	µCi/mL	GP	EPIA-013
0 Antimony-125	2.43E-09±4.49E-09	JU			2.18E-08	µCi/mL	GP	EPIA-013
0 Carbon-14	5.91E-09±4.09E-09	JU			2.18E-08	µCi/mL	GP	EPIA-013
0 Cesium-134	-1.52E-09±1.24E-08	JU			3.03E-09	µCi/mL	GP	EPIA-013
0 Cesium-137								

Time: 8:00

Water temperature: 17.6°C

Air temperature: -2.1°C

Total alkalinity (as CaCO3): 37 mg/L

Phenolphthalein alkalinity: 0 mg/L

Field Qualifier(s): SX



Well FSB106D collected on 01/12/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Cesium-137	5.33E-10±0.01E-09	JU	L	I	3.69E-09	µCi/mL	GP	EPIA-013
0	Cobalt-57	4.55E-10±1.66E-09	U			2.87E-09	µCi/mL	GP	EPIA-013
0	Cobalt-60	5.05E-10±1.82E-09	U			3.57E-09	µCi/mL	GP	EPIA-013
0	Curium-242	2.48E-11±1.36E-10	JU	L	C	3.80E-10	µCi/mL	GP	EPIA-011
0	Curium-243/244	7.31E-11±1.20E-10	JU	L	C	2.19E-10	µCi/mL	GP	EPIA-011
0	Curium-245/246	3.15E-11±3.55E-11	JU	L	C	2.19E-10	µCi/mL	GP	EPIA-011
0	Eurpium-152	2.52E-09±6.47E-09	U			9.30E-09	µCi/mL	GP	EPIA-013
0	Eurpium-154	3.87E-09±4.80E-09	U			7.79E-09	µCi/mL	GP	EPIA-013
0	Eurpium-155	1.54E-09±6.75E-09	U			1.21E-08	µCi/mL	GP	EPIA-013
0	Gross alpha	2.66E-09±3.91E-10	J	I		8.62E-09	µCi/mL	GP	EPIA-001
0	Gross beta	2.66E-09±3.91E-10	J	I		8.62E-09	µCi/mL	GP	EPIA-001
0	Iodine-129	1.45E-09±5.64E-09	U			6.34E-09	µCi/mL	GP	EPIA-008
0	Lead-212	1.45E-09±5.64E-09	U			6.34E-09	µCi/mL	GP	EPIA-008
0	Lead-210	1.45E-09±5.64E-09	U			6.34E-09	µCi/mL	GP	EPIA-008
0	Manganese-54	4.28E-09±1.07E-09	J	K	C	2.77E-09	µCi/mL	GP	EPIA-013
0	Nonvolatile beta	3.67E-09±1.07E-09	J	K	C	2.77E-09	µCi/mL	GP	EPIA-013
0	Plutonium-238	3.11E-11±5.09E-11	U			1.79E-09	µCi/mL	GP	EPIA-001
0	Plutonium-239/240	2.99E-08±3.54E-08	U			5.30E-11	µCi/mL	GP	EPIA-011
0	Potassium-40	3.95E-10±1.71E-09	U			9.32E-11	µCi/mL	GP	EPIA-011
0	Promethium-144	4.32E-10±2.31E-09	U			3.14E-09	µCi/mL	GP	EPIA-013
0	Promethium-146	1.08E-09±4.87E-10	J	I		4.13E-09	µCi/mL	GP	EPIA-013
0	Radium-226	4.89E-10±5.70E-10	JU	L	I	1.55E-09	µCi/mL	GP	EPIA-008
0	Radium-228	7.76E-09±1.65E-08	U			2.81E-09	µCi/mL	GP	EPIA-009
0	Ruthenium-106	1.38E-09±1.71E-09	U			2.78E-09	µCi/mL	GP	EPIA-013
0	Sodium-22	1.33E-09±1.01E-09	U			1.97E-09	µCi/mL	GP	EPIA-004
0	Strontium-90	4.26E-10±8.71E-09	U			2.13E-08	µCi/mL	GP	EPIA-005
0	Technetium-99	5.13E-11±3.95E-11	U			1.92E-10	µCi/mL	GP	EPIA-012
0	Thorium-228	1.16E-10±3.05E-11	U			9.18E-11	µCi/mL	GP	EPIA-012
0	Thorium-230	1.09E-04±2.02E-08	R			6.81E-07	µCi/mL	GP	EPIA-012
0	Thorium-232	1.09E-04±2.02E-08	R			6.81E-07	µCi/mL	GP	EPIA-012
0	Tritium	5.80E-12±1.57E-11	U			1.40E-10	µCi/mL	GP	EPIA-011
0	Uranium-235	8.50E-12±3.45E-11	U			1.02E-10	µCi/mL	GP	EPIA-011
0	Uranium-238	1.10E-10±4.75E-11	R			8.60E-11	µCi/mL	GP	EPIA-011
0	Yttrium-88	8.44E-10±2.14E-09	U			3.90E-09	µCi/mL	GP	EPIA-013
0	Zinc-65	1.46E-09±3.58E-09	U			5.34E-09	µCi/mL	GP	EPIA-013

## WELL FSB107C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 59.1 ft (18.01 m) below TOC  
 Water elevation: 211.8 ft (64.56 m) msl  
 pH: 5.7  
 Sp. conductance: 170 µS/cm  
 Turbidity: 2 NTU  
 Water evacuated from the well prior to sampling: 119 gal

## ANAL YSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	50.0	U			15.0	µg/L	GE	EPA8200
0	Antimony, total recoverable	<1.00	U			0.200	µg/L	GE	EPA8200
0	Arsenic, total recoverable	<1.00	U			0.200	µg/L	GE	EPA8200
0	Barium, total recoverable	<10.3	U			2.00	µg/L	GE	EPA8200
0	Bic(2-ethylhexyl) phthalate	<9.90	U			9.90	µg/L	GE	EPA8200
0	Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8200
0	Bromomethane	<1.00	U			1.00	µg/L	GE	EPA8200
0	Cadmium, total recoverable	0.840	U			1.00	µg/L	GE	EPA8200
0	Carbon tetrachloride	<1.00	U			1.00	µg/L	GE	EPA8200
0	Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPA8200
0	Chloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0	Chloroethane (Vinyl chloride)	<1.00	U			1.00	µg/L	GE	EPA8200
0	2-Chloroethyl vinyl ether	<1.00	U			1.00	µg/L	GE	EPA8200
0	Chloroform	<1.00	U			1.00	µg/L	GE	EPA8200
0	Chromiun, total recoverable	1.20	U			1.00	µg/L	GE	EPA8200
0	Cobalt, total recoverable	0.339	U			0.200	µg/L	GE	EPA8200
0	Copper, total recoverable	2.13	U			1.00	µg/L	GE	EPA8200
0	Cyanide	<1.00	U			1.00	µg/L	GE	EPA8200
0	Dibromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8200
0	1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0	1,1-Dichloroethylene	<1.00	U			1.00	µg/L	GE	EPA8200

## ESH-EMS-990520

Well FSB107C collected on 01/07/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	trans-1,2-Dichloroethylene	<1.39	U			1.00	µg/L	GE	EPA8260B
0	Dichloromethane	<1.39	U			1.00	µg/L	GE	EPA8260B
0	1,2-Dichloropropane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
2	Iron, total recoverable	500	U			150	µg/L	GE	EPA8200
0	Lead, total recoverable	0.474	J			2.00	µg/L	GE	EPA8200
0	Mercury, total recoverable	0.0670	J			0.200	µg/L	GE	EPA8200
0	Nickel, total recoverable	9.580	J			250	µg/L	GE	EPA8200
1	Nitrate-nitrite as nitrogen	6.52	J			0.100	µg/L	GE	EPA8200
0	pH	<5.00	J			5.00	µg/L	GE	EPA8200
0	Selenium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8200
0	Silver, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8200
0	Specific conductance	196	U			1.00	µS/cm	GE	EPA8200
0	1,1,2,2-Tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Tetrachloroethylene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Thallium, total recoverable	<0.0720	JU			2.50	µg/L	GE	EPA8200
0	Toluene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Trichloroethylene	1.54	U			1.00	µg/L	GE	EPA8260B
0	Trichlorofluoromethane	7.20	U			5.00	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8200
0	Zinc, total recoverable	21.3	U			10.0	µg/L	GE	EPA8200
0	Antimony-238	3.70E-09±7.40E-09	U			1.70E-08	µCi/mL	GP	EPIA-013
0	Arsenic-76	2.61E-09±4.35E-09	U			9.70E-09	µCi/mL	GP	EPIA-013
0	Barium-135	9.87E-09±1.55E-08	J			7.52E-08	µCi/mL	GP	EPIA-013
0	Carbon-14	8.22E-09±1.25E-08	J			2.26E-08	µCi/mL	GP	EPIA-013
0	Cesium-134	1.71E-10±2.00E-09	JU			3.24E-09	µCi/mL	GP	EPIA-013
0	Cesium-137	-9.73E-11±1.91E-09	JU			3.48E-09	µCi/mL	GP	EPIA-013
0	Cobalt-57	-1.55E-10±1.84E-09	U			2.87E-09	µCi/mL	GP	EPIA-013
0	Cobalt-60	4.93E-10±2.06E-09	U			4.02E-09	µCi/mL	GP	EPIA-013
0	Curium-242	<0.00E+00	U			4.47E-11	µCi/mL	GP	EPIA-011
0	Curium-243/244	2.06E-11±4.16E-11	U			8.71E-11	µCi/mL	GP	EPIA-011
0	Curium-245/246	<0.00E+00	U			4.13E-11	µCi/mL	GP	EPIA-011
0	Europium-152	-3.90E-09±5.64E-09	U			9.08E-09	µCi/mL	GP	EPIA-013
0	Europium-154	-2.35E-09±4.77E-09	U			8.48E-09	µCi/mL	GP	EPIA-013
0	Europium-155	-4.35E-09±7.24E-09	U			1.25E-08	µCi/mL	GP	EPIA-013
0	Gross alpha	3.72E-09±1.17E-09	J			8.12E-10	µCi/mL	GP	EPIA-001
2	Iodine-129	2.33E-09±1.17E-09	J			1.35E-09	µCi/mL	GP	EPIA-008
0	Lead-212	9.88E-10±3.98E-09	U			5.31E-09	µCi/mL	GP	EPIA-013
0	Manganese-54	8.31E-10±1.87E-09	U			3.25E-09	µCi/mL	GP	EPIA-013
0	Nonvolatile beta	2.96E-10±3.91E-09	R			2.81E-09	µCi/mL	GP	EPIA-001
0	Plutonium-238/240	1.74E-11±2.41E-11	U			2.81E-11	µCi/mL	GP	EPIA-011
0	Plutonium-238	-1.54E-09±2.76E-08	R			3.98E-08	µCi/mL	GP	EPIA-013
0	Promethium-144	6.42E-09±4.49E-09	U			3.53E-08	µCi/mL	GP	EPIA-013
0	Promethium-146	1.69E-10±2.48E-09	U			4.58E-09	µCi/mL	GP	EPIA-013
0	Radium-226	1.08E-10±2.29E-10	J			4.00E-10	µCi/mL	GP	EPIA-008
0	Radium-228	4.18E-10±2.29E-10	U			4.29E-10	µCi/mL	GP	EPIA-009
0	Ruthenium-106	1.76E-09±1.59E-08	U			2.98E-08	µCi/mL	GP	EPIA-013
0	Sodium-22	-8.24E-10±1.70E-09	U			3.03E-09	µCi/mL	GP	EPIA-013
2	Strontium-90	1.50E-08±1.51E-09	U			1.55E-09	µCi/mL	GP	EPIA-004
0	Technetium-99	1.62E-08±3.4E-09	U			1.91E-08	µCi/mL	GP	EPIA-005
0	Thorium-228	2.89E-10±1.99E-10	U			2.98E-10	µCi/mL	GP	EPIA-012
0	Thorium-230	1.29E-10±1.27E-10	U			2.05E-10	µCi/mL	GP	EPIA-012
0	Thorium-232	<0.00E+00	U			5.55E-11	µCi/mL	GP	EPIA-012
2	Tritium	1.25E-04±2.50E-06	U			7.59E-07	µCi/mL	GP	EPIA-002
0	Uranium-233/234	2.24E-10±1.23E-11	J			1.14E-10	µCi/mL	GP	EPIA-011
0	Uranium-235	-3.02E-11±3.04E-11	U			1.44E-10	µCi/mL	GP	EPIA-011
0	Uranium-238	8.99E-11±3.22E-11	U			1.44E-10	µCi/mL	GP	EPIA-011
0	Yttrium-88	-1.53E-10±2.82E-09	U			4.30E-09	µCi/mL	GP	EPIA-013
0	Zinc-65	1.32E-09±3.74E-09	U			7.13E-09	µCi/mL	GP	EPIA-013



## ANALYTICAL RESULTS

Well FSB107D collected on 02/02/99 (cont.)

## WELL FSB107D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 02/02/99  
 Depth to water: 56.15 ft (17.11 m) below TOC  
 Water elevation: 214.85 ft (65.49 m) msl  
 pH: 3.9  
 Specific conductance: 200  $\mu\text{S}/\text{cm}$   
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 40 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	4.020			15.0		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Antimony, total recoverable	<0.200			0.200		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Arsenic, total recoverable	<3.00			3.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Barium, total recoverable	59.0			2.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Benzene	<10.3			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Bis(2-ethylhexyl) phthalate	<10.3			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Bromochloromethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Bromomethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Carbon tetrachloride	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Cadmium, total recoverable	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Chlorobenzene	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Chloroethane (Vinyl chloride)	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Chloroethane (Vinyl chloride)	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Chloroform	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Chloromethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Chromium, total recoverable	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Cobalt, total recoverable	7.32			0.200		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Copper, total recoverable	9.75			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Cyanide	<10.0			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Dibromochloromethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	1,1-Dichloroethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	1,2-Dichloroethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	1,1-Dichloroethylene	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Dichloromethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	1,2-Dichloropropane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	1,1,2,2-Tetrachloroethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Ethylbenzene	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Iron, total recoverable	14.3			15.0		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Lead, total recoverable	0.743			0.200		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Mercury, total recoverable	3.56			2.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Nickel, total recoverable	4.79			2.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Nitrate-nitrite as nitrogen	16.500			1.250		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	pH	3.87			0.100		pH	GE	EPAS6020
0	Phenols	<5.00			5.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Selenium, total recoverable	<2.38			5.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Silver, total recoverable	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Specific conductance	235			1.00		$\mu\text{S}/\text{cm}$	GE	EPAS6020
0	1,1,2,2-Tetrachloroethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Tetrachloroethylene	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Thallium, total recoverable	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Toluene	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	1,1,2-Trichloroethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Trichloroethylene	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Vanadium, total recoverable	<10.0			10.0		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Zinc, total recoverable	23.3			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Acetaminophen	5.81E-09			1.00E-08		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Americium-241	5.03E-09			1.00E-08		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Americium-241	3.48E-09			1.00E-08		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Americium-125	5.05E-09			7.81E-09		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Carbon-14	5.14E-08			7.81E-09		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Carbon-14	6.29E-09			2.47E-08		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Cesium-134	1.10E-09			3.24E-08		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Cesium-137	2.90E-11			3.16E-09		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Cobalt-57	3.09E-10			3.21E-09		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Cobalt-60						$\mu\text{g}/\text{L}$	GE	EPAS6020

ESH-EMS-990520

B-150

First Quarter 1999

Time: 8:45  
 Water temperature: 18.8°C  
 Air temperature: 17.0°C  
 pH: 3.9  
 Specific conductance: 200  $\mu\text{S}/\text{cm}$   
 Turbidity: 1 NTU  
 Field Qualifier(s): V

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Curium-242	<0.00E+00			1.12E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Curium-242	3.94E-11			1.18E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Curium-243/244	2.29E-09			2.36E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Curium-243/244	2.20E-09			1.08E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Curium-245/246	3.39E-11			1.02E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Curium-245/246	1.44E-10			1.08E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Europium-152	5.95E-09			1.15E-08		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Europium-154	5.94E-09			1.22E-08		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Europium-155	1.19E-09			1.28E-08		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Gross alpha	2.04E-07			6.15E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Gross alpha	2.00E-07			6.95E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Iodine-129	6.12E-09			2.95E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Iodine-129	5.90E-09			7.50E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Lead-210	4.23E-09			3.65E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Lead-210	2.18E-07			1.21E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Nonvolatile beta	2.25E-07			1.50E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Plutonium-238	1.02E-10			3.05E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Plutonium-238/240	7.71E-11			1.83E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Plutonium-238/240	1.07E-10			5.36E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Potassium-40	2.32E-09			3.21E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Promethium-144	8.70E-10			3.98E-08		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Promethium-146	5.33E-10			3.91E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-226	7.27E-09			4.82E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-228	8.63E-09			1.66E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-228	1.41E-09			5.01E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-228	1.58E-09			4.95E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-228	1.07E-09			6.57E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-228	2.14E-09			2.95E-08		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-228	8.40E-08			4.38E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-228	9.23E-09			2.77E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-228	3.68E-09			2.36E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-228	4.15E-09			2.31E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-232	3.77E-11			2.02E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-232	4.52E-12			9.65E-11		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-232	3.81E-04			3.31E-06		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-232/234	8.66E-08			1.31E-06		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-232/234	1.25E-07			6.84E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-235	1.19E-06			1.89E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-235	1.23E-08			6.14E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-238	1.06E-07			3.31E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-238	1.43E-07			7.97E-10		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-238	2.25E-09			5.34E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011
0	Radium-238	1.37E-09			8.49E-09		$\mu\text{Ci}/\text{mL}$	GP	EPAS011

## WELL FSB108D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/11/99  
 Depth to water: 78.35 ft (23.89 m) below TOC  
 Water elevation: 219.62 ft (66.94 m) msl  
 pH: 5.6  
 Specific conductance: 38  $\mu\text{S}/\text{cm}$   
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 29 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	14.0			15.0		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Antimony, total recoverable	<0.200			0.200		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Arsenic, total recoverable	<3.00			3.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Barium, total recoverable	9.51			2.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Benzene	<10.1			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Bis(2-ethylhexyl) phthalate	<10.1			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Bromochloromethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Bromomethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Carbon tetrachloride	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Cadmium, total recoverable	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Chlorobenzene	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Chloroethane (Vinyl chloride)	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Chloroethane (Vinyl chloride)	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Chloroform	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Chloromethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Chromium, total recoverable	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Cobalt, total recoverable	7.32			0.200		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Copper, total recoverable	9.75			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Cyanide	<10.0			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	Dibromochloromethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	1,1-Dichloroethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020
0	1,2-Dichloroethane	<1.00			1.00		$\mu\text{g}/\text{L}$	GE	EPAS6020







## ANALYTICAL RESULTS

Well FSB109D collected on 01/11/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Europium-155	2.03E-09±1.6E-09	U			1.28E-08	µCi/mL	GP	EPIA-013
0 Gross alpha	7.59E-10±5.27E-10	U			8.95E-09	µCi/mL	GP	EPIA-001
0 Iodine-129	6.81E-10±7.16E-10	U			1.26E-09	µCi/mL	GP	EPIA-006
0 Lead-210	7.65E-10±3.48E-09	U			6.04E-09	µCi/mL	GP	EPIA-013
0 Manganese-54	1.14E-10±1.67E-09	U			3.05E-09	µCi/mL	GP	EPIA-013
0 Nonhalide beta	1.65E-09±6.90E-10	U			1.30E-09	µCi/mL	GP	EPIA-001
0 Plutonium-238	1.07E-11±4.35E-11	U			1.28E-11	µCi/mL	GP	EPIA-011
0 Plutonium-239/240	<0.00E+00	U			3.71E-08	µCi/mL	GP	EPIA-011
0 Potassium-40	2.24E-09±4.54E-08	U			3.30E-09	µCi/mL	GP	EPIA-013
0 Promethium-144	2.63E-09±2.39E-09	U			3.93E-09	µCi/mL	GP	EPIA-013
0 Promethium-146	4.13E-10±3.50E-10	U			4.80E-10	µCi/mL	GP	EPIA-013
0 Radium-226	2.68E-10±5.35E-10	U			1.10E-09	µCi/mL	GP	EPIA-008
0 Radium-228	1.38E-09±1.74E-08	U			3.15E-08	µCi/mL	GP	EPIA-013
0 Ruthenium-106	4.86E-10±1.84E-09	U			1.35E-09	µCi/mL	GP	EPIA-004
0 Sodium-22	1.37E-09±7.46E-09	U			1.87E-09	µCi/mL	GP	EPIA-005
0 Technetium-99	6.52E-10±3.99E-11	U			6.43E-11	µCi/mL	GP	EPIA-012
0 Thorium-228	1.57E-11±2.24E-11	U			2.56E-11	µCi/mL	GP	EPIA-012
0 Thorium-232	1.00E-09±5.65E-07	U			5.92E-07	µCi/mL	GP	EPIA-002
0 Uranium-233/234	4.60E-11±5.53E-11	U			6.90E-11	µCi/mL	GP	EPIA-011
0 Uranium-235	<0.00E+00	U			6.92E-11	µCi/mL	GP	EPIA-011
0 Uranium-238	2.32E-11±3.30E-11	U			1.77E-10	µCi/mL	GP	EPIA-011
0 Yttrium-88	4.69E-10±1.96E-09	U			3.67E-09	µCi/mL	GP	EPIA-013
0 Zinc-65	2.17E-09±3.93E-09	U			7.11E-09	µCi/mL	GP	EPIA-013

## WELL FSB110C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/08/99  
 Depth to water: 34.26 ft (10.44 m) below TOC  
 Water elevation: 200.24 ft (61.03 m) msl  
 pH: 5.4  
 Sp. conductance: 720 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 95 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0 Aluminum, total recoverable	17.5				15.0	µg/L	GE	EPA8200
0 Antimony, total recoverable	<0.20	U			0.200	µg/L	GE	EPA8200
0 Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8200
0 Barium, total recoverable	161				2.00	µg/L	GE	EPA8200
0 Benzene	<1.00	U			9.90	µg/L	GE	EPA8200
0 Bis(2-ethylhexyl) phthalate	<9.90	U			1.00	µg/L	GE	EPA8200
0 Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Bromoform	<1.00	U			1.00	µg/L	GE	EPA8200
0 Bromomethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Carbon tetrachloride	2.23	U			1.00	µg/L	GE	EPA8200
0 Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chloroethane (Vinyl chloride)	<1.00	U			1.00	µg/L	GE	EPA8200
0 2-Chloroethyl vinyl ether	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chloroform	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chloromethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chromium, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8200
0 Cobalt, total recoverable	3.36				1.00	µg/L	GE	EPA8200
0 Copper, total recoverable	<10.0	U			1.00	µg/L	GE	EPA8200
0 Dichloromethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 1,1-Dichloroethylene	<1.00	U			1.00	µg/L	GE	EPA8200
0 trans-1,2-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 1,2-Dichloropropane	<1.00	U			1.00	µg/L	GE	EPA8200
0 cis-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8200
0 trans-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8200
0 Ethylbenzene	303				15.0	µg/L	GE	EPA8200
0 Lead, total recoverable	1.84				2.00	µg/L	GE	EPA8200
0 Mercury, total recoverable	<0.20	U			0.200	µg/L	GE	EPA8200
0 Nickel, total recoverable	17.4				2.00	µg/L	GE	EPA8200

## ESH-EMS-990520

B-152

First Quarter 1999

Well FSB110C collected on 01/08/99 (cont.)

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Nitrate-nitrite as nitrogen	91.500				2.500	µg/L	GE	EPA353.1
0 pH	5.91				0.100	pH	GE	EPA9040B
0 Phenols	<5.00	U			5.00	µg/L	GE	EPA9066
0 Selenium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8200
0 Silver, total recoverable	846				1.00	µS/cm	GE	EPA8200
2 Specific conductance	<1.00	U			1.00	µS/cm	GE	EPA9050A
0 1,1,2,2-Tetrachloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Tetrachloroethylene	<0.314	U			2.50	µg/L	GE	EPA8200
0 Thallium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8200
0 Toluene	<1.00	U			1.00	µg/L	GE	EPA8200
0 1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Trichloroethylene	<1.00	U			1.00	µg/L	GE	EPA8200
0 Vanadium, total recoverable	<10.0	U			5.00	µg/L	GE	EPA8200
0 Zinc, total recoverable	13				1.00	µg/L	GE	EPA8200
0 6,7E-09±1.9E-09	6.7E-09±1.9E-09	U			1.85E-08	µCi/mL	GP	EPIA-013
0 Americium-241	6.37E-10±3.0E-10	U			3.04E-09	µCi/mL	GP	EPIA-011
0 Americium-241	5.87E-10±5.63E-09	U			1.09E-08	µCi/mL	GP	EPIA-011
0 Carbon-14	1.4E-09±4.78E-09	U			7.18E-09	µCi/mL	GP	EPIA-003
0 Cesium-134	1.07E-09±1.39E-08	U			2.44E-08	µCi/mL	GP	EPIA-013
0 Cesium-137	-9.06E-10±2.12E-09	U			3.11E-09	µCi/mL	GP	EPIA-013
0 Cobalt-57	-6.67E-10±2.00E-09	U			3.45E-09	µCi/mL	GP	EPIA-013
0 Cobalt-60	-5.99E-10±1.79E-09	U			3.11E-09	µCi/mL	GP	EPIA-013
0 Curium-242	-8.20E-11±1.87E-09	U			3.24E-09	µCi/mL	GP	EPIA-013
0 Curium-243/244	-2.72E-11±1.33E-10	U			3.48E-10	µCi/mL	GP	EPIA-011
0 Curium-245/246	-1.27E-11±6.56E-11	U			2.15E-10	µCi/mL	GP	EPIA-011
0 Europium-152	<0.00E+00	U			7.39E-11	µCi/mL	GP	EPIA-011
0 Europium-154	-2.76E-09±6.16E-09	U			1.00E-08	µCi/mL	GP	EPIA-013
0 Europium-155	-1.83E-09±6.54E-09	U			9.86E-09	µCi/mL	GP	EPIA-013
0 Gross alpha	2.93E-09±7.87E-09	U			1.42E-08	µCi/mL	GP	EPIA-013
0 Lead-210	2.99E-09±1.19E-09	U			1.32E-09	µCi/mL	GP	EPIA-001
0 Manganese-54	2.36E-09±3.50E-09	U			3.95E-09	µCi/mL	GP	EPIA-008
0 Manganese-54	7.40E-09±5.20E-09	U			5.65E-09	µCi/mL	GP	EPIA-013
0 Plutonium-238	8.90E-09±3.27E-09	U			1.55E-09	µCi/mL	GP	EPIA-011
0 Plutonium-239/240	6.40E-11±7.47E-11	U			1.25E-10	µCi/mL	GP	EPIA-011
0 Potassium-40	-5.77E-11±5.43E-11	U			1.92E-10	µCi/mL	GP	EPIA-011
0 Promethium-144	1.53E-08±2.62E-08	U			5.01E-08	µCi/mL	GP	EPIA-013
0 Promethium-146	1.16E-09±2.04E-09	U			3.80E-09	µCi/mL	GP	EPIA-013
0 Radium-226	-7.15E-10±2.71E-09	U			4.78E-09	µCi/mL	GP	EPIA-013
0 Radium-228	1.65E-09±5.47E-10	U			3.29E-10	µCi/mL	GP	EPIA-008
0 Ruthenium-106	2.20E-09±5.82E-10	U			9.58E-10	µCi/mL	GP	EPIA-009
0 Ruthenium-106	1.75E-09±1.88E-08	U			3.38E-08	µCi/mL	GP	EPIA-013
0 Strontium-90	-6.13E-10±2.33E-08	U			3.53E-09	µCi/mL	GP	EPIA-013
0 Technetium-99	1.98E-08±1.93E-08	U			1.87E-08	µCi/mL	GP	EPIA-004
0 Thorium-228	1.36E-07±1.72E-08	U			1.92E-08	µCi/mL	GP	EPIA-005
0 Thorium-230	7.83E-10±1.86E-10	U			3.47E-10	µCi/mL	GP	EPIA-012
0 Thorium-232	7.07E-11±3.04E-11	U			1.35E-10	µCi/mL	GP	EPIA-012
0 Tritium	<0.00E+00	U			3.79E-08	µCi/mL	GP	EPIA-002
0 Uranium-233/234	6.19E-11±4.13E-11	U			3.38E-10	µCi/mL	GP	EPIA-011
0 Uranium-235	1.15E-11±2.33E-11	U			2.58E-10	µCi/mL	GP	EPIA-011
0 Uranium-238	<0.00E+00	U			1.45E-10	µCi/mL	GP	EPIA-011
0 Yttrium-88	4.05E-10±2.27E-09	U			4.51E-09	µCi/mL	GP	EPIA-013
0 Zinc-65	2.14E-09±4.97E-09	U			8.50E-09	µCi/mL	GP	EPIA-013

## WELL FSB110D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/12/99  
 Depth to water: 29.52 ft (9 m) below TOC  
 Water elevation: 204.38 ft (62.48 m) msl  
 pH: 3.1  
 Sp. conductance: 480 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 40 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	14,300				15.0	µg/L	GE	EPA8200
0 Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8200
0 Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8200
0 Barium, total recoverable	137				2.00	µg/L	GE	EPA8200
0 Benzene	<1.00	JU			1.00	µg/L	GE	EPA8200



Well FSB110D collected on 01/12/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Bis(2-ethylhexyl) phthalate	<9.90	U	L	L	9.90	µg/L	GE	EPA8270C
0	Bromodichloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Bromomethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
1	Cadmium, total recoverable	2.63	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Carbon tetrachloride	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Chloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Chloroethane (Vinyl chloride)	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Chloroform	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Chloroform, total recoverable	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Cobalt, total recoverable	5.27	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Copper, total recoverable	20.9	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Cyanide	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Dibromochloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Dichloromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	1,2-Dichloropropane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Iron, total recoverable	85.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Lead, total recoverable	<0.037	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Mercury, total recoverable	<0.0872	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Nickel, total recoverable	9.98	JU	L	O	1.00	µg/L	GE	EPA8260B
2	Nitrate-nitrite as nitrogen	61.500	JU	L	O	1.00	µg/L	GE	EPA8260B
1	Phenols	3.41	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Selenium, total recoverable	<5.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Silver, total recoverable	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
2	Specific conductance	723	JU	L	O	1.00	µS/cm	GE	EPA8260B
0	1,1,2,2-Tetrachloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Tetrachloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Thallium, total recoverable	<0.125	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Toluene	<1.31	JU	L	O	1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Trichloroethylene	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Trichlorofluoromethane	<1.00	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<10.0	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Zinc, total recoverable	46.4	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Arsenic, total recoverable	2.27E-08±0.07E-08	R	L	O	1.00	µg/L	GE	EPA8260B
2	Arsenium-241	1.66E-08±1.02E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Barium, total recoverable	8.32E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Carbon-14	8.16E-08±3.1E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Cesium-134	3.22E-09±2.0E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Cesium-137	3.22E-09±2.0E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Cobalt-57	-1.94E-09±1.95E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Cobalt-60	-8.31E-10±1.73E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Curium-242	-8.31E-10±1.73E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Curium-243/244	1.00E-10±1.0E-10	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Curium-245/246	1.51E-10±1.96E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Europium-152	4.51E-10±1.78E-10	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Europium-154	1.16E-09±5.44E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Europium-155	-3.34E-09±5.19E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Gross alpha	9.34E-09±7.72E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
2	Iodine-129	4.73E-07±1.67E-08	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Lead-212	4.00E-07±4.41E-08	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Manganese-54	3.80E-09±4.1E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Nonradioactive beta	5.68E-10±1.82E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Plutonium-238	1.46E-10±2.99E-11	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Plutonium-239/240	<0.39E-09±4.35E-08	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Potassium-40	1.52E-12±1.71E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Promethium-144	1.46E-09±2.9E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Radium-146	1.53E-08±1.78E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
2	Radium-226	1.12E-08±1.18E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Ruthenium-106	9.13E-09±1.83E-08	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Sodium-22	-1.19E-09±1.85E-08	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Sr-90	1.54E-07±9.77E-09	JU	L	O	1.00	µg/L	GE	EPA8260B
0	Technetium-99	1.00E-07±1.56E-08	JU	L	O	1.00	µg/L	GE	EPA8260B

ESH-EMS-990520

Well FSB110D collected on 01/12/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Thorium-228	4.31E-10±2.93E-10	U	I	I	4.39E-10	µCi/mL	GP	EPA-012
0	Thorium-230	3.61E-10±2.08E-10	U	I	I	1.69E-10	µCi/mL	GP	EPA-012
0	Thorium-232	5.35E-11±7.60E-11	U	I	I	8.02E-11	µCi/mL	GP	EPA-012
2	Tritium	1.94E-09±3.78E-05	JU	I	I	3.27E-06	µCi/mL	GP	EPA-002
2	Uranium-233/234	1.85E-07±2.44E-08	JU	I	I	9.50E-10	µCi/mL	GP	EPA-011
2	Uranium-235	1.42E-07±2.12E-08	JU	I	I	2.64E-09	µCi/mL	GP	EPA-011
2	Uranium-238	1.35E-08±4.78E-09	JU	I	I	9.53E-10	µCi/mL	GP	EPA-011
2	Uranium-235	4.87E-07±3.30E-08	JU	I	I	2.53E-10	µCi/mL	GP	EPA-011
2	Uranium-238	4.55E-07±4.84E-08	JU	I	I	9.09E-10	µCi/mL	GP	EPA-011
0	Yttrium-88	8.86E-10±2.28E-09	U	I	I	4.68E-09	µCi/mL	GP	EPA-013
0	Zinc-65	1.81E-09±3.54E-09	U	I	I	6.51E-09	µCi/mL	GP	EPA-013

## WELL FSB111C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 62.75 ft (19.13 m) below TOC  
 Water elevation: 213.55 ft (65.09 m) msl  
 pH: 4.6  
 Sp. conductance: 56 µS/cm  
 Turbidity: 0 NTU  
 Water evacuated from the well prior to sampling: 120 gal

Time: 8:27

Water temperature: 19.3°C

Air temperature: 5.1°C

Total alkalinity (as CaCO<sub>3</sub>): 10 mg/L

Phenolphthalein alkalinity: 0 mg/L

Field Qualifier(s): S

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	9.66	J	I	I	15.0	µg/L	GE	EPA8020
0	Arsenic, total recoverable	<0.200	J	I	I	0.200	µg/L	GE	EPA8020
0	Barium, total recoverable	8.13	J	I	I	3.00	µg/L	GE	EPA8020
0	Bis(2-ethylhexyl) phthalate	<10.0	J	I	I	1.00	µg/L	GE	EPA8270C
0	Bromodichloromethane	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Bromomethane	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Cadmium, total recoverable	0.253	J	I	I	1.00	µg/L	GE	EPA8020
0	Carbon tetrachloride	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Chloroethane	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Chloroethane (Vinyl chloride)	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Chloroform	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Chloromethane	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Chromium, total recoverable	1.16	J	I	I	3.00	µg/L	GE	EPA8020
0	Cobalt, total recoverable	0.159	J	I	I	0.200	µg/L	GE	EPA8020
0	Copper, total recoverable	1.16	J	I	I	1.00	µg/L	GE	EPA8020
0	Cyanide	<10.0	J	I	I	1.00	µg/L	GE	EPA9012A
0	Dibromochloromethane	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethylene	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Dichloromethane	<5.00	J	I	I	5.00	µg/L	GE	EPA8260B
0	dis-1,3-Dichloropropene	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Iron, total recoverable	135	J	I	I	15.0	µg/L	GE	EPA8020
0	Lead, total recoverable	0.552	J	I	I	2.00	µg/L	GE	EPA8020
0	Mercury, total recoverable	<0.200	J	I	I	0.200	µg/L	GE	EPA8020
0	Nickel, total recoverable	2.26	J	I	I	5.00	µg/L	GE	EPA8020
0	Nitrate-nitrite as nitrogen	1.720	J	I	I	0.100	pH	GE	EPA9040B
0	pH	5.87	J	I	I	5.00	pH	GE	EPA9040B
0	Phenols	<5.00	J	I	I	5.00	µg/L	GE	EPA8066
0	Selenium, total recoverable	<5.00	J	I	I	5.00	µg/L	GE	EPA8066
0	Silver, total recoverable	<1.00	J	I	I	1.00	µg/L	GE	EPA8066
0	Specific conductance	56.2	J	I	I	1.00	µS/cm	GE	EPA9050A
0	Specific conductance	57.3	J	I	I	1.00	µS/cm	GE	EPA9050A
0	1,1,2,2-Tetrachloroethane	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Tetrachloroethylene	<0.0370	J	I	I	2.50	µg/L	GE	EPA8260B
0	Toluene, total recoverable	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00	J	I	I	1.00	µg/L	GE	EPA8260B
0	Trichloroethylene	1.78	J	I	I	1.00	µg/L	GE	EPA8260B

B-153

First Quarter 1999



## ANALYTICAL RESULTS

Well FSB111C collected on 01/07/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Trichloroethene	<5.00	U		5.00	µg/L	GE	EPAS2608	
0	Vanadium, total recoverable	<10.0	U		10.0	µg/L	GE	EPAS6020	
0	Zinc, total recoverable	<10.0	U		10.0	µg/L	GE	EPAS6020	
0	Actinium-228	3.73E-09±5.77E-09	U		1.08E-08	µCi/mL	GP	EPAS2608	
0	Antimony-125	-2.84E-12±1.28E-11	U		8.16E-11	µCi/mL	GP	EPAS2608	
0	Carbon-14	-8.92E-10±4.44E-09	U		7.37E-09	µCi/mL	GP	EPAS2608	
0	Cesium-134	4.16E-09±4.24E-09	U		7.29E-09	µCi/mL	GP	EPAS2608	
0	Cesium-137	-6.79E-09±1.04E-08	U		1.78E-08	µCi/mL	GP	EPAS2608	
0	Cobalt-57	-7.93E-10±1.70E-09	U		2.52E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-2.83E-10±1.67E-09	U		2.94E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	1.02E-09±1.39E-09	U		2.51E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-4.00E-10	U		3.23E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	6.42E-12±3.91E-11	U		4.19E-11	µCi/mL	GP	EPAS2608	
0	Cobalt-60	1.13E-09±3.91E-09	U		3.89E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	7.69E-10±4.58E-09	U		8.98E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-3.87E-09±4.40E-09	U		8.28E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	5.65E-10±3.71E-10	U		1.11E-08	µCi/mL	GP	EPAS2608	
0	Cobalt-60	5.31E-10±4.67E-10	U		1.24E-08	µCi/mL	GP	EPAS2608	
0	Cobalt-60	8.68E-10±5.68E-10	U		1.30E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	2.52E-09±2.86E-09	U		5.07E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	3.56E-10±1.55E-09	U		2.52E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	7.64E-10±5.73E-10	U		1.16E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	1.64E-10±8.12E-11	U		5.60E-11	µCi/mL	GP	EPAS2608	
0	Cobalt-60	1.77E-11±2.52E-11	U		2.66E-11	µCi/mL	GP	EPAS2608	
0	Cobalt-60	9.12E-09±1.73E-08	U		3.34E-08	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-5.91E-10±1.54E-09	U		2.64E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-1.63E-10±2.12E-09	U		3.80E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	5.08E-10±3.37E-10	U		3.00E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-2.60E-10±1.63E-09	U		6.50E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	3.35E-10±1.19E-09	U		8.86E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	2.15E-10±1.19E-09	U		9.07E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	2.15E-10±1.19E-09	U		9.07E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	1.23E-10±1.29E-10	U		2.23E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	1.03E-10±4.67E-11	U		1.33E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	6.84E-10±8.67E-11	U		1.76E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-1.63E-11±5.96E-11	U		4.58E-11	µCi/mL	GP	EPAS2608	
0	Cobalt-60	<0.00E+00	U		6.06E-07	µCi/mL	GP	EPAS2608	
0	Cobalt-60	4.09E-06±5.28E-07	U		1.85E-06	µCi/mL	GP	EPAS2608	
0	Cobalt-60	2.09E-11±8.28E-11	U		1.85E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	9.41E-11±1.17E-10	U		2.13E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-2.18E-11±2.53E-11	U		1.26E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	7.39E-12±7.63E-11	U		1.86E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	1.42E-11±4.55E-11	U		1.10E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	2.05E-10±1.45E-10	U		2.13E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	6.95E-11±1.97E-09	U		3.62E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-2.66E-09±3.07E-09	U		5.15E-09	µCi/mL	GP	EPAS2608	

## WELL FSB111D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 59.85 ft (18.24 m) below TOC  
 Water elevation: Not available  
 pH: 4.6  
 Sp. conductance: 48 µS/cm  
 Turbidity: 7.5 NTU  
 Water filtered from the well prior to sampling: 5 gal  
 The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2	Aluminum, total recoverable	99.1			15.0	µg/L	GE	EPAS6020	
0	Antimony, total recoverable	<0.167	JU		0.892	µg/L	GE	EPAS6020	
0	Arsenic, total recoverable	<3.00	U		3.00	µg/L	GE	EPAS6020	
0	Barium, total recoverable	20.9	U		2.00	µg/L	GE	EPAS6020	
0	Benzene	<10.0	U		1.00	µg/L	GE	EPAS2608	
0	Bis(2-ethylhexyl) phthalate	<10.0	JU		10.0	µg/L	GE	EPAS270C	
0	Bromodichloromethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Bromodichloromethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Bromodichloromethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Cadmium, total recoverable	0.308	J		1.00	µg/L	GE	EPAS6020	

## ESH-EMS-990520

Well FSB111D collected on 01/07/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Carbon tetrachloride	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Chlorobenzene	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Chloroethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Chloroethene (Vinyl chloride)	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	2-Chloroethene (Vinyl ether)	<5.00	U		5.00	µg/L	GE	EPAS2608	
0	Chloroform	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Chloromethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Chromium, total recoverable	2.05	J		3.00	µg/L	GE	EPAS6020	
0	Cobalt, total recoverable	1.15	J		0.200	µg/L	GE	EPAS6020	
0	Copper, total recoverable	347	U		1.00	µg/L	GE	EPAS6020	
0	Cyanide	<10.0	U		1.00	µg/L	GE	EPAS6020	
0	Dibromodichloromethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	1,1-Dichloroethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	1,1-Dichloroethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	trans-1,2-Dichloroethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Dichloromethane	<5.00	U		5.00	µg/L	GE	EPAS2608	
0	1,2-Dichloropropane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	cis-1,3-Dichloropropane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	trans-1,3-Dichloropropane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Ethylbenzene	<1.00	U		1.00	µg/L	GE	EPAS2608	
2	Iron, total recoverable	359	U		15.0	µg/L	GE	EPAS6020	
0	Lead, total recoverable	20.6	U		2.00	µg/L	GE	EPAS6020	
0	Mercury, total recoverable	<0.200	U		2.00	µg/L	GE	EPAS6020	
0	Nickel, total recoverable	4.57	U		2.00	µg/L	GE	EPAS6020	
0	Nitrate-nitrite as nitrogen	1.130	J		50.0	µg/L	GE	EPAS353.1	
0	pH	5.82	J		0.100	pH	GE	EPAS9068	
0	Selenium, total recoverable	<5.00	U		5.00	µg/L	GE	EPAS6020	
0	Silver, total recoverable	<5.00	U		5.00	µg/L	GE	EPAS6020	
0	Specific conductance	48.7	U		1.00	µS/cm	GE	EPAS6020	
0	1,1,2,2-Tetrachloroethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Trichloroethene	<0.430	JU		1.00	µg/L	GE	EPAS2608	
0	Trichloroethene	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	1,1,1-Trichloroethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	1,1,2-Trichloroethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Trichloroethene	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Trichlorofluoromethane	<1.00	U		1.00	µg/L	GE	EPAS2608	
0	Vanadium, total recoverable	<5.00	U		5.00	µg/L	GE	EPAS6020	
0	Zinc, total recoverable	165	U		10.0	µg/L	GE	EPAS6020	
0	Actinium-228	-1.03E-09±7.19E-09	U		1.27E-08	µCi/mL	GP	EPAS2608	
0	Actinium-228	4.27E-09±1.29E-08	U		1.57E-08	µCi/mL	GP	EPAS2608	
0	Actinium-228	4.70E-12±4.3E-12	U		4.18E-11	µCi/mL	GP	EPAS2608	
0	Antimony-125	1.33E-09±5.96E-09	U		1.08E-08	µCi/mL	GP	EPAS2608	
0	Antimony-125	7.93E-09±7.63E-08	U		1.08E-08	µCi/mL	GP	EPAS2608	
0	Carbon-14	7.09E-09±5.40E-08	U		8.25E-08	µCi/mL	GP	EPAS2608	
0	Carbon-14	3.75E-09±1.55E-08	U		2.55E-08	µCi/mL	GP	EPAS2608	
0	Cesium-134	-1.53E-09±1.35E-08	U		2.25E-08	µCi/mL	GP	EPAS2608	
0	Cesium-134	-3.03E-11±3.10E-09	JU		3.22E-08	µCi/mL	GP	EPAS2608	
0	Cesium-137	1.92E-09±2.12E-09	JU		3.75E-09	µCi/mL	GP	EPAS2608	
0	Cesium-137	3.13E-10±2.14E-09	JU		3.88E-09	µCi/mL	GP	EPAS2608	
0	Cesium-137	-6.45E-10±2.20E-09	JU		3.92E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-57	2.80E-10±1.88E-09	U		3.01E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-1.55E-09±1.80E-09	U		3.01E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-3.25E-10±2.42E-09	U		4.45E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	9.27E-10±1.84E-09	U		3.82E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	<0.00E+00	U		4.52E-11	µCi/mL	GP	EPAS2608	
0	Cobalt-60	6.77E-12±4.64E-11	U		1.22E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-7.04E-12±1.41E-11	U		8.79E-11	µCi/mL	GP	EPAS2608	
0	Cobalt-60	2.01E-10±6.42E-09	U		1.09E-08	µCi/mL	GP	EPAS2608	
0	Cobalt-60	4.86E-09±6.18E-09	U		1.11E-08	µCi/mL	GP	EPAS2608	
0	Cobalt-60	3.91E-09±5.83E-09	U		1.19E-08	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-4.21E-09±5.96E-09	U		1.02E-08	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-2.59E-10±7.29E-09	U		1.24E-08	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-3.12E-10±7.82E-09	U		1.34E-08	µCi/mL	GP	EPAS2608	
0	Cobalt-60	3.55E-09±7.39E-10	U		7.34E-08	µCi/mL	GP	EPAS2608	
0	Cobalt-60	1.70E-10±6.65E-10	U		3.81E-10	µCi/mL	GP	EPAS2608	
0	Cobalt-60	2.10E-09±4.69E-09	U		7.11E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	1.64E-10±5.75E-09	U		5.95E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-1.13E-09±2.15E-09	U		3.67E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	-2.07E-09±2.08E-09	U		3.24E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	2.78E-09±6.92E-10	U		1.10E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	2.67E-09±6.72E-10	U		1.05E-09	µCi/mL	GP	EPAS2608	
0	Cobalt-60	9.44E-11±5.60E-11	R		2.36E-11	µCi/mL	GP	EPAS2608	

## B-154

First Quarter 1999



Well FSB111D collected on 01/07/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Plutonium-239/240	<0.00E+00	U			2.96E-11	µCi/mL	GP	EPA8011
0 Potassium-40	3.21E-08±2.39E-08	U			5.12E-08	µCi/mL	GP	EPA8013
0 Potassium-41	2.77E-08±2.45E-08	U			5.11E-08	µCi/mL	GP	EPA8013
0 Promethium-144	-5.33E-09±1.75E-09	U			3.15E-09	µCi/mL	GP	EPA8013
0 Promethium-146	-1.58E-09±1.80E-09	U			2.95E-09	µCi/mL	GP	EPA8013
0 Promethium-148	-9.19E-10±2.68E-09	U			4.66E-09	µCi/mL	GP	EPA8013
0 Promethium-149	8.98E-10±2.61E-09	U			4.89E-09	µCi/mL	GP	EPA8013
0 Radium-226	5.71E-10±3.73E-10	J			4.43E-10	µCi/mL	GP	EPA8008
0 Radium-228	9.24E-10±4.53E-10	U			8.16E-10	µCi/mL	GP	EPA8008
0 Radium-228	2.87E-10±3.66E-10	U			7.42E-10	µCi/mL	GP	EPA8009
0 Radium-228	1.36E-09±1.82E-09	U			3.01E-09	µCi/mL	GP	EPA8013
0 Radium-228	-3.32E-09±1.69E-09	U			3.01E-09	µCi/mL	GP	EPA8013
0 Radium-228	1.07E-09±2.12E-09	U			4.25E-09	µCi/mL	GP	EPA8013
0 Radium-228	-1.49E-09±2.12E-09	U			3.64E-09	µCi/mL	GP	EPA8013
0 Radium-228	3.13E-10±5.47E-10	U			1.12E-09	µCi/mL	GP	EPA8013
0 Radium-228	3.35E-10±5.49E-10	U			1.12E-09	µCi/mL	GP	EPA8013
0 Radium-228	9.35E-09±1.73E-09	U			2.37E-09	µCi/mL	GP	EPA8013
0 Radium-228	1.65E-09±1.73E-09	U			2.96E-09	µCi/mL	GP	EPA8013
0 Radium-228	1.62E-10±3.81E-10	U			3.35E-10	µCi/mL	GP	EPA8012
0 Radium-228	8.42E-10±3.81E-10	U			1.07E-10	µCi/mL	GP	EPA8012
0 Radium-228	1.68E-11±5.40E-11	U			1.31E-10	µCi/mL	GP	EPA8012
0 Radium-228	5.87E-09±1.41E-09	U			6.06E-07	µCi/mL	GP	EPA8012
0 Radium-228	2.00E-11±4.01E-11	U			1.56E-10	µCi/mL	GP	EPA8011
0 Radium-228	3.98E-11±5.67E-11	U			8.42E-11	µCi/mL	GP	EPA8011
0 Radium-228	-2.03E-09±2.40E-09	U			1.02E-10	µCi/mL	GP	EPA8011
0 Radium-228	-1.84E-10±1.86E-09	U			3.80E-09	µCi/mL	GP	EPA8013
0 Radium-228	1.28E-09±5.23E-09	U			3.62E-09	µCi/mL	GP	EPA8013
0 Radium-228	-3.18E-10±4.95E-09	U			8.41E-09	µCi/mL	GP	EPA8013

## WELL FSB112A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/11/99  
 Depth to water: 75.52 ft (23.02 m) below TOC  
 Water elevation: 153.58 ft (46.81 m) msl  
 pH: 6.4  
 Sp. conductance: 150 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 240 gal

## ANALYSES

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Aluminum, total recoverable	12.7	J			15.0	µg/L	GE	EPA8020
0 Arsenic, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8020
0 Barium, total recoverable	38.3	U			3.00	µg/L	GE	EPA8020
0 Benzene	<10.3	JU			1.00	µg/L	GE	EPA8020
0 Bis(2-ethylhexyl) phthalate	<10.3	JU			1.00	µg/L	GE	EPA8270C
0 Bromodichloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Bromoform	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Bromomethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Cadmium, total recoverable	<1.00	JU			1.00	µg/L	GE	EPA8020
0 Carbon tetrachloride	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chlorobenzene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chloroethers (Vinyl chloride)	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 2-Chloroethyl Vinyl ether	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chloroform	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Chloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Cobalt, total recoverable	<0.0880	JU			3.00	µg/L	GE	EPA8020
0 Copper, total recoverable	0.676	J			1.00	µg/L	GE	EPA8020
0 Cyanide	<10.0	JU			10.0	µg/L	GE	EPA8012A
0 Dibromodichloromethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,2-Dichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1-Dichloroethylene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 trans-1,2-Dichloroethylene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Dichloromethane	<10.7	JU			5.00	µg/L	GE	EPA8260B
0 1,2-Dichloropropane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 cis-1,3-Dichloropropene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Ethylbenzene	<1.00	JU			1.00	µg/L	GE	EPA8260B
1 Iron, total recoverable	187	JU			15.0	µg/L	GE	EPA8020

## ESH-EMS-990520

Well FSB112A collected on 01/11/99 (cont.)

F Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0 Lead, total recoverable	<2.00	U			2.00	µg/L	GE	EPA8020
0 Mercury, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8020
0 Nickel, total recoverable	0.874	J			2.00	µg/L	GE	EPA8020
0 Nitrate-nitrite as nitrogen	1.690	U			50.0	µg/L	GE	EPA353.1
0 Nitrate-nitrite as nitrogen	6.84	U			50.0	µg/L	GE	EPA353.1
0 pH	<5.00	J			5.00	pH	GE	EPA9040B
0 Phenols	<5.00	U			5.00	µg/L	GE	EPA9066
0 Selenium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8020
0 Silver, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8020
0 Specific conductance	174	U			1.00	µS/cm	GE	EPA9050A
0 1,1,2,2-Tetrachloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Tetrachloroethylene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Thallium, total recoverable	<0.0370	JU			2.50	µg/L	GE	EPA8020
0 Toluene	<0.567	JU			1.00	µg/L	GE	EPA8020
0 1,1,1-Trichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 1,1,2-Trichloroethane	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Trichloroethene	<1.00	JU			1.00	µg/L	GE	EPA8260B
0 Vanadium, total recoverable	<5.00	JU			5.00	µg/L	GE	EPA8020
0 Zinc, total recoverable	<10.0	U			10.0	µg/L	GE	EPA8020
0 Actinium-228	5.40E-09±8.88E-09	U			1.39E-08	µCi/mL	GP	EPA8011
0 Americium-241	-3.59E-11±8.96E-11	U			2.35E-10	µCi/mL	GP	EPA8011
0 Antimony-125	-2.37E-09±5.17E-09	U			9.05E-09	µCi/mL	GP	EPA8011
0 Carbon-14	-1.30E-09±4.43E-09	U			7.70E-09	µCi/mL	GP	EPA8011
0 Cerium-144	2.87E-09±1.30E-09	U			2.30E-08	µCi/mL	GP	EPA8011
0 Cesium-134	3.75E-10±2.24E-09	U			3.56E-09	µCi/mL	GP	EPA8011
0 Cesium-137	2.42E-09±2.24E-09	U			3.92E-09	µCi/mL	GP	EPA8011
0 Cobalt-57	3.08E-10±1.87E-09	U			2.98E-09	µCi/mL	GP	EPA8011
0 Cobalt-60	1.32E-09±2.00E-09	U			4.07E-08	µCi/mL	GP	EPA8011
0 Curium-242	-1.08E-11±2.16E-11	U			1.55E-10	µCi/mL	GP	EPA8011
0 Curium-243/244	-2.02E-11±2.88E-11	U			1.75E-10	µCi/mL	GP	EPA8011
0 Curium-243/244	<0.00E+00	U			1.72E-11	µCi/mL	GP	EPA8011
0 Europium-152	-2.81E-09±6.03E-09	U			1.06E-08	µCi/mL	GP	EPA8011
0 Europium-155	1.07E-09±2.28E-09	U			1.30E-08	µCi/mL	GP	EPA8011
0 Gross alpha	4.24E-10±3.98E-10	U			6.53E-10	µCi/mL	GP	EPA8011
0 Iodine-129	6.87E-10±2.08E-10	U			1.04E-09	µCi/mL	GP	EPA8011
0 Lead-212	1.78E-09±5.14E-09	U			5.37E-09	µCi/mL	GP	EPA8011
0 Manganese-54	3.10E-11±2.17E-09	U			3.38E-09	µCi/mL	GP	EPA8011
0 Nonradioactive beta	8.28E-09±1.08E-09	U			1.38E-09	µCi/mL	GP	EPA8011
0 Plutonium-238	5.38E-11±7.67E-11	U			8.07E-11	µCi/mL	GP	EPA8011
0 Plutonium-239/240	<0.00E+00	U			8.06E-11	µCi/mL	GP	EPA8011
0 Potassium-40	2.31E-08±2.48E-08	U			4.97E-08	µCi/mL	GP	EPA8011
0 Promethium-144	3.35E-10±1.81E-09	U			3.30E-09	µCi/mL	GP	EPA8011
0 Promethium-146	-8.83E-10±2.55E-09	U			4.47E-09	µCi/mL	GP	EPA8011
0 Radium-226	4.66E-10±3.68E-10	U			4.81E-10	µCi/mL	GP	EPA8011
0 Radium-228	-2.82E-11±5.54E-10	U			1.19E-09	µCi/mL	GP	EPA8011
0 Radium-228	-2.40E-09±1.77E-08	U			3.13E-08	µCi/mL	GP	EPA8011
0 Radium-228	1.00E-09±2.15E-09	U			3.70E-08	µCi/mL	GP	EPA8011
0 Radium-228	2.72E-09±7.38E-10	U			1.15E-09	µCi/mL	GP	EPA8011
0 Radium-228	1.10E-09±7.69E-09	U			1.85E-08	µCi/mL	GP	EPA8011
0 Radium-228	7.47E-10±3.47E-11	U			1.04E-10	µCi/mL	GP	EPA8011
0 Radium-228	2.28E-11±2.68E-11	U			2.58E-11	µCi/mL	GP	EPA8011
0 Radium-228	4.20E-09±1.22E-08	U			5.98E-07	µCi/mL	GP	EPA8011
0 Radium-228	4.34E-11±6.16E-11	U			6.51E-11	µCi/mL	GP	EPA8011
0 Radium-228	<0.00E+00	U			6.53E-11	µCi/mL	GP	EPA8011
0 Radium-228	2.15E-11±6.88E-11	U			1.67E-10	µCi/mL	GP	EPA8011
0 Radium-228	1.09E-09±2.10E-09	U			4.49E-09	µCi/mL	GP	EPA8011
0 Radium-228	-1.28E-09±4.81E-09	U			8.51E-09	µCi/mL	GP	EPA8011

## WELL FSB112C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/13/99  
 Depth to water: 27.35 ft (8.34 m) below TOC  
 Water elevation: 201.75 ft (61.49 m) msl  
 pH: 4.1  
 Sp. conductance: 2,000 µS/cm  
 Turbidity: 7 NTU  
 Water evacuated from the well prior to sampling: 109 gal

Time: 13:02  
 Water temperature: 19.6°C  
 Air temperature: 21.8°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S



## ANALYTICAL RESULTS

Well FSB112C collected on 01/13/99 (cont.)

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	28.100	J		CI	300	µg/L	GE	EPA8200
0 Antimony, total recoverable	<60.0	U			0.200	µg/L	GE	EPA8200
0 Arsenic, total recoverable	793	U			60.0	µg/L	GE	EPA8200
0 Benzene	<1.00	J	L	O	2.00	µg/L	GE	EPA8200
0 Bis(2-ethylhexyl) phthalate	<10.0	J	L	O	10.0	µg/L	GE	EPA8200
0 Bromodichloromethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Bromoform	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Bromomethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
2 Cadmium, total recoverable	48.2	J	L	O	1.00	µg/L	GE	EPA8200
0 Carbon tetrachloride	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Chlorobenzene	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Chloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Chloroethane (Vinyl chloride)	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 2-Chloroethyl vinyl ether	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Chloroform	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Chromium	0.914	J	L	O	3.00	µg/L	GE	EPA8200
2 Cobalt, total recoverable	295	J	L	O	0.200	µg/L	GE	EPA8200
0 Copper, total recoverable	24.8	J	L	O	1.00	µg/L	GE	EPA8200
0 Cyanide	<10.0	J	L	O	10.0	µg/L	GE	EPA8200
0 Dibromochloromethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 1,1-Dichloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 1,2-Dichloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 trans-1,2-Dichloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Dichloromethane	1.43	J	L	O	5.00	µg/L	GE	EPA8200
0 1,2-Dichloropropane	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 cis-1,3-Dichloropropene	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 trans-1,3-Dichloropropene	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Ethylbenzene	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
1 Iron, total recoverable	283	J	L	O	15.0	µg/L	GE	EPA8200
0 Lead, total recoverable	<40.0	J	L	O	40.0	µg/L	GE	EPA8200
0 Manganese	0.431	J	L	O	2.00	µg/L	GE	EPA8200
1 Nickel, total recoverable	95.0	J	L	O	2.00	µg/L	GE	EPA8200
2 Nitrate-nitrite as nitrogen	235.000	J	L	O	5.000	µg/L	GE	EPA8200
0 pH	4.36	J	L	O	1.00	pH	GE	EPA8200
0 Selenium, total recoverable	<5.00	J	L	O	5.00	µg/L	GE	EPA8200
0 Silver, total recoverable	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
2 Specific conductance	2,070	J	L	O	1.00	µS/cm	GE	EPA8200
2 Specific conductance	2,060	J	L	O	1.00	µS/cm	GE	EPA8200
0 1,1,2,2-Tetrachloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Tetrachloroethylene	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
2 Thallium, total recoverable	24.4	J	L	O	50.0	µg/L	GE	EPA8200
0 Toluene	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 1,1,1-Trichloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 1,1,2-Trichloroethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Trichloroethylene	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Trichloromethane	<1.00	J	L	O	1.00	µg/L	GE	EPA8200
0 Vanadium, total recoverable	<3.00	J	L	O	3.00	µg/L	GE	EPA8200
0 Zinc, total recoverable	793	J	L	O	10.0	µg/L	GE	EPA8200

## WELL FSB112C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/20/99  
 Depth to water: 24.05 ft (7.33 m) below TOC  
 Water elevation: 20.55 ft (62.65 m) msl  
 pH: 3.3  
 Sp. conductance: 140 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 47 gal

Time: 9:42  
 Water temperature: 18.6°C  
 Air temperature: 5.6°C  
 Total alkalinity (as CaCO<sub>3</sub>): 0 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

## ANALYSES

F Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
2 Aluminum, total recoverable	4.450	U			15.0	µg/L	GE	EPA8200
0 Antimony, total recoverable	<0.200	U			0.200	µg/L	GE	EPA8200
0 Arsenic, total recoverable	<3.00	U			3.00	µg/L	GE	EPA8200
0 Barium, total recoverable	178	U			2.00	µg/L	GE	EPA8200
0 Benzene	<1.00	U			1.00	µg/L	GE	EPA8200
0 Bis(2-ethylhexyl) phthalate	<10.1	U			10.1	µg/L	GE	EPA8200
0 Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Bromoform	<1.00	U			1.00	µg/L	GE	EPA8200
0 Bromomethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Cadmium, total recoverable	1.84	U			1.00	µg/L	GE	EPA8200
0 Carbon tetrachloride	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chloroethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chloroethane (Vinyl chloride)	<1.00	U			1.00	µg/L	GE	EPA8200
0 2-Chloroethyl vinyl ether	<5.00	U			5.00	µg/L	GE	EPA8200
0 Chloroform	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chloromethane	<1.00	U			1.00	µg/L	GE	EPA8200
0 Chromium, total recoverable	0.987	J			3.00	µg/L	GE	EPA8200
0 Cobalt, total recoverable	84.5	J			0.200	µg/L	GE	EPA8200
0 Copper, total recoverable	<10.0	J			10.0	µg/L	GE	EPA8200
0 Cyanide	<1.00	J			1.00	µg/L	GE	EPA8200
0 Dibromochloromethane	<1.00	J			1.00	µg/L	GE	EPA8200
0 1,1-Dichloroethane	<1.00	J			1.00	µg/L	GE	EPA8200
0 1,2-Dichloroethane	<1.00	J			1.00	µg/L	GE	EPA8200
0 trans-1,2-Dichloroethane	<1.00	J			1.00	µg/L	GE	EPA8200
0 Dichloromethane	<1.30	J			5.00	µg/L	GE	EPA8200
0 cis-1,3-Dichloropropene	<1.00	J			1.00	µg/L	GE	EPA8200
0 trans-1,3-Dichloropropene	<1.00	J			1.00	µg/L	GE	EPA8200
0 Ethylbenzene	<1.00	J			1.00	µg/L	GE	EPA8200
0 Iron, total recoverable	52.1	J			15.0	µg/L	GE	EPA8200
0 Lead, total recoverable	2.17	J			0.200	µg/L	GE	EPA8200
0 Mercury, total recoverable	4.91	J			2.00	µg/L	GE	EPA8200
0 Nickel, total recoverable	3,150	J			1.250	µg/L	GE	EPA8200
2 Nitrate-nitrite as nitrogen	2.83	J			5.00	µg/L	GE	EPA8200
0 Phosphorus	<5.00	J			5.00	µg/L	GE	EPA8200
0 Selenium, total recoverable	<0.423	J			1.00	µg/L	GE	EPA8200
0 Silver, total recoverable	164	J			1.00	µS/cm	GE	EPA8200

ESH-EMS-990520

B-156

First Quarter 1999



## ANALYTICAL RESULTS

Well FSB112D collected on 01/20/99 (cont.)

F	Analyte	Result	FG	S	EWS	SQL	Unit	Lab	Method
	0, 1,1,2,2-Tetrachloroethane	<1.00	U		1.00		µg/L	GE	EPAS260B
	Trichloroethylene	<1.00	U		1.00		µg/L	GP	EPAS260B
	Thallium, total recoverable	<0.231	U	V	2.50		µg/L	GE	EPAS620
	Toluene	<1.00	U		1.00		µg/L	GE	EPAS260B
	0, 1,1,1-Trichloroethane	<1.00	U		1.00		µg/L	GE	EPAS260B
	Trichloroethylene	<1.00	U		1.00		µg/L	GE	EPAS260B
	Trichlorofluoromethane	<5.00	U		5.00		µg/L	GE	EPAS260B
	Vanadium, total recoverable	<10.0	U		10.0		µg/L	GE	EPAS620
	Zinc, total recoverable	38.5	R				µg/L	GE	EPAS620
	Arsenic-228	1.53E+08±9.53E+09	U				µCi/mL	GP	EPAS1013
	Actinium-241	6.33E+11±1.17E+11	R	4			µCi/mL	GP	EPAS1011
	Antimony-125	2.68E+09±1.33E+09	U				µCi/mL	GP	EPAS1013
	Carbon-14	6.12E+09±3.11E+08	U				µCi/mL	GP	EPAS1013
	Cerium-134	2.36E+09±1.56E+09	U				µCi/mL	GP	EPAS1013
	Cesium-137	9.13E+09±3.92E+09	U	I			µCi/mL	GP	EPAS1013
	Cobalt-57	6.42E+10±1.32E+09	U				µCi/mL	GP	EPAS1013
	Cobalt-60	1.42E+09±1.79E+09	U				µCi/mL	GP	EPAS1013
	Curium-242	3.48E+11±7.00E+11	U				µCi/mL	GP	EPAS1013
	Curium-243/244	3.66E+10±4.72E+10	U				µCi/mL	GP	EPAS1013
	Curium-245/246	2.00E+00	U				µCi/mL	GP	EPAS1011
	Europium-152	5.36E+10±4.63E+09	U				µCi/mL	GP	EPAS1011
	Europium-154	8.33E+10±5.29E+09	U				µCi/mL	GP	EPAS1011
	Europium-155	3.18E+08±2.57E+08	U				µCi/mL	GP	EPAS1013
	Gross alpha	7.89E+09±1.68E+09	J	K			µCi/mL	GP	EPAS1001
	Lead-210	1.15E+09±3.65E+08	R				µCi/mL	GP	EPAS1013
	Lead-212	3.23E+07±5.80E+09	R				µCi/mL	GP	EPAS1013
	Manganese-54	7.31E+12±3.77E+11	U				µCi/mL	GP	EPAS1011
	Nonradioactive	1.42E+13±3.48E+11	U				µCi/mL	GP	EPAS1011
	Plutonium-238	4.27E+09±3.98E+08	U				µCi/mL	GP	EPAS1013
	Plutonium-239/240	5.05E+10±1.54E+09	U	I			µCi/mL	GP	EPAS1013
	Potassium-40	1.33E+10±2.31E+09	U				µCi/mL	GP	EPAS1013
	Promethium-146	2.00E+08±2.30E+09	U				µCi/mL	GP	EPAS1008
	Radium-226	3.00E+09±6.76E+10	U				µCi/mL	GP	EPAS1008
	Radium-228	3.85E+10±1.65E+08	U				µCi/mL	GP	EPAS1013
	Ruthenium-106	1.79E+10±1.65E+09	U				µCi/mL	GP	EPAS1013
	Sodium-22	1.34E+07±8.47E+09	U				µCi/mL	GP	EPAS1013
	Strontium-90	4.82E+09±9.75E+09	U				µCi/mL	GP	EPAS1013
	Techetium-99	4.44E+11±1.49E+10	U				µCi/mL	GP	EPAS1004
	Thorium-228	5.79E+11±9.10E+11	U				µCi/mL	GP	EPAS1005
	Thorium-230	6.09E+12±1.22E+11	U				µCi/mL	GP	EPAS1012
	Thorium-232	1.41E+04±2.18E+06	U				µCi/mL	GP	EPAS1002
	Tellurium	2.27E+09±3.55E+10	U				µCi/mL	GP	EPAS1011
	Uranium-233/234	8.94E+11±1.24E+10	U				µCi/mL	GP	EPAS1011
	Uranium-235	2.61E+11±7.06E+11	U				µCi/mL	GP	EPAS1011
	Uranium-236	1.85E+09±5.52E+10	U				µCi/mL	GP	EPAS1011
	Uranium-238	1.40E+09±4.72E+10	U				µCi/mL	GP	EPAS1013
	Yttrium-88	-8.51E+10±1.86E+09	U				µCi/mL	GP	EPAS1013
	Zinc-65	-6.85E+11±4.21E+09	U				µCi/mL	GP	EPAS1013

Time: 11:27  
Water temperature: 18.0°C  
Air temperature: 14.2°C  
Total alkalinity (as CaCO<sub>3</sub>): 438 mg/L  
Phenolphthalein alkalinity: 423 mg/L  
Field Qualifier(s): SX

**Turbidity: 0.4 NTU**  
Water evacuated from the well prior to sampling: 45 gal  
The well went dry during purging.

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
2	Aluminum, total	1,580	JU			15.0	µg/L	GE	EP A6020
0	Antimony, total	<0.158			4	0.892		GE	EP A6020
0	Arsenic, total	<3.00	JU			3.00	µg/L	GE	EP A6020
0	Barium, total	373				2.00	µg/L	GE	EP A6020
0	Benzene/heavy	<1.00	U			1.00	µg/L	GE	EP A8260B
0	Benzene/light	<1.00	U			1.00	µg/L	GE	EP A8270C
0	Bromochloromethane	<1.00	U			1.00	µg/L	GE	EP A8270C
0	Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EP A8270C

**ESH-EMS-990520**

Well FSB113A collected on 01/07/99 (cont.)

F	Analysts	Result	FG	S	EMS	SQL	Unit	Lab	Method
	Bromodrom	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Bromomethane	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Cadmium, total recoverable	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Carbon tetrachloride	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Chlorobenzene	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Chloroethane	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Chloroethane (Vinyl chloride)	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	2-Chloroethyl vinyl ether	<5.00			5.00	5.00	µg/L	GE	EPAS260B
	Chloroform	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Chloromethane	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Chromium, total recoverable	4.51			3.00	3.00	µg/L	GE	EPAS260B
	Cobalt, total recoverable	2.22			0.200	0.200	µg/L	GE	EPAS260B
	Copper, total recoverable	2.22			1.00	1.00	µg/L	GE	EPAS260B
	Dibenzylideneacetone	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Dibenzylideneacetone	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	1,1-Dichloroethane	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	1,2-Dichloroethane	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	trans-1,2-Dichloroethylene	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	trans-1,2-Dichloroethylene	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Dichloromethane	<5.00			5.00	5.00	µg/L	GE	EPAS260B
	1,2-Dichloropropane	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	cis-1,3-Dichloropropene	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	trans-1,3-Dichloropropene	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Ethylbenzene	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Iron, total recoverable	3.670			15.0	15.0	µg/L	GE	EPAS260B
	Lead, total recoverable	2.55			2.00	2.00	µg/L	GE	EPAS260B
	Mercury, total recoverable	17.0			2.00	2.00	µg/L	GE	EPAS260B
	Nickel, total recoverable	8.900			0.300	0.300	µg/L	GE	EPAS260B
	Nitrate-nitrite as nitrogen	2.00			0.000	0.000	µg/L	GE	EPAS260B
	pH	<5.00			5.00	5.00	µg/L	GE	EPAS260B
	Phenols	<5.00			5.00	5.00	µg/L	GE	EPAS260B
	Silica, total recoverable	<5.00			5.00	5.00	µg/L	GE	EPAS260B
	Sulfur, total recoverable	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Specific conductance	2.150			1.00	1.00	µS/cm	GE	EPAS260B
	1,1,2-Tetrachloroethane	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Tetrachloroethylene	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Thallium, total recoverable	<2.50			2.50	2.50	µg/L	GE	EPAS260B
	Toluene	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	1,1,1-Trichloroethane	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	1,1,2-Trichloroethane	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Trichloroethylene	<1.00			1.00	1.00	µg/L	GE	EPAS260B
	Trichlorofluoromethane	<5.00			5.00	5.00	µg/L	GE	EPAS260B
	Vanadium, total recoverable	<3.75			4.08	4.08	µg/L	GE	EPAS260B
	Zinc, total recoverable	29.0			10.0	10.0	µg/L	GE	EPAS260B
	Americium-228	8.79E-09±1.38E-08			1.16E-08	1.16E-08	µCi/mL	GP	EPA-013
	Antimony-125	4.98E-12±1.00E-11			4.27E-11	4.27E-11	µCi/mL	GP	EPA-011
	Carbon-14	5.13E-10±4.35E-09			7.46E-09	7.46E-09	µCi/mL	GP	EPA-013
	Cesium-134	3.94E-09±4.47E-09			1.51E-08	1.51E-08	µCi/mL	GP	EPA-013
	Cesium-137	9.46E-04±1.03E-03			2.83E-08	2.83E-08	µCi/mL	GP	EPA-013
	Cesium-137	1.29E-09±3.19E-09			5.33E-09	5.33E-09	µCi/mL	GP	EPA-013
	Cobalt-60	6.68E-10±1.56E-09			2.53E-09	2.53E-09	µCi/mL	GP	EPA-013
	Cobalt-60	6.32E-10±1.40E-09			2.75E-09	2.75E-09	µCi/mL	GP	EPA-013
	Cobalt-60	<0.00E+00			4.61E-11	4.61E-11	µCi/mL	GP	EPA-011
	Curium-242	-1.42E-13±3.50E-11			1.08E-10	1.08E-10	µCi/mL	GP	EPA-011
	Curium-243/244	<0.00E+00			4.27E-11	4.27E-11	µCi/mL	GP	EPA-011
	Curium-245/246	-4.42E-10±4.65E-09			7.92E-09	7.92E-09	µCi/mL	GP	EPA-013
	Europium-152	-2.04E-09±3.54E-09			5.78E-09	5.78E-09	µCi/mL	GP	EPA-013
	Europium-154	4.15E-09±6.63E-09			1.10E-08	1.10E-08	µCi/mL	GP	EPA-013
	Europium-155	5.37E-09±8.63E-10			8.10E-10	8.10E-10	µCi/mL	GP	EPA-001
	Gross alpha	9.51E-11±0.61E-10			1.23E-09	1.23E-09	µCi/mL	GP	EPA-006
	Iodine-129	4.69E-09±2.97E-09			5.33E-09	5.33E-09	µCi/mL	GP	EPA-013
	Lead-212	-5.66E-10±1.43E-09			2.46E-09	2.46E-09	µCi/mL	GP	EPA-013
	Manganese-54	7.08E-09±8.78E-10			1.16E-09	1.16E-09	µCi/mL	GP	EPA-001
	Nonvolatile beta	1.27E-11±4.92E-11			1.02E-10	1.02E-10	µCi/mL	GP	EPA-011
	Plutonium-238	8.44E-04±3.47E-11			9.32E-11	9.32E-11	µCi/mL	GP	EPA-011
	Plutonium-239/240	2.14E-08±2.17E-09			3.24E-08	3.24E-08	µCi/mL	GP	EPA-013
	Potassium-40	1.04E-03±1.99E-09			2.49E-08	2.49E-08	µCi/mL	GP	EPA-013
	Promethium-144	7.79E-11±1.99E-09			4.44E-10	4.44E-10	µCi/mL	GP	EPA-008
	Promethium-148	2.63E-09±7.19E-10			7.39E-09	7.39E-09	µCi/mL	GP	EPA-008
	Radium-226	7.79E-10±3.87E-10			2.32E-08	2.32E-08	µCi/mL	GP	EPA-013
	Radium-228	-2.09E-09±1.30E-08			3.39E-08	3.39E-08	µCi/mL	GP	EPA-009
	Ruthenium-106	-7.28E-10±1.26E-09			1.01E-08	1.01E-08	µCi/mL	GP	EPA-013
	Sodium-22	2.69E-11±4.56E-10			1.91E-08	1.91E-08	µCi/mL	GP	EPA-004
	Srntium-90	1.03E-08±8.91E-09			2.82E-10	2.82E-10	µCi/mL	GP	EPA-005
	Technetium-99	9.77E-11±1.47E-10			1.06E-10	1.06E-10	µCi/mL	GP	EPA-012
	Thorium-228	8.40E-11±7.78E-11			1.06E-10	1.06E-10	µCi/mL	GP	EPA-012
	Thorium-230	-7.08E-12±1.42E-11			8.84E-11	8.84E-11	µCi/mL	GP	EPA-012

**8-157**

**First Quarter 1999**







Well FSB113D collected on 01/07/99 (cont.)

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	1,2-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Dichloromethane	<11.7	U			5.00	µg/L	GE	EPA8260B
0	1,2-Dichloropropane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Iron, total recoverable	<86.2	U			1.00	µg/L	GE	EPA8260B
0	Lead, total recoverable	<0.20	U			1.00	µg/L	GE	EPA8260B
0	Mercury, total recoverable	<0.20	U			1.00	µg/L	GE	EPA8260B
0	Nickel, total recoverable	<10.0	U			1.00	µg/L	GE	EPA8260B
0	Nitrate-nitrite as nitrogen	630	U			2.00	µg/L	GE	EPA8260B
0	Phenols	4.97	U			50.0	µg/L	GE	EPA8260B
0	Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Silver, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Specific conductance	<1.00	U			1.00	µS/cm	GE	EPA8260B
0	1,1,2,2-Tetrachloroethane	25.6	U			1.00	µg/L	GE	EPA8260B
0	Trichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Tetrachloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Thallium, total recoverable	<2.50	U			2.50	µg/L	GE	EPA8260B
0	Toluene	0.599	U			1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Trichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Trichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<10.0	U			1.00	µg/L	GE	EPA8260B
0	Zinc, total recoverable	<10.0	U			1.00	µg/L	GE	EPA8260B
0	Actinium-228	1.09E-09±0.19E-09	U			1.77E-08	µCi/mL	GE	EPA8260B
0	Actinium-231	1.89E-11±0.88E-11	U			4.22E-11	µCi/mL	GE	EPA8260B
0	Antimony-125	3.94E-11±0.80E-11	U			1.16E-08	µCi/mL	GE	EPA8260B
0	Antimony-125	6.19E-09±0.47E-09	U			7.39E-09	µCi/mL	GE	EPA8260B
0	Cerium-144	3.91E-09±1.88E-09	U			2.94E-08	µCi/mL	GE	EPA8260B
0	Cesium-134	4.43E-10±2.30E-10	U			3.56E-09	µCi/mL	GE	EPA8260B
0	Cesium-137	5.66E-11±2.66E-11	U			4.23E-09	µCi/mL	GE	EPA8260B
0	Cobalt-57	5.40E-10±2.14E-10	U			3.68E-09	µCi/mL	GE	EPA8260B
0	Cobalt-60	1.33E-09±2.05E-09	U			3.53E-09	µCi/mL	GE	EPA8260B
0	Curium-242	7.66E-12±1.53E-11	U			9.56E-11	µCi/mL	GE	EPA8260B
0	Curium-243/244	4.22E-11±4.90E-11	U			4.22E-11	µCi/mL	GE	EPA8260B
0	Curium-245/246	1.40E-11±2.81E-11	U			1.22E-08	µCi/mL	GE	EPA8260B
0	Europium-152	3.87E-10±7.21E-10	U			1.01E-08	µCi/mL	GE	EPA8260B
0	Europium-154	3.44E-09±5.81E-09	U			1.52E-08	µCi/mL	GE	EPA8260B
0	Europium-155	4.41E-09±8.90E-09	U			5.75E-10	µCi/mL	GE	EPA8260B
0	Gross alpha	7.97E-10±4.48E-10	U			1.26E-09	µCi/mL	GE	EPA8260B
0	Iodine-129	8.87E-11±5.07E-11	U			2.53E-09	µCi/mL	GE	EPA8260B
0	Lead-212	3.28E-09±4.29E-09	U			1.39E-09	µCi/mL	GE	EPA8260B
0	Manganese-54	1.18E-09±2.16E-09	U			1.39E-09	µCi/mL	GE	EPA8260B
0	Nonvolatile beta	9.48E-10±5.75E-10	U			1.39E-09	µCi/mL	GE	EPA8260B
0	Plutonium-238/240	4.53E-12±3.10E-11	U			8.14E-11	µCi/mL	GE	EPA8260B
0	Promethium-144	1.36E-09±2.04E-09	U			5.30E-08	µCi/mL	GE	EPA8260B
0	Promethium-146	1.25E-10±3.10E-10	U			3.43E-09	µCi/mL	GE	EPA8260B
0	Radium-226	7.61E-10±3.82E-10	U			5.60E-09	µCi/mL	GE	EPA8260B
0	Radium-228	4.20E-10±2.88E-10	U			1.21E-10	µCi/mL	GE	EPA8260B
0	Ruthenium-106	6.17E-09±1.85E-08	U			5.02E-10	µCi/mL	GE	EPA8260B
0	Sodium-22	1.23E-09±2.07E-09	U			3.47E-08	µCi/mL	GE	EPA8260B
0	Strontium-90	9.68E-10±5.33E-10	U			3.61E-09	µCi/mL	GE	EPA8260B
0	Technetium-99	4.42E-09±9.09E-09	U			1.01E-09	µCi/mL	GE	EPA8260B
0	Thorium-228	1.73E-10±1.55E-10	U			2.12E-08	µCi/mL	GE	EPA8260B
0	Thorium-230	8.07E-12±4.16E-11	U			1.37E-10	µCi/mL	GE	EPA8260B
0	Thorium-232	3.12E-11±5.89E-11	U			1.20E-10	µCi/mL	GE	EPA8260B
0	Tritium	5.87E-06±5.53E-07	U			6.06E-07	µCi/mL	GE	EPA8260B
0	Uranium-233/234	1.51E-11±5.18E-11	U			1.48E-10	µCi/mL	GE	EPA8260B
0	Uranium-235	7.50E-12±3.14E-11	U			1.35E-10	µCi/mL	GE	EPA8260B
0	Uranium-238	9.14E-12±4.10E-11	U			1.34E-10	µCi/mL	GE	EPA8260B
0	Titanium-86	7.83E-10±6.68E-09	U			7.82E-09	µCi/mL	GE	EPA8260B
0	Zinc-65		U					GE	EPA8260B

## WELL FSB114A

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 96.26 ft (29.34 m) below TOC  
 Water temperature: 21°C  
 Air temperature: 16.8°C  
 Total alkalinity (as CaCO<sub>3</sub>): 3 mg/L  
 Phenolphthalein alkalinity: 0 mg/L  
 Field Qualifier(s): S

Sp. conductance: 200 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 109 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SOL	Unit	Lab	Method
0	Aluminum, total recoverable	19.8	U			15.0	µg/L	GE	EPA8260B
0	Antimony, total recoverable	<0.20	U			0.200	µg/L	GE	EPA8260B
0	Asenic, total recoverable	<0.20	U			0.200	µg/L	GE	EPA8260B
0	Bismuth, total recoverable	3.8	U			1.00	µg/L	GE	EPA8260B
0	Benzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Bis(2-ethylhexyl) phthalate	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Bromochloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Bromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Bromomethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Cadmium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Carbon tetrachloride	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Chlorobenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Chloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Chloroethane (Vinyl chloride)	<1.00	U			1.00	µg/L	GE	EPA8260B
0	2-Chloroethyl vinyl ether	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Chloroform	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Chloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Chromium, total recoverable	1.41	U			3.00	µg/L	GE	EPA8260B
0	Cobalt, total recoverable	0.186	U			0.200	µg/L	GE	EPA8260B
0	Copper, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Dibromochloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Dibromodichloromethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,2-Dichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	trans-1,2-Dichloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,2-Dichloropropane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	cis-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	trans-1,3-Dichloropropene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Ethylbenzene	<1.00	U			1.00	µg/L	GE	EPA8260B
2	Iron, total recoverable	685	U			15.0	µg/L	GE	EPA8260B
0	Lead, total recoverable	<0.20	U			0.200	µg/L	GE	EPA8260B
0	Mercury, total recoverable	<0.20	U			0.200	µg/L	GE	EPA8260B
0	Nickel, total recoverable	3.39	U			50.0	µg/L	GE	EPA8260B
0	Nitrate-nitrite as nitrogen	1.860	U			0.100	pH	GE	EPA8260B
0	pH	7.57	U			0.100	pH	GE	EPA8260B
0	Phenols	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Selenium, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Silver, total recoverable	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Stannous chloride	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,2,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Tetrachloroethene	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Thallium, total recoverable	<0.20	U			0.200	µg/L	GE	EPA8260B
0	Toluene	0.545	U			1.00	µg/L	GE	EPA8260B
0	1,1,1-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	1,1,2-Trichloroethane	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Trichloroethene	1.62	U			1.00	µg/L	GE	EPA8260B
0	Trichlorofluoromethane	<5.00	U			5.00	µg/L	GE	EPA8260B
0	Vanadium, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Zinc, total recoverable	<1.00	U			1.00	µg/L	GE	EPA8260B
0	Actinium-228	5.63E-10±5.3E-09	U			1.51E-08	µCi/mL	GE	EPA8260B
0	Actinium-231	1.22E-11±1.74E-11	U			3.22E-11	µCi/mL	GE	EPA8260B
0	Antimony-125	8.69E-10±5.29E-09	U			9.71E-09	µCi/mL	GE	EPA8260B
0	Antimony-125	3.10E-09±4.06E-09	U			7.17E-09	µCi/mL	GE	EPA8260B
0	Cerium-144	6.09E-09±1.36E-09	U			2.42E-08	µCi/mL	GE	EPA8260B
0	Cerium-144	1.27E-09±2.37E-09	U			3.42E-09	µCi/mL	GE	EPA8260B
0	Cesium-134	4.50E-10±2.38E-09	U			4.29E-09	µCi/mL	GE	EPA8260B
0	Cesium-137	7.85E-10±1.64E-09	U			2.95E-09	µCi/mL	GE	EPA8260B
0	Cobalt-57	1.31E-09±2.11E-09	U			4.23E-09	µCi/mL	GE	EPA8260B
0	Cobalt-60	<0.55E-10	U			3.47E-11	µCi/mL	GE	EPA8260B
0	Curium-242	8.55E-12±2.85E-11	U			9.72E-11	µCi/mL	GE	EPA8260B
0	Curium-243/244	2.87E-09±5.85E-09	U			1.03E-08	µCi/mL	GE	EPA8260B
0	Curium-245/246	1.74E-09±2.02E-09	U			1.17E-08	µCi/mL	GE	EPA8260B
0	Europium-152		U					GE	EPA8260B
0	Europium-154		U					GE	EPA8260B



## ANALYTICAL RESULTS

Well FSB114A collected on 01/07/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Europlum-155	1.61E-10±0.01E-09	U			1.25E-08	µCi/mL	GP	EPIA-013
0	Gross alpha	2.30E-10±0.31E-10	U			9.18E-09	µCi/mL	GP	EPIA-001
0	Iodine-129	2.73E-10±0.77E-10	U			1.22E-09	µCi/mL	GP	EPIA-006
0	Lead-212	2.80E-09±0.89E-09	U			5.63E-09	µCi/mL	GP	EPIA-013
0	Manganese-54	7.56E-10±0.27E-09	U			3.81E-09	µCi/mL	GP	EPIA-001
0	Nonvolatile beta	5.26E-10±0.69E-10	U			1.51E-09	µCi/mL	GP	EPIA-011
0	Plutonium-238	1.94E-10±0.69E-11	R			9.14E-11	µCi/mL	GP	EPIA-011
0	Plutonium-239/240	3.50E-12±1.59E-11	U			4.46E-08	µCi/mL	GP	EPIA-013
0	Potassium-40	1.90E-08±2.20E-08	U			4.46E-08	µCi/mL	GP	EPIA-013
0	Promethium-144	4.04E-10±0.07E-09	U			3.58E-09	µCi/mL	GP	EPIA-013
0	Promethium-146	4.68E-10±0.07E-09	U			4.77E-09	µCi/mL	GP	EPIA-013
0	Radium-226	5.71E-10±0.07E-09	U			1.28E-10	µCi/mL	GP	EPIA-008
0	Radium-228	4.21E-09±1.07E-08	U			3.28E-08	µCi/mL	GP	EPIA-008
0	Sodium-22	5.20E-10±0.50E-09	U			4.18E-09	µCi/mL	GP	EPIA-013
0	Sodium-24	2.45E-10±0.07E-09	U			1.07E-08	µCi/mL	GP	EPIA-013
0	Technetium-99	2.38E-10±1.04E-09	U			2.27E-08	µCi/mL	GP	EPIA-005
0	Thorium-230	7.23E-11±0.58E-11	U			1.39E-10	µCi/mL	GP	EPIA-012
0	Thorium-232	9.15E-12±0.84E-11	U			1.14E-10	µCi/mL	GP	EPIA-012
0	Tritium	9.19E-07±0.88E-07	U			6.09E-07	µCi/mL	GP	EPIA-002
0	Uranium-233/234	3.84E-11±0.78E-11	U			1.61E-10	µCi/mL	GP	EPIA-011
0	Uranium-235	2.33E-11±0.68E-11	U			9.81E-11	µCi/mL	GP	EPIA-011
0	Uranium-238	2.33E-11±0.66E-11	U			9.78E-11	µCi/mL	GP	EPIA-011
0	Yttrium-88	6.95E-10±0.234E-09	U			4.71E-09	µCi/mL	GP	EPIA-013
0	Zinc-65	5.65E-09±0.34E-09	U			8.57E-09	µCi/mL	GP	EPIA-013

## WELL FSB114C

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 37.8 ft (11.52 m) below TOC  
 Water elevation: 214.4 ft (65.35 m) msl  
 pH: 5.6  
 Sp. conductance: 58 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 90 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Aluminum, total recoverable	11.2				15.0	µg/L	GE	EPA8200
0	Antimony, total recoverable	<0.200				0.200	µg/L	GE	EPA8200
0	Arsenic, total recoverable	8.80				3.00	µg/L	GE	EPA8200
0	Barium, total recoverable	<1.00				1.00	µg/L	GE	EPA8200
0	Benzene	<1.00				1.00	µg/L	GE	EPA8200
0	Bis(2-ethylhexyl) phthalate	<1.00				1.00	µg/L	GE	EPA8200
0	Bromodichloromethane	<1.00				1.00	µg/L	GE	EPA8200
0	Bromofom	<1.00				1.00	µg/L	GE	EPA8200
0	Bromomethane	<1.00				1.00	µg/L	GE	EPA8200
0	Cadmium, total recoverable	0.228				1.00	µg/L	GE	EPA8200
0	Carbon tetrachloride	<1.00				1.00	µg/L	GE	EPA8200
0	Chlorobenzene	<1.00				1.00	µg/L	GE	EPA8200
0	Chloroethane (Vinyl chloride)	<1.00				1.00	µg/L	GE	EPA8200
0	Chloroethane	<1.00				1.00	µg/L	GE	EPA8200
0	Chloroform	<1.00				1.00	µg/L	GE	EPA8200
0	Chloromethane	<1.00				1.00	µg/L	GE	EPA8200
0	Chromium, total recoverable	<0.124				0.200	µg/L	GE	EPA8200
0	Cobalt, total recoverable	8.43				1.00	µg/L	GE	EPA8200
0	Copper, total recoverable	2.69				1.00	µg/L	GE	EPA8200
0	Cyanide	<1.00				1.00	µg/L	GE	EPA8200
0	Dibromochloromethane	<1.00				1.00	µg/L	GE	EPA8200
0	1,1-Dichloroethane	<1.00				1.00	µg/L	GE	EPA8200
0	1,1-Dichloroethene	<1.00				1.00	µg/L	GE	EPA8200
0	trans-1,2-Dichloroethene	<1.00				1.00	µg/L	GE	EPA8200
0	Dichloromethane	<0.98				5.00	µg/L	GE	EPA8200
0	1,2-Dichloropropane	<1.00				1.00	µg/L	GE	EPA8200
0	cis-1,3-Dichloropropene	<1.00				1.00	µg/L	GE	EPA8200
0	trans-1,3-Dichloropropene	<1.00				1.00	µg/L	GE	EPA8200
0	Ethylbenzene	<1.00				1.00	µg/L	GE	EPA8200
0	Iron, total recoverable	132				15.0	µg/L	GE	EPA8200
0	Lead, total recoverable	3.35				2.00	µg/L	GE	EPA8200
0	Mercury, total recoverable	<0.200				0.200	µg/L	GE	EPA8200
0	Nickel, total recoverable	2.19				2.00	µg/L	GE	EPA8200

## ESH-EMS-990520

Well FSB114C collected on 01/07/99 (cont.)

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
0	Nitrate-nitrite as nitrogen	2150				50.0	µg/L	GE	EPA353.1
0	pH	5.85				0.100	pH	GE	EPA9040B
0	Phenols	5.85				0.100	pH	GE	EPA9040B
0	Selenium, total recoverable	<5.00				5.00	µg/L	GE	EPA9066
0	Silver, total recoverable	<5.00				5.00	µg/L	GE	EPA9066
0	Specific conductance	65.9				1.00	µS/cm	GE	EPA6020
0	1,1,2,2-Tetrachloroethane	<1.00				1.00	µg/L	GE	EPA9050A
0	Tetrachloroethylene	<1.00				1.00	µg/L	GE	EPA9050A
0	Thallium, total recoverable	<2.50				2.50	µg/L	GE	EPA8200
0	Toluene	0.516				1.00	µg/L	GE	EPA8200
0	1,1,1-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8200
0	1,1,2-Trichloroethane	<1.00				1.00	µg/L	GE	EPA8200
0	Trichloroethylene	0.758				1.00	µg/L	GE	EPA8200
0	Trichloroethene	<1.00				1.00	µg/L	GE	EPA8200
0	Vanadium, total recoverable	<10.0				10.0	µg/L	GE	EPA8200
0	Vanadium, total recoverable	46.6				10.0	µg/L	GE	EPA8200
0	Actinium-226	7.39E-09±1.09E-08	U			1.58E-08	µCi/mL	GP	EPIA-013
0	Americium-241	1.62E-11±0.31E-11	U			3.82E-11	µCi/mL	GP	EPIA-011
0	Antimony-125	1.54E-09±0.74E-09	U			1.02E-08	µCi/mL	GP	EPIA-013
0	Carbon-14	2.54E-08±1.70E-08	U			7.32E-08	µCi/mL	GP	EPIA-003
0	Cerium-144	1.25E-08±1.60E-08	U			2.75E-08	µCi/mL	GP	EPIA-013
0	Cesium-134	-8.16E-10±2.59E-09	U			3.74E-09	µCi/mL	GP	EPIA-013
0	Cesium-137	-1.19E-09±2.15E-09	U			3.51E-09	µCi/mL	GP	EPIA-013
0	Cobalt-57	1.43E-09±2.78E-09	U			3.43E-09	µCi/mL	GP	EPIA-013
0	Cobalt-60	-5.68E-10±2.07E-09	U			3.60E-09	µCi/mL	GP	EPIA-013
0	Curium-242	<0.00E+00	U			4.12E-11	µCi/mL	GP	EPIA-011
0	Curium-243/244	6.31E-12±2.86E-11	U			8.04E-11	µCi/mL	GP	EPIA-011
0	Curium-245/246	<0.00E+00	U			3.62E-11	µCi/mL	GP	EPIA-011
0	Europlum-152	-1.83E-09±6.50E-09	U			1.12E-08	µCi/mL	GP	EPIA-013
0	Europlum-154	4.50E-09±5.94E-09	U			1.17E-08	µCi/mL	GP	EPIA-013
0	Europlum-155	1.01E-09±4.58E-09	U			1.48E-08	µCi/mL	GP	EPIA-013
0	Gross alpha	8.97E-10±4.42E-10	U			7.33E-10	µCi/mL	GP	EPIA-001
0	Iodine-129	3.39E-09±1.12E-09	U			7.68E-10	µCi/mL	GP	EPIA-008
0	Lead-212	3.71E-09±0.97E-09	U			3.25E-08	µCi/mL	GP	EPIA-013
0	Manganese-54	3.66E-09±0.79E-09	U			1.36E-08	µCi/mL	GP	EPIA-001
0	Nonvolatile beta	1.07E-10±7.59E-11	U			1.11E-10	µCi/mL	GP	EPIA-011
0	Plutonium-238	7.07E-12±3.18E-11	U			7.62E-11	µCi/mL	GP	EPIA-011
0	Plutonium-239/240	2.32E-08±2.40E-08	U			4.84E-08	µCi/mL	GP	EPIA-013
0	Potassium-40	-7.97E-10±2.19E-09	U			4.72E-09	µCi/mL	GP	EPIA-013
0	Promethium-144	1.61E-09±2.57E-09	U			3.32E-08	µCi/mL	GP	EPIA-013
0	Radium-226	3.96E-10±2.89E-10	U			3.26E-09	µCi/mL	GP	EPIA-008
0	Radium-228	2.81E-10±6.47E-10	U			3.26E-09	µCi/mL	GP	EPIA-008
0	Ruthenium-106	-1.13E-09±1.85E-08	U			1.18E-08	µCi/mL	GP	EPIA-009
0	Sodium-22	1.61E-09±2.11E-09	U			3.19E-08	µCi/mL	GP	EPIA-013
0	Siliconium-90	4.25E-10±5.43E-10	U			4.17E-09	µCi/mL	GP	EPIA-004
0	Technetium-99	-6.44E-10±7.46E-09	U			1.85E-08	µCi/mL	GP	EPIA-005
0	Thorium-228	3.58E-10±1.80E-10	U			1.89E-10	µCi/mL	GP	EPIA-012
0	Thorium-230	1.51E-10±1.03E-10	R			5.05E-11	µCi/mL	GP	EPIA-012
0	Thorium-232	-8.68E-12±4.47E-11	U			1.47E-10	µCi/mL	GP	EPIA-012
0	Tritium	3.95E-08±0.84E-07	U			6.06E-07	µCi/mL	GP	EPIA-002
0	Uranium-233/234	3.97E-08±4.98E-07	U			6.10E-07	µCi/mL	GP	EPIA-002
0	Uranium-235	2.37E-11±3.04E-11	U			4.35E-11	µCi/mL	GP	EPIA-011
0	Uranium-238	4.33E-11±4.37E-11	U			9.18E-10	µCi/mL	GP	EPIA-011
0	Yttrium-88	-3.39E-10±1.98E-09	U			3.71E-09	µCi/mL	GP	EPIA-013
0	Zinc-65	2.05E-09±4.48E-09	U			7.62E-09	µCi/mL	GP	EPIA-013

## WELL FSB114D

## MEASUREMENTS CONDUCTED IN THE FIELD

Sample date: 01/07/99  
 Depth to water: 34.76 ft (10.59 m) below TOC  
 Water elevation: 217.44 ft (66.28 m) msl  
 pH: 4.3  
 Sp. conductance: 47 µS/cm  
 Turbidity: 1 NTU  
 Water evacuated from the well prior to sampling: 59 gal

## ANALYSES

F	Analyte	Result	FG	S	EMS	SQL	Unit	Lab	Method
1	Aluminum, total recoverable	42.7				15.0	µg/L	GE	EPA8200
0	Antimony, total recoverable	<0.200				0.200	µg/L	GE	EPA8200
0	Arsenic, total recoverable	<3.00				3.00	µg/L	GE	EPA8200

## B-160

First Quarter 1999