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Annual INTEC Groundwater Monitoring Report for Group 5 – Snake River Plain Aquifer (2001)

INEEL
Idaho National Engineering and Environmental Laboratory

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ABSTRACT

This report describes the monitoring activities conducted and presents the results of groundwater sampling and water-level measurements from October 2000 to September 2001. Groundwater samples were initially collected from 41 wells from the Idaho Nuclear Technology and Engineering Center and the Central Facilities Area and analyzed for iodine-129, strontium-90, tritium, gross alpha, gross beta, technetium-99, uranium isotopes, plutonium isotopes, neptunium-237, americium-241, gamma spectrometry, and mercury. Samples from 41 wells were collected in April and May 2001. Additional sampling was conducted in August 2001 and included the two CFA production wells, the CFA point of compliance for the production wells, one well that was previously sampled and five additional monitoring wells.

Iodine-129 and strontium-90 were the only analytes above their respective maximum contaminant levels. Iodine-129 was detected just above its maximum contaminant level of 1 pCi/L at two of the Central Facilities Area landfill wells. Iodine-129 was detected in the CFA production wells at 0.35±0.083 pCi/L in CFA-1, but was below detectable activity in CFA-2. Strontium-90 was above its maximum contaminant level of 8 pCi/L in several wells near the Idaho Nuclear Technology and Engineering Center but was below its maximum contaminant level in the downgradient wells at the Central Facilities Area landfills. Sr-90 was not detected in the CFA production wells. Gross beta results generally mirrored the results for strontium-90 and technetium-99.

Plutonium isotopes and neptunium-237 were not detected. Uranium-233/234 and uranium-238 isotopes were detected in all samples. Concentrations of background and site wells were similar and are within background limits for total uranium determined by the USGS, suggesting that the concentrations are background. Uranium-235/236 was detected in 11 samples, but all the detected concentrations were similar and near the minimum detectable activity. Americium-241 was detected at three locations near the minimum detectable activity of approximately 0.07 pCi/L. The gamma spectrometry results detected cesium-137 in three samples, potassium-40 at eight locations, and radium-226 at one location. Mercury was below its maximum contaminant level of 2 µg/L in all samples. Gamma spectrometry results for the CFA production wells did not detect any analytes.

Water-level measurements were taken from wells in the Idaho Nuclear Technology and Engineering Center, Central Facilities Area, and the area south of Central Facilities Area to evaluate groundwater flow directions. Water-level measurements indicated groundwater flow to the south-southwest from the Idaho Nuclear Technology and Engineering Center.

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ACRONYMS

BC	brass cap
BCC	below brass cap
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFA	Central Facilities Area
DOE	Department of Energy
DOE-ID	Department of Energy Idaho Operations Office
EPA	Environmental Protection Agency
FFA/CO	Federal Facility Agreement and Consent Order
FTAMSL	feet above mean sea level
FTBMP	feet below measuring point
ICPP	Idaho Chemical Processing Plant
IDEQ	Idaho Department of Environmental Quality
INEEL	Idaho National Engineering and Environmental Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
LTMP	Long-Term Monitoring Plan
MCL	maximum contaminant level
MDA	minimum detectable activity
MSIP	Monitoring System Installation Plan
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
OU	operable unit
PBF	Power Burst Facility
RI/FS	remedial investigation/feasibility study
ROD	Record of Decision
RWMC	Radioactive Waste Management Complex
SARA	Superfund Amendments and Reauthorization Act
SNF	spent nuclear fuel
SRPA	Snake River Plain Aquifer

STF	Security Training Facility
USGS	United States Geological Study
WAG	waste area group

Annual INTEC Groundwater Monitoring Report for Group 5 – Snake River Plain Aquifer (2001)

1. INTRODUCTION

The purpose of this document is to report the groundwater sampling results and water-level measurements conducted to support the Waste Area Group (WAG) 3, Operable Unit (OU) 3-13, Group 5 - Snake River Plain Aquifer (SRPA) monitoring at the Idaho Nuclear Technology and Engineering Center (INTEC). The *OU 3-13 Record of Decision* (ROD) calls for Group 5 groundwater monitoring to monitor contaminant migration in the SRPA associated with the INTEC facility (DOE-ID 1999). The *Long-Term Monitoring Plan* (LTMP) (DOE-ID 2000a) specified the wells to be sampled and the parameters for analysis based on the data requirements identified in the ROD (DOE-ID 1999). The data quality objectives for the groundwater sampling are described in the *Monitoring System Installation Plan* (MSIP) (DOE-ID 2000b) and LTMP (DOE-ID 2000a).

1.1 Regulatory Background

The Idaho National Engineering and Environmental Laboratory (INEEL) is divided into 10 WAGs to manage environmental operations mandated under the *Federal Facility Agreement and Consent Order* (FFA/CO) (DOE-ID 1991). INTEC, formerly the Idaho Chemical Processing Plant (ICPP), is designated as WAG 3. OU 3-13 encompasses the entire INTEC facility.

In October 1999, the ROD was issued for OU 3-13, which includes the INTEC perched and groundwater systems (DOE-ID 1999). The remedial actions chosen in the ROD are in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 USC §9601) as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 (42 USC 9601). In addition, remedies comply with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (55 FR 8665) and are intended to satisfy the requirements of the FFA/CO.

The U.S. Department of Energy Idaho Operations Office (DOE-ID) is the lead agency for remedy decisions. The U.S. Environmental Protection Agency (EPA) Region 10 and the Idaho Department of Environmental Quality (IDEQ) approve these decisions.

1.2 Site Background

The INEEL is a government-owned facility managed by the United States Department of Energy (DOE). The eastern boundary of the INEEL is located 52 km (32 mi) west of Idaho Falls, Idaho. The INEEL Site occupies approximately 2,305 km^2 (890 mi^2) of the northwestern portion of the Eastern Snake River Plain in southeast Idaho. The INTEC facility covers an area of approximately 0.39 km^2 (0.15 mi^2) and is located approximately 72.5 km (45 mi) from Idaho Falls, in the south-central area of the INEEL as shown in Figure 1.

The INTEC has been in operation since 1952. The plant's original mission was to reprocess uranium from defense-related projects and to research and store spent nuclear fuel (SNF). The DOE phased out the reprocessing operations in 1992 and redirected the plant's mission to (1) receipt and temporary storage of SNF and other radioactive wastes for future disposition, (2) management of current and past wastes, and (3) performance of remedial actions.

The liquid waste generated from the past reprocessing activities is stored in an underground tank farm. Numerous CERCLA sites are located in the area of the tank farm and adjacent to the process equipment waste evaporator. Contaminants found in the interstitial soils of the tank farm are the result of accidental releases and leaks from process piping, valve boxes, and sumps and from cross-contamination from operations and maintenance excavations. No evidence has been found to indicate that the waste tanks themselves have leaked. The contaminated soils at the tank farm comprise about 95% of the known contaminant inventory at INTEC. The comprehensive remedial investigation/feasibility studies (RI/FSs) for OU 3-13 (DOE-ID 1997a, 1997b, 1998) contain a complete discussion of the nature and extent of contamination.

1.3 Environmental Setting

The environmental setting is summarized here, and a complete description is given in DOE-ID (1997a), (1997b), and (1998). The SRPA underlies the INTEC and Eastern Snake River Plain and has been designated by the EPA as a sole source aquifer for the region. The aquifer lies at a depth of about 137 m (450 ft) beneath the Site. Groundwater in the SRPA generally occurs under unconfined conditions, but locally may be quasi-artesian or artesian (Nace et al. 1959). Regional groundwater flow is southwest at average estimated velocities of 1.5 m/day (5 ft/day). The average groundwater flow velocity at the INTEC is estimated at 3 m/day (10 ft/day) due to local hydraulic conditions. Hydraulic characteristics of the aquifer differ considerably from place to place depending on the saturated thickness and the characteristics of the basalts and sedimentary interbeds.

Recharge to the aquifer is primarily by valley underflow from the mountains to the north and northeast of the plain and from infiltration of irrigation water. A small amount of recharge occurs directly from precipitation. Recharge to the aquifer within INEEL boundaries is primarily by underflow from the northeastern part of the plain and the Big Lost River (Bennett 1990). Significant amounts of recharge from the Big Lost River have caused water levels in some wells at the INEEL to rise as much as 1.8 m (6 ft) within a few months after high flows in the river (Barraclough, Lewis, and Jensen 1982). Locally, the direction of groundwater flow is temporarily changed by recharge from the Big Lost River (Bennett 1990).

The source of contamination in the SRPA originates primarily from the injection well (CPP-23). However, contaminated soils and perched water are predicted to contribute to future SRPA contamination. The iodine-129 (I-129), strontium-90 (Sr-90), and plutonium isotopes were determined to be the only contaminants that pose an unacceptable risk to a hypothetical future resident beyond the year 2095. The primary I-129 source was the former injection well. The primary Sr-90 source(s) were the former injection well and the tank farm soils. The primary source of plutonium isotopes is the tank farm. The major human health threat posed by contaminated SRPA groundwater is exposure to radionuclides via ingestion by future groundwater users.

2. MONITORING PROGRAM AND RESULTS

The WAG 3, Group 5 monitoring activities consisted of groundwater sampling and taking water-level measurements. Water-level measurements were taken monthly from September 2000 through August 2001. Groundwater was sampled from 41 wells in April and May 2001. Additional groundwater sampling was conducted in August 2001 and included sampling the two Central Facilities Area (CFA) production wells, the point of compliance for the CFA production wells, and six monitoring wells.

2.1 Groundwater Sampling Results

The LTMP called for sampling 47 wells near INTEC and to the south of the INTEC. Samples were collected from 41 of the 47 wells from April 23 to May 31, 2001. Wells LF 2-12, LF 3-09, USGS-122, USGS-49, MW-18, and LF 3-11 were not sampled because of problems with sampling pumps. Well LF 3-11 has been rendered unusable due to perforation of the screen and entrance of gravel pack and well seal material into the damaged screen. Well LF 3-11 will be replaced by a new well, USGS-128, when it is completed. USGS-128 and LF 3-11 are approximately 1300 feet east-northeast of USGS-85. The pump in LF 3-09 has been replaced and is functional, as of November 11, 2001. Well LF 2-12 was not sampled, but wells LF 2-09 and LF 2-08 are located close to this well and were sampled. Well maintenance for the USGS wells with pump problems will be done by the USGS. Well maintenance for MW-18 will be handled by the INEEL ER Program.

Groundwater samples were analyzed for tritium, Sr-90, I-129, uranium isotopes, plutonium isotopes, americium-241 (Am-241), mercury, gamma spectrometry, technetium-99 (Tc-99), and gross alpha/beta in accordance with the LTMP. The data analysis will focus on tritium, I-129, Tc-99, Sr-90, and gross beta since these parameters have plumes migrating from INTEC. The results for these five parameters are summarized in Table 1. The results for uranium isotopes, mercury, Am-241, and gamma spectrometry are summarized in Table 2. All results are provided electronically in an attached 3.5-in. floppy disk.

After the results for the initial sampling were reviewed, it was apparent that contaminants from INTEC extended beyond the area sampled. To determine the impact of the INTEC plumes on the CFA production wells and to evaluate the migration of I-129, Sr-90, Tc-99, and tritium in the SRPA, additional sampling was conducted from August 28-30, 2001. Gamma spectrometry analysis was also performed on the CFA production wells. The wells in this sampling event included the two CFA production wells, the CFA point of compliance for the production wells (CFA-1606), CFA-MON-001, CFA-MON-002, and CFA-MON-003, USGS-127, LF 2-08 (resampled), and USGS-83. CFA production well CFA-1 has a screen interval from 444 to 639 feet below ground surface (bgs) and a pump depth of 576.5 feet. CFA production well CFA-2 is screened from 521 to 651 feet bgs and has a pump depth of 575.9 feet. The CFA point of compliance is located in CFA-1606 and is an above-ground sampling point that samples the CFA drinking water system after the water from CFA-1 and CFA-2 are mixed together.

2.1.1 Iodine-129

The groundwater sampling results indicate that an I-129 plume extends from INTEC into the CFA area. The highest I-129 concentrations were detected in two wells at the CFA landfills (Figure 2). Only two wells, LF 3-8 (in the duplicate sample) and LF 2-8, had I-129 concentrations that exceeded the maximum contaminant level (MCL) of 1 pCi/L. The minimum detectable activity (MDA) for I-129 was approximately 0.1 pCi/L. In contrast, I-129 was over 1 pCi/L in 12 wells in the 1991 groundwater sampling event. The two wells that had the highest I-129 concentrations in 1991, USGS-112 and USGS-113, were below the MDA in the latest round. Iodine-129 was detected at 0.352±0.083 pCi/L in CFA-1 (a CFA production well) but I-129 was not detected in CFA-2, which is the other CFA production well and was near the detection limit (0.098±0.053 pCi/L) at the CFA point of compliance (CFA-1606). Iodine-129 was not detected in the wells sampled south of the CFA.

Trend analysis of the I-129 data indicates that I-129 is decreasing at most locations except at CFA-1 which does not show a distinct trend (Figure 3). Trend analysis for I-129 is hindered by the lack of data from 1990 to 2001. Iodine-129 data were collected in 1995, but this data had a much higher MDA of approximately 0.5 to 1 pCi/L.

2.1.2 Tritium

The tritium results indicated a plume extending from INTEC, past the CFA landfill wells and beyond CFA-MON-A-002 (Figure 4). The extent of the tritium plume is similar to that previously determined using United States Geological Study (USGS) and WAG 4 data and is discussed below. The highest tritium concentration was 14,000±771 pCi/L at USGS-114, and all wells were below the MCL of 20,000 pCi/L. The MDA for tritium was 300 to 400 pCi/L. Overall, the tritium results from this sampling event were considerably lower than the results from the 1995 sampling presented in the RI/FS (DOE-ID 1997a). Tritium was detected at 7,900 and 9,200 pCi/L in the CFA production wells. Tritium was detected at concentrations of less than 1,700 pCi/L in the CFA MON wells, but was not detected in USGS-83 to the south and USGS-127 to the west of the CFA-MON wells.

An anomaly in the recent sampling is that the tritium concentration in USGS-20 was 6,090±359 pCi/L whereas tritium was not detected in 1995 and was not detected in USGS sampling in July 2000 (MDA ≈ 300 to 400 pCi/L). The significance of the tritium occurrence at USGS-20 is uncertain, but other analytes indicative of contamination from INTEC such as I-129, Tc-99, or Sr-90 are not present.

Trend analysis of data since 1985 indicates that tritium is decreasing at all locations (Figure 5). Most of the data shown for select wells within the tritium plume on Figure 5 is from USGS sampling. Except for USGS-47, a consistent downtrend in tritium concentrations is indicated by the negative slope of the correlation lines and correlation coefficients (R^2) greater than 0.85.

2.1.3 Strontium-90

Sr-90 was detected at 31 well locations with the highest Sr-90 concentration, 45.0±7.57 pCi/L, occurring at USGS-47. The minimum detectable activity for Sr-90 was typically between 0.25 to 0.45 pCi/L for the samples collected in April and May and approximately 0.6 pCi/L for samples collected in August. The MCL for Sr-90 is 8 pCi/L. The distribution of Sr-90 in the SRPA indicated a plume extending south of INTEC to the CFA landfills (Figure 6). Sr-90 was below detection limits of approximately 0.5 pCi/L in the CFA production wells. The area of the SRPA exceeding the 8-pCi/L limit for Sr-90 is similar in size to the area above 8 pCi/L in 1995. An increase in Sr-90 activity did occur at LF 3-08 located at CFA Landfill III. The increase in Sr-90 at LF 3-08 suggests that the Sr-90 plume axis is to the west of the CFA production wells.

Trend analysis of six wells within the Sr-90 plume indicates that Sr-90 is steadily decreasing at most locations, except USGS-47, which does not show a distinct trend (Figure 7). For the wells that show a trend, the slope of the regression lines is negative and the correlation coefficients are greater than 0.66 for all wells. Most of the data shown on Figure 7 is from USGS sampling.

2.1.4 Technetium-99

Tc-99 was detected in 20 of the 41 samples with the highest level, 322±6.6 pCi/L, occurring at USGS-52. The highest Tc-99 concentration occurred at the same location as the highest gross beta concentration. The minimum detectable activity for Tc-99 was typically 5 to 6 pCi/L. All sample results are below the calculated MCL of 900 pCi/L. Tc-99 was detected in the CFA landfill wells at levels ranging from 7.68±1.71 to 15.6±1.92 pCi/L. Tc-99 was detected in CFA-1 at 8.8±4.9 pCi/L and in CFA-MON-002 south of CFA at 5.28±2.8 pCi/L. The distribution of Tc-99 in the SRPA is shown on Figure 8.

2.1.5 Gross Alpha/Gross Beta

Gross alpha was above its MDA (approximately 1.8 to 3 pCi/L) at 14 of 41 well locations with detections ranging from 2.2 to 15 pCi/L. The highest gross alpha level occurred in USGS-52 and it was the only well at the MCL. The MCL for gross alpha is 15 pCi/L.

Gross beta was above its MDA (typically 3 to 4 pCi/L) at 36 of 41 well locations and results varied from 4.25±1.26 to 151±8.42 pCi/L. The highest gross beta level occurred at USGS-52 and it was the only well at the MCL. The MCL for gross beta is 4 mrem/yr. The distribution of gross beta in the SRPA shows an area above 50 pCi/L extending from INTEC south to beyond USGS-112 (Figure 9). The gross beta results generally correlate with the Sr-90 and Tc-99 results (see Table 1).

2.1.6 Uranium Isotopes

Uranium-233/234 (U-233/234) was above the minimum detectable activity (0.02 to 0.1 pCi/L) in all samples. The range of U-233/234 detected was from 0.646±0.118 to 1.67±0.153 pCi/L. The narrow range of detection and the occurrence of 1.57±0.147 pCi/L in the upgradient well, USGS-121, suggests that the occurrence of U-233/234 is natural. Similarly, U-238 was above the MDA (0.05 to 0.1 pCi/L) at all locations with a range from 0.252 to 0.851 pCi/L and the upgradient well, USGS-121, contained 0.619±0.074 pCi/L. The narrow range of detections and a background concentration similar to site and downgradient data suggest that the U-238 occurrences are natural. In addition, the concentrations of U-233/234 and U-238 are consistent with background concentrations for total uranium in groundwater in Idaho of 0 to 9 pCi/L (Orr, Cecil, and Knobel 1991).

U-235/236 was above the MDA at 18 locations and ranged in concentration from 0.0277±0.12 pCi/L to 0.146±0.057 pCi/L. The highest concentration of U-235/236 occurred at location USGS-35. All the detections of U-235/236 were close to the MDA (0.02 to 0.1 pCi/L).

2.1.7 Plutonium Isotopes and Neptunium-237

Plutonium isotopes and neptunium-237 were not detected at any of the sampling locations. The minimum detectable activity for neptunium-237 was from 0.06 to 0.13 pCi/L. The MDAs for plutonium-238, plutonium-239/240 and plutonium-241 were 0.028 to 0.07 pCi/L, 0.02 to 0.08 pCi/L, and 7 to 10 pCi/L, respectively.

2.1.8 Americium-241

Am-241 was detected at LF 2-8 at 0.0742±0.0336J pCi/L and at ICPP-MON-A-021 at 0.0733±0.0331J pCi/L and USGS-20 at 0.0472±0.0191J pCi/L. The J flag associated with these Am-241 occurrences indicates that the values are estimated. The MDA was typically 0.02 to 0.08 pCi/L, but was over 0.15 pCi/L for a few samples. All of the Am-241 detections were close to the MDA.

2.1.9 Gamma Spectrometry

The gamma spectrometry analysis for the 41 wells sampled in April-May 2001 detected cesium-137 (Cs-137), potassium-40 (K-40), radium-226 (Ra-226), and zinc-65 (Zn-65) (Table 2). No analytes were detected in the gamma spectrometry analysis of the water from the CFA production wells collected in August 2001.

The list of analytes included in the gamma spectrometry analysis includes antimony-125; cerium-144; Cs-134 and –137; cobalt-58 and –60; europium-152, -154, and –155; manganese-54; niobium-95; potassium-40; radium-226; ruthenium-103 and –106; silver-108 and –110; zinc-65; zirconium-95 and isotopes greater than 2σ and greater than the MDA. The minimum detectable activity

for most of the above radionuclides was approximately 3 to 10 pCi/L. The MDA for Cs-137 was approximately 3 to 4 pCi/L, but the MDA for K-40 was 25 to 40 pCi/L and the MDA for Ce-144 was approximately 20 pCi/L. The MDAs for Ra-226 and Zn-65 were typically between 6 and 10 pCi/L.

Cs-137 was detected at USGS-40, USGS-41, and USGS-47 at levels of 9.25±2.52, 8.41±1.97, and 10.6±2.51 pCi/L, respectively. K-40 was detected at nine locations: LF 2-8, LF 3-10, USGS-37 (K-40 was not detected in the duplicate sample from this well.), USGS-40, USGS-67, USGS-46, USGS-51, USGS-57, and USGS-116. The K-40 concentrations ranged from 34.3±10.4 pCi/L at USGS-51 to 68.9±18.1 pCi/L at USGS-40. Ra–226 was detected at USGS-85 at 4.61±1.44 pCi/L. Zn-65 was detected at 5.25±1.16 pCi/L in the rinsate sample.

2.1.10 Mercury

The highest detected mercury concentration was 0.36 µg/L at USGS-44. The detection limit for mercury was 0.1 µg/L. The MCL for mercury is 2 µg/L. Mercury was detected near its detection limit of 0.1 µg/L in several of the CFA landfill wells, but mercury was also detected in a rinsate sample at the same concentration in the same analysis batch.

2.2 USGS and WAG 4 Tritium and Chloride Data

USGS and WAG 4 data for tritium and chloride were used to evaluate the migration path of the plumes from INTEC because the USGS data and WAG 4 data extend beyond the area covered in the Group 5 groundwater sampling. Data from April to October of 2000 were used to construct plume maps for chloride and tritium (Table 3 and Figures 10 and 11, respectively). The MDA for tritium was approximately 300 to 400 pCi/L. The tritium and chloride maps indicate that CFA-MON-A-002 and CFA-MON-A-003 may have been impacted by contamination migrating from INTEC. The data from these maps were used to select wells CFA-MON-A-001 through CFA-MON-A-003, USGS-127, and USGS-83 to be sampled for I-129, Sr-90, Tc-99, and tritium to track the progress of those plumes. Locations USGS-84 and M12S have tritium concentrations of over 1,000 pCi/L, but the chloride levels in these wells are similar to background, suggesting that the source of tritium in these wells is not the INTEC. Well M12S is the first well downgradient of the CFA landfills to the southwest.

2.3 Monthly Water-Level Measurements

Water-level measurements were taken monthly from September 2000 to August 2001 for select wells in the INTEC, CFA, Power Burst Facility (PBF), and Radioactive Waste Management Complex (RWMC) area to determine the direction of groundwater movement. The area encompassed by water-level measurements was expanded from the area covered in the LTMP because of the flat gradient in the vicinity of INTEC and the need to include the area of the INTEC groundwater plumes. Several wells in the vicinity of INTEC that were originally proposed for water-level measurement in the LTMP, including USGS-40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -52, -59, MW-18, ICPP-MON-A-021, and ICPP-MON-A-022, were not used for water–level measurements because these wells were grouped in INTEC and did not provide the spatial coverage needed to determine flow directions from INTEC. The list of wells measured each month sometimes changed because of access problems.

The depth to groundwater was determined using surveyed measuring point elevations and well deviation correction factors. Water-level measurements were adjusted for borehole deviation using USGS correction factors that are based on gyroscopic and/or magnetic deviation surveys. Borehole deviation data, either photogyroscopic, magnetic, or digital gyroscopic, are available for all but five wells used to construct the water-level maps. Borehole deviation data were not available for South-Mon-A-001 through –004 (M11S, M12S, M13S, and M14S) and USGS-107. Water-level measurements taken at wells with

less than 0.3 ft of vertical deviation from the true depth were not adjusted for deviation because deviation measurements have an uncertainty associated with them. For instance, the photogyroscopic surveys can have from 0.11 to 0.42 ft of uncertainty depending on whether the high- or low-angle tool was used. The water-level measurement data and borehole deviation correction values are presented in Appendix A in Tables A-1 to A-12.

Hydrographs for selected wells in INTEC, CFA, RWMC, and the Security Training Facility (STF) show a trend of declining water levels over the 1-year period that water-level measurements were taken (Figure 12). Water-level elevations range from 1,438 m (4,459 ft) above median sea level in the northern part of the INTEC to about 1,428 m (4,428 ft) above median sea level near the RWMC.

Groundwater-level contour maps are plotted quarterly for October 2000, January 2001, April 2001, and July 2001 (Figures 13 through 16). The general direction of groundwater flow from INTEC is south to southwest. At CFA, the flow is southeast to southwest. The hydrographs and water-level contour maps show that water levels declined over the 1-year period, but the direction of groundwater flow remained the same throughout the year (see Figures 13 through 16). The groundwater flow directions indicated by the groundwater contour maps generally agree with the plume geometries for tritium and chloride, and this should be the case because both tritium and chloride act as conservative tracers for the groundwater flow.

The groundwater gradient in the area covered by the water-level measurements varies considerably (see Figures 13 through 16). The gradient is slight over the area between INTEC and CFA landfills (more than a mile) with less than 2 ft of head difference. Steeper gradients are present south of CFA, near the RWMC, and in the vicinity of the PBF. There is approximately 14 ft difference in groundwater elevation from M12S to M13S (~1 mi) near the RWMC and approximately 17.5 ft from PBF-MON-A-001 to PBF-MON-A-004 over a distance of approximately 1 mi at the PBF.

3. RECOMMENDATIONS

Well LF 2-08 should replace USGS-112 or USGS-113 in the list of wells for long-term monitoring (DOE-ID 2000a). LF 2-08 is at the MCL for I-129 and is close to the production well CFA-1 and changes in concentration of contaminants of interest, such as I-129, Sr-90, etc., would give an indication of the potential impacts on the CFA production wells.

The Site-Wide Drinking Water Program (SWDWP) has initiated the monitoring of the CFA drinking water system for I-129. This information will be collected quarterly during 2002 by the SWDWP. The information will be included in the annual Group 5 monitoring report and trended.

4. REFERENCES

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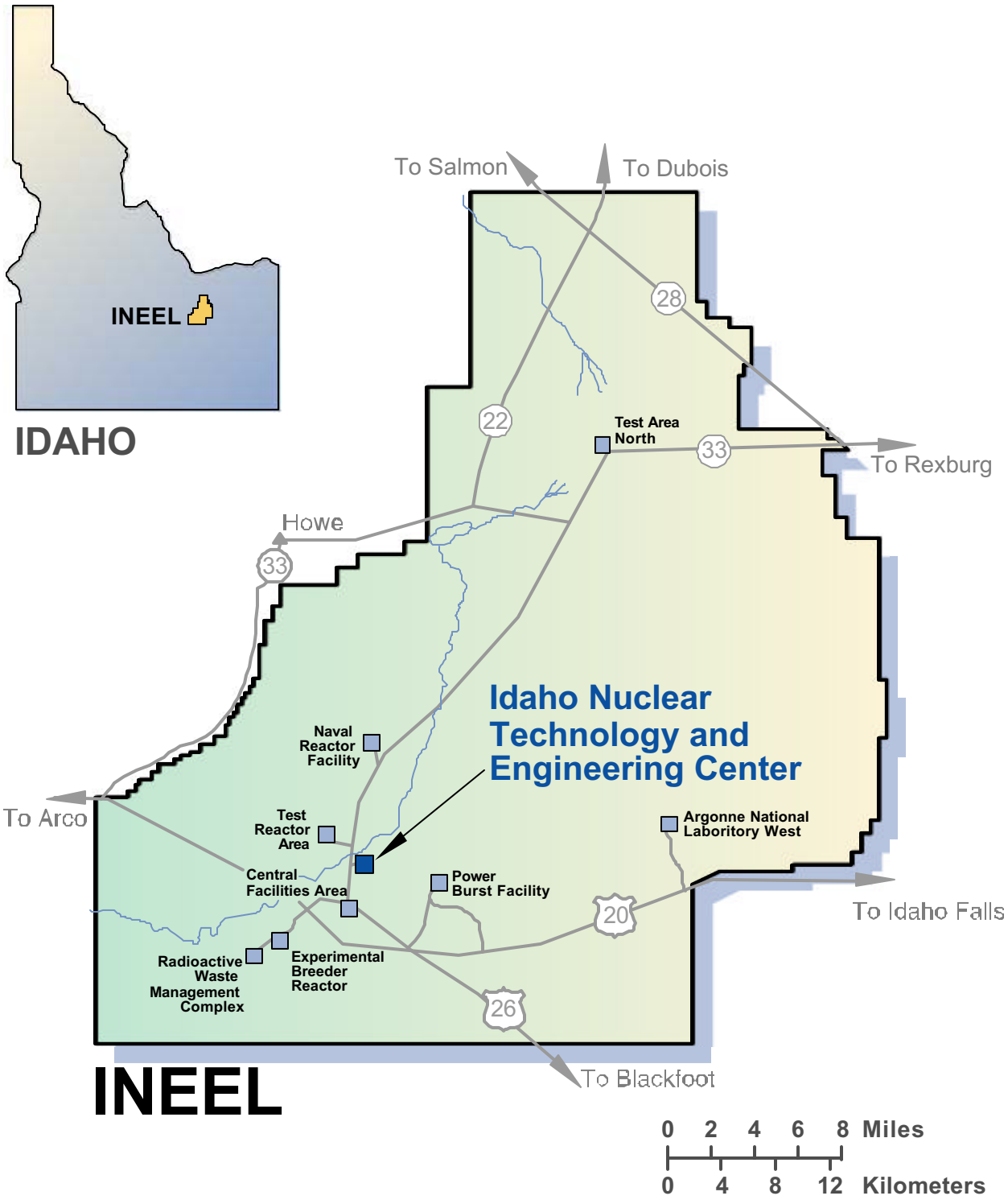


Figure 1. Map showing location of the INTEC at the INEEL.

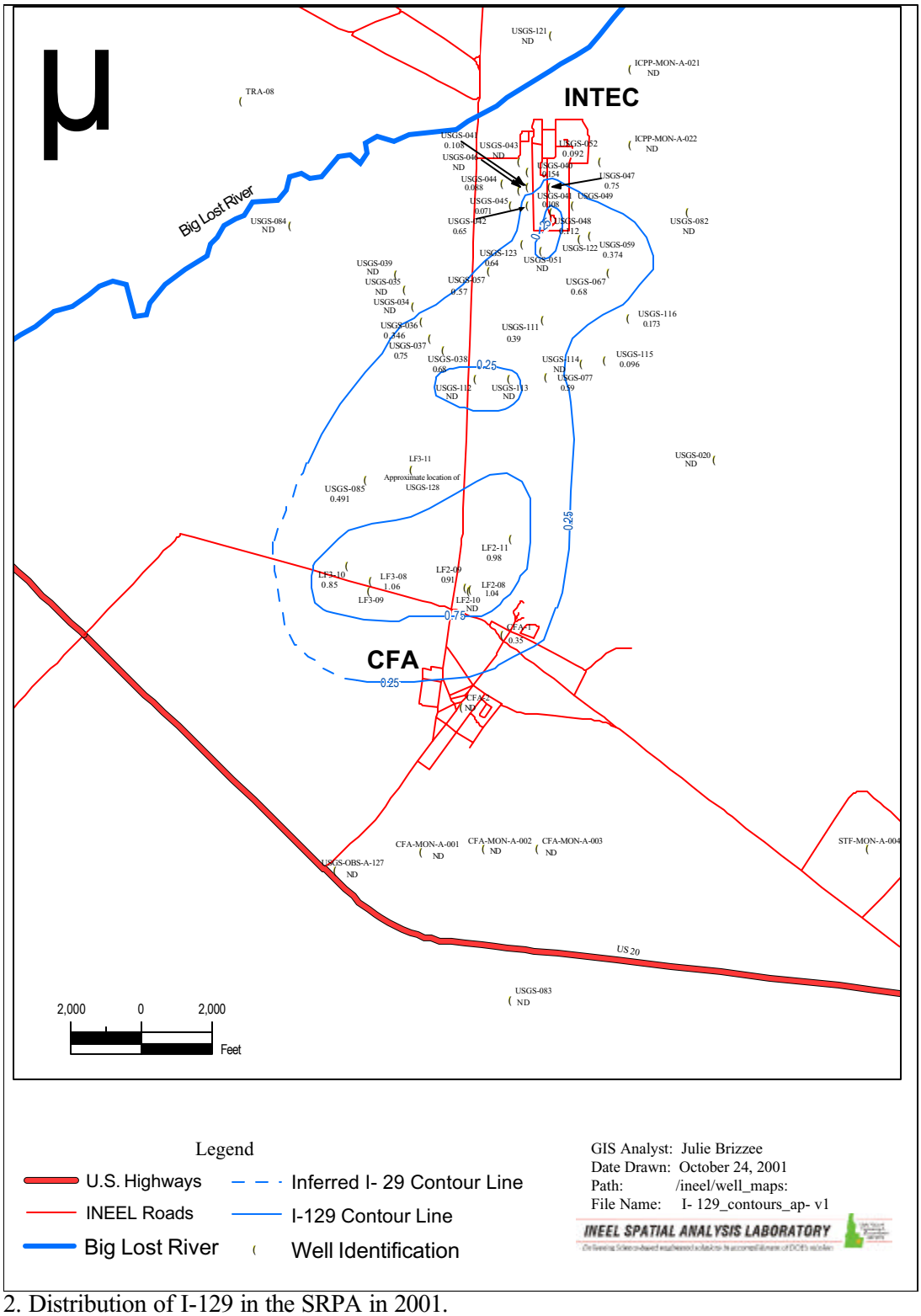
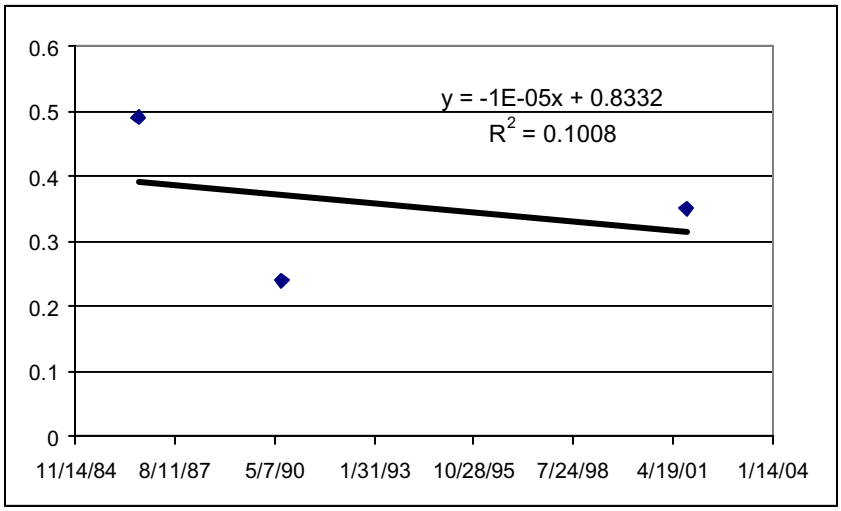
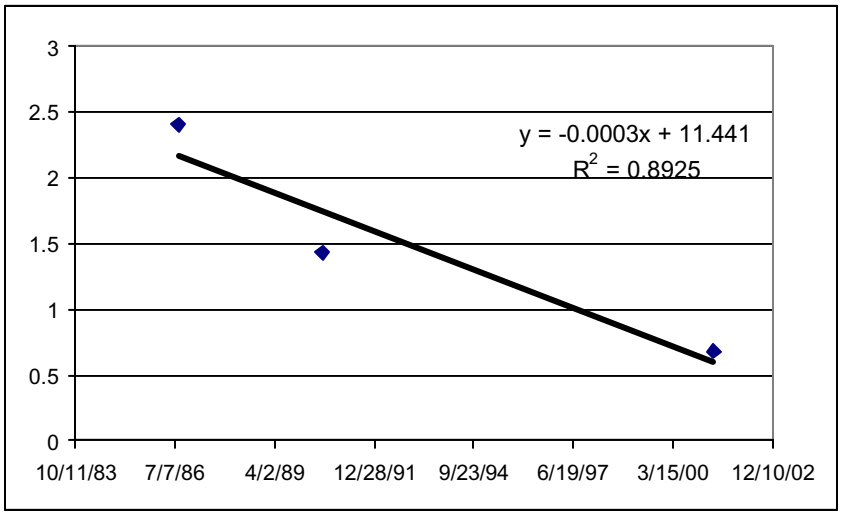


Figure 2. Distribution of I-129 in the SRPA in 2001.

CFA-1



USGS-67



USGS-85

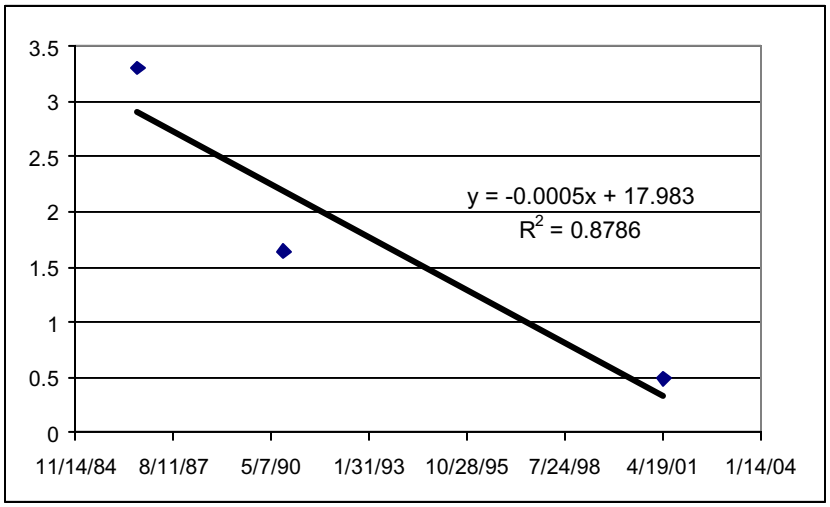
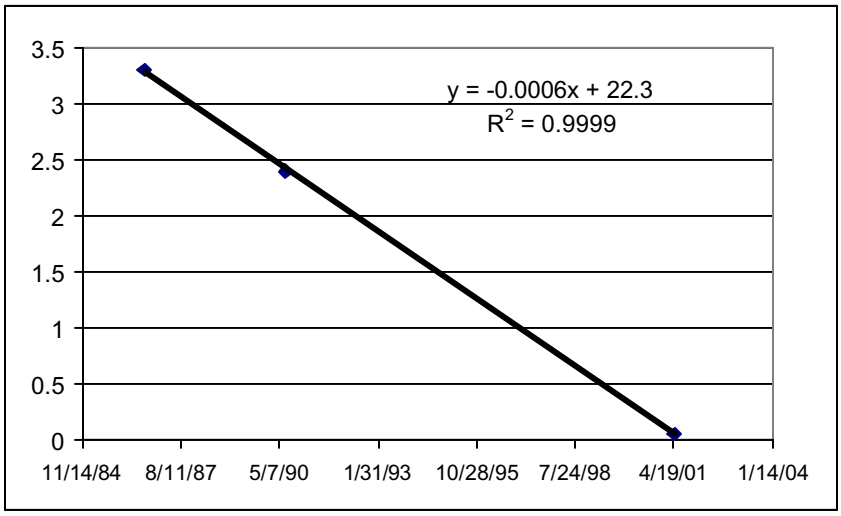
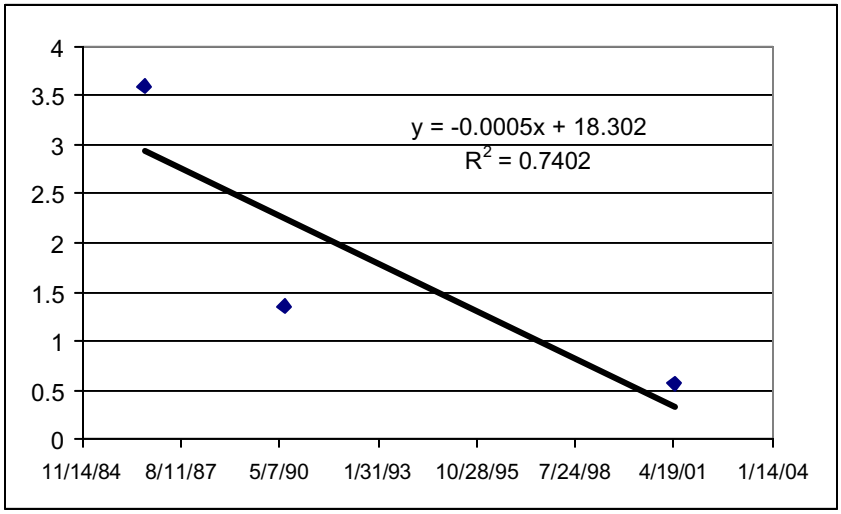


Figure 3. Iodine-129 concentration trends for select wells near INTEC.

USGS-112



USGS-57



USGS-47

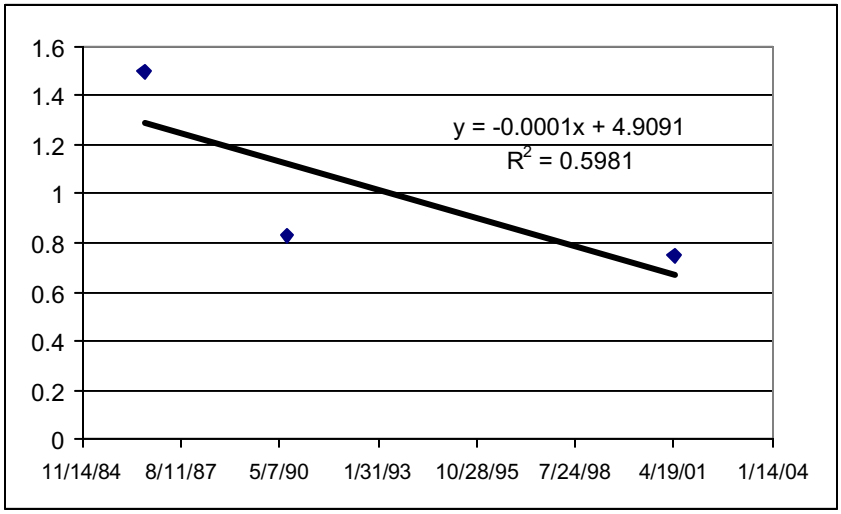


Figure 3. (continued).

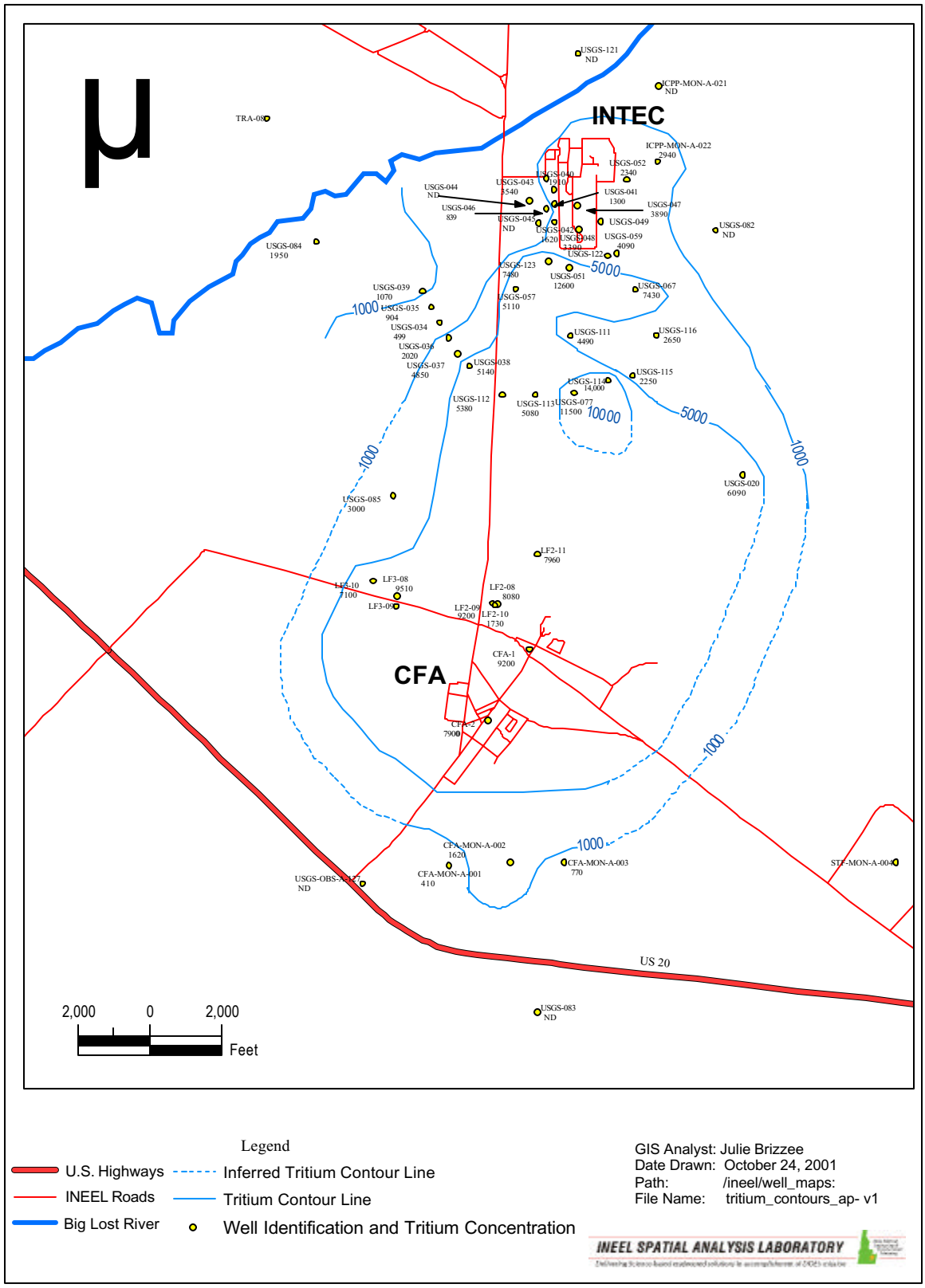


Figure 4. Distribution of tritium in the SRPA in 2001.

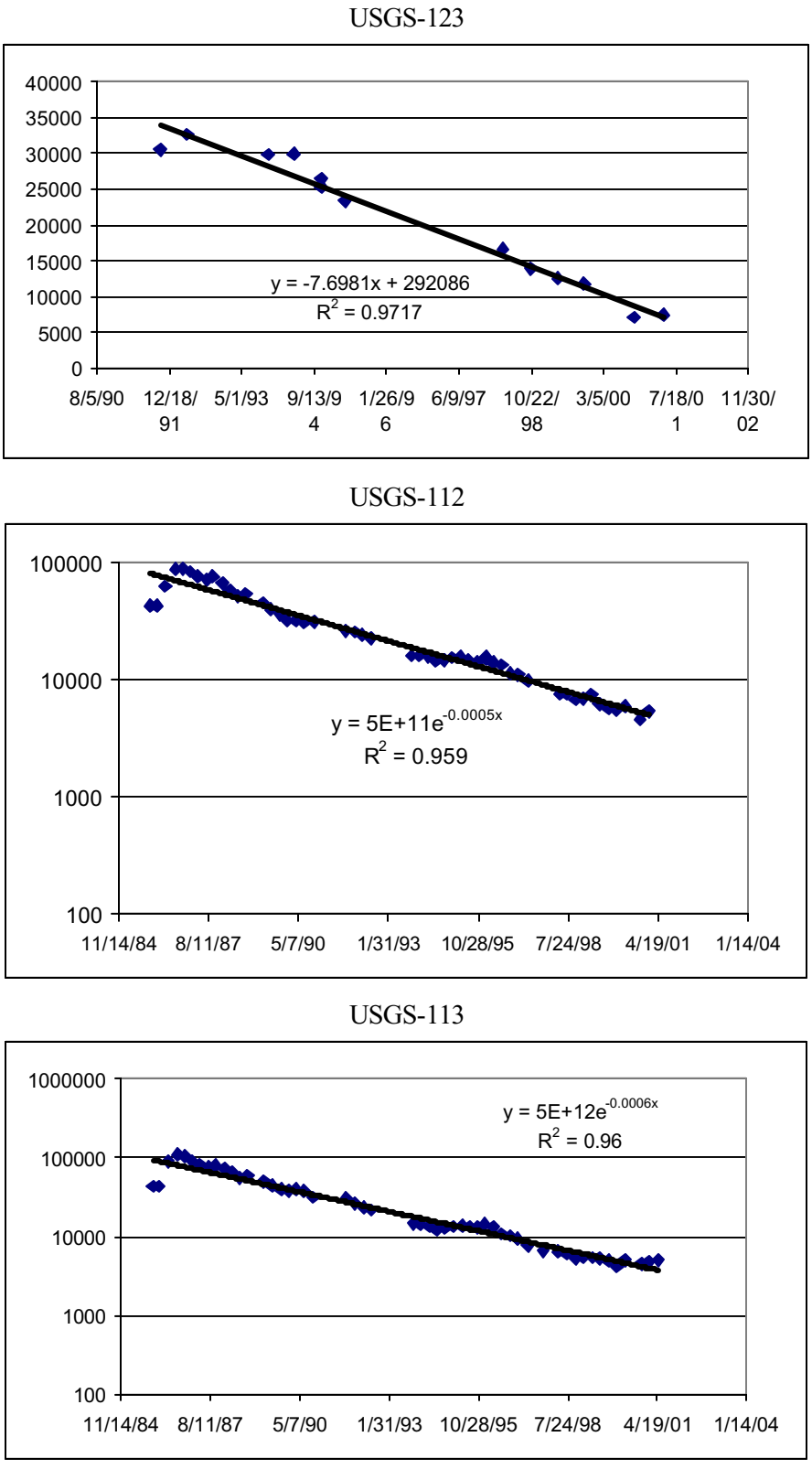
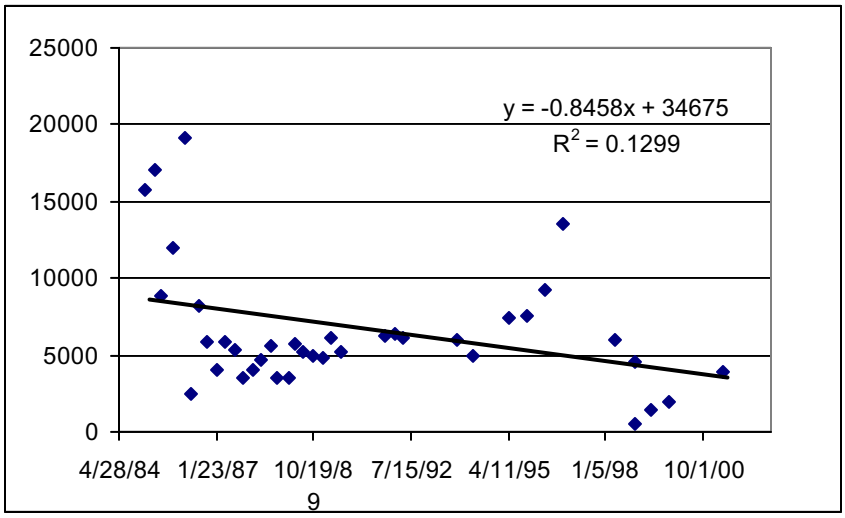
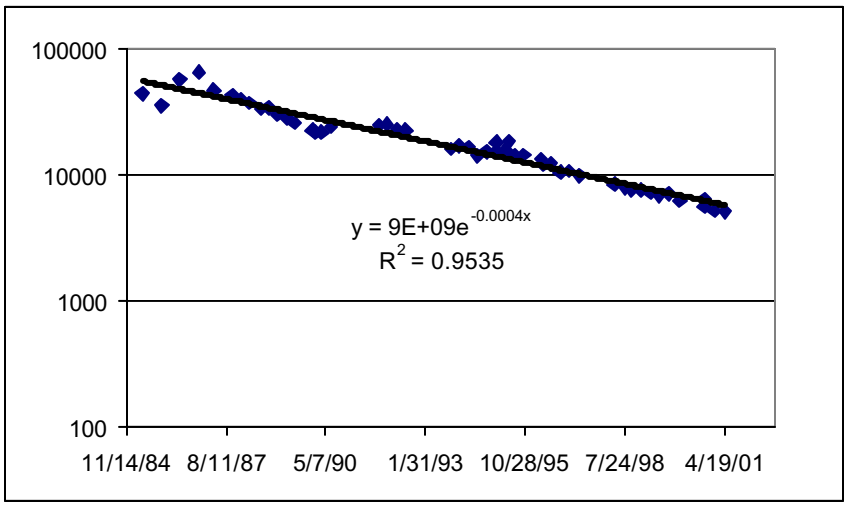


Figure 5. Tritium concentration trends for select wells near INTEC.

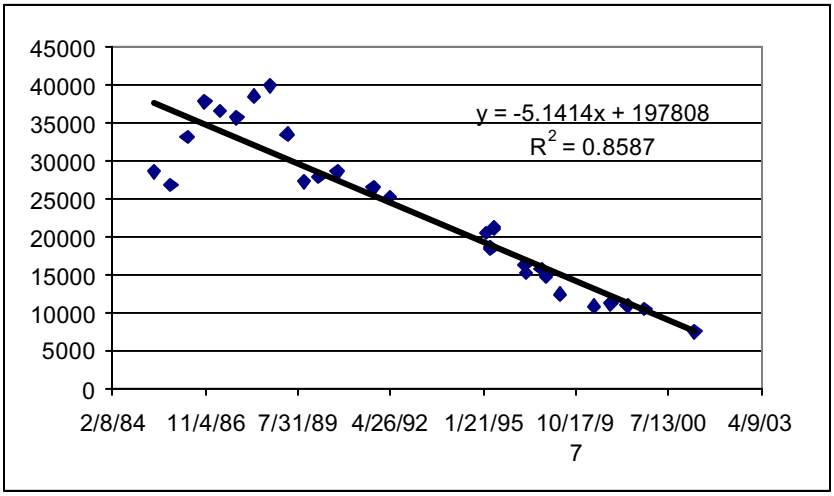
USGS-47



USGS-57



USGS-67



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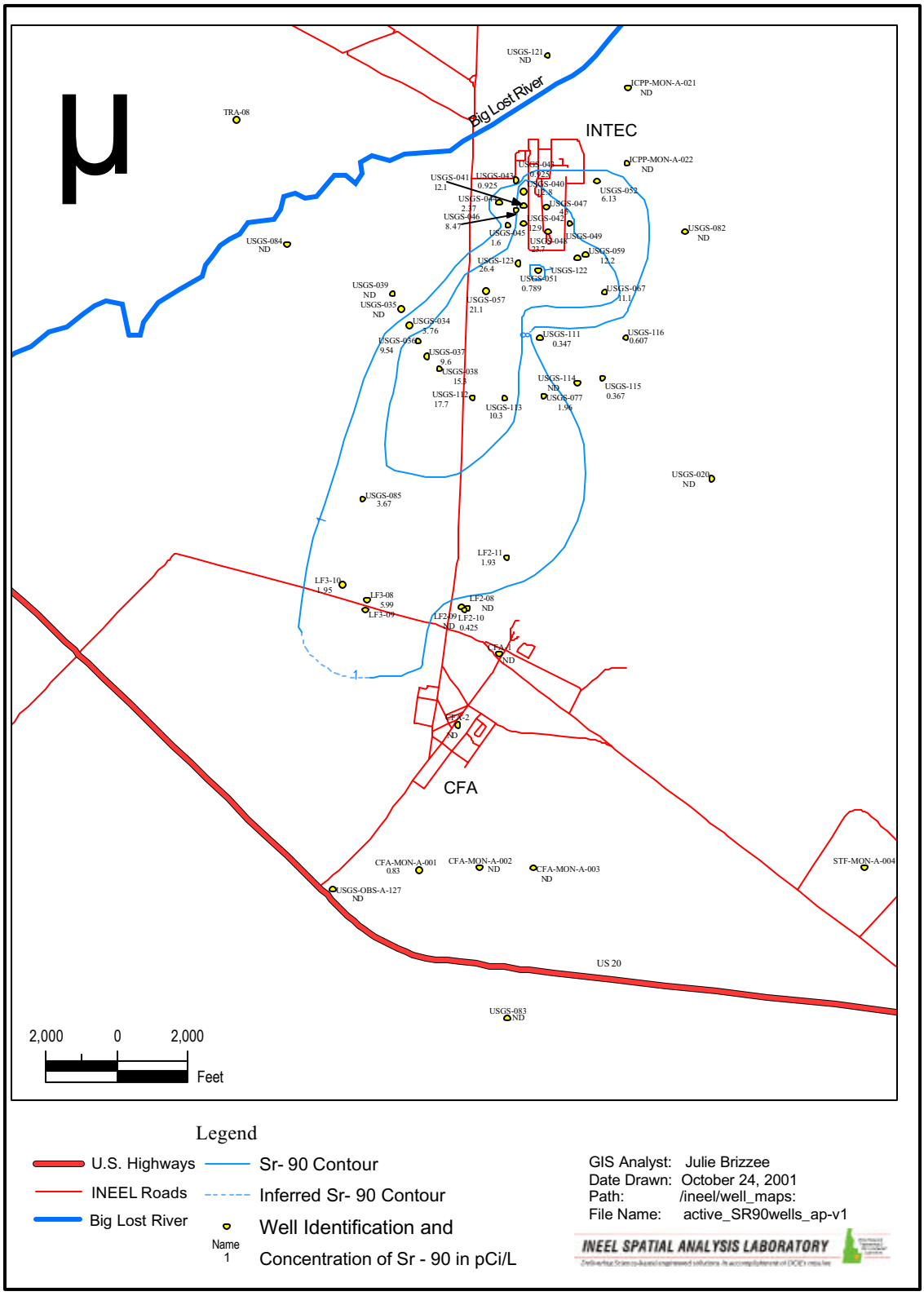
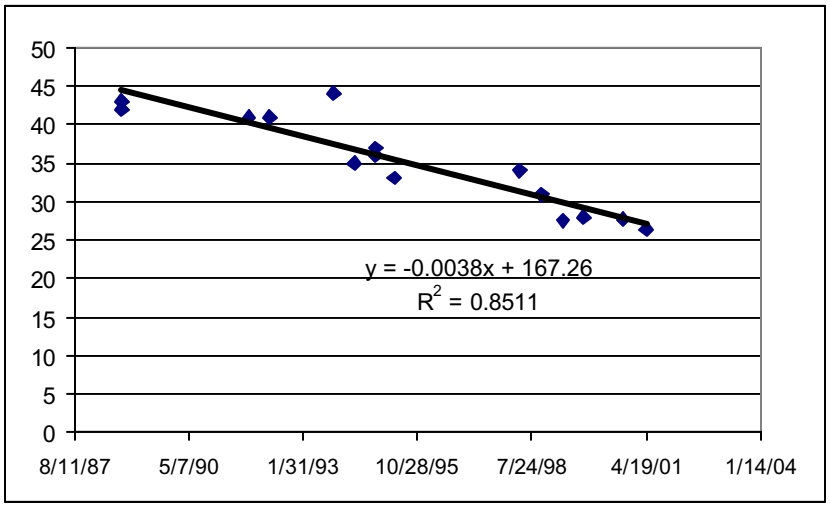
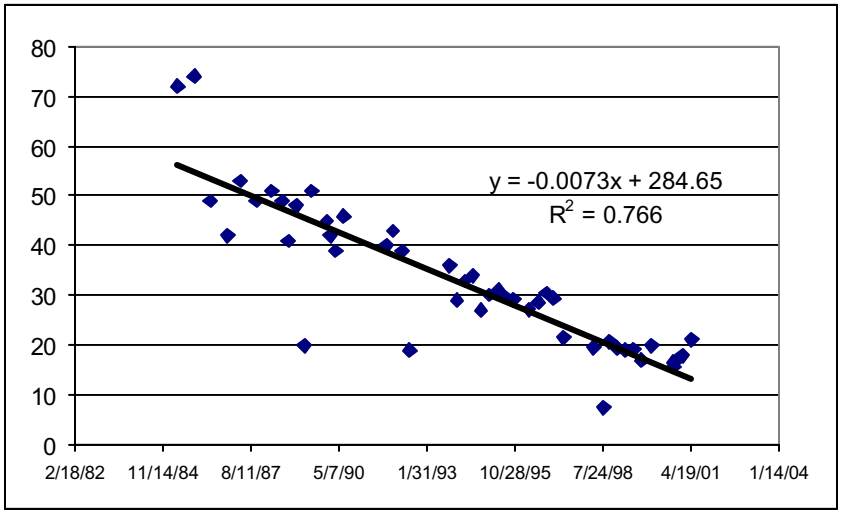


Figure 6. Distribution of Sr-90 in the SRPA in 2001.

USGS-123



USGS-57



USGS-112

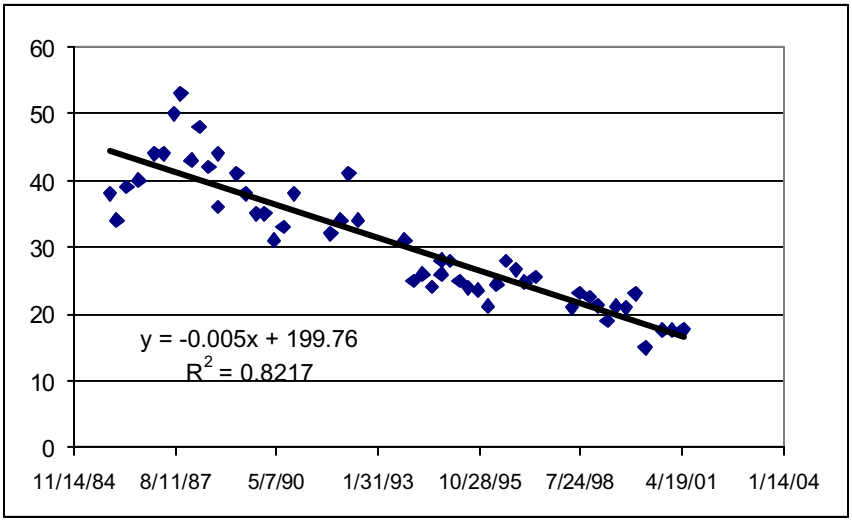
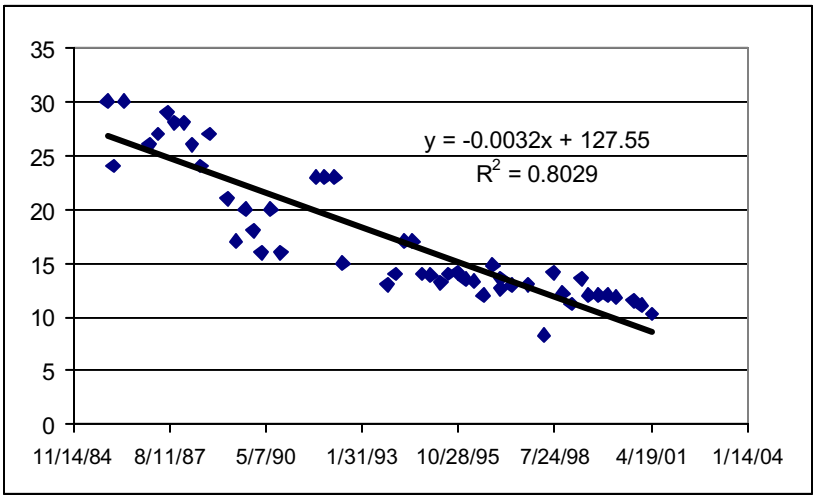
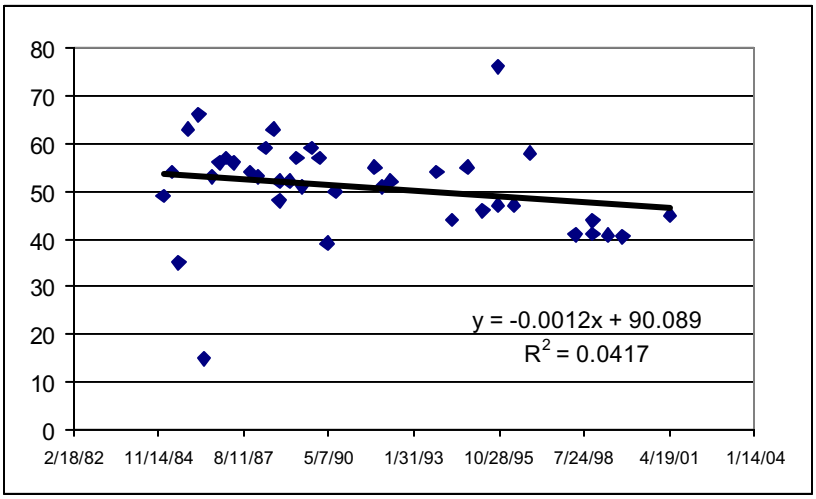


Figure 7. Strontium-90 concentration trends for select wells near INTEC.

USGS-113



USGS-47



USGS-67

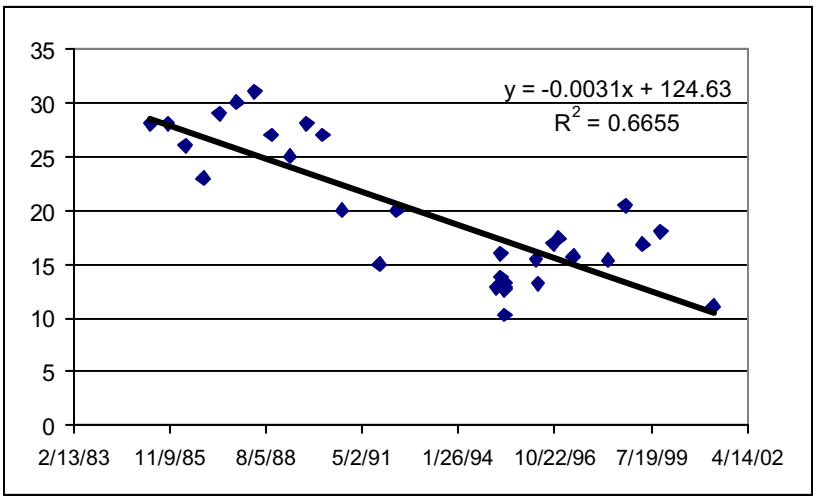


Figure 7. (continued).

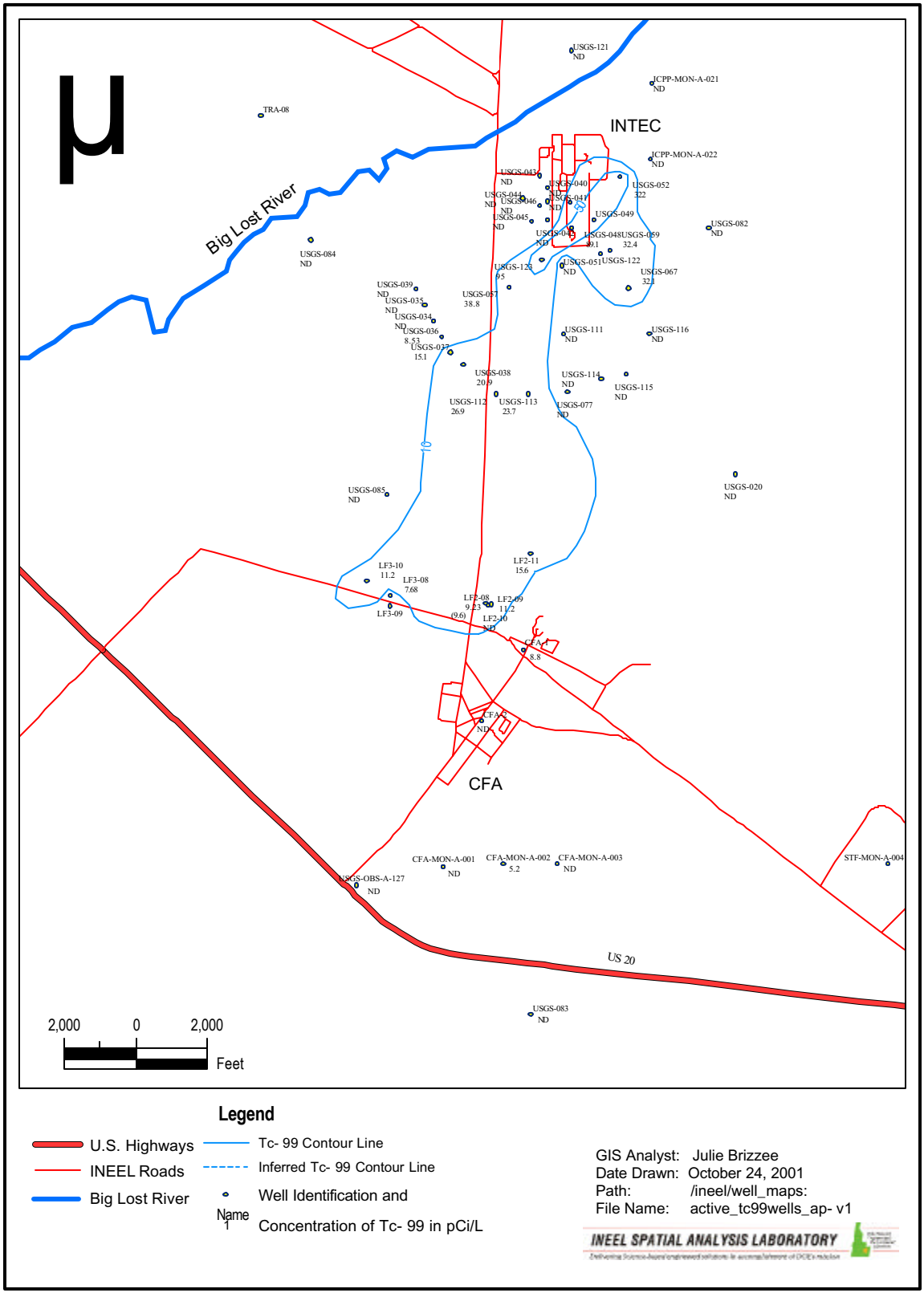


Figure 8. Distribution of Tc-99 in the SRPA in 2001.

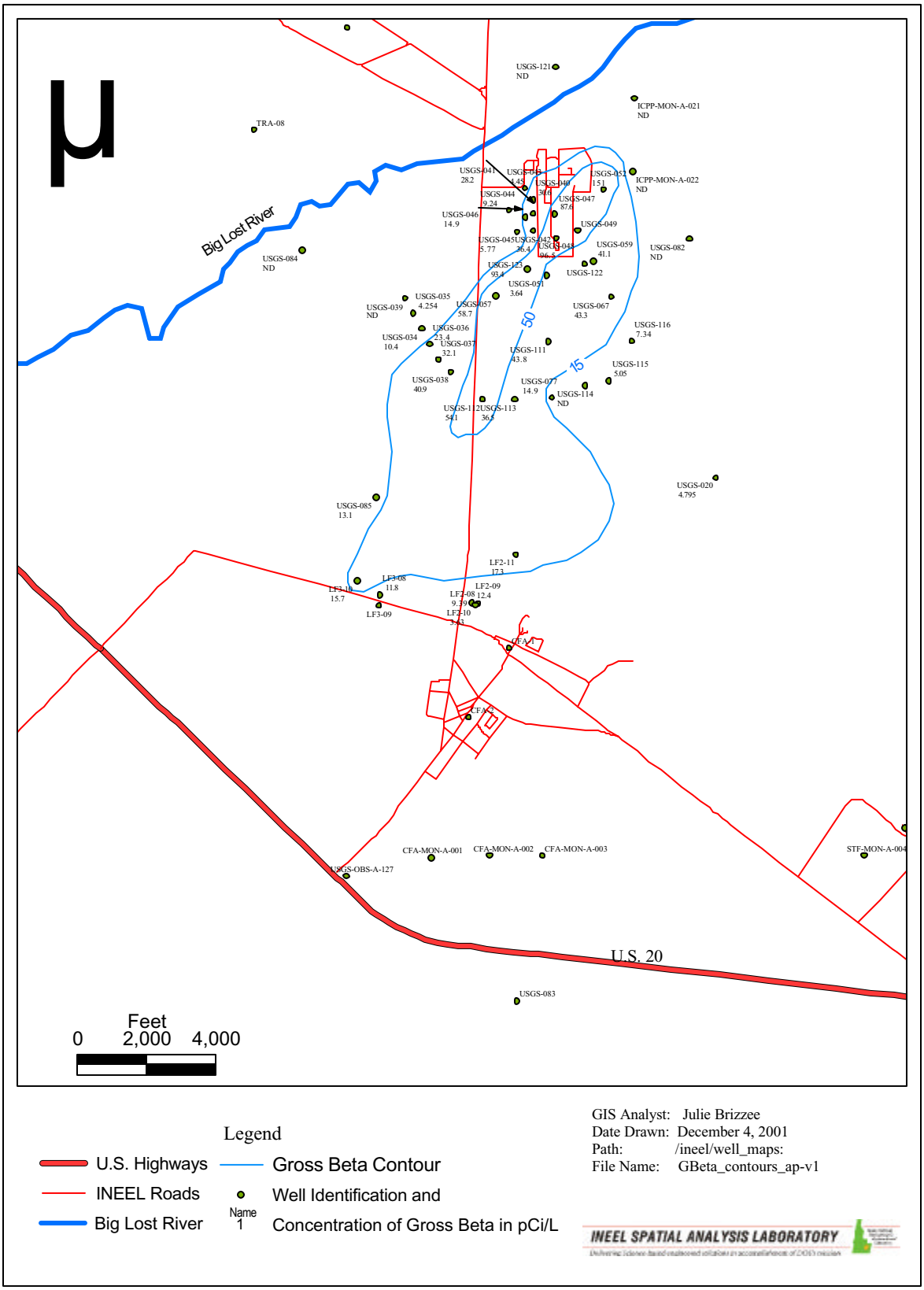


Figure 9. Distribution of gross beta in the SRPA in 2001.

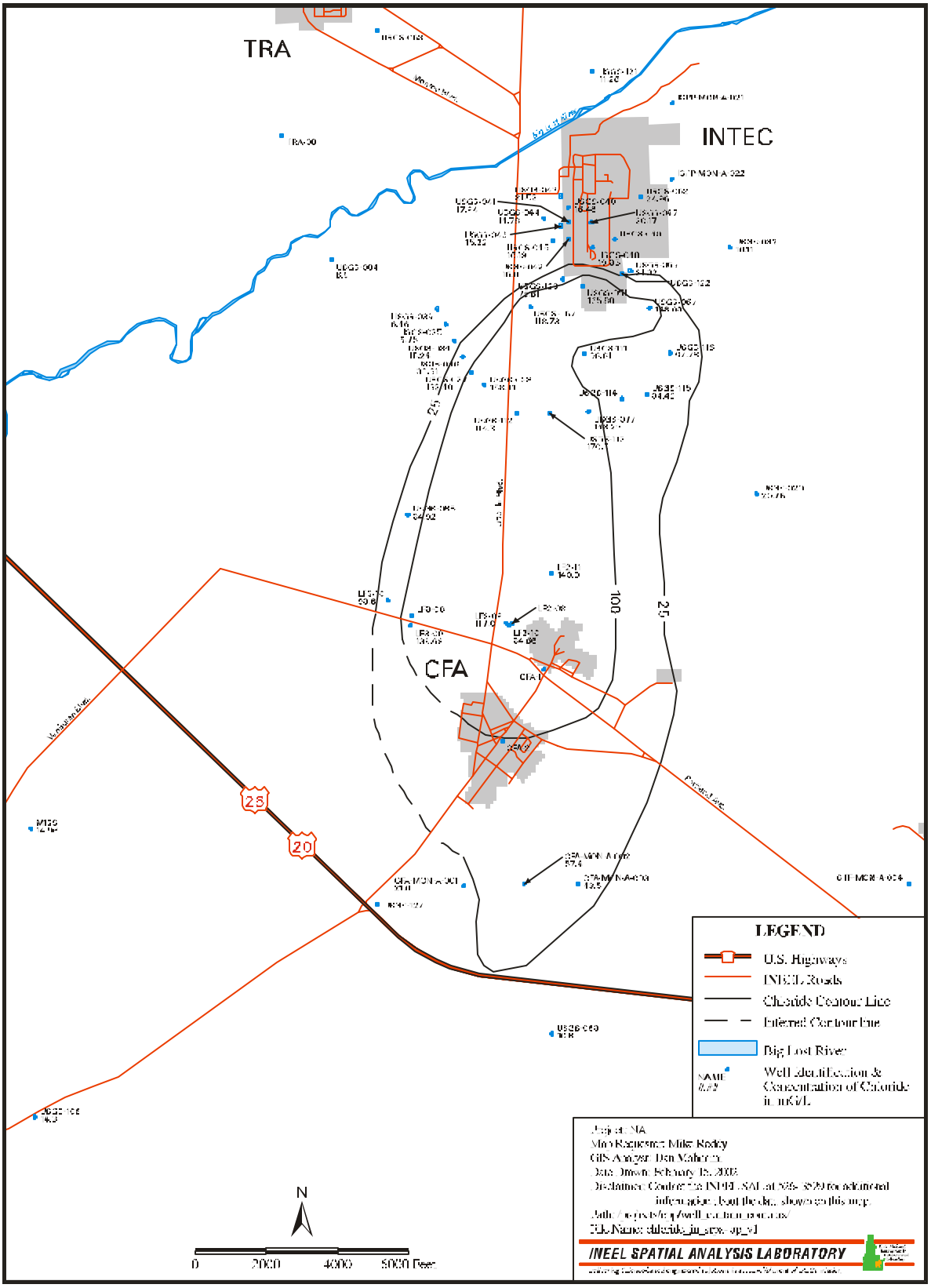


Figure 10. Distribution of chloride in the SRPA (USGS and WAG 4 data).

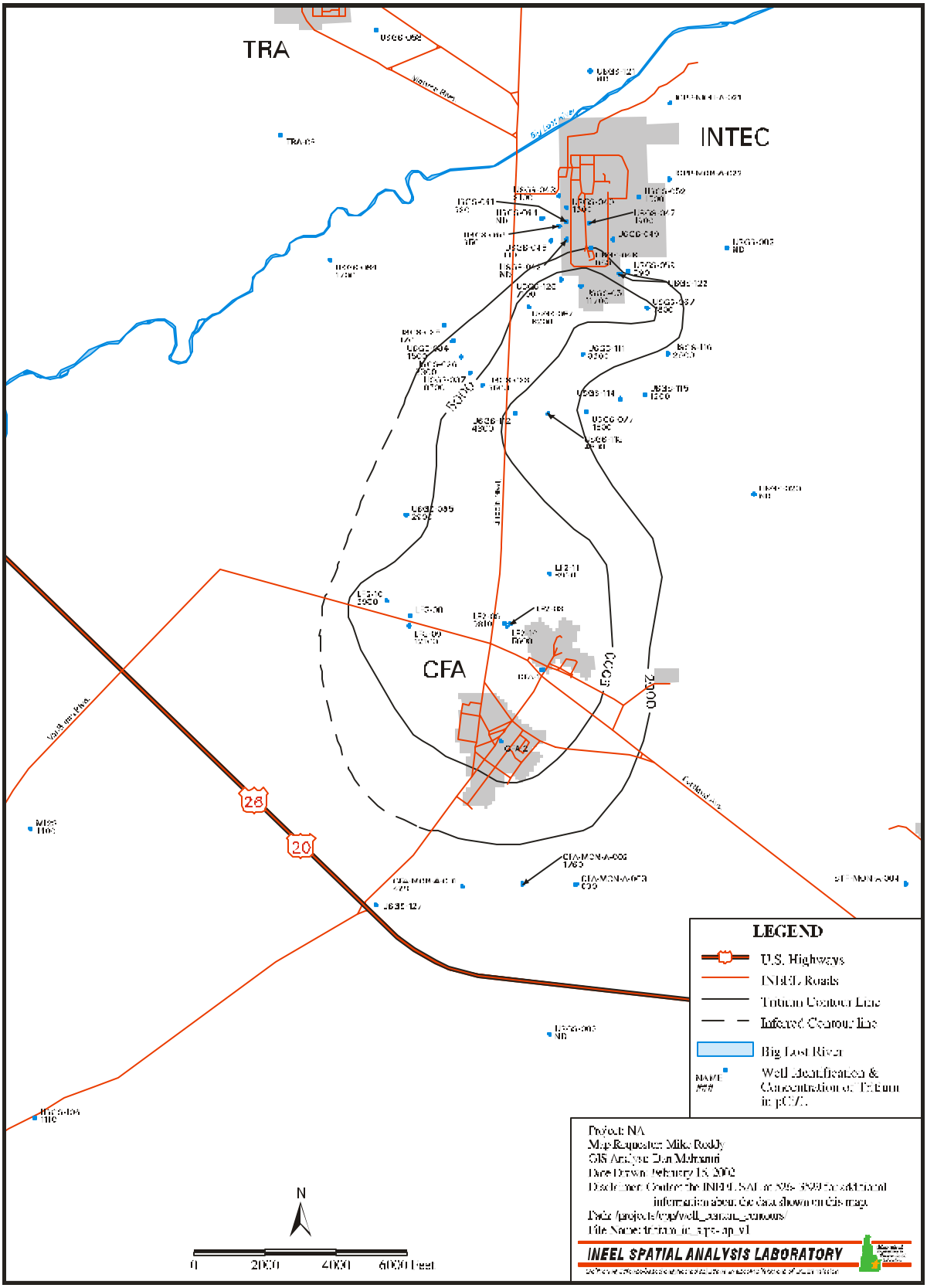
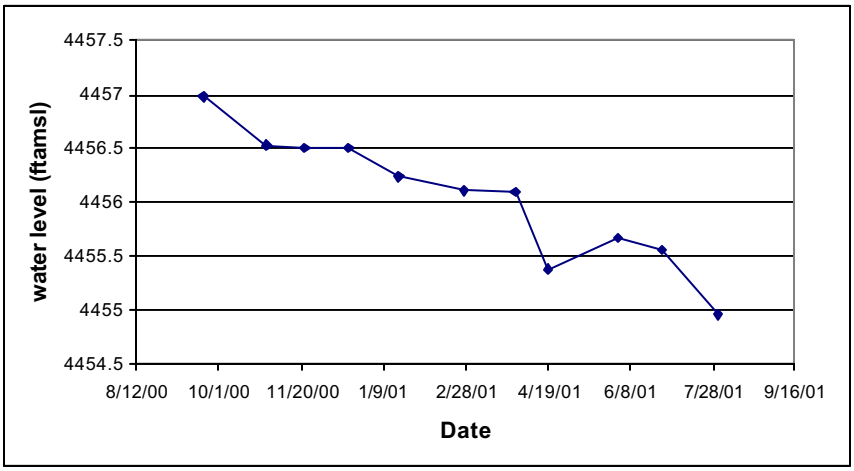
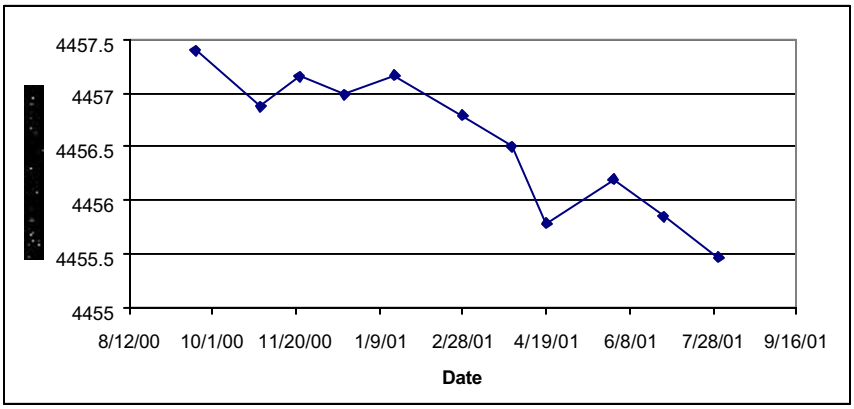


Figure 11. Distribution of tritium in the SRPA (USGS and WAG 4 data).

LF 2-08



USGS-112



USGS-082

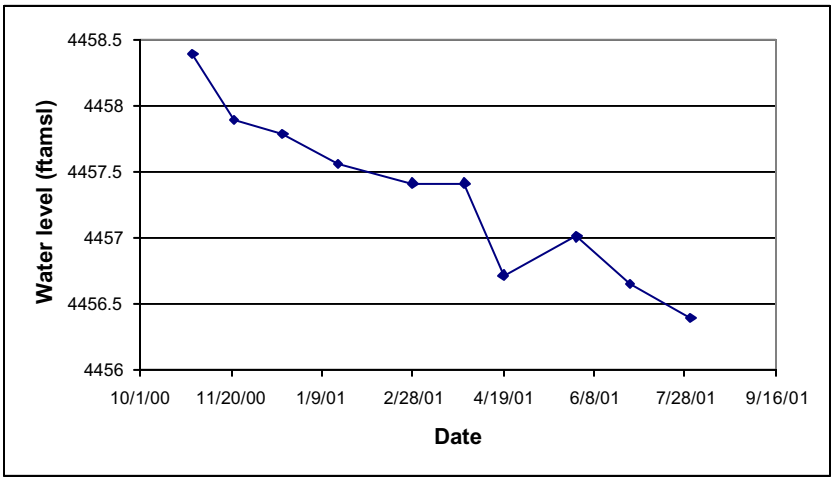
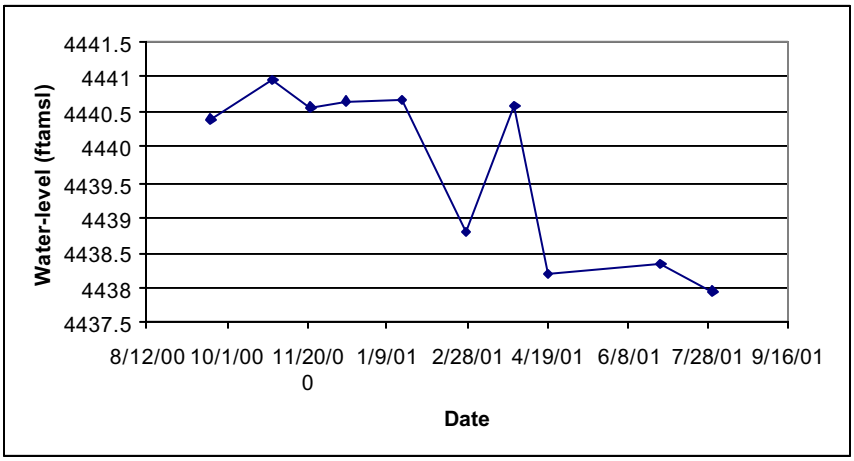
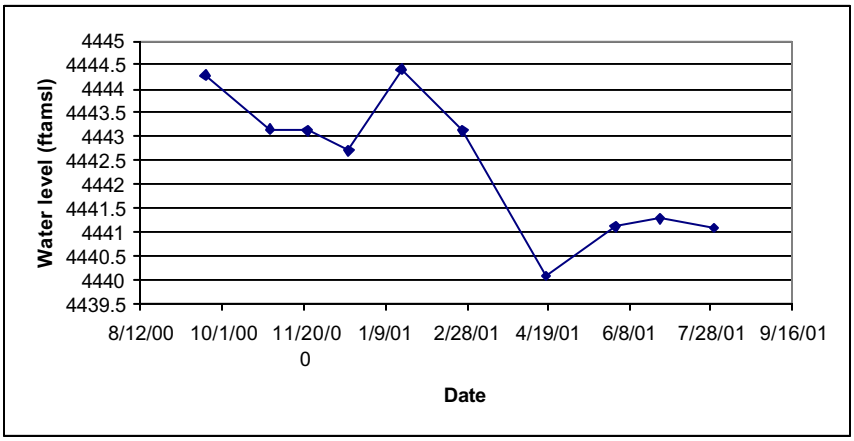


Figure 12. Hydrographs for select wells in the INTEC, CFA, RWMC, and STF areas.

STF-MON-A-003



SOUTH-MON-A-002 (M12S)



CFA-MON-A-001

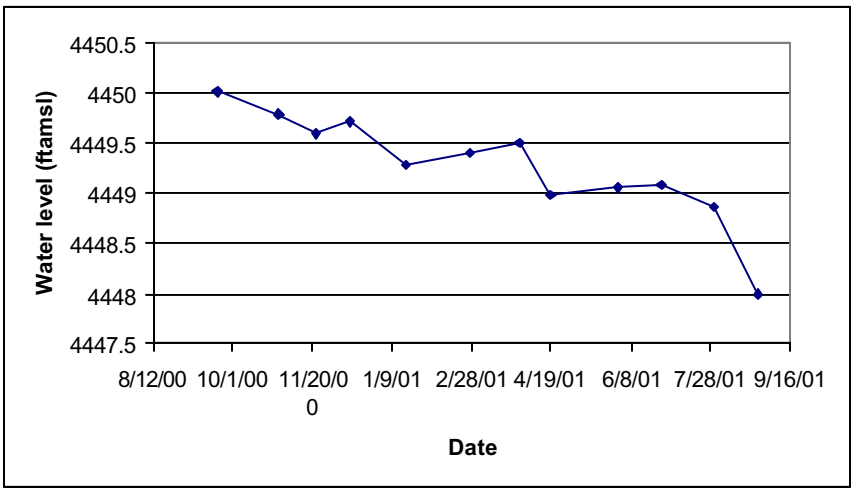


Figure 12. (continued).

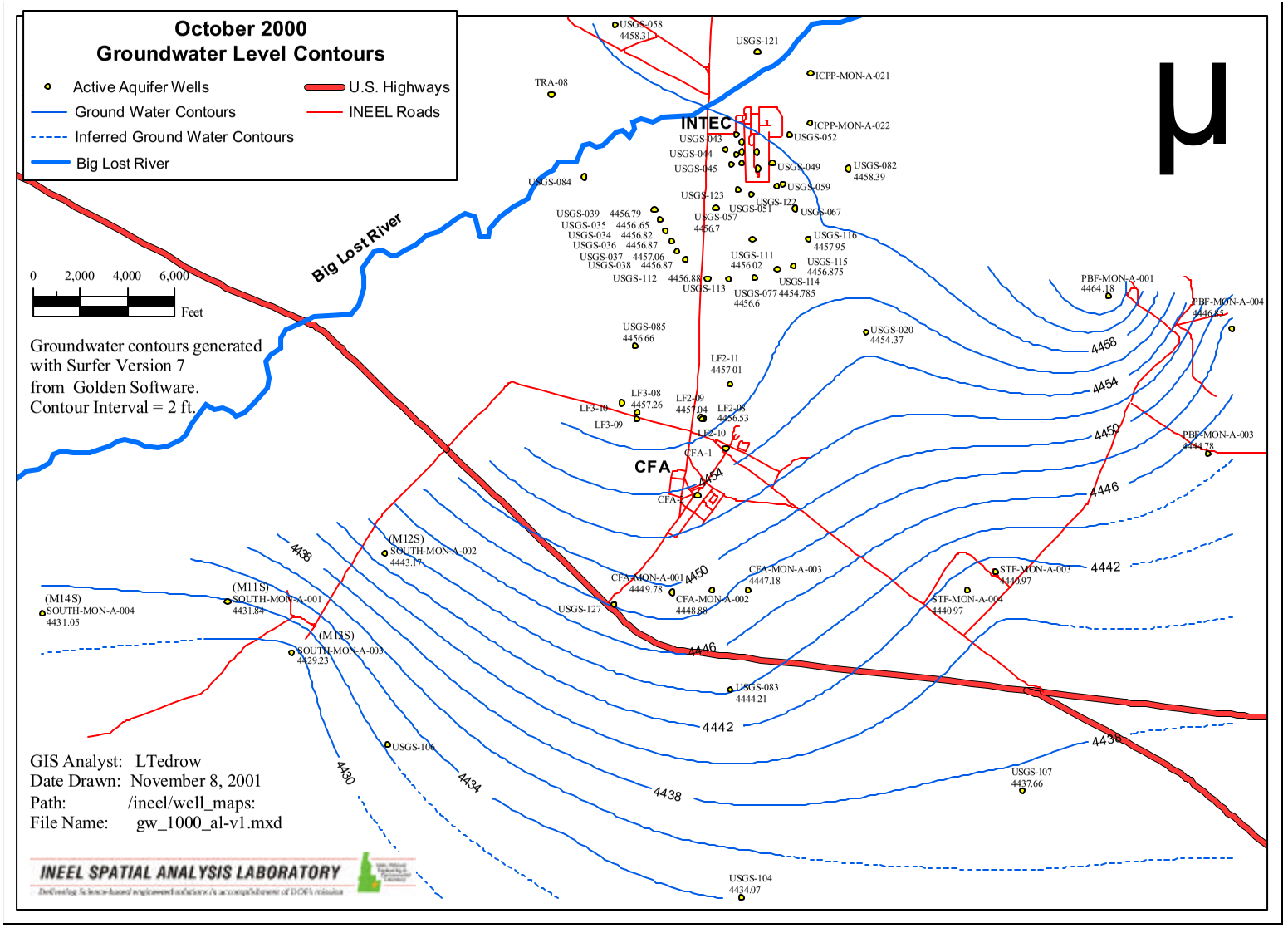


Figure 13. Water-level contour plot for October 2000.

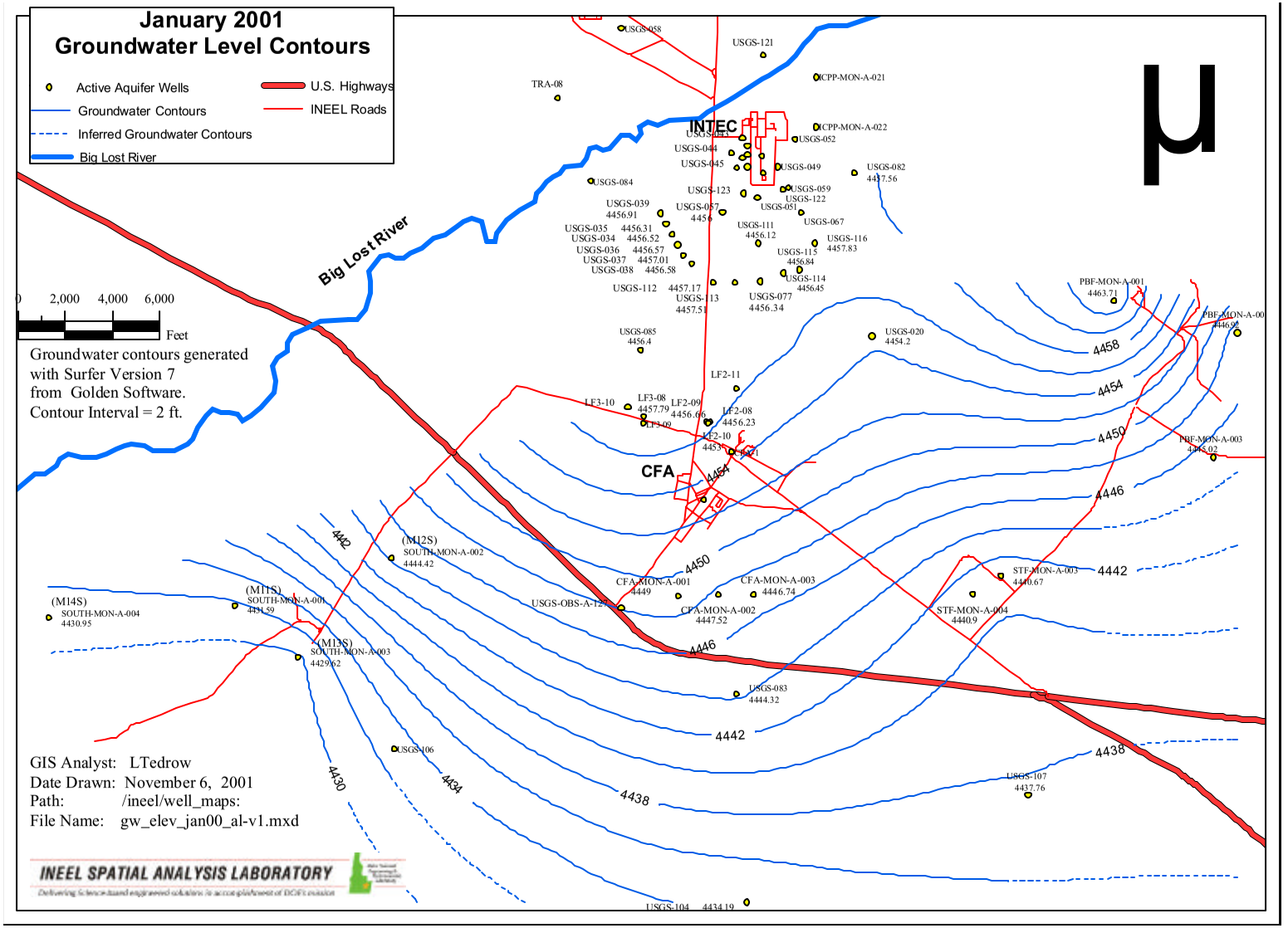


Figure 14. Water-level contour plot for January 2001.

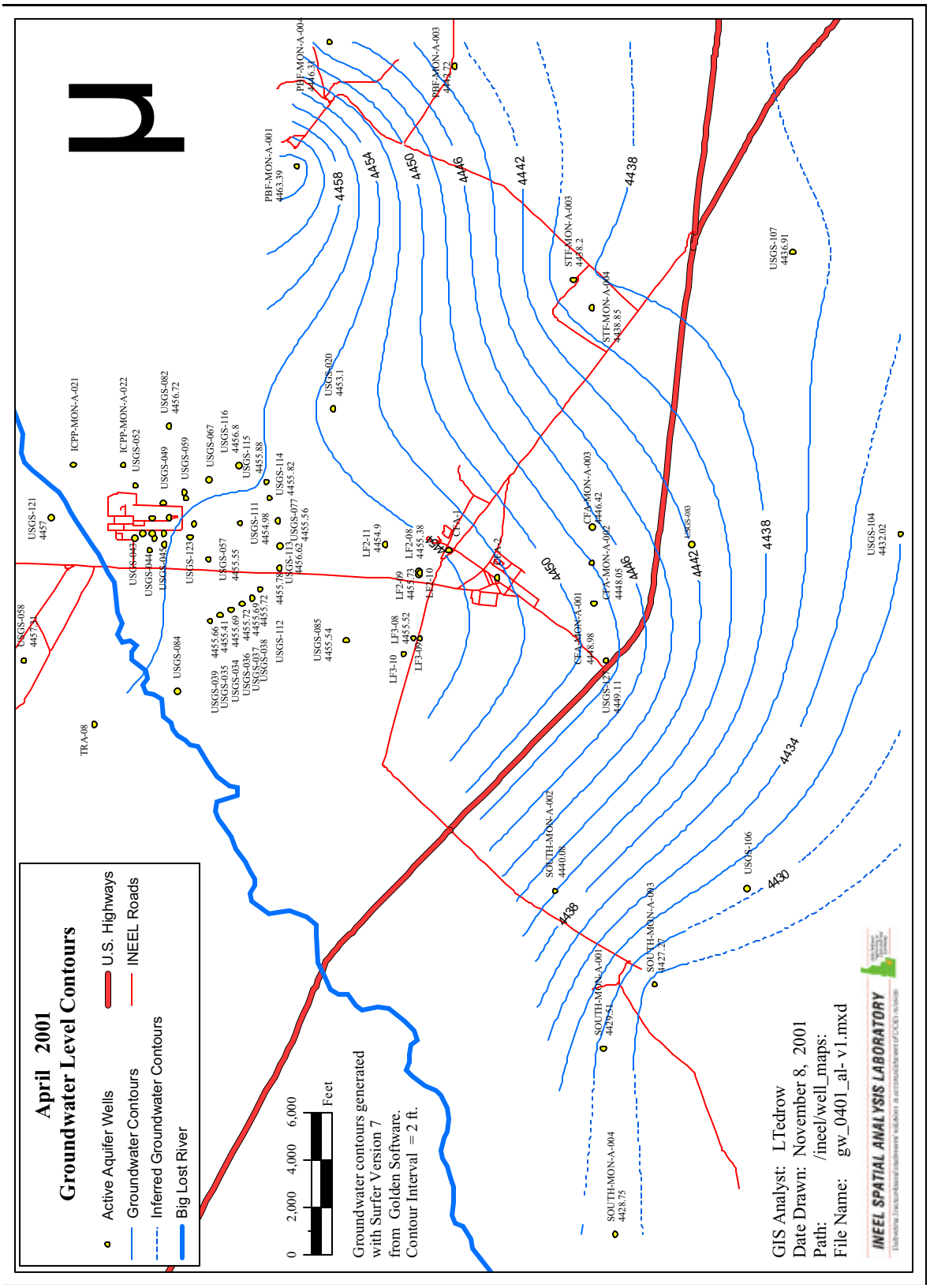


Figure 15. Water-level contour plot for April 2001.

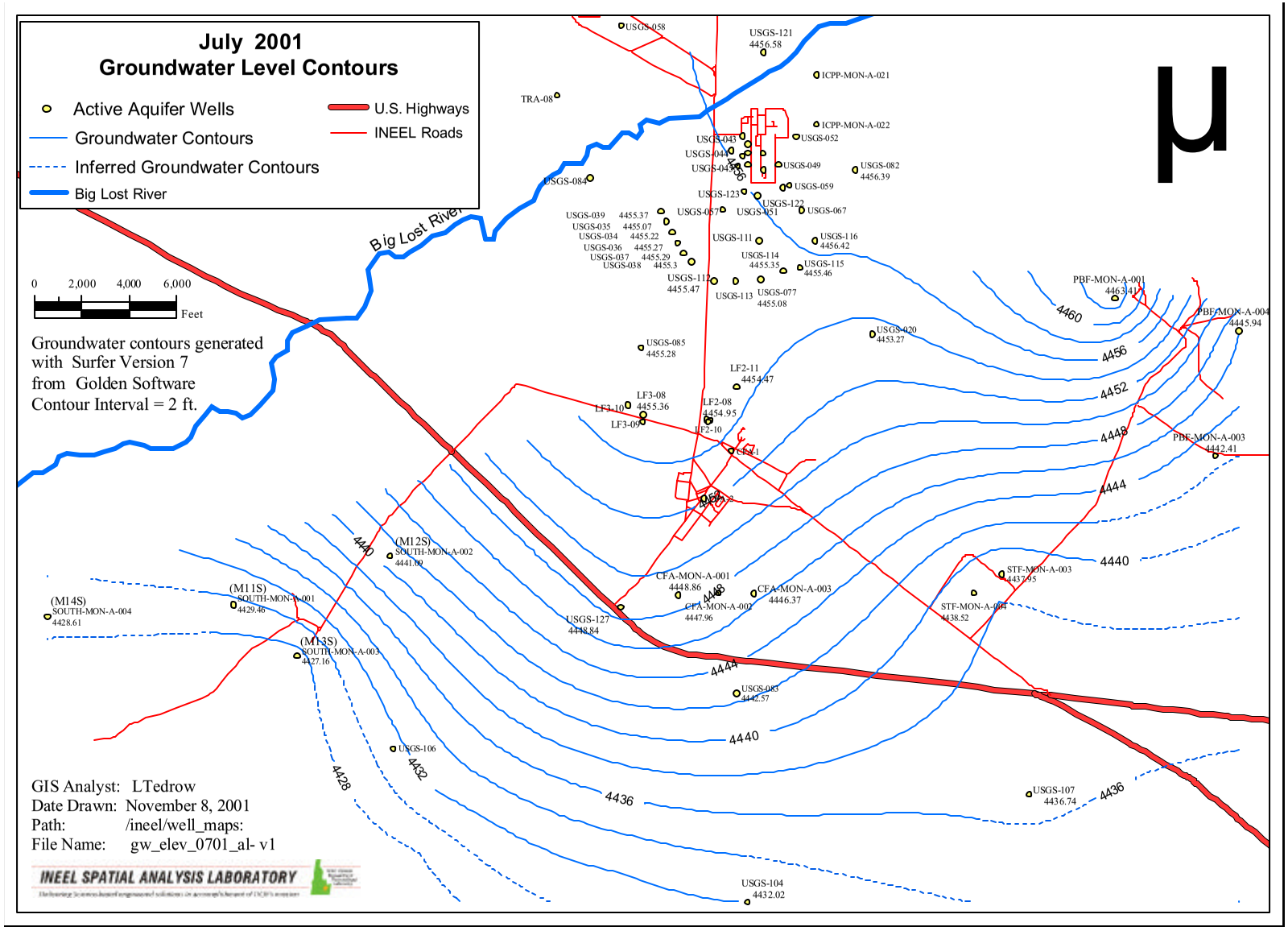


Figure 16. Water-level contour plot for July 2001.

Table 1. Summary of iodine-129, Sr-90, tritium, Tc-99, gross alpha, and gross beta in the SRPA.[a]

		I-129			Sr-90			Tritium			Tc-99			Gross Alpha			Gross Beta	
		MCL = 1	pCi/L		MCL = 8	pCi/L		MCL = 20000	pCi/L		MCL = 900	pCi/L		MCL = 15	pCi/L		MCL = 4	mrem
Well	QA/QC	pCi/L	+/-		pCi/L	+/-		pCi/L	+/-		pCi/L	+/-		pCi/L	+/-		pCi/L	+/-
ICPP-MON-A021		0.009	0.023	U[b]	0.0417	0.0447	U	84	88.5	UJ	-2.38	1.53	U	1.83	1.01	U	5.4	1.26
ICPP-MON-A022		0.028	0.023	U	0.0268	0.0437	U	2940	193		2.75	2.92	U	0.804	1.1	U	6.4	1.46
CFA-1		0.352	0.083		0.14	0.26	U	9200	1200		8.8	4.9		NA[c]			NA	
CFA-2		0.072	0.05	U	0.16	0.24	U	7900	1100		0.8	4.4	U	NA			NA	
CFA-MON-A-001		-0.045	0.044	U	0.83	0.35	UJ	410	140		0.1	4.1	U	NA			NA	
CFA-MON-A-002		-0.024	0.046	U	0.27	0.25	U	1620	280		5.28	2.8		NA			NA	
CFA-MON-A-003		-0.045	0.044	U	0.21	0.28	U	770	180		2.5	3.0	U	NA			NA	
CFA-1606		0.098	0.053		0.65	0.32	UJ	8000	1100		3.9	3.0	U	NA			NA	
CFA-1606	Dup	0.112	0.056		0.14	0.28	U	8200	1100		5.6	3.1		NA			NA	
LF 2-10		0.041	0.047	U	0.425	0.0988		1730	145		0.897	1.51	U	1.75	0.718	UJ	3.63	1.04
LF 2-11		0.98	0.17		1.93	0.5		7960	446		15.6	1.92		2.75	1.3	UJ	17.3	1.89
LF 2-8[d]		0.92	0.17		0.58	0.28	UJ	8400	1100		9.6	4.6		NA			NA	
LF 2-8		**1.04**	0.18		0.164	0.118	U	8080	451		9.23	1.68		1.26	1.06	U	9.39	1.52
LF 2-9		0.91	0.16		0.0006	0.149	U	9200	510		11.2	1.75		0.708	0.894	U	12.4	1.79
LF 3-10		0.85	0.15		1.95	0.321		7100	403		11.2	1.86		1.61	0.967	U	15.7	1.83
LF 3-8		0.91	0.16		5.42	0.715		9510	524		7.68	1.71		2.19	1.18	U	11.8	1.65
LF 3-8	Dup	**1.06**	0.19		5.99	0.781		9270	512		8.38	1.86		3.51	1.36	J	12.7	1.81
USGS-20		0.066	0.023	UJ	-0.0149	0.087	U	6090	359		1.14	1.52	U	3.2	1.11	J	4.79	1.12
USGS-34		0.055	0.023	UJ	3.76	0.596		499	100		4.89	2.25	UJ	0.987	0.698	U	10.4	1.5
USGS-35		-0.021	0.048	U	0.614	0.154		904	114		0.799	2.37	U	2.69	1.06	J	4.25	1.26
USGS-36		0.346	0.066		**9.54**	1.34		2020	158		8.53	2.6		3.6	2.69	U	23.4	3.34
USGS-37	Dup	0.61	0.12		**10.0**	1.59		4850	285		14	1.7		1.31	0.816	U	32.1	2.33

Table 1. (continued)

		I-129			Sr-90			Tritium			Tc-99			Gross Alpha			Gross Beta	
		MCL = 1	pCi/L		MCL = 8	pCi/L		MCL = 20000	pCi/L		MCL = 900	pCi/L		MCL = 15	pCi/L		MCL = 4	mrem
Well	QA/QC	pCi/L	+/-		pCi/L	+/-		pCi/L	+/-		pCi/L	+/-		pCi/L	+/-		pCi/L	+/-
USGS-37		0.75	0.14		**9.6**	1.31		5960	353		15.1	1.72		2.97	1.97	U	26.1	3.77
USGS-38		0.68	0.12		**15.3**	2.11		5140	299		20.9	1.93		2.62	1.16	J	40.9	2.69
USGS-39		-0.011	0.017	U	0.139	0.128	U	1070	122		0.0773	2.51	U	1.49	0.789	U	3.09	1.22
USGS-40		0.154	0.036		**12.8**	1.75		1910	154		-2.33	1.47	U	2.24	0.984	UJ	30.6	2.51
USGS-41		0.108	0.051	J	**12.1**	1.45		1300	129		-0.419	1.47	U	2.09	1.27	U	28.2	3.93
USGS-42		0.65	0.13		**12.9**	3.21		1620	136		1.36	1.53	U	3.44	2.47	U	36.4	4.90
USGS-43		0.065	0.049	U	0.925	0.15		3540	230		-1.77	1.47	U	0.501	0.745	U	4.45	1.19
USGS-44		0.088	0.049	J	2.37	0.296		-169	85.8	U	-2.8	1.45	U	1.11	0.74	U	9.24	1.50
USGS-45		0.071	0.049	U	1.6	0.263		195	90.4	UJ	8.29	2.3		2.71	0.815		5.77	0.999
USGS-46		0.052	0.047	U	**8.47**	0.466		839	109		3	2.38	U	2.35	0.928	J	14.9	2.54
USGS-47		0.75	0.13		**45**	7.57		3890	249		38.3	2.78		2.83	1.03	J	87.6	5.5
USGS-48		0.112	0.053	J	**23.7**	3.28		3390	224		89.1	2.79		5.35	1.77		96.5	6.00
USGS-51		0.076	0.053	U	0.789	0.151		12600	693		4.28	2.37	U	0.0537	0.527	U	3.64	1.27
USGS-52		0.092	0.052	U	6.13	0.91		2340	173		322	6.6		**15**	3.86		151	8.42
USGS-57		0.57	0.11		**21.1**	3.43		5110	300		38.8	2.03		2.06	1.05	U	58.7	4.50
USGS-59		0.374	0.084		**12.2**	1.68		4090	253		32.4	1.91		1.84	0.814	UJ	41.1	2.65
USGS-67		0.68	0.12		**11.1**	1.47		7430	413		32.1	2.64		2.87	1.15	J	43.3	2.83
USGS-77		0.59	0.11		1.96	0.296		11500	613		5.48	2.47	UJ	2.2	0.929	J	14.9	1.55
USGS-82		0.059	0.026	U	0.114	0.0551	J	26.3	86.3	U	-2.3	1.65	U	3.95	1.35	UJ	5.56	1.41
USGS-83		-0.057	0.05	U	0.26	0.24	U	-44	95	U	3.3	2.8	U	NA			NA	
USGS-84		-0.005	0.017	U	-0.0455	0.0887	U	1950	154		-6.7	2.66	U	1.66	0.764	UJ	0.757	1.01
USGS-85		0.491	0.09		3.67	0.509		3000	201		2.35	2.27	U	1.7	0.965	U	13.1	1.79
USGS-111		0.39	0.088		0.347	0.0999		4490	279		0.833	1.52	U	1.81	0.848	UJ	43.8	1.21

Table 1. (continued)

		I-129			Sr-90			Tritium			Tc-99			Gross Alpha			Gross Beta	
		MCL = 1	pCi/L		MCL = 8	pCi/L		MCL = 20000	pCi/L		MCL = 900	pCi/L		MCL = 15	pCi/L		MCL = 4	mrem
Well	QA/QC	pCi/L	+/-		pCi/L	+/-		pCi/L	+/-		pCi/L	+/-		pCi/L	+/-		pCi/L	+/-
USGS-112		0.06	0.05	U	**17.7**	2.3		5380	312		26.9	2.61		6.42	1.97		54.1	3.96
USGS-113		-0.009	0.05	U	**10.3**	1.39		5080	297		23.7	1.81		2.89	1.31	J	36.5	2.81
USGS-114		0.163	0.036		0.117	0.0774	U	14000	771		4.46	1.57	UJ	1.45	0.929	U	6.14	1.18
USGS-115		0.096	0.029		0.367	0.105		2250	171		2.6	2.28	U	1.02	0.488	UJ	5.05	0.816
USGS-116		0.173	0.038		0.607	0.133		2650	188		5.51	2.28	UJ	0.83	0.745	U	7.34	1.32
USGS-121		-0.008	0.045	U	0.249	0.0897	UJ	-167	87.5	U	-0.439	1.54	U	1.69	0.757	UJ	3.15	1.10
USGS-123		0.64	0.12		**26.4**	3.86		7480	415		95	2.83		4.18	1.63	J	93.4	5.6
USGS-127		-0.016	0.042	U	0.38	0.29	U	110	110	U	2.2	3.2	U	NA			NA	
RINSE		0.003	0.028	U	-0.0281	0.0454	U	51	86.9	U	-3.94	1.54	U	0.397	0.415	U	0.348	0.936

a. Bold indicates a value equal or greater than the maximum contaminant level (MCL).
b. "U" indicates that an analyte was not detected. "J" indicates an estimated value. "UJ" indicates that the result is not detectable at the reported value but the reported value is only an estimate.
c. "NA" means not analyzed.
d. Resampled in August 2001.

Table 2. Summary of other analytes detected in the SRPA[a].

	Mercury MCL=2 µg/L	U-233/234		U-238		U-235/236		Cs-137		K-40		Am-241	
Well	µg/L	pCi/L	+/-	pCi/L	+/-	pCi/L	+/-	pCi/L	+/-	pCi/L	+/-	pCi/L	+/-
ICPP-MON-A021	0.1 UJ[b]	1.27	0.118	0.674	0.076	0.097	0.025	—	—	—	—	0.0733	0.0331 J
ICPP-MON-A022	0.1 UJ	0.89	0.091	0.478	0.060	—[c]	—	—	—	—	—	—	—
LF 2-10	0.1 UJ	1.47	0.139	0.692	0.081	—	—	—	—	—	—	—	—
LF 2-11	0.1 UJ	1.59	1.390	0.710	0.075	0.079	0.023	—	—	—	—	—	—
LF 2-8	0.13 J	1.33	0.126	0.560	0.067	—	—	—	—	54.8	15.8	0.0742	0.0336 J
LF 2-9	0.11 J	1.23	0.111	0.666	0.069	0.028	0.012	—	—	—	—	—	—
LF 3-10	0.12 J	1.66	0.142	0.788	0.080	0.065	0.021	—	—	36.9	11.4	—	—
LF 3-8	0.1 J	1.33	0.116	0.674	0.069	0.037	0.015	—	—	—	—	—	—
LF 3-8 (Dup)	0.12 J	1.39	0.127	0.728	0.078	0.069	0.026	—	—	—	—	—	—
USGS-20	0.1 UJ	1.30	0.126	0.579	0.067	—	—	—	—	—	—	0.0472	0.0191 J
USGS-34	0.1 UJ	1.38	1.830	0.663	0.114	—	—	—	—	—	—	—	—
USGS-35	0.1 UJ	1.60	0.224	0.600	0.120	0.146	0.057	—	—	—	—	—	—
USGS-36	0.1 UJ	1.60	0.229	0.635	0.128	—	—	—	—	—	—	—	—
USGS-37 (Dup)	0.1 UJ	1.27	0.172	0.538	0.101	—	—	—	—	—	—	—	—
USGS-37	0.1 UJ	1.39	0.137	0.572	0.072	—	—	—	—	40.5	11.8	—	—
USGS-38	0.1 UJ	1.39	0.133	0.774	0.086	—	—	—	—	—	—	—	—
USGS-39	0.1 UJ	1.55	0.213	0.749	0.134	—	—	—	—	—	—	—	—
USGS-40	0.1 UJ	1.37	0.135	0.731	0.085	—	—	9.25	2.52	68.9	18.1	—	—
USGS-41	0.1 UJ	1.59	0.148	0.703	0.082	0.052	0.018 J	8.41	1.97	—	—	—	—
USGS-42	0.1 UJ	1.47	0.138	0.708	0.807	—	—	—	—	—	—	—	—
USGS-43	0.1 UJ	0.887	0.098	0.394	0.059	0.110	0.031	—	—	—	—	—	—
USGS-44	0.36 J	1.43	0.135	0.806	0.088	0.0493	0.0168 J	—	—	—	—	—	—
USGS-45	0.1 UJ	1.37	0.137	0.566	0.072	0.0567	0.0194 J	—	—	—	—	—	—

Table 2. (continued).

Well	Mercury MCL=2 µg/L	U-233/234		U-238		U-235/236		Cs-137		K-40		Am-241	
	µg/L	pCi/L	+/-	pCi/L	+/-	pCi/L	+/-	pCi/L	+/-	pCi/L	+/-	pCi/L	+/-
USGS-46	0.1 UJ	1.37	0.178	0.440	0.087	0.082	0.036 J	—	—	44.8	11.5	—	—
USGS-47	0.1 UJ	1.62	0.187	0.736	0.109	0.0703	0.0292 J	10.6	2.51	—	—	—	—
USGS-48	0.1 UJ	1.66	0.155	0.691	0.081	0.091	0.025	—	—	—	—	—	—
USGS-51	0.1 UJ	0.646	0.118	0.252	0.068	—	—	—	—	34.3	10.4	—	—
USGS-52	0.1 UJ	1.52	0.202	0.710	0.125	—	—	—	—	—	—	—	—
USGS-57	0.1 UJ	1.66	0.153	0.770	0.084	—	—	—	—	59.9	19.9	—	—
USGS-59	0.1 UJ	1.43	0.134	0.613	0.071	—	—	—	—	—	—	—	—
USGS-67	0.1 UJ	1.19	0.156	0.443	0.084	0.062	0.032	—	—	40.5	11.7 J	—	—
USGS-77	0.1 UJ	1.21	0.165	0.481	0.948	0.125	0.046 J	—	—	—	—	—	—
USGS-82	0.13 J	1.05	0.103	0.532	0.062	0.038	0.014 J	—	—	—	—	—	—
USGS-84	0.1 UJ	1.61	0.226	0.610	0.122	—	—	—	—	—	—	—	—
USGS-85	0.1 UJ	1.59	0.191	0.851	0.126	—	—	—	—	—	—	—	—
USGS-111	0.1 UJ	0.648	0.078	0.383	0.056	0.036	0.015 J	—	—	—	—	—	—
USGS-112	0.1 UJ	1.39	0.185	0.836	0.132	—	—	—	—	—	—	—	—
USGS-113	0.1 UJ	1.27	0.124	0.614	0.073	—	—	—	—	—	—	—	—
USGS-114	0.1 UJ	1.12	0.108	0.469	0.058	0.059	0.018	—	—	—	—	—	—
USGS-115	0.1 UJ	0.705	0.119	0.379	0.083	—	—	—	—	—	—	—	—
USGS-116	0.1 UJ	1.10	0.160	0.474	0.097	—	—	—	—	34.60	8.64	—	—
USGS-121	0.1 UJ	1.57	0.147	0.619	0.074	—	—	—	—	—	—	—	—
USGS-123	0.1 UJ	1.67	0.153	0.828	0.090	—	—	—	—	—	—	—	—
RINSE	0.12 J	—	—	—	—	—	—	—	—	—	—	—	—

a. All samples were analyzed for plutonium -238, plutonium -239/240, plutonium-241, and neptunium-237; but all were nondetect. Nondetect analytes from gamma spectrometry analysis include antimony-125, cerium-144, Cs-134 and –137, cobalt -58 and -60, euorpium -152, -154, and –155, manganese-54, niobium-95, potassium -40, radium-226, ruthenium-103 and -106, silver-108 and -110, zinc-65, and zirconium-95.
b. "U" indicates that an analyte was not detected. "J" indicates an estimated value. "UJ" indicates that the result is nondetectable at the reported value but the reported value is only an estimate.
c. — = not detected.

Table 3. Summary of tritium and chloride data from USGS and WAG 4 sampling in 2000.

Well	Date Sampled	Tritium (pCi/L)	+/- uncertainty	Chloride (mg/L)
CFA-MON-001	Aug-00	426	86.4	21.6
CFA-MON-002	Aug-00	1760	146	57.4
CFA-MON-003	Aug-00	830	101	43.5
LF 2-10	Oct-99	5600	600	34.66
LF 2-11	Aug-00	8930	578	140
LF 2-9	Aug-00	9810	633	117
LF 3-10	Aug-00	6930	454	93.8
LF 3-9	Oct-99	12100	1000	139.69
M11S	Oct-00	-200	220	17.73
M12S	Mar-00	1400	400	14.96
M13S	Oct-00	-280	220	5.6
M14S	Oct-00	1200	400	14.59
USGS-20	Jul-00	-60	220	20.75
USGS-34	Oct-99	1500	400	15.24
USGS-35	Oct-00	470	280	6.75
USGS-36	Oct-00	2300	400	37.81
USGS-37	Oct-99	8500	800	132.48
USGS-38	Oct-99	6600	800	158.41
USGS-39	Oct-00	400	280	6.46
USGS-40	Oct-99	1600	400	16.48
USGS-41	Oct-00	620	300	17.94
USGS-42	Oct-00	180	260	15
USGS-43	Oct-99	2100	400	21.52
USGS-44	Oct-99	30	260	14.78
USGS-45	Oct-00	290	280	16.19
USGS-46	Oct-99	950	340	15.22
USGS-47	Oct-99	1900	400	20.17
USGS-48	Oct-00	950	320	19.35
USGS-51	Oct-00	11700	1000	165.88
USGS-51 (Dup)	Oct-00	14000	1200	147.21
USGS-52	Oct-00	1500	400	24.96

Table 3. (continued).

Well	Date Sampled	Tritium (pCi/L)	+/- uncertainty	Chloride (mg/L)
USGS-57	Jan-00	6200	600	118.73
USGS-59	Oct-00	890	320	21.32
USGS-67	Oct-00	7800	800	148.03
USGS-77	Oct-00	1500	1200	143.23
USGS-82	Sep-00	-210	220	16.11
USGS-83	Aug-00	55.6	78.6	10.8 WAG 4
USGS-83	Apr-00	-110	100	10.13 USGS
USGS-84	Oct-99	1700	400	6.9
USGS-85	Oct-00	2900	400	34.92
USGS-104	Oct-00	1050	340	11.79
USGS-106	Oct-00	1110	180	14.03
USGS-107	Apr-00	-50	100	21.63
USGS-111	Oct-00	3600	600	97.61
USGS-112	Oct-00	4600	600	114.3
USGS-113	Oct-00	4500	600	170.5
USGS-115	Oct-00	1200	400	34.49
USGS-116	Oct-00	2600	400	94.78
USGS-121	Oct-00	-170	220	11.26
USGS-123	Sep-00	7100	800	75.61

Appendix A

Water-Level Measurement Data and Borehole Deviation Correction Values

Table A-1. Water-level measurements for September 2000.

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)		Comment		Dev corr	Adj wl
ANL-M11	ANL-MON-A-11	ANL	2.30	5118.69	9/21/00								
ANL-MON-A-012	ANL-MON-A-12	ANL	1.60	5132.80	9/21/00								
ANL-MON-A-013	ANL-MON-AQ-13	ANL	3.29	5120.37	9/21/00								
ANL-OBS-A-014	ANL-MON-AQ-14	ANL	1.00	5120.99	9/21/00								
ARA-COR-A-005	ARA-COR-005	ARA	2.24	5046.50	9/21/00		597.59	4451.15					
ARA-MON-A-001	ARA-001	ARA	2.71	5034.30	9/21/00		589.87	4447.14					
ARA-MON-A-002	ARA-002	ARA	2.46	5037.40	9/21/00		592.88	4446.98					
ARA-MON-A-003	ARA-MON-A003A	ARA	2.67	5050.10	9/21/00		603.59	4449.18					
ARA-MON-A-004	0	ARA	2.40	5064.60	9/21/00		617.93	4449.07					
SITE-09	0	ARA	1.62	4926.03	9/21/00		474.64	4453.01					
CFA-MON-A-001	CFA-MON-001	CFA	2.13	4936.44	9/21/00		488.56	4450.01					
CFA-MON-A-002	CFA-MON-002	CFA	1.93	4932.24	9/21/00		485.66	4448.51					
CFA-MON-A-003	CFA-MON-003	CFA	1.83	4930.31	9/21/00		484.69	4447.45					
LF2-10	0	CFA	1.35	4932.48	9/21/00		480.25	4453.58				-0.73	4454.31
LF2-11	0	CFA	1.35	4928.36	9/21/00		472.86	4456.85					
LF2-08	0	CFA	1.42	4931.72	9/21/00		479.11	4454.03				-2.95	4456.98
LF2-09	0	CFA	1.23	4932.23	9/21/00		481.89	4451.57				-5.72	4457.29
LF3-10	0	CFA	???	4942.62	9/21/00		487.78			repaired 1999 needs to be re-surveyed			
LF3-08	0	CFA	1.60	4940.22	9/21/00		489.36	4452.46				-4.77	4457.23
LF3-09	0	CFA	1.69	4941.08	9/21/00					under repair			
ICPP-MON-A-021	CPP-MA-21	CPP	1.75	4904.36									
ICPP-MON-A-022	CPP-MA-22	CPP	2.50	4907.10									
USGS-020	0	ICPP	0.77	4916.36	9/21/00								
USGS-034	0	ICPP	1.07	4929.19	9/21/00		473.02	4457.24					
USGS-035	0	ICPP	1.55	4929.64	9/21/00		474.03	4457.16					
USGS-036	0	ICPP	1.18	4929.20	9/21/00		473.02	4457.36					
USGS-037	0	ICPP	1.22	4929.38	9/21/00		473.28	4457.32					
USGS-038	0	ICPP	1.33	4929.63	9/21/00		473.62	4457.34					
USGS-039	0	ICPP	1.23	4930.95	9/21/00		474.97	4457.21					
USGS-057	0	ICPP	1.92	4922.49	9/21/00		467.34	4457.07					
USGS-077	0	ICPP	2.18	4921.79	9/21/00		467.01	4456.96					
USGS-082	0	ICPP	1.58	4906.99	9/21/00								
USGS-085	0	ICPP	2.28	4939.26	9/21/00		484.41	4457.13					
USGS-111	0	ICPP	2.27	4920.50	9/21/00		471.31	4451.46				-5.24	4456.70
USGS-112	0	ICPP	2.29	4927.84	9/21/00		475.34	4454.79				-2.61	4457.40
USGS-113	0	ICPP	2.34	4925.28	9/21/00		475.98	4451.64				-6.46	4458.10
USGS-114	0	ICPP	2.28	4920.09	9/21/00		469.73	4452.64				-4.7	4457.34
USGS-115	0	ICPP	2.30	4918.84	9/21/00		466.06	4455.08				-2.23	4457.31
USGS-116	0	ICPP	2.53	4916.03	9/21/00		460.26	4458.30					
RWMC-PRO-A-064	LSIT TEST WELL	LSIT	1.92	5042.10	9/21/00		612.59	4431.43					
RWMC-MON-A-013	A11A31	LSIT	3.10	5068.80	9/21/00		641.35	4430.55					
RWMC-MON-A-065	RWMC-MA-65	LSIT	0.89	5041.60									
RWMC-MON-A-066	RWMC-MA-66	LSIT	1.51	5043.70									
NRF-MON-A-008	NRF-MA-08	NRF	3.04	4852.33									
NRF-MON-A-009	NRF-MA-09	NRF	2.86	4853.47									
NRF-MON-A-010	NRF-MA-10	NRF	3.27	4853.10									

Table A-1. (continued).

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)		Comment		Dev corr	Adj wl
NRF-MON-A-011	NRF-MA-11	NRF	2.96	4850.73									
NRF-MON-A-012	NRF-MA-12	NRF	3.08	4850.83									
NRF-MON-A-013	NRF-MA-13	NRF	3.20	4843.59									
SITE 01 WATER TABLE	SITE-01A	OFF-BLR	2.11	5361.81									
PBF-MON-A-001	0	PBF	1.92	4906.15	9/21/00		443.54	4464.53					
PBF-MON-A-003	0	PBF	1.85	4959.29	9/21/00		516.43	4444.71					
PBF-MON-A-004	0	PBF	2.72	4939.66	9/21/00		495.32	4447.06					
PBF-MON-A-005	0	PBF	1.79	4976.13	9/21/00		508.19	4469.73					
M10S	M10S	RWMC	1.46	5021.62	9/21/00		593.86	4429.22					
M1SA	M01S	RWMC	3.13	5011.09	9/21/00		584.75	4429.47					
M3S	M03SA	RWMC	1.59	5016.16	9/21/00		588.04	4429.71					
M4D	M04D	RWMC	1.93	5022.53	9/21/00		594.26	4430.20					
M6S	M06S	RWMC	1.86	5065.76	9/21/00								
M7S	M07S	RWMC	2.76	5004.85	9/21/00		577.25	4430.36					
SOUTH-MON-A-001	M11	RWMC	1.48	4994.19	9/21/00		563.66	4432.01					
SOUTH-MON-A-002	M12	RWMC	1.75	4975.28	9/21/00		532.75	4444.28					
SOUTH-MON-A-003	M13	RWMC	1.79	5026.85	9/21/00		599.06	4429.58					
SOUTH-MON-A-004	M14	RWMC	2.78	5032.46	9/21/00		604.08	4431.16					
USGS-001	0	SOUTH	1.42	5022.71	9/21/00								
USGS-083	0	SOUTH	2.15	4941.59	9/21/00								
USGS-104	0	SOUTH	2.98	4988.65	9/21/00								
USGS-107	0	SOUTH	1.95	4917.50	9/21/00								
USGS-110	USGS-110A	SOUTH	2.53	4999.97	9/21/00								
STF-MON-A-01A	STF-MON-01A	STF	1.82	4941.40	9/21/00		501.01						
STF-MON-A-02A	STF-MON-02A	STF	2.35	4937.30	9/21/00		497.02	4442.63					
STF-MON-A-003	0	STF	2.05	4937.01	9/21/00		498.66	4440.40					
STF-MON-A-004	0	STF	2.16	4945.37	9/21/00		506.38	4441.15					
TAN-08	0	TAN	1.25	4790.37									
TAN-13A	0	TAN	1.79	4780.57									
TANT-MON-A-004	TAN-MON-A-001	TANT	2.83	4782.11									
TANT-MON-A-005	TAN-MON-A-002	TANT	2.70	4784.10									
PW-11	0	TRA	1.55	4916.49	9/21/00					n/a			
PW-12	0	TRA	1.24	4923.71	9/21/00								
PW-13	0	TRA	1.79	4923.82	9/21/00								
TRA-06	0	TRA	0.96	4920.14	9/21/00								
TRA-07	0	TRA	2.53	4931.56	9/21/00								
TRA-08	0	TRA	1.47	4934.93	9/21/00								
USGS-053	0	TRA	1.10	4922.14	9/21/00					DRY HOLE			
USGS-054	0	TRA	1.28	4920.94	9/21/00								
USGS-055	0	TRA	1.58	4919.15	9/21/00					n/a			
USGS-058	0	TRA	1.82	4918.37	9/21/00								
USGS-065	0	TRA	0.58	4925.01	9/21/00					n/a			

Table A-2. Water-level measurements for October 2000.

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	Comment	Dev corr	Adj wl
ANL-M11	ANL-MON-A-11	ANL	2.30	5118.69	10/30/00		636.43	4484.56			
ANL-MON-A-012	ANL-MON-A-12	ANL	1.60	5132.80	10/30/00		649.34	4485.06			
ANL-MON-A-013	ANL-MON-AQ-13	ANL	3.29	5120.37	10/30/00		640.56	4483.10			
ANL-OBS-A-014	ANL-MON-AQ-14	ANL	1.00	5120.99	10/30/00		637.63	4484.36			
ARA-COR-A-005	ARA-COR-005	ARA	2.24	5046.50	10/30/00		597.52	4451.22			
ARA-MON-A-001	ARA-001	ARA	2.71	5034.30	10/30/00		589.9	4447.11			
ARA-MON-A-002	ARA-002	ARA	2.46	5037.40	10/30/00		592.87	4446.99			
ARA-MON-A-003	ARA-MON-A003A	ARA	2.67	5050.10	10/30/00		603.44	4449.33			
ARA-MON-A-004	0	ARA	2.40	5064.60	10/30/00		618.04	4448.96			
SITE-09	0	ARA	1.62	4926.03	10/30/00		474.64	4453.01			
CFA-MON-A-001	CFA-MON-001	CFA	2.13	4936.44	10/30/00		488.79	4449.78			
CFA-MON-A-002	CFA-MON-002	CFA	1.93	4932.24	10/30/00		485.29	4448.88			
CFA-MON-A-003	CFA-MON-003	CFA	1.83	4930.31	10/30/00		484.96	4447.18			
LF2-10	0	CFA	1.35	4932.48	10/30/00		480.83	4453.00		-0.73	4453.73
LF2-11	0	CFA	1.35	4928.36	10/30/00		472.7	4457.01			
LF2-08	0	CFA	1.42	4931.72	10/30/00		479.56	4453.58		-2.95	4456.53
LF2-09	0	CFA	1.23	4932.23	10/30/00		482.14	4451.32		-5.72	4457.04
LF3-10	0	CFA	???	4942.62	10/30/00		487.96		repaired 1999 needs to be re-surveyed		
LF3-08	0	CFA	1.60	4940.22	10/30/00		489.33	4452.49		-4.77	4457.26
LF3-09	0	CFA	1.69	4941.08	10/30/00						
ICPP-MON-A-021	CPP-MA-21	CPP	1.75	4904.36							
ICPP-MON-A-022	CPP-MA-22	CPP	2.50	4907.10							
USGS-020	0	ICPP	0.77	4916.36	10/30/00		462.76	4454.37			
USGS-034	0	ICPP	1.07	4929.19	10/30/00		473.44	4456.82			
USGS-035	0	ICPP	1.55	4929.64	10/30/00		474.54	4456.65			
USGS-036	0	ICPP	1.18	4929.20	10/30/00		473.51	4456.87			
USGS-037	0	ICPP	1.22	4929.38	10/30/00		473.54	4457.06			
USGS-038	0	ICPP	1.33	4929.63	10/30/00		474.09	4456.87			
USGS-039	0	ICPP	1.23	4930.95	10/30/00		475.39	4456.79			
USGS-057	0	ICPP	1.92	4922.49	10/30/00		467.71	4456.70			
USGS-077	0	ICPP	2.18	4921.79	10/30/00		467.37	4456.60			
USGS-082	0	ICPP	1.58	4906.99	10/30/00		450.18	4458.39			
USGS-085	0	ICPP	2.28	4939.26	10/30/00		484.88	4456.66			
USGS-111	0	ICPP	2.27	4920.50	10/30/00		471.99	4450.78		-5.24	4456.02
USGS-112	0	ICPP	2.29	4927.84	10/30/00		475.86	4454.27		-2.61	4456.88
USGS-113	0	ICPP	2.34	4925.28	10/30/00		476.35	4451.27		-6.46	4457.73
USGS-114	0	ICPP	2.28	4920.09	10/30/00		472.28	4450.09		-4.7	4454.79
USGS-115	0	ICPP	2.30	4918.84	10/30/00		466.49	4454.65		-2.23	4456.88
USGS-116	0	ICPP	2.53	4916.03	10/30/00		460.61	4457.95			
RWMC-PRO-A-064	LSIT TEST WELL	LSIT	1.92	5042.10	10/30/00		612.42	4431.60			
RWMC-MON-A-013	A11A31	LSIT	3.10	5068.80	10/30/00				n/a		
RWMC-MON-A-065	RWMC-MA-65	LSIT	0.89	5041.60	10/30/00		610.54	4431.95			
RWMC-MON-A-066	RWMC-MA-66	LSIT	1.51	5043.70					N/A		
NRF-MON-A-008	NRF-MA-08	NRF	3.04	4852.33							
NRF-MON-A-009	NRF-MA-09	NRF	2.86	4853.47							
NRF-MON-A-010	NRF-MA-10	NRF	3.27	4853.10							

Table A-2. (continued).

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	Comment	Dev corr	Adj wl
NRF-MON-A-011	NRF-MA-11	NRF	2.96	4850.73							
NRF-MON-A-012	NRF-MA-12	NRF	3.08	4850.83							
NRF-MON-A-013	NRF-MA-13	NRF	3.20	4843.59							
SITE 01 WATER TABLE	SITE-01A	OFF-BLR	2.11	5361.81							
PBF-MON-A-001	0	PBF	1.92	4906.15	10/30/00		443.89	4464.18			
PBF-MON-A-003	0	PBF	1.85	4959.29	10/30/00		516.36	4444.78			
PBF-MON-A-004	0	PBF	2.72	4939.66	10/30/00		495.53	4446.85			
PBF-MON-A-005	0	PBF	1.79	4976.13	10/30/00		508.69	4469.23			
M10S	M10S	RWMC	1.46	5021.62	10/30/00		593.91	4429.17			
M1SA	M01S	RWMC	3.13	5011.09	10/30/00		584.87	4429.35			
M3S	M03SA	RWMC	1.59	5016.16	10/30/00		587.97	4429.78			
M4D	M04D	RWMC	1.93	5022.53	10/30/00		594.5	4429.96			
M6S	M06S	RWMC	1.86	5065.76	10/30/00						
M7S	M07S	RWMC	2.76	5004.85	10/30/00		577.24	4430.37			
SOUTH-MON-A-001	M11	RWMC	1.48	4994.19	10/30/00		563.83	4431.84			
SOUTH-MON-A-002	M12	RWMC	1.75	4975.28	10/30/00		533.86	4443.17			
SOUTH-MON-A-003	M13	RWMC	1.79	5026.85	10/30/00		599.41	4429.23			
SOUTH-MON-A-004	M14	RWMC	2.78	5032.46	10/30/00		604.19	4431.05			
USGS-001	0	SOUTH	1.42	5022.71	10/30/00		588.37	4435.76			
USGS-083	0	SOUTH	2.15	4941.59	10/30/00		499.53	4444.21			
USGS-104	0	SOUTH	2.98	4988.65	10/30/00		557.56	4434.07			
USGS-107	0	SOUTH	1.95	4917.50	10/30/00		481.79	4437.66			
USGS-110	USGS-110A	SOUTH	2.53	4999.97	10/30/00		565.89	4436.61			
STF-MON-A-01A	STF-MON-01A	STF	1.82	4941.40	10/30/00				n/a		
STF-MON-A-02A	STF-MON-02A	STF	2.35	4937.30	10/30/00				n/a		
STF-MON-A-003	0	STF	2.05	4937.01	10/30/00		498.09	4440.97			
STF-MON-A-004	0	STF	2.16	4945.37	10/30/00		506.56	4440.97			
TAN-08	0	TAN	1.25	4790.37	10/30/00		218.44	4573.18			
TAN-13A	0	TAN	1.79	4780.57	10/30/00		207.14	4575.22			
TANT-MON-A-004	TAN-MON-A-001	TANT	2.83	4782.11	10/30/00		205.46	4579.48			
TANT-MON-A-005	TAN-MON-A-002	TANT	2.70	4784.10	10/30/00		209.45	4577.35			
PW-11	0	TRA	1.55	4916.49	10/30/00		112.79	4805.25			
PW-12	0	TRA	1.24	4923.71	10/30/00						
PW-13	0	TRA	1.79	4923.82	10/30/00						
TRA-06	0	TRA	0.96	4920.14	10/30/00		470.89	4450.21			
TRA-07	0	TRA	2.53	4931.56	10/30/00		476.96	4457.13			
TRA-08	0	TRA	1.47	4934.93	10/30/00		480.13	4456.27			
USGS-053	0	TRA	1.10	4922.14	10/30/00				DRY HOLE		
USGS-054	0	TRA	1.28	4920.94	10/30/00		**67.01**	4855.21			
USGS-055	0	TRA	1.58	4919.15	10/30/00		**77.62**	4843.11			
USGS-058	0	TRA	1.82	4918.37	10/30/00		461.88	4458.31			
USGS-065	0	TRA	0.58	4925.01	10/30/00		466.62	4458.97			
										-1.5	

Table A-3. Water-level measurements for November 2000.

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment	Dev corr	Adj wl
ANL-M11	ANL-MON-A-11	ANL	2.30	5118.69								
ANL-MON-A-012	ANL-MON-A-12	ANL	1.60	5132.80								
ANL-MON-A-013	ANL-MON-AQ-13	ANL	3.29	5120.37								
ANL-OBS-A-014	ANL-MON-AQ-14	ANL	1.00	5120.99								
ARA-COR-A-005	ARA-COR-005	ARA	2.24	5046.50	11/22/00	9:11	597.48	4451.26	595.24			
ARA-MON-A-001	ARA-001	ARA	2.71	5034.30	11/22/00	9:02	589.78	4447.23	587.08			
ARA-MON-A-002	ARA-002	ARA	2.46	5037.40	11/22/00	8:49	592.86	4447.00	590.40			
ARA-MON-A-003	ARA-MON-A003A	ARA	2.67	5050.10	11/22/00	9:27	603.35	4449.42	600.68			
ARA-MON-A-004	0	ARA	2.40	5064.60						ACCESS PIPE WET		
SITE-09	0	ARA	1.62	4926.03	11/22/00	11:20	474.63	4453.02	473.01			
CFA-MON-A-001	CFA-MON-001	CFA	2.13	4936.44	11/22/00	1350	488.98	4449.59	486.85			
CFA-MON-A-002	CFA-MON-002	CFA	1.93	4932.24	11/22/00	1340	485.32	4448.85	483.39			
CFA-MON-A-003	CFA-MON-003	CFA	1.83	4930.31	11/22/00	1330	485.07	4447.07	483.24			
LF2-10	0	CFA	1.35	4932.48	11/22/00	1515	480.76	4453.07	479.41		-0.73	4453.80
LF2-11	0	CFA	1.35	4928.36	11/22/00	1530	473.18	4456.53	471.83			
LF2-08	0	CFA	1.42	4931.72	11/22/00	1450	479.59	4453.55	478.17		-2.95	4456.50
LF2-09	0	CFA	1.23	4932.23	11/22/00	1500	482.35	4451.11	481.12		-5.72	4456.83
LF3-10	0	CFA	???	4942.62	11/22/00	1425	488.3			repaired 1999 needs to be re-surveyed		
LF3-08	0	CFA	1.60	4940.22	11/22/00	1435	489.88	4451.94	488.28		-4.77	4456.71
LF3-09	0	CFA	1.69	4941.08						under repair		
ICPP-MON-A-021	CPP-MA-21	CPP	1.75	4904.36								
ICPP-MON-A-022	CPP-MA-22	CPP	2.50	4907.10								
USGS-020	0	ICPP	0.77	4916.36	11/22/00	1155	462.75	4454.38	461.98			
USGS-034	0	ICPP	1.07	4929.19	11/22/00	1608	473.48	4456.78	472.41			
USGS-035	0	ICPP	1.55	4929.64	11/22/00	1615	474.63	4456.56	473.08			
USGS-036	0	ICPP	1.18	4929.20	11/22/00	1550	473.59	4456.79	472.41			
USGS-037	0	ICPP	1.22	4929.38	11/22/00	1545	473.76	4456.84	472.54			
USGS-038	0	ICPP	1.33	4929.63	11/22/00	1540	474.19	4456.77	472.86			
USGS-039	0	ICPP	1.23	4930.95	11/22/00	1630	474.56	4457.62	473.33			
USGS-057	0	ICPP	1.92	4922.49	11/22/00	1126	467.66	4456.75	465.74			
USGS-077	0	ICPP	2.18	4921.79	11/22/00	1049	467.37	4456.60	465.19			
USGS-082	0	ICPP	1.58	4906.99	11/22/00	1142	450.67	4457.90	449.09			
USGS-085	0	ICPP	2.28	4939.26	11/22/00	1415	484.94	4456.60	482.66			
USGS-111	0	ICPP	2.27	4920.50	11/22/00	1113	471.84	4450.93	469.57		-5.24	4456.17
USGS-112	0	ICPP	2.29	4927.84	11/22/00	1032	475.58	4454.55	473.29		-2.61	4457.16
USGS-113	0	ICPP	2.34	4925.28	11/22/00	1041	476.32	4451.30	473.98		-6.46	4457.76
USGS-114	0	ICPP	2.28	4920.09	11/22/00	1056	470.17	4452.20	467.89		-4.7	4456.90
USGS-115	0	ICPP	2.30	4918.84	11/22/00	1103	466.48	4454.66	464.18		-2.23	4456.89
USGS-116	0	ICPP	2.53	4916.03						time n/a		
RWMC-PRO-A-064	LSIT TEST WELL	LSIT	1.92	5042.10	11/22/00	1200	610.46	4433.56	608.54			
RWMC-MON-A-013	A11A31	LSIT	3.10	5068.80						access is above water tape is sticking not measured		
RWMC-MON-A-065	RWMC-MA-65	LSIT	0.89	5041.60	11/22/00	1215	611.08	4431.41	610.19			
RWMC-MON-A-068	RWMC-MA-66	LSIT	1.51	5043.70						access is above water tape is sticking not measured		
NRF-MON-A-008	NRF-MA-08	NRF	3.04	4852.33								
NRF-MON-A-009	NRF-MA-09	NRF	2.86	4853.47								
NRF-MON-A-010	NRF-MA-10	NRF	3.27	4853.10								

Table A-3. (continued).

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
NRF-MON-A-011	NRF-MA-11	NRF	2.96	4850.73									
NRF-MON-A-012	NRF-MA-12	NRF	3.08	4850.83									
NRF-MON-A-013	NRF-MA-13	NRF	3.20	4843.59									
SITE 01 WATER T/	SITE-01A	OFF-BLR	2.11	5361.81									
PBF-MON-A-001	0	PBF	1.92	4906.15	11/22/00	1010	443.76	4464.31	441.84				
PBF-MON-A-003	0	PBF	1.85	4959.29	11/22/00	941	515.96	4445.18	514.11				
PBF-MON-A-004	0	PBF	2.72	4939.66	11/22/00	1104	495.57	4446.81	492.85				
PBF-MON-A-005	0	PBF	1.79	4976.13	11/22/00	1025				wet access			
M10S	M10S	RWMC	1.46	5021.62						under construction			
M1SA	M01S	RWMC	3.13	5011.09	11/22/00	1145	584.95	4429.27	581.82				
M3S	M03SA	RWMC	1.59	5016.16	11/22/00	1250	588.12	4429.63	586.53				
M4D	M04D	RWMC	1.93	5022.53	11/22/00	1235	594.97	4429.49	593.04				
M6S	M06S	RWMC	1.86	5065.76						steel tape broke off in well in 1996			
M7S	M07S	RWMC	2.76	5004.85	11/22/00	1305	577.32	4430.29	574.56				
SOUTH-MON-A-00	M11	RWMC	1.48	4994.19	11/22/00	1330	564.13	4431.54	562.65				
SOUTH-MON-A-00	M12	RWMC	1.75	4975.28	11/22/00	1355	533.92	4443.11	532.17				
SOUTH-MON-A-00	M13	RWMC	1.79	5026.85	11/22/00	1340	599.22	4429.42	597.43				
SOUTH-MON-A-00	M14	RWMC	2.78	5032.46	11/22/00	1130	604.26	4430.98	601.48				
USGS-001	0	SOUTH	1.42	5022.71						wet access line			
USGS-083	0	SOUTH	2.15	4941.59	11/22/00	1430	499.21	4444.53	497.06				
USGS-104	0	SOUTH	2.98	4988.65	11/22/00	1415	557.72	4433.91	554.74				
USGS-107	0	SOUTH	1.95	4917.50	11/22/00	1450	481.64	4437.81	479.69				
USGS-110	USGS-110A	SOUTH	2.53	4999.97	11/22/00	1505	565.82	4436.68	563.29				
STF-MON-A-01A	STF-MON-01A	STF	1.82	4941.40	11/22/00	1143	501.03	4442.19	499.21				
STF-MON-A-02A	STF-MON-02A	STF	2.35	4937.30	11/22/00	1130	497.45	4442.20	495.10				
STF-MON-A-003	0	STF	2.05	4937.01	11/22/00	1157	498.48	4440.58	496.43				
STF-MON-A-004	0	STF	2.16	4945.37	11/22/00	1223	506.56	4440.97	504.40				
TAN-08	0	TAN	1.25	4790.37									
TAN-13A	0	TAN	1.79	4780.57									
TANT-MON-A-004	TAN-MON-A-001	TANT	2.83	4782.11									
TANT-MON-A-005	TAN-MON-A-002	TANT	2.70	4784.10									
PW-11	0	TRA	1.55	4916.49	11/22/00	1420	113.05	4804.99	111.50				
PW-12	0	TRA	1.24	4923.71						time n/a			
PW-13	0	TRA	1.79	4923.82						time n/a			
TRA-06	0	TRA	0.96	4920.14	11/22/00	1245	470.76	4450.34	469.80				
TRA-07	0	TRA	2.53	4931.56	11/22/00	1235	476.78	4457.31	474.25				
TRA-08	0	TRA	1.47	4934.93	11/22/00	1315	480.04	4456.36	478.57				
USGS-053	0	TRA	1.10	4922.14	11/22/00	1330				dry			
USGS-054	0	TRA	1.28	4920.94	11/22/00	1345	71.18	4851.04	69.90				
USGS-055	0	TRA	1.58	4919.15	11/22/00	1405	461.79	4458.94	460.21				
USGS-058	0	TRA	1.82	4918.37									
USGS-065	0	TRA	0.58	4925.01	11/22/00	1255	466.44	4459.15	465.86				
												-1.5	

Table A-4. Water-level measurements for December 2000.

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment	Dev corr	Adj wl
ANL-M11	ANL-MON-A-11	ANL	2.30	5118.69								
ANL-MON-A-012	ANL-MON-A-12	ANL	1.60	5132.80								
ANL-MON-A-013	ANL-MON-AQ-13	ANL	3.29	5120.37								
ANL-OBS-A-014	ANL-MON-AQ-14	ANL	1.00	5120.99								
ARA-COR-A-005	ARA-COR-005	ARA	2.24	5046.50	12/14/00	1140	597.35	4451.39	595.11			
ARA-MON-A-001	ARA-001	ARA	2.71	5034.30	12/14/00	1125	590.06	4446.95	587.36			
ARA-MON-A-002	ARA-002	ARA	2.46	5037.40	12/14/00	1110	592.49	4447.37	590.03			
ARA-MON-A-003	ARA-MON-A003A	ARA	2.67	5050.10	12/14/00	1215	603.26	4449.51	600.59			
ARA-MON-A-004	0	ARA	2.40	5064.60	12/14/00	1050				moisture in access line		
SITE-09	0	ARA	1.62	4926.03	12/14/00	1245	474.44	4453.21	472.82			
CFA-MON-A-001	CFA-MON-001	CFA	2.13	4936.44	12/14/00	1000	488.86	4449.71	486.73			
CFA-MON-A-002	CFA-MON-002	CFA	1.93	4932.24	12/14/00	1015	485.26	4448.91	483.33			
CFA-MON-A-003	CFA-MON-003	CFA	1.83	4930.31	12/14/00	1028	484.92	4447.22	483.09			
LF2-10	0	CFA	1.35	4932.48	12/19/00	1001	480.6	4453.23	479.25		-0.73	4453.96
LF2-11	0	CFA	1.35	4928.36	12/19/00	1046	473.64	4456.07	472.29			
LF2-08	0	CFA	1.42	4931.72	12/19/00	1018	479.59	4453.55	478.17		-2.95	4456.50
LF2-09	0	CFA	1.23	4932.23	12/19/00	953	482.43	4451.03	481.20		-5.72	4456.75
LF3-10	0	CFA	???	4942.62	12/19/00	931	488.29					
LF3-08	0	CFA	1.60	4940.22	12/19/00	944	489.89	4451.93	488.29		-4.77	4456.70
LF3-09	0	CFA	1.69	4941.08	12/19/00					under repair		
ICPP-MON-A-021	CPP-MA-21	CPP	1.75	4904.36								
ICPP-MON-A-022	CPP-MA-22	CPP	2.50	4907.10								
USGS-020	0	ICPP	0.77	4916.36	12/19/00	1503	462.79	4454.34	462.02			
USGS-034	0	ICPP	1.07	4929.19	12/19/00	1203	473.52	4456.74	472.45			
USGS-035	0	ICPP	1.55	4929.64	12/19/00	1217	474.56	4456.63	473.01			
USGS-036	0	ICPP	1.18	4929.20	12/19/00	1148	473.51	4456.87	472.33			
USGS-037	0	ICPP	1.22	4929.38	12/19/00	1132	472.82	4457.78	471.60			
USGS-038	0	ICPP	1.33	4929.63	12/19/00	1118	474.02	4456.94	472.69			
USGS-039	0	ICPP	1.23	4930.95	12/19/00	1234	475.65	4456.53	474.42			
USGS-057	0	ICPP	1.92	4922.49	12/19/00	1449	467.59	4456.82	465.67			
USGS-077	0	ICPP	2.18	4921.79	12/19/00	1414	467.21	4456.76	465.03			
USGS-082	0	ICPP	1.58	4906.99	12/19/00	1332	450.78	4457.79	449.20			
USGS-085	0	ICPP	2.28	4939.26	12/19/00	915	484.94	4456.60	482.66			
USGS-111	0	ICPP	2.27	4920.50	12/19/00	1429	471.85	4450.92	469.58		-5.24	4456.16
USGS-112	0	ICPP	2.29	4927.84	12/19/00	1301	475.75	4454.38	473.46		-2.61	4456.99
USGS-113	0	ICPP	2.34	4925.28	12/19/00	1310	476.11	4451.51	473.77		-6.46	4457.97
USGS-114	0	ICPP	2.28	4920.09	12/19/00	1359	470.24	4452.13	467.96		-4.7	4456.83
USGS-115	0	ICPP	2.30	4918.84	12/19/00	1349	466.68	4454.46	464.38		-2.23	4456.69
USGS-116	0	ICPP	2.53	4916.03	12/19/00	1408	460.69	4457.87	458.16			
RWMC-PRO-A-064	LSIT TEST WELL	LSIT	1.92	5042.10	12/18/00	1200	612.57	4431.45	610.65			
RWMC-MON-A-013	A11A31	LSIT	3.10	5068.80								
RWMC-MON-A-065	RWMC-MA-65	LSIT	0.89	5041.60	12/18/00	1145	611.2	4431.29	610.31			
RWMC-MON-A-066	RWMC-MA-66	LSIT	1.51	5043.70						pipe not in water		
NRF-MON-A-008	NRF-MA-08	NRF	3.04	4852.33								
NRF-MON-A-009	NRF-MA-09	NRF	2.86	4853.47								

Table A-4. (continued).

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
NRF-MON-A-010	NRF-MA-10	NRF	3.27	4853.10									
NRF-MON-A-011	NRF-MA-11	NRF	2.96	4850.73									
NRF-MON-A-012	NRF-MA-12	NRF	3.08	4850.83									
NRF-MON-A-013	NRF-MA-13	NRF	3.20	4843.59									
SITE 01 WATER TABLE	SITE-01A	OFF-BLR	2.11	5361.81									
PBF-MON-A-001	0	PBF	1.92	4906.15	12/14/00	1204	443.84	4464.23	441.92				
PBF-MON-A-003	0	PBF	1.85	4959.29	12/14/00	1230	516.09	4445.05	514.24				
PBF-MON-A-004	0	PBF	2.72	4939.66	12/14/00	1240	495.27	4447.11	492.55				
PBF-MON-A-005	0	PBF	1.79	4976.13	12/14/00	1215				access wet			
M10S	M10S	RWMC	1.46	5021.62	12/18/00					under repair			
M1SA	M01S	RWMC	3.13	5011.09	12/18/00	1115	585.43	4428.79	582.30				
M3S	M03SA	RWMC	1.59	5016.16	12/18/00	1220	588.28	4429.47	586.69				
M4D	M04D	RWMC	1.93	5022.53	12/18/00	1130	595.29	4429.17	593.36				
M6S	M06S	RWMC	1.86	5065.76	12/18/00					plugged			
M7S	M07S	RWMC	2.76	5004.85	12/18/00	1240	577.49	4430.12	574.73				
SOUTH-MON-A-001	M11	RWMC	1.48	4994.19	12/18/00	1300	564.47	4431.20	562.99				
SOUTH-MON-A-002	M12	RWMC	1.75	4975.28	12/18/00	1335	534.32	4442.71	532.57				
SOUTH-MON-A-003	M13	RWMC	1.79	5026.85	12/18/00	1320	599.53	4429.11	597.74				
SOUTH-MON-A-004	M14	RWMC	2.78	5032.46	12/18/00	1100	604.52	4430.72	601.74				
USGS-001	0	SOUTH	1.42	5022.71	12/18/00	1525	588.43	4435.70	587.01				
USGS-083	0	SOUTH	2.15	4941.59	12/18/00	1420	499.91	4443.83	497.76				
USGS-104	0	SOUTH	2.98	4988.65	12/18/00	1400	557.96	4433.67	554.98				
USGS-107	0	SOUTH	1.95	4917.50	12/18/00	1440	481.84	4437.61	479.89				
USGS-110	USGS-110A	SOUTH	2.53	4999.97	12/18/00	1500	565.79	4436.71	563.26				
STF-MON-A-01A	STF-MON-01A	STF	1.82	4941.40	12/14/00	1315	500.95	4442.27	499.13				
STF-MON-A-02A	STF-MON-02A	STF	2.35	4937.30	12/14/00	1300	496.94	4442.71	494.59				
STF-MON-A-003	0	STF	2.05	4937.01	12/14/00	1330	498.4	4440.66	496.35				
STF-MON-A-004	0	STF	2.16	4945.37	12/14/00	1345	506.39	4441.14	504.23				
TAN-08	0	TAN	1.25	4790.37									
TAN-13A	0	TAN	1.79	4780.57									
TANT-MON-A-004	TAN-MON-A-001	TANT	2.83	4782.11									
TANT-MON-A-005	TAN-MON-A-002	TANT	2.70	4784.10									
PW-11	0	TRA	1.55	4916.49	12/20/00	1256	112.76	4805.28	111.21				
PW-12	0	TRA	1.24	4923.71	12/20/00								
PW-13	0	TRA	1.79	4923.82	12/20/00								
TRA-06	0	TRA	0.96	4920.14	12/20/00	1121	471.01	4450.09	470.05				
TRA-07	0	TRA	2.53	4931.56	12/20/00	1057	476.95	4457.14	474.42				
TRA-08	0	TRA	1.47	4934.93	12/20/00	1152	480.06	4456.34	478.59				
USGS-053	0	TRA	1.10	4922.14	12/20/00					dry			
USGS-054	0	TRA	1.28	4920.94	12/20/00	1229	75.49	4846.73	74.21				
USGS-055	0	TRA	1.58	4919.15	12/20/00	1307	79.52	4841.21	77.94				
USGS-058	0	TRA	1.82	4918.37	12/20/00	1240	461.83	4458.36	460.01				
USGS-065	0	TRA	0.58	4925.01	12/20/00	1130	466.39	4459.20	465.81				

Table A-5. Water-level measurements for January 2001.

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
ANL-M11	ANL-MON-A-11	ANL	2.30	5118.69									
ANL-MON-A-012	ANL-MON-A-12	ANL	1.60	5132.80									
ANL-MON-A-013	ANL-MON-AQ-13	ANL	3.29	5120.37									
ANL-OBS-A-014	ANL-MON-AQ-14	ANL	1.00	5120.99									
ARA-COR-A-005	ARA-COR-005	ARA	2.24	5046.50	18-Jan-01	824	597.39	4451.35	595.15				
ARA-MON-A-001	ARA-001	ARA	2.71	5034.30	18-Jan-01	812	589.69	4447.32	586.99				
ARA-MON-A-002	ARA-002	ARA	2.46	5037.40	18-Jan-01	833	592.73	4447.13	590.27				
ARA-MON-A-003	ARA-MON-A003A	ARA	2.67	5050.10	18-Jan-01	844	603.38	4449.39	600.71				
ARA-MON-A-004	0	ARA	2.40	5064.60	18-Jan-01					wet access			
SITE-09	0	ARA	1.62	4926.03	18-Jan-01	1002	474.49	4453.16	472.87				
CFA-MON-A-001	CFA-MON-001	CFA	2.13	4936.44	18-Jan-01	1123	489.29	4449.28	487.16				
CFA-MON-A-002	CFA-MON-002	CFA	1.93	4932.24	18-Jan-01	1116	486.65	4447.52	484.72				
CFA-MON-A-003	CFA-MON-003	CFA	1.83	4930.31	18-Jan-01	1110	485.4	4446.74	483.57				
LF2-10	0	CFA	1.35	4932.48	18-Jan-01	1244	480.76	4453.07	479.41			-0.73	4453.80
LF2-11	0	CFA	1.35	4928.36	18-Jan-01	1300				plugged			
LF2-08	0	CFA	1.42	4931.72	18-Jan-01	1251	479.86	4453.28	478.44			-2.95	4456.23
LF2-09	0	CFA	1.23	4932.23	18-Jan-01	1238	482.52	4450.94	481.29			-5.72	4456.66
LF3-10	0	CFA	???	4942.62	18-Jan-01	1221	488.56						
LF3-08	0	CFA	1.60	4940.22	18-Jan-01	1227	488.8	4453.02	487.20			-4.77	4457.79
LF3-09	0	CFA	1.69	4941.08	18-Jan-01					repair			
ICPP-MON-A-021	CPP-MA-21	CPP	1.75	4904.36									
ICPP-MON-A-022	CPP-MA-22	CPP	2.50	4907.10									
USGS-020	0	ICPP	0.77	4916.36	18-Jan-01	1524	462.93	4454.20	462.16				
USGS-034	0	ICPP	1.07	4929.19	18-Jan-01	1327	473.74	4456.52	472.67				
USGS-035	0	ICPP	1.55	4929.64	18-Jan-01	1336	474.88	4456.31	473.33				
USGS-036	0	ICPP	1.18	4929.20	18-Jan-01	1322	473.81	4456.57	472.63				
USGS-037	0	ICPP	1.22	4929.38	18-Jan-01	1316	473.59	4457.01	472.37				
USGS-038	0	ICPP	1.33	4929.63	18-Jan-01	1308	474.38	4456.58	473.05				
USGS-039	0	ICPP	1.23	4930.95	18-Jan-01	1343	475.27	4456.91	474.04				
USGS-057	0	ICPP	1.92	4922.49	18-Jan-01	1354	467.99	4456.42	466.07				
USGS-077	0	ICPP	2.18	4921.79	18-Jan-01	1427	467.63	4456.34	465.45				
USGS-082	0	ICPP	1.58	4906.99	18-Jan-01	1459	451.01	4457.56	449.43				
USGS-085	0	ICPP	2.28	4939.26	18-Jan-01	1213	485.14	4456.40	482.86				
USGS-111	0	ICPP	2.27	4920.50	18-Jan-01	1404	471.89	4450.88	469.62			-5.24	4456.12
USGS-112	0	ICPP	2.29	4927.84	18-Jan-01	1411	475.57	4454.56	473.28			-2.61	4457.17
USGS-113	0	ICPP	2.34	4925.28	18-Jan-01	1419	476.57	4451.05	474.23			-6.46	4457.51
USGS-114	0	ICPP	2.28	4920.09	18-Jan-01	1438	470.62	4451.75	468.34			-4.7	4456.45
USGS-115	0	ICPP	2.30	4918.84	18-Jan-01	1447	466.53	4454.61	464.23			-2.23	4456.84
USGS-116	0	ICPP	2.53	4916.03	18-Jan-01	1511	460.73	4457.83	458.20				
RWMC-PRO-A-064	LSIT TEST WELL	LSIT	1.92	5042.10	19-Jan-01	1234	612.44	4431.58	610.52				
RWMC-MON-A-013	A11A31	LSIT	3.10	5068.80	19-Jan-01					repair			
RWMC-MON-A-065	RWMC-MA-65	LSIT	0.89	5041.60	19-Jan-01	1229	611.08	4431.41	610.19				
RWMC-MON-A-066	RWMC-MA-66	LSIT	1.51	5043.70	19-Jan-01					repair			
NRF-MON-A-008	NRF-MA-08	NRF	3.04	4852.33									
NRF-MON-A-009	NRF-MA-09	NRF	2.86	4853.47									
NRF-MON-A-010	NRF-MA-10	NRF	3.27	4853.10									

Table A-5. (continued).

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment	Dev corr	Adj wl
NRF-MON-A-011	NRF-MA-11	NRF	2.96	4850.73								
NRF-MON-A-012	NRF-MA-12	NRF	3.08	4850.83								
NRF-MON-A-013	NRF-MA-13	NRF	3.20	4843.59								
SITE 01 WATER TABLE	SITE-01A	OFF-BLR	2.11	5361.81								
PBF-MON-A-001	0	PBF	1.92	4906.15	18-Jan-01	945	444.36	4463.71	442.44			
PBF-MON-A-003	0	PBF	1.85	4959.29	18-Jan-01	850	516.12	4445.02	514.27			
PBF-MON-A-004	0	PBF	2.72	4939.66	18-Jan-01	908	495.46	4446.92	492.74			
PBF-MON-A-005	0	PBF	1.79	4976.13	18-Jan-01	933				wet access		
M10S	M10S	RWMC	1.46	5021.62	19-Jan-01					repair		
M1SA	M01S	RWMC	3.13	5011.09	19-Jan-01	1207	585.12	4429.10	581.99			
M3S	M03SA	RWMC	1.59	5016.16	19-Jan-01	1251	588.18	4429.57	586.59			
M4D	M04D	RWMC	1.93	5022.53	19-Jan-01	1218	595.07	4429.39	593.14			
M6S	M06S	RWMC	1.86	5065.76	19-Jan-01					repair		
M7S	M07S	RWMC	2.76	5004.85	19-Jan-01	1338	577.28	4430.33	574.52			
SOUTH-MON-A-001	M11	RWMC	1.48	4994.19	19-Jan-01	1357	564.08	4431.59	562.60			
SOUTH-MON-A-002	M12	RWMC	1.75	4975.28	19-Jan-01	1435	532.61	4444.42	530.86			
SOUTH-MON-A-003	M13	RWMC	1.79	5026.85	19-Jan-01	1415	599.02	4429.62	597.23			
SOUTH-MON-A-004	M14	RWMC	2.78	5032.46	19-Jan-01	1149	604.29	4430.95	601.51			
USGS-001	0	SOUTH	1.42	5022.71	19-Jan-01	1629				wet access		
USGS-083	0	SOUTH	2.15	4941.59	19-Jan-01	1527	499.42	4444.32	497.27			
USGS-104	0	SOUTH	2.98	4988.65	19-Jan-01	1504	557.44	4434.19	554.46			
USGS-107	0	SOUTH	1.95	4917.50	19-Jan-01	1547	481.69	4437.76	479.74			
USGS-110	USGS-110A	SOUTH	2.53	4999.97	19-Jan-01	1608	565.79	4436.71	563.26			
STF-MON-A-01A	STF-MON-01A	STF	1.82	4941.40	18-Jan-01	1023	501.17	4442.05	499.35			
STF-MON-A-02A	STF-MON-02A	STF	2.35	4937.30	18-Jan-01	1013	497.49	4442.16	495.14			
STF-MON-A-003	0	STF	2.05	4937.01	18-Jan-01	1032	498.39	4440.67	496.34			
STF-MON-A-004	0	STF	2.16	4945.37	18-Jan-01	1045	506.63	4440.90	504.47			
TAN-08	0	TAN	1.25	4790.37								
TAN-13A	0	TAN	1.79	4780.57								
TANT-MON-A-004	TAN-MON-A-001	TANT	2.83	4782.11								
TANT-MON-A-005	TAN-MON-A-002	TANT	2.70	4784.10								
PW-11	0	TRA	1.55	4916.49	19-Jan-01	956	112.46	4805.58	110.91			
PW-12	0	TRA	1.24	4923.71	19-Jan-01							
PW-13	0	TRA	1.79	4923.82	19-Jan-01							
TRA-06	0	TRA	0.96	4920.14	19-Jan-01					snow		
TRA-07	0	TRA	2.53	4931.56	19-Jan-01					snow		
TRA-08	0	TRA	1.47	4934.93	19-Jan-01					snow		
USGS-053	0	TRA	1.10	4922.14	19-Jan-01	934				dry		
USGS-054	0	TRA	1.28	4920.94	19-Jan-01	939				wet access		
USGS-055	0	TRA	1.58	4919.15	19-Jan-01	1001	80.36	4840.37	78.78			
USGS-058	0	TRA	1.82	4918.37	19-Jan-01	947				access wet		
USGS-065	0	TRA	0.58	4925.01	19-Jan-01					snow		

Table A-6. Water-level measurements for February 2001.

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment	Maintenance	Dev corr	Adj wl
ANL-M11	ANL-MON-A-11	ANL	2.30	5118.69									
ANL-MON-A-012	ANL-MON-A-12	ANL	1.60	5132.80									
ANL-MON-A-013	ANL-MON-AQ-13	ANL	3.29	5120.37									
ANL-OBS-A-014	ANL-MON-AQ-14	ANL	1.00	5120.99									
ARA-COR-A-005	ARA-COR-005	ARA	2.24	5046.50	27-Feb-01	915	596.69	4452.05	594.45				
ARA-MON-A-001	ARA-001	ARA	2.71	5034.30						no access			
ARA-MON-A-002	ARA-002	ARA	2.46	5037.40	27-Feb-01	900	592.78	4447.08	590.32				
ARA-MON-A-003	ARA-MON-A003A	ARA	2.67	5050.10	27-Feb-01	940	602.99	4449.78	600.32		box repair/does not lock		
ARA-MON-A-004	0	ARA	2.40	5064.60						no access			
SITE-09	0	ARA	1.62	4926.03	27-Feb-01	1200	474.55	4453.10	472.93				
CFA-MON-A-001	CFA-MON-001	CFA	2.13	4936.44	27-Feb-01	1355	489.17	4449.40	487.04				
CFA-MON-A-002	CFA-MON-002	CFA	1.93	4932.24	27-Feb-01	1343	486.58	4447.59	484.65				
CFA-MON-A-003	CFA-MON-003	CFA	1.83	4930.31	27-Feb-01	1321	485.24	4446.90	483.41				
LF2-10	0	CFA	1.35	4932.48	27-Feb-01	1515	480.83	4453.00	479.48			-0.73	4453.73
LF2-11	0	CFA	1.35	4928.36	27-Feb-01	1410	474.25	4455.46	472.90		box repair/does not lock		
LF2-08	0	CFA	1.42	4931.72	27-Feb-01	1530	479.98	4453.16	478.56			-2.95	4456.11
LF2-09	0	CFA	1.23	4932.23	27-Feb-01	1500	482.66	4450.80	481.43			-5.72	4456.52
LF3-10	0	CFA	???	4942.62						need surveyed	B.C. Elev./pad/posts		
LF3-08	0	CFA	1.60	4940.22	27-Feb-01	1445	490.2	4451.62	488.60			-4.77	4456.39
LF3-09	0	CFA	1.69	4941.08						under repair	major repair/unlocked		
ICPP-MON-A-021	CPP-MA-21	CPP	1.75	4904.36									
ICPP-MON-A-022	CPP-MA-22	CPP	2.50	4907.10									
USGS-020	0	ICPP	0.77	4916.36						no access			
USGS-034	0	ICPP	1.07	4929.19									
USGS-035	0	ICPP	1.55	4929.64						no access			
USGS-036	0	ICPP	1.18	4929.20	28-Feb-01	938	473.86	4456.52	472.68				
USGS-037	0	ICPP	1.22	4929.38	28-Feb-01	914	473.54	4457.06	472.32				
USGS-038	0	ICPP	1.33	4929.63	28-Feb-01	920	474.41	4456.55	473.08				
USGS-039	0	ICPP	1.23	4930.95									
USGS-057	0	ICPP	1.92	4922.49	28-Feb-01	1001	468.08	4456.33	466.16				
USGS-077	0	ICPP	2.18	4921.79	28-Feb-01	1041	467.68	4456.29	465.50				
USGS-082	0	ICPP	1.58	4906.99	28-Feb-01	1307	451.16	4457.41	449.58				
USGS-085	0	ICPP	2.28	4939.26	28-Feb-01	1430	485.26	4456.28	482.98				
USGS-111	0	ICPP	2.27	4920.50	28-Feb-01	1248	472.2	4450.57	469.93			-5.24	4455.81
USGS-112	0	ICPP	2.29	4927.84	28-Feb-01	1017	475.94	4454.19	473.65			-2.61	4456.80
USGS-113	0	ICPP	2.34	4925.28	28-Feb-01	1029	476.59	4451.03	474.25			-6.46	4457.49
USGS-114	0	ICPP	2.28	4920.09	28-Feb-01	1057	470.6	4451.77	468.32			-4.7	4456.47
USGS-115	0	ICPP	2.30	4918.84	28-Feb-01	1113	466.48	4454.66	464.18			-2.23	4456.89
USGS-116	0	ICPP	2.53	4916.03	28-Feb-01	1328	461.19	4457.37	458.66				
RWMC-PRO-A-064	LSIT TEST WELL	LSIT	1.92	5042.10						no access			
RWMC-MON-A-013	A11A31	LSIT	3.10	5068.80						no access	access pipe lowered		
RWMC-MON-A-065	RWMC-MA-65	LSIT	0.89	5041.60						no access	access pipe lowered		
RWMC-MON-A-066	RWMC-MA-66	LSIT	1.51	5043.70						no access			
NRF-MON-A-008	NRF-MA-08	NRF	3.04	4852.33									
NRF-MON-A-009	NRF-MA-09	NRF	2.86	4853.47									
NRF-MON-A-010	NRF-MA-10	NRF	3.27	4853.10									

Table A-6. (continued).

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment	Maintenance	Dev corr	Adj wl
NRF-MON-A-011	NRF-MA-11	NRF	2.96	4850.73									
NRF-MON-A-012	NRF-MA-12	NRF	3.08	4850.83									
NRF-MON-A-013	NRF-MA-13	NRF	3.20	4843.59									
SITE 01 WATER TABLE	SITE-01A	OFF-BLR	2.11	5361.81									
PBF-MON-A-001	0	PBF	1.92	4906.15	27-Feb-01	1100	444.28	4463.79	442.36				
PBF-MON-A-003	0	PBF	1.85	4959.29	27-Feb-01	1030	515.74	4445.40	513.89				
PBF-MON-A-004	0	PBF	2.72	4939.66	27-Feb-01	1115	495.39	4446.99	492.67				
PBF-MON-A-005	0	PBF	1.79	4976.13						no access			
M10S	M10S	RWMC	1.46	5021.62						under repair			
M1SA	M01S	RWMC	3.13	5011.09	26-Feb-01	1100	585.36	4428.86	582.23				
M3S	M03SA	RWMC	1.59	5016.16	26-Feb-01	1140	588.35	4429.40	586.76				
M4D	M04D	RWMC	1.93	5022.53	26-Feb-01	1115	595.2	4429.26	593.27				
M6S	M06S	RWMC	1.86	5065.76						plugged			
M7S	M07S	RWMC	2.76	5004.85						no access			
SOUTH-MON-A-001	M11	RWMC	1.48	4994.19						no access			
SOUTH-MON-A-002	M12	RWMC	1.75	4975.28	26-Feb-01	1220	533.91	4443.12	532.16				
SOUTH-MON-A-003	M13	RWMC	1.79	5026.85						no access			
SOUTH-MON-A-004	M14	RWMC	2.78	5032.46						no access			
USGS-001	0	SOUTH	1.42	5022.71	26-Feb-01	1340	588.62	4435.51	587.20				
USGS-083	0	SOUTH	2.15	4941.59	28-Feb-01	1509	499.37	4444.37	497.22				
USGS-104	0	SOUTH	2.98	4988.65	28-Feb-01	1533	557.26	4434.37	554.28				
USGS-107	0	SOUTH	1.95	4917.50						no access			
USGS-110	USGS-110A	SOUTH	2.53	4999.97						no access			
STF-MON-A-01A	STF-MON-01A	STF	1.82	4941.40	27-Feb-01	1218	501.08	4442.14	499.26				
STF-MON-A-02A	STF-MON-02A	STF	2.35	4937.30						no access			
STF-MON-A-003	0	STF	2.05	4937.01	27-Feb-01	1231	500.27	4438.79	498.22				
STF-MON-A-004	0	STF	2.16	4945.37						no access			
TAN-08	0	TAN	1.25	4790.37									
TAN-13A	0	TAN	1.79	4780.57									
TANT-MON-A-004	TAN-MON-A-001	TANT	2.83	4782.11									
TANT-MON-A-005	TAN-MON-A-002	TANT	2.70	4784.10									
PW-11	0	TRA	1.55	4916.49	28-Feb-01	1433	112.37	4805.67	110.82				
PW-12	0	TRA	1.24	4923.71									
PW-13	0	TRA	1.79	4923.82									
TRA-06	0	TRA	0.96	4920.14						no access			
TRA-07	0	TRA	2.53	4931.56						no access			
TRA-08	0	TRA	1.47	4934.93						no access			
USGS-053	0	TRA	1.10	4922.14	28-Feb-01	1350	dry						
USGS-054	0	TRA	1.28	4920.94	28-Feb-01	1407	73.12	4849.10	71.84				
USGS-055	0	TRA	1.58	4919.15	28-Feb-01	1440	79.59	4841.14	78.01				
USGS-058	0	TRA	1.82	4918.37	28-Feb-01	1428	462.04	4458.15	460.22				
USGS-065	0	TRA	0.58	4925.01						no access			
USGS-121		INTEC	1.82	4909.65	28-Feb-01	1614	455.08	4456.39	453.26		stick-up/elev.	-1.5	4457.89
USGS-127		CFA		4956.44	27-Feb-01	1300	508.83	4447.61	508.83		stick-up/elev.		

Table A-7. Water-level measurements for March 2001.

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
ANL-M11	ANL-MON-A-11	ANL	2.30	5118.69									
ANL-MON-A-012	ANL-MON-A-12	ANL	1.60	5132.80									
ANL-MON-A-013	ANL-MON-AQ-13	ANL	3.29	5120.37									
ANL-OBS-A-014	ANL-MON-AQ-14	ANL	1.00	5120.99									
ARA-COR-A-005	ARA-COR-005	ARA	2.24	5046.50	29-Mar-01	1330	597.42	4451.32	595.18				
ARA-MON-A-001	ARA-001	ARA	2.71	5034.30	29-Mar-01	1315	589.75	4447.26	587.05				
ARA-MON-A-002	ARA-002	ARA	2.46	5037.40	29-Mar-01	1300	592.79	4447.07	590.33				
ARA-MON-A-003	ARA-MON-A003A	ARA	2.67	5050.10	29-Mar-01	1340	603.37	4449.40	600.70				
ARA-MON-A-004	0	ARA	2.40	5064.60	29-Mar-01	1350				Moisture in access			
SITE-09	0	ARA	1.62	4926.03	29-Mar-01	1400	474.5	4453.15	472.88				
CFA-MON-A-001	CFA-MON-001	CFA	2.13	4936.44	30-Mar-01	1145	489.06	4449.51	486.93				
CFA-MON-A-002	CFA-MON-002	CFA	1.93	4932.24	30-Mar-01	1130	485.47	4448.70	483.54				
CFA-MON-A-003	CFA-MON-003	CFA	1.83	4930.31	30-Mar-01	1120	485.13	4447.01	483.30				
LF2-10	0	CFA	1.35	4932.48	30-Mar-01	1310	480.89	4452.94	479.54			-0.73	4453.67
LF2-11	0	CFA	1.35	4928.36						no access			
LF2-08	0	CFA	1.42	4931.72	30-Mar-01	1305	479.99	4453.15	478.57			-2.95	4456.10
LF2-09	0	CFA	1.23	4932.23	30-Mar-01	1255	482.74	4450.72	481.51			-5.72	4456.44
LF3-10	0	CFA	???	4942.62						need BC			
LF3-08	0	CFA	1.60	4940.22	30-Mar-01	1240	490.3	4451.52	488.70			-4.77	4456.29
LF3-09	0	CFA	1.69	4941.08						under repair			
ICPP-MON-A-021	CPP-MA-21	CPP	1.75	4904.36									
ICPP-MON-A-022	CPP-MA-22	CPP	2.50	4907.10									
USGS-020	0	ICPP	0.77	4916.36	29-Mar-01	1654	462.64	4454.49	461.87				
USGS-034	0	ICPP	1.07	4929.19	29-Mar-01	1340	473.86	4456.40	472.79				
USGS-035	0	ICPP	1.55	4929.64	29-Mar-01	1359	475.02	4456.17	473.47				
USGS-036	0	ICPP	1.18	4929.20	29-Mar-01	1330	473.94	4456.44	472.76				
USGS-037	0	ICPP	1.22	4929.38	29-Mar-01	1320	474.17	4456.43	472.95				
USGS-038	0	ICPP	1.33	4929.63	29-Mar-01	1320	474.54	4456.42	473.21				
USGS-039	0	ICPP	1.23	4930.95	29-Mar-01	1405	475.8	4456.38	474.57				
USGS-057	0	ICPP	1.92	4922.49	29-Mar-01	1411	468.14	4456.27	466.22				
USGS-077	0	ICPP	2.18	4921.79	29-Mar-01	1443	467.8	4456.17	465.62				
USGS-082	0	ICPP	1.58	4906.99	29-Mar-01	1514	451.16	4457.41	449.58				
USGS-085	0	ICPP	2.28	4939.26	29-Mar-01	1225	485.33	4456.21	483.05				
USGS-111	0	ICPP	2.27	4920.50	29-Mar-01	1418	472.32	4450.45	470.05			-5.24	4455.69
USGS-112	0	ICPP	2.29	4927.84	29-Mar-01	1428	476.23	4453.90	473.94			-2.61	4456.51
USGS-113	0	ICPP	2.34	4925.28	29-Mar-01	1435	476.73	4450.89	474.39			-6.46	4457.35
USGS-114	0	ICPP	2.28	4920.09	29-Mar-01	1448	470.55	4451.82	468.27			-4.7	4456.52
USGS-115	0	ICPP	2.30	4918.84	29-Mar-01	1457	466.86	4454.28	464.56			-2.23	4456.51
USGS-116	0	ICPP	2.53	4916.03	29-Mar-01	1504	461.04	4457.52	458.51				
RWMC-PRO-A-064	LSIT TEST WELL	LSIT	1.92	5042.10									
RWMC-MON-A-013	A11A31	LSIT	3.10	5068.80									
RWMC-MON-A-065	RWMC-MA-65	LSIT	0.89	5041.60									
RWMC-MON-A-066	RWMC-MA-66	LSIT	1.51	5043.70									
NRF-MON-A-008	NRF-MA-08	NRF	3.04	4852.33									
NRF-MON-A-009	NRF-MA-09	NRF	2.86	4853.47									
NRF-MON-A-010	NRF-MA-10	NRF	3.27	4853.10									

Table A-7. (continued).

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
NRF-MON-A-011	NRF-MA-11	NRF	2.96	4850.73									
NRF-MON-A-012	NRF-MA-12	NRF	3.08	4850.83									
NRF-MON-A-013	NRF-MA-13	NRF	3.20	4843.59									
SITE 01 WATER TABLE	SITE-01A	OFF-BLR	2.11	5361.81									
PBF-MON-A-001	0	PBF	1.92	4906.15	29-Mar-01	1201	444.19	4463.88	442.27				
PBF-MON-A-003	0	PBF	1.85	4959.29	29-Mar-01	1352				STUCK 560			
PBF-MON-A-004	0	PBF	2.72	4939.66	29-Mar-01	1220	495.4	4446.98	492.68				
PBF-MON-A-005	0	PBF	1.79	4976.13	29-Mar-01	1230	508.93	4468.99	507.14				
M10S	M10S	RWMC	1.46	5021.62						new locks			
M1SA	M01S	RWMC	3.13	5011.09						new locks			
M3S	M03SA	RWMC	1.59	5016.16						new locks			
M4D	M04D	RWMC	1.93	5022.53						new locks			
M6S	M06S	RWMC	1.86	5065.76						new locks			
M7S	M07S	RWMC	2.76	5004.85						new locks			
SOUTH-MON-A-001	M11	RWMC	1.48	4994.19						new locks			
SOUTH-MON-A-002	M12	RWMC	1.75	4975.28						new locks			
SOUTH-MON-A-003	M13	RWMC	1.79	5026.85						new locks			
SOUTH-MON-A-004	M14	RWMC	2.78	5032.46						new locks			
USGS-001	0	SOUTH	1.42	5022.71	30-Mar-01	915	588.63	4435.50	587.21				
USGS-083	0	SOUTH	2.15	4941.59	30-Mar-01	1040	499.47	4444.27	497.32				
USGS-104	0	SOUTH	2.98	4988.65	30-Mar-01	1020	557.59	4434.04	554.61				
USGS-107	0	SOUTH	1.95	4917.50	30-Mar-01	1000	481.94	4437.51	479.99				
USGS-110	USGS-110A	SOUTH	2.53	4999.97	30-Mar-01	930	565.81	4436.69	563.28				
STF-MON-A-01A	STF-MON-01A	STF	1.82	4941.40	29-Mar-01	1430	501.08	4442.14	499.26				
STF-MON-A-02A	STF-MON-02A	STF	2.35	4937.30	29-Mar-01	1415	497.36	4442.29	495.01				
STF-MON-A-003	0	STF	2.05	4937.01	29-Mar-01	1440	498.46	4440.60	496.41				
STF-MON-A-004	0	STF	2.16	4945.37	29-Mar-01	1500	506.58	4440.95	504.42				
TAN-08	0	TAN	1.25	4790.37									
TAN-13A	0	TAN	1.79	4780.57									
TANT-MON-A-004	TAN-MON-A-001	TANT	2.83	4782.11									
TANT-MON-A-005	TAN-MON-A-002	TANT	2.70	4784.10									
PW-11	0	TRA	1.55	4916.49	30-Mar-01	1619	112.12	4805.92	110.57				
PW-12	0	TRA	1.24	4923.71	30-Mar-01					NO ACCESS			
PW-13	0	TRA	1.79	4923.82	30-Mar-01					NO ACCESS			
TRA-06	0	TRA	0.96	4920.14	30-Mar-01	1538	472.34	4448.76	471.38				
TRA-07	0	TRA	2.53	4931.56	30-Mar-01	1531	477.26	4456.83	474.73				
TRA-08	0	TRA	1.47	4934.93	30-Mar-01	1551	480.46	4455.94	478.99				
USGS-053	0	TRA	1.10	4922.14	30-Mar-01	1602	DRY						
USGS-054	0	TRA	1.28	4920.94	30-Mar-01	1606	70.9	4851.32	69.62				
USGS-055	0	TRA	1.58	4919.15	30-Mar-01	1623	79.47	4841.26	77.89				
USGS-058	0	TRA	1.82	4918.37	30-Mar-01	1613	461.38	4458.81	459.56				
USGS-065	0	TRA	0.58	4925.01	30-Mar-01	1544	466.6	4458.99	466.02				
USGS-121	0	INTEC	1.82	4909.65	30-Mar-01	1640	455.16	4456.31	453.34			-1.5	4457.81
USGS-127	0	CFA		4956.44	30-Mar-01	1200	506.99	4449.45	506.99				

Table A-8. Water-level measurements for April 2001.

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment	Dev corr	Adj elev
ANL-M11	ANL-MON-A-11	ANL	2.30	5118.69	20-Apr-01	840	637.55	4483.44	635.25			
ANL-MON-A-012	ANL-MON-A-12	ANL	1.60	5132.80	20-Apr-01	855	638.81	4495.59	637.21			
ANL-MON-A-013	ANL-MON-AQ-13	ANL	3.29	5120.37	20-Apr-01	915	650.82	4472.84	647.53			
ANL-OBS-A-014	ANL-MON-AQ-14	ANL	1.00	5120.99	20-Apr-01	905	640.24	4481.75	639.24			
ARA-COR-A-005	ARA-COR-005	ARA	2.24	5046.50	19-Apr-01	858	599.75	4448.99	597.51			
ARA-MON-A-001	ARA-001	ARA	2.71	5034.30	19-Apr-01	849	592.01	4445.00	589.31			
ARA-MON-A-002	ARA-002	ARA	2.46	5037.40	19-Apr-01	841	594.97	4444.89	592.51			
ARA-MON-A-003	ARA-MON-A003A	ARA	2.67	5050.10	19-Apr-01	910	605.67	4447.10	603.00			
ARA-MON-A-004	0	ARA	2.40	5064.60	19-Apr-01					wet access		
SITE-09	0	ARA	1.62	4926.03	19-Apr-01	1018	475.27	4452.38	473.65			
CFA-MON-A-001	CFA-MON-001	CFA	2.13	4936.44	19-Apr-01	1200	489.59	4448.98	487.46			
CFA-MON-A-002	CFA-MON-002	CFA	1.93	4932.24	19-Apr-01	1215	486.12	4448.05	484.19			
CFA-MON-A-003	CFA-MON-003	CFA	1.83	4930.31	19-Apr-01	1230	485.72	4446.42	483.89			
LF2-10	0	CFA	1.35	4932.48	19-Apr-01	1320	481.59	4452.24	480.24		-0.73	4452.97
LF2-11	0	CFA	1.35	4928.36	19-Apr-01	1340	474.81	4454.90	473.46			
LF2-08	0	CFA	1.42	4931.72	19-Apr-01	1330	480.71	4452.43	479.29		-2.95	4455.38
LF2-09	0	CFA	1.23	4932.23	19-Apr-01	1310	483.45	4450.01	482.22		-5.72	4455.73
LF3-10	0	CFA	???	4942.62	19-Apr-01					no mp		
LF3-08	0	CFA	1.60	4940.22	19-Apr-01	1300	491.07	4450.75	489.47		-4.77	4455.52
LF3-09	0	CFA	1.69	4941.08	19-Apr-01					construction		
ICPP-MON-A-021	CPP-MA-21	CPP	1.75	4904.36								
ICPP-MON-A-022	CPP-MA-22	CPP	2.50	4907.10								
USGS-020	0	ICPP	0.77	4916.36	19-Apr-01	1610	464.03	4453.10	463.26			
USGS-034	0	ICPP	1.07	4929.19	19-Apr-01	1420	474.57	4455.69	473.50			
USGS-035	0	ICPP	1.55	4929.64	19-Apr-01	1430	475.78	4455.41	474.23			
USGS-036	0	ICPP	1.18	4929.20	19-Apr-01	1410	474.66	4455.72	473.48			
USGS-037	0	ICPP	1.22	4929.38	19-Apr-01	1400	474.91	4455.69	473.69			
USGS-038	0	ICPP	1.33	4929.63	19-Apr-01	1351	475.24	4455.72	473.91			
USGS-039	0	ICPP	1.23	4930.95	19-Apr-01	1441	476.52	4455.66	475.29			
USGS-057	0	ICPP	1.92	4922.49	19-Apr-01	1450	468.86	4455.55	466.94			
USGS-077	0	ICPP	2.18	4921.79	19-Apr-01	1547	468.41	4455.56	466.23			
USGS-082	0	ICPP	1.58	4906.99	19-Apr-01	1525	451.85	4456.72	450.27			
USGS-085	0	ICPP	2.28	4939.26	19-Apr-01	1250	485.99	4455.55	483.71			
USGS-111	0	ICPP	2.27	4920.50	19-Apr-01	1500	473.03	4449.74	470.76		-5.24	4454.98
USGS-112	0	ICPP	2.29	4927.84	19-Apr-01	1534	476.95	4453.18	474.66		-2.61	4455.79
USGS-113	0	ICPP	2.34	4925.28	19-Apr-01	1540	477.46	4450.16	475.12		-6.46	4456.62
USGS-114	0	ICPP	2.28	4920.09	19-Apr-01	1555	471.24	4451.13	468.96		-4.7	4455.83
USGS-115	0	ICPP	2.30	4918.84	19-Apr-01	1600	467.49	4453.65	465.19		-2.23	4455.88
USGS-116	0	ICPP	2.53	4916.03	19-Apr-01	1515	461.76	4456.80	459.23			
RWMC-PRO-A-064	LSIT TEST WELL	LSIT	1.92	5042.10	18-Apr-01	1410	614.78	4429.24	612.86			
RWMC-MON-A-013	A11A31	LSIT	3.10	5068.80	18-Apr-01	1350	643.82	4428.08	640.72			
RWMC-MON-A-065	RWMC-MA-65	LSIT	0.89	5041.60	18-Apr-01	1405	613.42	4429.07	612.53			
RWMC-MON-A-066	RWMC-MA-66	LSIT	1.51	5043.70	18-Apr-01	1400	620.46	4424.75	618.95			
NRF-MON-A-008	NRF-MA-08	NRF	3.04	4852.33	18-Apr-01	1030	375.28	4480.09	372.24			
NRF-MON-A-009	NRF-MA-09	NRF	2.86	4853.47	18-Apr-01	1045	376.54	4479.79	373.68			
NRF-MON-A-010	NRF-MA-10	NRF	3.27	4853.10	18-Apr-01	1100	376.62	4479.75	373.35			

Table A-8. (continued).

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj elev
NRF-MON-A-011	NRF-MA-11	NRF	2.96	4850.73	18-Apr-01	1115	373.82	4479.87	370.86				
NRF-MON-A-012	NRF-MA-12	NRF	3.08	4850.83	18-Apr-01	1130	374.07	4479.84	370.99				
NRF-MON-A-013	NRF-MA-13	NRF	3.20	4843.59	18-Apr-01	1145	368.69	4478.10	365.49				
SITE 01 WATER TABLE	SITE-01A	OFF-BLR	2.11	5361.81	19-Apr-01								
PBF-MON-A-001	0	PBF	1.92	4906.15	19-Apr-01	930	444.68	4463.39	442.76				
PBF-MON-A-003	0	PBF	1.85	4959.29	19-Apr-01	920	518.42	4442.72	516.57				
PBF-MON-A-004	0	PBF	2.72	4939.66	19-Apr-01	1000	496.06	4446.32	493.34				
PBF-MON-A-005	0	PBF	1.79	4976.13	19-Apr-01	945	511.11	4466.81	509.32				
M10S	M10S	RWMC	1.46	5021.62	18-Apr-01					no access			
M1SA	M01S	RWMC	3.13	5011.09	18-Apr-01	1330	587.21	4427.01	584.08				
M3S	M03SA	RWMC	1.59	5016.16	18-Apr-01	1445	590.35	4427.40	588.76				
M4D	M04D	RWMC	1.93	5022.53	18-Apr-01	1415	597.05	4427.41	595.12				
M6S	M06S	RWMC	1.86	5065.76	18-Apr-01	1427	641.01	4426.61	639.15				
M7S	M07S	RWMC	2.76	5004.85	18-Apr-01	1440	579.55	4428.06	576.79				
SOUTH-MON-A-001	M11	RWMC	1.48	4994.19	18-Apr-01	1455	566.16	4429.51	564.68				
SOUTH-MON-A-002	M12	RWMC	1.75	4975.28	18-Apr-01	1515	536.95	4440.08	535.20				
SOUTH-MON-A-003	M13	RWMC	1.79	5026.85	18-Apr-01	1505	601.37	4427.27	599.58				
SOUTH-MON-A-004	M14	RWMC	2.78	5032.46	18-Apr-01	1315	606.49	4428.75	603.71				
USGS-001	0	SOUTH	1.42	5022.71	20-Apr-01	1350	590.87	4433.26	589.45				
USGS-083	0	SOUTH	2.15	4941.59	18-Apr-01	1559	509.03	4434.71	506.88				
USGS-104	0	SOUTH	2.98	4988.65	18-Apr-01	1547	559.61	4432.02	556.63				
USGS-107	0	SOUTH	1.95	4917.50	20-Apr-01	1320	482.54	4436.91	480.59				
USGS-110	USGS-110A	SOUTH	2.53	4999.97	20-Apr-01	1342	568.3	4434.20	565.77				
STF-MON-A-01A	STF-MON-01A	STF	1.82	4941.40	19-Apr-01	1047	503.26	4439.96	501.44				
STF-MON-A-02A	STF-MON-02A	STF	2.35	4937.30	19-Apr-01	1030	498.07	4441.58	495.72				
STF-MON-A-003	0	STF	2.05	4937.01	19-Apr-01	1101	500.86	4438.20	498.81				
STF-MON-A-004	0	STF	2.16	4945.37	19-Apr-01	1120	508.68	4438.85	506.52				
TAN-08	0	TAN	1.25	4790.37						no access			
TAN-13A	0	TAN	1.79	4780.57						no access			
TANT-MON-A-004	TAN-MON-A-001	TANT	2.83	4782.11	20-Apr-01	1219	207.02	4577.92	204.19				
TANT-MON-A-005	TAN-MON-A-002	TANT	2.70	4784.10	20-Apr-01	1230	202.42	4584.38	199.72				
PW-11	0	TRA	1.55	4916.49	20-Apr-01	1101	111.91	4806.13	110.36				
PW-12	0	TRA	1.24	4923.71	15-Apr-01	1300	88.35	4836.60	87.11				
PW-13	0	TRA	1.79	4923.82	15-Apr-01	1310	77.08	4848.53	75.29				
TRA-06	0	TRA	0.96	4920.14	20-Apr-01	955	471.81	4449.29	470.85				
TRA-07	0	TRA	2.53	4931.56	20-Apr-01	945	477.92	4456.17	475.39				
TRA-08	0	TRA	1.47	4934.93	20-Apr-01	1017	481.03	4455.37	479.56				
USGS-053	0	TRA	1.10	4922.14	20-Apr-01	1033	dry						
USGS-054	0	TRA	1.28	4920.94	20-Apr-01	1041	70.46	4851.76	69.18				
USGS-055	0	TRA	1.58	4919.15	20-Apr-01	1108	77.12	4843.61	75.54				
USGS-058	0	TRA	1.82	4918.37	20-Apr-01	1054	462.88	4457.31	461.06				
USGS-065	0	TRA	0.58	4925.01	20-Apr-01	1005	467.18	4458.41	466.60				
USGS-121	0	INTEC	1.82	4909.65	20-Apr-01	1120	455.97	4455.50	454.15			-1.5	4457.00
USGS-OBS-A-125	USGS-127	CFA	1.57	4956.44	18-Apr-01	1615	508.9	4449.11	507.33				

Table A-9. Water-level measurements for May 2001.

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
ANL-M11	ANL-MON-A-11	ANL	2.30	5118.69									
ANL-MON-A-012	ANL-MON-A-12	ANL	1.60	5132.80									
ANL-MON-A-013	ANL-MON-AQ-13	ANL	3.29	5120.37									
ANL-OBS-A-014	ANL-MON-AQ-14	ANL	1.00	5120.99									
ARA-COR-A-005	ARA-COR-005	ARA	2.24	5046.50	30-May-01	1428	601.84	4446.90	599.60				
ARA-MON-A-001	ARA-001	ARA	2.71	5034.30	30-May-01	1434	591.66	4445.35	588.96				
ARA-MON-A-002	ARA-002	ARA	2.46	5037.40	30-May-01	1414	594.62	4445.24	592.16				
ARA-MON-A-003	ARA-MON-A003A	ARA	2.67	5050.10	30-May-01	1406	605.37	4447.40	602.70				
ARA-MON-A-004	0	ARA	2.40	5064.60	30-May-01	1343	495.87	4571.13	493.47				
SITE-09	0	ARA	1.62	4926.03	30-May-01	1450	475.03	4452.62	473.41				
CFA-MON-A-001	CFA-MON-001	CFA	2.13	4936.44	31-May-01	955	489.51	4449.06	487.38				
CFA-MON-A-002	CFA-MON-002	CFA	1.93	4932.24	31-May-01	945	485.99	4448.18	484.06				
CFA-MON-A-003	CFA-MON-003	CFA	1.83	4930.31	31-May-01	935	485.64	4446.50	483.81				
LF2-10	0	CFA	1.35	4932.48	31-May-01	1023	481.76	4452.07	480.41			-0.73	4452.80
LF2-11	0	CFA	1.35	4928.36	31-May-01	1039	474.51	4455.20	473.16				
LF2-08	0	CFA	1.42	4931.72	31-May-01	1030	480.42	4452.72	479.00			-2.95	4455.67
LF2-09	0	CFA	1.23	4932.23	31-May-01	1018	483.16	4450.30	481.93			-5.72	4456.02
LF3-10	0	CFA	???	4942.62	31-May-01								
LF3-08	0	CFA	1.60	4940.22	31-May-01	1007	490.74	4451.08	489.14			-4.77	4455.85
LF3-09	0	CFA	1.69	4941.08	31-May-01								
ICPP-MON-A-021	CPP-MA-21	CPP	1.75	4904.36									
ICPP-MON-A-022	CPP-MA-22	CPP	2.50	4907.10									
USGS-020	0	ICPP	0.77	4916.36	29-May-01		464.41	4452.72	463.64				
USGS-034	0	ICPP	1.07	4929.19	29-May-01		476.05	4454.21	474.98				
USGS-035	0	ICPP	1.55	4929.64	29-May-01		475.11	4456.08	473.56				
USGS-036	0	ICPP	1.18	4929.20	29-May-01		474.28	4456.10	473.10				
USGS-037	0	ICPP	1.22	4929.38	29-May-01		474.51	4456.09	473.29				
USGS-038	0	ICPP	1.33	4929.63	29-May-01		473.65	4457.31	472.32				
USGS-039	0	ICPP	1.23	4930.95	29-May-01		476.05	4456.13	474.82				
USGS-057	0	ICPP	1.92	4922.49	29-May-01		468.3	4456.11	466.38				
USGS-077	0	ICPP	2.18	4921.79	29-May-01		468.02	4455.95	465.84				
USGS-082	0	ICPP	1.58	4906.99	29-May-01		451.56	4457.01	449.98				
USGS-085	0	ICPP	2.28	4939.26	29-May-01		485.79	4455.75	483.51				
USGS-111	0	ICPP	2.27	4920.50	29-May-01		472.56	4450.21	470.29			-5.24	4455.45
USGS-112	0	ICPP	2.29	4927.84	29-May-01		476.54	4453.59	474.25			-2.61	4456.20
USGS-113	0	ICPP	2.34	4925.28	29-May-01		477.03	4450.59	474.69			-6.46	4457.05
USGS-114	0	ICPP	2.28	4920.09	29-May-01		470.88	4451.49	468.60			-4.7	4456.19
USGS-115	0	ICPP	2.30	4918.84	29-May-01		467.11	4454.03	464.81			-2.23	4456.26
USGS-116	0	ICPP	2.53	4916.03	29-May-01		461.35	4457.21	458.82				
RWMC-PRO-A-064	LSIT TEST WELL	LSIT	1.92	5042.10	30-May-01	925	614.48	4429.54	612.56				
RWMC-MON-A-013	A11A31	LSIT	3.10	5068.80	30-May-01	945	643.71	4428.19	640.61				
RWMC-MON-A-065	RWMC-MA-65	LSIT	0.89	5041.60	30-May-01	933	613.89	4428.60	613.00				
RWMC-MON-A-066	RWMC-MA-66	LSIT	1.51	5043.70	30-May-01	940	620.14	4425.07	618.63				
NRF-MON-A-008	NRF-MA-08	NRF	3.04	4852.33									
NRF-MON-A-009	NRF-MA-09	NRF	2.86	4853.47	30-May-01								
NRF-MON-A-010	NRF-MA-10	NRF	3.27	4853.10									

Table A-9. (continued).

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
NRF-MON-A-011	NRF-MA-11	NRF	2.96	4850.73	30-May-01								
NRF-MON-A-012	NRF-MA-12	NRF	3.08	4850.83									
NRF-MON-A-013	NRF-MA-13	NRF	3.20	4843.59	30-May-01								
SITE 01 WATER TABLE	SITE-01A	OFF-BLR	2.11	5361.81	30-May-01								
PBF-MON-A-001	0	PBF	1.92	4906.15	30-May-01	1320	444.59	4463.48	442.67				
PBF-MON-A-003	0	PBF	1.85	4959.29	30-May-01	1357	518.21	4442.93	516.36				
PBF-MON-A-004	0	PBF	2.72	4939.66	30-May-01	1343	495.87	4446.51	493.15				
PBF-MON-A-005	0	PBF	1.79	4976.13	30-May-01	1330	510.81	4467.11	509.02				
M10S	M10S	RWMC	1.46	5021.62	30-May-01					no access			
M1SA	M01S	RWMC	3.13	5011.09	30-May-01	909	586.11	4428.11	582.98				
M3S	M03SA	RWMC	1.59	5016.16	30-May-01	830	590.36	4427.39	588.77				
M4D	M04D	RWMC	1.93	5022.53	30-May-01	916	596.91	4427.55	594.98				
M6S	M06S	RWMC	1.86	5065.76	30-May-01	959	641.04	4426.58	639.18				
M7S	M07S	RWMC	2.76	5004.85	30-May-01	815	579.48	4428.13	576.72				
SOUTH-MON-A-001	M11	RWMC	1.48	4994.19	30-May-01	1036	566.13	4429.54	564.65				
SOUTH-MON-A-002	M12	RWMC	1.75	4975.28	30-May-01	1014	535.91	4441.12	534.16				
SOUTH-MON-A-003	M13	RWMC	1.79	5026.85	30-May-01	1025	601.36	4427.28	599.57				
SOUTH-MON-A-004	M14	RWMC	2.78	5032.46	30-May-01	850	606.41	4428.83	603.63				
USGS-001	0	SOUTH	1.42	5022.71	30-May-01	1210	591.3	4432.83	589.88				
USGS-083	0	SOUTH	2.15	4941.59	30-May-01	1124	501.31	4442.43	499.16				
USGS-104	0	SOUTH	2.98	4988.65	30-May-01	1108	559.56	4432.07	556.58				
USGS-107	0	SOUTH	1.95	4917.50	30-May-01	1140	482.32	4437.13	480.37				
USGS-110	USGS-110A	SOUTH	2.53	4999.97	30-May-01	1225	569.12	4433.38	566.59				
STF-MON-A-01A	STF-MON-01A	STF	1.82	4941.40	30-May-01								
STF-MON-A-02A	STF-MON-02A	STF	2.35	4937.30	30-May-01								
STF-MON-A-003	0	STF	2.05	4937.01	30-May-01								
STF-MON-A-004	0	STF	2.16	4945.37	30-May-01								
TAN-08	0	TAN	1.25	4790.37									
TAN-13A	0	TAN	1.79	4780.57									
TANT-MON-A-004	TAN-MON-A-001	TANT	2.83	4782.11									
TANT-MON-A-005	TAN-MON-A-002	TANT	2.70	4784.10									
PW-11	0	TRA	1.55	4916.49									
PW-12	0	TRA	1.24	4923.71									
PW-13	0	TRA	1.79	4923.82									
TRA-06	0	TRA	0.96	4920.14	31-May-01	1117	471.68	4449.42	470.72				
TRA-07	0	TRA	2.53	4931.56	31-May-01	1108	477.73	4456.36	475.20				
TRA-08	0	TRA	1.47	4934.93	31-May-01	1135	480.81	4455.59	479.34				
USGS-053	0	TRA	1.10	4922.14									
USGS-054	0	TRA	1.28	4920.94									
USGS-055	0	TRA	1.58	4919.15									
USGS-058	0	TRA	1.82	4918.37									
USGS-065	0	TRA	0.58	4925.01	31-May-01	1125	466.91	4458.68	466.33				
USGS-121	0	INTEC	1.82	4909.65	29-May-01		455.81	4455.66	453.99			-1.5	4457.16
USGS-OBS-A-125	USGS-127	CFA	1.57	4956.44	30-May-01	28-Feb-03	508.82	4449.19	507.25				

Table A-10. Water-level measurements for June 2001.

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
ANL-M11	ANL-MON-A-11	ANL	2.30	5118.69									
ANL-MON-A-012	ANL-MON-A-12	ANL	1.60	5132.80									
ANL-MON-A-013	ANL-MON-AQ-13	ANL	3.29	5120.37									
ANL-OBS-A-014	ANL-MON-AQ-14	ANL	1.00	5120.99									
ARA-COR-A-005	ARA-COR-005	ARA	2.24	5046.50	28-Jun-01	1029	599.59	4449.15	597.35				
ARA-MON-A-001	ARA-001	ARA	2.71	5034.30	28-Jun-01	1019	591.91	4445.10	589.21				
ARA-MON-A-002	ARA-002	ARA	2.46	5037.40	28-Jun-01	955	594.88	4444.98	592.42				
ARA-MON-A-003	ARA-MON-A003A	ARA	2.67	5050.10	28-Jun-01	1039	605.57	4447.20	602.90				
ARA-MON-A-004	0	ARA	2.40	5064.60	28-Jun-01	1010	619.87	4447.13	617.47				
SITE-09	0	ARA	1.62	4926.03	28-Jun-01	1111	475.38	4452.27	473.76				
CFA-MON-A-001	CFA-MON-001	CFA	2.13	4936.44	27-Jun-01	1320	489.48	4449.09	487.35				
CFA-MON-A-002	CFA-MON-002	CFA	1.93	4932.24	27-Jun-01	1312	485.97	4448.20	484.04				
CFA-MON-A-003	CFA-MON-003	CFA	1.83	4930.31	27-Jun-01	1305	485.51	4446.63	483.68				
LF2-10	0	CFA	1.35	4932.48	27-Jun-01	1343	481.45	4452.38	480.10			-0.73	4453.11
LF2-11	0	CFA	1.35	4928.36	27-Jun-01	1356	474.67	4455.04	473.32				
LF2-08	0	CFA	1.42	4931.72	27-Jun-01	1350	480.53	4452.61	479.11			-2.95	4455.56
LF2-09	0	CFA	1.23	4932.23	27-Jun-01	1335	483.31	4450.15	482.08			-5.72	4455.87
LF3-10	0	CFA	???	4942.62	27-Jun-01					survey			
LF3-08	0	CFA	1.60	4940.22	27-Jun-01	1135	490.91	4450.91	489.31			-4.77	4455.68
LF3-09	0	CFA	1.69	4941.08	27-Jun-01					survey			
ICPP-MON-A-021	CPP-MA-21	CPP	1.75	4904.36									
ICPP-MON-A-022	CPP-MA-22	CPP	2.50	4907.10									
USGS-020	0	ICPP	0.77	4916.36	28-Jun-01	1705	463.61	4453.52	462.84				
USGS-034	0	ICPP	1.07	4929.19	28-Jun-01			4930.26	-1.07	no access			
USGS-035	0	ICPP	1.55	4929.64	28-Jun-01	1326	475.77	4455.42	474.22				
USGS-036	0	ICPP	1.18	4929.20	28-Jun-01	1315	474.71	4455.67	473.53				
USGS-037	0	ICPP	1.22	4929.38	28-Jun-01	1300	474.86	4455.74	473.64				
USGS-038	0	ICPP	1.33	4929.63	28-Jun-01	1250	474.24	4456.72	472.91				
USGS-039	0	ICPP	1.23	4930.95	28-Jun-01	1339	476.49	4455.69	475.26				
USGS-057	0	ICPP	1.92	4922.49	28-Jun-01	1627	468.75	4455.66	466.83				
USGS-077	0	ICPP	2.18	4921.79	28-Jun-01	1527	468.43	4455.54	466.25				
USGS-082	0	ICPP	1.58	4906.99	28-Jun-01	1415	451.92	4456.65	450.34				
USGS-085	0	ICPP	2.28	4939.26	27-Jun-01	1415	485.85	4455.69	483.57				
USGS-111	0	ICPP	2.27	4920.50	28-Jun-01	1650	472.99	4449.78	470.72			-5.24	4455.02
USGS-112	0	ICPP	2.29	4927.84	28-Jun-01	1601	476.89	4453.24	474.60			-2.61	4455.85
USGS-113	0	ICPP	2.34	4925.28	28-Jun-01					no access		-6.46	6.46
USGS-114	0	ICPP	2.28	4920.09	28-Jun-01	1514	471.37	4451.00	469.09			-4.7	4455.70
USGS-115	0	ICPP	2.30	4918.84	28-Jun-01	1459	467.56	4453.58	465.26			-2.23	4455.81
USGS-116	0	ICPP	2.53	4916.03	28-Jun-01	1434	461.81	4456.75	459.28				
RWMC-PRO-A-064	LSIT TEST WELL	LSIT	1.92	5042.10	27-Jun-01	950	614.46	4429.56	612.54				
RWMC-MON-A-013	A11A31	LSIT	3.10	5068.80	27-Jun-01	918	643.61	4428.29	640.51				
RWMC-MON-A-065	RWMC-MA-65	LSIT	0.89	5041.60	27-Jun-01	943	613.28	4429.21	612.39				
RWMC-MON-A-066	RWMC-MA-66	LSIT	1.51	5043.70	27-Jun-01	933	620.21	4425.00	618.70				
NRF-MON-A-008	NRF-MA-08	NRF	3.04	4852.33									
NRF-MON-A-009	NRF-MA-09	NRF	2.86	4853.47									
NRF-MON-A-010	NRF-MA-10	NRF	3.27	4853.10									

Table A-10. (continued).

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
NRF-MON-A-011	NRF-MA-11	NRF	2.96	4850.73									
NRF-MON-A-012	NRF-MA-12	NRF	3.08	4850.83									
NRF-MON-A-013	NRF-MA-13	NRF	3.20	4843.59									
SITE 01 WATER TABLE	SITE-01A	OFF-BLR	2.11	5361.81									
PBF-MON-A-001	0	PBF	1.92	4906.15	28-Jun-01	848	444.55	4463.52	442.63				
PBF-MON-A-003	0	PBF	1.85	4959.29	28-Jun-01	1051	518.32	4442.82	516.47				
PBF-MON-A-004	0	PBF	2.72	4939.66	28-Jun-01	935	496.07	4446.31	493.35				
PBF-MON-A-005	0	PBF	1.79	4976.13	28-Jun-01	910	510.87	4467.05	509.08				
M10S	M10S	RWMC	1.46	5021.62	27-Jun-01					no access			
M1SA	M01S	RWMC	3.13	5011.09	27-Jun-01	854	586.97	4427.25	583.84				
M3S	M03SA	RWMC	1.59	5016.16	27-Jun-01	814	590.22	4427.53	588.63				
M4D	M04D	RWMC	1.93	5022.53	27-Jun-01	905	596.77	4427.69	594.84				
M6S	M06S	RWMC	1.86	5065.76	27-Jun-01	1110	640.86	4426.76	639.00				
M7S	M07S	RWMC	2.76	5004.85	27-Jun-01	800	579.36	4428.25	576.60				
SOUTH-MON-A-001	M11	RWMC	1.48	4994.19	27-Jun-01	1025	566.01	4429.66	564.53				
SOUTH-MON-A-002	M12	RWMC	1.75	4975.28	27-Jun-01	1055	535.76	4441.27	534.01				
SOUTH-MON-A-003	M13	RWMC	1.79	5026.85	27-Jun-01	1045	601.22	4427.42	599.43				
SOUTH-MON-A-004	M14	RWMC	2.78	5032.46	27-Jun-01	835	606.31	4428.93	603.53				
USGS-001	0	SOUTH	1.42	5022.71	27-Jun-01	611	590.46	4433.67	589.04				
USGS-083	0	SOUTH	2.15	4941.59	27-Jun-01	723	501.12	4442.62	498.97				
USGS-104	0	SOUTH	2.98	4988.65	27-Jun-01	707	559.42	4432.21	556.44				
USGS-107	0	SOUTH	1.95	4917.50	27-Jun-01	645	482.32	4437.13	480.37				
USGS-110	USGS-110A	SOUTH	2.53	4999.97	27-Jun-01	625	467.92	4534.58	465.39				
STF-MON-A-01A	STF-MON-01A	STF	1.82	4941.40	28-Jun-01	1133	503.16	4440.06	501.34				
STF-MON-A-02A	STF-MON-02A	STF	2.35	4937.30	28-Jun-01	1123	494.05	4445.60	491.70				
STF-MON-A-003	0	STF	2.05	4937.01	28-Jun-01	1141	500.71	4438.35	498.66				
STF-MON-A-004	0	STF	2.16	4945.37	28-Jun-01	1155	508.68	4438.85	506.52				
TAN-08	0	TAN	1.25	4790.37									
TAN-13A	0	TAN	1.79	4780.57									
TANT-MON-A-004	TAN-MON-A-001	TANT	2.83	4782.11									
TANT-MON-A-005	TAN-MON-A-002	TANT	2.70	4784.10									
PW-11	0	TRA	1.55	4916.49									
PW-12	0	TRA	1.24	4923.71									
PW-13	0	TRA	1.79	4923.82									
TRA-06	0	TRA	0.96	4920.14									
TRA-07	0	TRA	2.53	4931.56									
TRA-08	0	TRA	1.47	4934.93									
USGS-053	0	TRA	1.10	4922.14									
USGS-054	0	TRA	1.28	4920.94									
USGS-055	0	TRA	1.58	4919.15									
USGS-058	0	TRA	1.82	4918.37									
USGS-065	0	TRA	0.58	4925.01									
USGS-121	0	INTEC	1.82	4909.65	28-Jun-01					no access		-1.5	
USGS-OBS-A-125	USGS-127	CFA	1.57	4956.44	27-Jun-01	734	508.81	4449.20	507.24				

Table A-11. Water-level measurements for July 2001.

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
ANL-M11	ANL-MON-A-11	ANL	2.30	5118.69									
ANL-MON-A-012	ANL-MON-A-12	ANL	1.60	5132.80									
ANL-MON-A-013	ANL-MON-AQ-13	ANL	3.29	5120.37									
ANL-OBS-A-014	ANL-MON-AQ-14	ANL	1.00	5120.99									
ARA-COR-A-005	ARA-COR-005	ARA	2.24	5046.50	31-Jul-01	810	600.11	4448.63	597.87				
ARA-MON-A-001	ARA-001	ARA	2.71	5034.30	31-Jul-01	800	592.41	4444.60	589.71				
ARA-MON-A-002	ARA-002	ARA	2.46	5037.40	31-Jul-01	750	595.38	4444.48	592.92				
ARA-MON-A-003	ARA-MON-A003A	ARA	2.67	5050.10	31-Jul-01	817	606.13	4446.64	603.46				
ARA-MON-A-004	0	ARA	2.40	5064.60	31-Jul-01								
SITE-09	0	ARA	1.62	4926.03	30-Jul-01	1610	475.76	4451.89	474.14				
CFA-MON-A-001	CFA-MON-001	CFA	2.13	4936.44	30-Jul-01	1538	489.71	4448.86	487.58				
CFA-MON-A-002	CFA-MON-002	CFA	1.93	4932.24	30-Jul-01	1545	486.21	4447.96	484.28				
CFA-MON-A-003	CFA-MON-003	CFA	1.83	4930.31	30-Jul-01	1555	485.77	4446.37	483.94				
LF2-10	0	CFA	1.35	4932.48	31-Jul-01	1005	482.13	4451.70	480.78			-0.73	4452.43
LF2-11	0	CFA	1.35	4928.36	31-Jul-01	1025	475.24	4454.47	473.89				
LF2-08	0	CFA	1.42	4931.72	31-Jul-01	1015	481.14	4452.00	479.72			-2.95	4454.95
LF2-09	0	CFA	1.23	4932.23	31-Jul-01	957	483.82	4449.64	482.59			-5.72	4455.36
LF3-10	0	CFA	???	4942.62		1005	482.13						
LF3-08	0	CFA	1.60	4940.22	30-Jul-01	1511	491.23	4450.59	489.63			-4.77	4455.36
LF3-09	0	CFA	1.69	4941.08									
ICPP-MON-A-021	CPP-MA-21	CPP	1.75	4904.36									
ICPP-MON-A-022	CPP-MA-22	CPP	2.50	4907.10									
USGS-020	0	ICPP	0.77	4916.36	31-Jul-01	1120	463.86	4453.27	463.09				
USGS-034	0	ICPP	1.07	4929.19	31-Jul-01	1343	475.04	4455.22	473.97				
USGS-035	0	ICPP	1.55	4929.64	31-Jul-01	1354	476.12	4455.07	474.57				
USGS-036	0	ICPP	1.18	4929.20	31-Jul-01	1330	475.11	4455.27	473.93				
USGS-037	0	ICPP	1.22	4929.38	31-Jul-01	1307	475.31	4455.29	474.09				
USGS-038	0	ICPP	1.33	4929.63	31-Jul-01	1250	475.66	4455.30	474.33				
USGS-039	0	ICPP	1.23	4930.95	31-Jul-01	1400	476.81	4455.37	475.58				
USGS-057	0	ICPP	1.92	4922.49	31-Jul-01					n/a			
USGS-077	0	ICPP	2.18	4921.79	31-Jul-01	1428	468.89	4455.08	466.71				
USGS-082	0	ICPP	1.58	4906.99	31-Jul-01	1058	452.18	4456.39	450.60				
USGS-085	0	ICPP	2.28	4939.26	30-Jul-01	1455	486.26	4455.28	483.98				
USGS-111	0	ICPP	2.27	4920.50	31-Jul-01					n/a		-5.24	
USGS-112	0	ICPP	2.29	4927.84	31-Jul-01	1410	477.27	4452.86	474.98			-2.61	4455.47
USGS-113	0	ICPP	2.34	4925.28	31-Jul-01	1419	477.84	4449.78	475.50			-6.46	4456.24
USGS-114	0	ICPP	2.28	4920.09	31-Jul-01	1435	471.72	4450.65	469.44			-4.7	4455.35
USGS-115	0	ICPP	2.30	4918.84	31-Jul-01	1444	467.91	4453.23	465.61			-2.23	4455.46
USGS-116	0	ICPP	2.53	4916.03	31-Jul-01	1110	462.14	4456.42	459.61				
RWMC-PRO-A-064	LSIT TEST WELL	LSIT	1.92	5042.10	30-Jul-01	1005	614.87	4429.15	612.95				
RWMC-MON-A-013	A11A31	LSIT	3.10	5068.80	30-Jul-01	925	643.94	4427.96	640.84				
RWMC-MON-A-065	RWMC-MA-65	LSIT	0.89	5041.60	30-Jul-01	955	613.66	4428.83	612.77				
RWMC-MON-A-066	RWMC-MA-66	LSIT	1.51	5043.70	30-Jul-01	941	620.56	4424.65	619.05				
NRF-MON-A-008	NRF-MA-08	NRF	3.04	4852.33									
NRF-MON-A-009	NRF-MA-09	NRF	2.86	4853.47									
NRF-MON-A-010	NRF-MA-10	NRF	3.27	4853.10									

Table A-11. (continued).

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
NRF-MON-A-011	NRF-MA-11	NRF	2.96	4850.73									
NRF-MON-A-012	NRF-MA-12	NRF	3.08	4850.83									
NRF-MON-A-013	NRF-MA-13	NRF	3.20	4843.59									
SITE 01 WATER TABLE	SITE-01A	OFF-BLR	2.11	5361.81									
PBF-MON-A-001	0	PBF	1.92	4906.15	31-Jul-01	845	444.66	4463.41	442.74				
PBF-MON-A-003	0	PBF	1.85	4959.29	31-Jul-01	827	518.73	4442.41	516.88				
PBF-MON-A-004	0	PBF	2.72	4939.66	31-Jul-01	910	496.44	4445.94	493.72				
PBF-MON-A-005	0	PBF	1.79	4976.13	31-Jul-01	858	511.08	4466.84	509.29				
M10S	M10S	RWMC	1.46	5021.62	30-Jul-01								
M1SA	M01S	RWMC	3.13	5011.09	30-Jul-01	859	587.14	4427.08	584.01				
M3S	M03SA	RWMC	1.59	5016.16	30-Jul-01	815	590.49+						
M4D	M04D	RWMC	1.93	5022.53	30-Jul-01	912	596.93	4427.53	595.00				
M6S	M06S	RWMC	1.86	5065.76	30-Jul-01	1020	641.06	4426.56	639.20				
M7S	M07S	RWMC	2.76	5004.85	30-Jul-01	810	579.69	4427.92	576.93				
SOUTH-MON-A-001	M11	RWMC	1.48	4994.19	30-Jul-01	1035	566.21	4429.46	564.73				
SOUTH-MON-A-002	M12	RWMC	1.75	4975.28	30-Jul-01	1050	535.94	4441.09	534.19				
SOUTH-MON-A-003	M13	RWMC	1.79	5026.85	30-Jul-01	1105	601.48	4427.16	599.69				
SOUTH-MON-A-004	M14	RWMC	2.78	5032.46	30-Jul-01	835	606.63	4428.61	603.85				
USGS-001	0	SOUTH	1.42	5022.71	30-Jul-01	1305	590.82	4433.31	589.40				
USGS-083	0	SOUTH	2.15	4941.59	30-Jul-01	1430	501.17	4442.57	499.02				
USGS-104	0	SOUTH	2.98	4988.65	30-Jul-01	1413	559.61	4432.02	556.63				
USGS-107	0	SOUTH	1.95	4917.50	30-Jul-01	1348	482.71	4436.74	480.76				
USGS-110	USGS-110A	SOUTH	2.53	4999.97	30-Jul-01	1325	558.33	4444.17	555.80				
STF-MON-A-01A	STF-MON-01A	STF	1.82	4941.40	30-Jul-01	1630	503.23	4439.99	501.41				
STF-MON-A-02A	STF-MON-02A	STF	2.35	4937.30	30-Jul-01	1619	498.04	4441.61	495.69				
STF-MON-A-003	0	STF	2.05	4937.01	31-Jul-01	929	501.11	4437.95	499.06				
STF-MON-A-004	0	STF	2.16	4945.37	31-Jul-01	941	509.01	4438.52	506.85				
TAN-08	0	TAN	1.25	4790.37									
TAN-13A	0	TAN	1.79	4780.57									
TANT-MON-A-004	TAN-MON-A-001	TANT	2.83	4782.11									
TANT-MON-A-005	TAN-MON-A-002	TANT	2.70	4784.10									
PW-11	0	TRA	1.55	4916.49									
PW-12	0	TRA	1.24	4923.71									
PW-13	0	TRA	1.79	4923.82									
TRA-06	0	TRA	0.96	4920.14				4921.10					
TRA-07	0	TRA	2.53	4931.56				4934.09					
TRA-08	0	TRA	1.47	4934.93				4936.40					
USGS-053	0	TRA	1.10	4922.14									
USGS-054	0	TRA	1.28	4920.94									
USGS-055	0	TRA	1.58	4919.15									
USGS-058	0	TRA	1.82	4918.37									
USGS-065	0	TRA	0.58	4925.01									
USGS-121	0	INTEC	1.82	4909.65	31-Jul-01	1040	456.39	4455.08	454.57			-1.5	4456.58
USGS-OBS-A-125	USGS-127	CFA	1.57	4956.44	30-Jul-01	1130	509.12	4448.89	507.55				

Table A-12. Water-level measurements for August 2001.

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
ANL-M11	ANL-MON-A-11	ANL	2.30	5118.69									
ANL-MON-A-012	ANL-MON-A-12	ANL	1.60	5132.80									
ANL-MON-A-013	ANL-MON-AQ-13	ANL	3.29	5120.37									
ANL-OBS-A-014	ANL-MON-AQ-14	ANL	1.00	5120.99									
ARA-COR-A-005	ARA-COR-005	ARA	2.24	5046.50	27-Aug-01	1300	600.08	4448.66	597.84				
ARA-MON-A-001	ARA-001	ARA	2.71	5034.30	27-Aug-01	1253	592.82	4444.19	590.12				
ARA-MON-A-002	ARA-002	ARA	2.46	5037.40	27-Aug-01	1309	595.81	4444.05	593.35				
ARA-MON-A-003	ARA-MON-A003A	ARA	2.67	5050.10	27-Aug-01	1320	606.56	4446.21	603.89				
ARA-MON-A-004	0	ARA	2.40	5064.60									
SITE-09	0	ARA	1.62	4926.03	27-Aug-01	1355	476.28	4451.37	474.66				
CFA-MON-A-001	CFA-MON-001	CFA	2.13	4936.44	27-Aug-01	1100	490.57	4448.00	488.44				
CFA-MON-A-002	CFA-MON-002	CFA	1.93	4932.24	27-Aug-01	1110	487.08	4447.09	485.15				
CFA-MON-A-003	CFA-MON-003	CFA	1.83	4930.31	27-Aug-01	1115	n/a			pump work			
LF2-10	0	CFA	1.35	4932.48	27-Aug-01	1515	482.49	4451.34	481.14			-0.73	4452.07
LF2-11	0	CFA	1.35	4928.36	27-Aug-01	1522	475.52	4454.19	474.17				
LF2-08	0	CFA	1.42	4931.72	27-Aug-01	1500	481.62	4451.52	480.20			-2.95	4454.47
LF2-09	0	CFA	1.23	4932.23	27-Aug-01	1508	484.38	4449.08	483.15			-5.72	4454.80
LF3-10	0	CFA	???	4942.62									
LF3-08	0	CFA	1.60	4940.22	27-Aug-01	1450	491.86	4449.96	490.26			-4.77	4454.73
LF3-09	0	CFA	1.69	4941.08									
ICPP-MON-A-021	CPP-MA-21	CPP	1.75	4904.36									
ICPP-MON-A-022	CPP-MA-22	CPP	2.50	4907.10									
USGS-020	0	ICPP	0.77	4916.36	28-Aug-01	807	n/a			plugged			
USGS-034	0	ICPP	1.07	4929.19	27-Aug-01	917	475.98	4454.28	474.91				
USGS-035	0	ICPP	1.55	4929.64	27-Aug-01	855	477.11	4454.08	475.56				
USGS-036	0	ICPP	1.18	4929.20	27-Aug-01	947	476.15	4454.23	474.97				
USGS-037	0	ICPP	1.22	4929.38	27-Aug-01	1247	476.16	4454.44	474.94				
USGS-038	0	ICPP	1.33	4929.63	27-Aug-01	1311	476.51	4454.45	475.18				
USGS-039	0	ICPP	1.23	4930.95	27-Aug-01	820	477.88	4454.30	476.65				
USGS-057	0	ICPP	1.92	4922.49	28-Aug-01	1020	470.19	4454.22	468.27				
USGS-077	0	ICPP	2.18	4921.79	27-Aug-01	1400	469.67	4454.30	467.49				
USGS-082	0	ICPP	1.58	4906.99	28-Aug-01	915	453.18	4455.39	451.60				
USGS-085	0	ICPP	2.28	4939.26	29-Aug-01	1100	486.52	4455.02	484.24				
USGS-111	0	ICPP	2.27	4920.50	28-Aug-01	1025	474.43	4448.34	472.16			-5.24	4453.58
USGS-112	0	ICPP	2.29	4927.84	27-Aug-01	1330	478.25	4451.88	475.96			-2.61	4454.49
USGS-113	0	ICPP	2.34	4925.28	27-Aug-01	1345	n/a			plugged		-6.46	
USGS-114	0	ICPP	2.28	4920.09	27-Aug-01	1142	472.56	4449.81	470.28			-4.7	4454.51
USGS-115	0	ICPP	2.30	4918.84	28-Aug-01	940	468.84	4452.30	466.54			-2.23	4454.53
USGS-116	0	ICPP	2.53	4916.03	28-Aug-01	830	463.05	4455.51	460.52				
RWMC-PRO-A-064	LSIT TEST WELL	LSIT	1.92	5042.10	28-Aug-01	1510	615.04	4428.98	613.12				
RWMC-MON-A-013	A11A31	LSIT	3.10	5068.80	28-Aug-01	1440	644.05	4427.85	640.95				
RWMC-MON-A-065	RWMC-MA-65	LSIT	0.89	5041.60	28-Aug-01	1500	613.7	4428.79	612.81				
RWMC-MON-A-066	RWMC-MA-66	LSIT	1.51	5043.70	28-Aug-01	1450	620.73	4424.48	619.22				
NRF-MON-A-008	NRF-MA-08	NRF	3.04	4852.33									
NRF-MON-A-009	NRF-MA-09	NRF	2.86	4853.47									
NRF-MON-A-010	NRF-MA-10	NRF	3.27	4853.10									

Table A-12. (continued).

Well Name	Well Alias	Area	stickup(ft)	BC Elev	Date	Time	wl(ftbmp)	elev(ftamsl)	wl(bbc)	Comment		Dev corr	Adj wl
NRF-MON-A-011	NRF-MA-11	NRF	2.96	4850.73									
NRF-MON-A-012	NRF-MA-12	NRF	3.08	4850.83									
NRF-MON-A-013	NRF-MA-13	NRF	3.20	4843.59									
SITE 01 WATER TABLE	SITE-01A	OFF-BLR	2.11	5361.81									
PBF-MON-A-001	0	PBF	1.92	4906.15	29-Aug-01	1115	444.74	4463.33	442.82				
PBF-MON-A-003	0	PBF	1.85	4959.29	27-Aug-01	1333	519.18	4441.96	517.33				
PBF-MON-A-004	0	PBF	2.72	4939.66	29-Aug-01	1142	469.53	4472.85	466.81				
PBF-MON-A-005	0	PBF	1.79	4976.13	29-Aug-01	1130	511.26	4466.66	509.47				
M10S	M10S	RWMC	1.46	5021.62									
M1SA	M01S	RWMC	3.13	5011.09	28-Aug-01	1415	487.35	4526.87	484.22				
M3S	M03SA	RWMC	1.59	5016.16	28-Aug-01	1350	n/a			logging			
M4D	M04D	RWMC	1.93	5022.53	28-Aug-01	1425	597.17	4427.29	595.24				
M6S	M06S	RWMC	1.86	5065.76	28-Aug-01	1520	641.26	4426.36	639.40				
M7S	M07S	RWMC	2.76	5004.85	28-Aug-01	1315	579.65	4427.96	576.89				
SOUTH-MON-A-001	M11	RWMC	1.48	4994.19	29-Aug-01	1405	566.49	4429.18	565.01				
SOUTH-MON-A-002	M12	RWMC	1.75	4975.28	29-Aug-01	1345	536.29	4440.74	534.54				
SOUTH-MON-A-003	M13	RWMC	1.79	5026.85	28-Aug-01	1533	601.59	4427.05	599.80				
SOUTH-MON-A-004	M14	RWMC	2.78	5032.46	29-Aug-01	1435	606.82	4428.42	604.04				
USGS-001	0	SOUTH	1.42	5022.71	29-Aug-01	1215	590.99	4433.14	589.57				
USGS-083	0	SOUTH	2.15	4941.59	29-Aug-01	1300	501.36	4442.38	499.21				
USGS-104	0	SOUTH	2.98	4988.65	29-Aug-01	1315	559.92	4431.71	556.94				
USGS-107	0	SOUTH	1.95	4917.50	29-Aug-01	1242	482.92	4436.53	480.97				
USGS-110	USGS-110A	SOUTH	2.53	4999.97	29-Aug-01	1230	568.49	4434.01	565.96				
STF-MON-A-01A	STF-MON-01A	STF	1.82	4941.40	27-Aug-01	1415	503.77	4439.45	501.95				
STF-MON-A-02A	STF-MON-02A	STF	2.35	4937.30	27-Aug-01	1406	498.61	4441.04	496.26				
STF-MON-A-003	0	STF	2.05	4937.01	27-Aug-01	1420	501.41	4437.65	499.36				
STF-MON-A-004	0	STF	2.16	4945.37	27-Aug-01	1430	509.32	4438.21	507.16				
TAN-08	0	TAN	1.25	4790.37									
TAN-13A	0	TAN	1.79	4780.57									
TANT-MON-A-004	TAN-MON-A-001	TANT	2.83	4782.11									
TANT-MON-A-005	TAN-MON-A-002	TANT	2.70	4784.10									
PW-11	0	TRA	1.55	4916.49									
PW-12	0	TRA	1.24	4923.71									
PW-13	0	TRA	1.79	4923.82									
TRA-06	0	TRA	0.96	4920.14									
TRA-07	0	TRA	2.53	4931.56									
TRA-08	0	TRA	1.47	4934.93									
USGS-053	0	TRA	1.10	4922.14									
USGS-054	0	TRA	1.28	4920.94									
USGS-055	0	TRA	1.58	4919.15									
USGS-058	0	TRA	1.82	4918.37									
USGS-065	0	TRA	0.58	4925.01									
USGS-121	0	INTEC	1.82	4909.65	28-Aug-01	1445	457.33	4454.14	455.51			-1.5	4455.64
USGS-OBS-A-125	USGS-127	CFA	1.57	4956.44	27-Aug-01	1125	509.81	4448.20	508.24				