United States Department of Energy

Savannah River Site

Scoping Summary
For the General Separations Area Western Groundwater Operable Unit (U)

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FINAL

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Key Changes to the Scoping Summary

SECTION	DESCRIPTION OF CHANGE	RATIONALE FOR CHANGE
4.1 and 4.2	Revised sections to include results from 2013 groundwater sampling.	These changes update the Scoping Summary to include results from sampling in 2013.
4.1	Added discussion of the sample history for FBP wells near the seepline for the West plume.	Discussion added per Core Team agreement because these wells have historically been dry.
Figures A-3, A-4, and A-5	Figures were updated based on the results of 2013 groundwater sampling.	These changes update the Scoping Summary with sampling results from 2013.
Appendix B	Data tables were updated with the results of 2013 groundwater sampling.	These changes update the Scoping Summary with sampling results from 2013.
4.1, Table 1, and Data Tables	Monitoring well FGW 003C was moved from the North plume to the West plume.	Based on a revised plume interpretation in 2012, the well better represents conditions in the West plume.
4.1	A new surface water station and a seepline groundwater piezometer were added for the South plume.	Based on agreement from the August 2013 meeting, the new locations improve monitoring for the South plume.

Significant Core Team Agreements

Agreement	Meeting
Technetium-99 will be added to the analyte list for the South plume.	September 2014
Sampling data (one event) for new locations, FGW-023 and FGW-024, will be included in the final scoping summary for 2014.	September 2014
At the South plume, the Core Team agreed to move forward with installation of one surface water sample station and one shallow seepline piezometer on a tributary to the west of the Biomass Facility. The need for additional monitoring points will be evaluated based on monitoring results.	August 2013
Sampling of established wells will be performed annually. New monitoring locations added to the OU will be sampled semi-annually until a baseline is established.	August 2013
As documented in the GSA Eastern and Western Groundwater OUs Groundwater Monitoring Optimization White Paper, SRNS-RP-2012-00783, Rev. 1, January 2014, the Core Team agreed to discontinue monitoring at wells FNB-3, FNB-12, FPB-13D, FBP-44D, FBP-46D, FBP-47D, BRR-5D and UTR-7.	August 2013

Significant Core Team Agreements (continued)

Agreement	Meeting
As documented in the GSA Eastern and Western Groundwater OUs Groundwater Monitoring Optimization White Paper, SRNS-RP-2012-00783, Rev. 1, January 2014, the Core Team agreed to add alpha and beta/gamma speciation to analyte list for well FGW005C.	August 2013
The Core Team recognized the difficulty of installing a new well down gradient of UTR-18R and agreed that a new well is not needed at this time as long as SRS continues to monitor water at the seep in well UTR-18R.	August 2013
Add one monitoring well in the lower aquifer zone down gradient of FGW-012C, if possible.	August 2012
Add one seepline and one surface water monitoring location down gradient of FGW-012C along unnamed tributary, if surface water is present.	August 2012
Data are being collected and reported for future evaluation of VOC degradation as a remedial alternative.	August 2011
The Core Team agreed to include information on wells FBP 44D, 46D, and 47D in the August 2011 scoping summary instead of submitting the February 2011 white paper that was agreed to during the June 2010 meeting.	August 2011
FBP 44D, FBP 46D, and FBP 47D can be dry during periods of lower water table. This could represent a data gap if the UTR 18R seepline piezometer is also dry (monitors the same aquifer zone). UTR 18R typically contains water. Historical data associated with the dry wells will be evaluated with respect to contaminants to determine if modifications to the well network are necessary to define plume extent. The evaluation will be reported in February 2011 as a white paper.	June 2010

1.0 PROJECT PHASE AND STATUS

The *Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI)/Remedial Investigation (RI) Phase 1 Work Plan for the General Separations Area (GSA) Western Groundwater Operable Unit (OU)*, Revision 1.1, was approved by the United States Environmental Protection Agency (USEPA) and by the South Carolina Department of Health and Environmental Control (SCDHEC) on September 9, 2004. A Field Start was achieved for the OU on September 20, 2004.

In 2007, SRS completed establishment of the groundwater monitoring network. The GSA Western Groundwater OU is currently in a groundwater monitoring program. The purpose of this Scoping Summary is to present the analytical data obtained in 2013 from groundwater monitoring to the Core Team to determine if the monitoring network and analytical suite remain appropriate for continued monitoring. In 2013, concentrations have remained consistent with results from 2012 and continued sampling of the groundwater monitoring network is recommended.

2.0 BACKGROUND

The GSA is located on a topographic ridge near the center of the SRS. The GSA Western Groundwater OU is located in the northwest portion of the GSA on a groundwater divide. It encompasses the groundwater beneath approximately 485.6 hectares (1,200 acres) in F Area. This OU is bordered to the south by the F Area Hazardous Waste Management Facility and to the east by the Mixed Waste Management Facility (see Figure A-1). Because the OU is located on a groundwater divide, shallow groundwater flows toward both Fourmile Branch (FMB) and Upper Three Runs Creek (UTRC) (see Figure A-2).

This OU underlies many operating facilities and waste units in and around F Area that are potential sources of contamination. Some of these facilities and units have been investigated during previous Resource Conservation Recovery Act (RCRA) Facility Investigation (RFI)/Remedial Investigation (RI) characterization work. From these investigations and from review of the existing monitoring well networks, three distinct groundwater plumes have been identified in the Upper Three Runs Aquifer (UTRA). The plumes are identified by geographic reference as the North plume, the West plume, and the South plume.

Some of the operating facilities in the area are undergoing decontamination and decommissioning and will be brought to closure in the near term. Because other facilities will remain active into the future, in September 2005, the Core Team determined:

- It is not appropriate to achieve a Record of Decision on the GSA Western GW OU until all sources of potential contamination are brought to closure (including closure of the F-Area High Level Waste Tanks).
- The most appropriate action at this time is continued groundwater monitoring to ensure that surface water resources are adequately protected.
- If contamination in the groundwater is thought to represent a threat to surface water resources, the Core Team will reconvene to determine if early response actions are required.

SRS characterized the nature and extent of groundwater contamination. The primary groundwater contaminants are volatile organic compounds (VOCs), radionuclides, and nitrate. Tritium, iodine-129, and trichloroethylene (TCE) are sporadically above MCLs at points of groundwater discharge at the seeplines. However, concentrations in adjacent surface water are consistently below MCLs.

3.0 LAND USE

The area encompassed by the GSA Western GW OU is heavily developed with many active industrial facilities. No future residential use of this area is anticipated. Land use of the entire GSA Western GW OU area will be controlled to prevent use of the groundwater that exceeds MCLs. The UTRA and Gordon Aquifer (GA) are not used as a drinking water source at SRS.

4.0 SUBUNITS

The GSA Western GW OU includes the following two subunits:

- Groundwater (i.e., North Plume, West Plume, South Plume), including shallow groundwater discharging to surface at the seeplines
- Surface water

In September 2005, the Core Team determined that soil contamination from the potential source units will be addressed during closure of the individual waste units and operating facilities.

4.1 Groundwater Subunit

The UTRA is the shallow-most aquifer beneath the GSA Western GW OU. The GA underlies the UTRA. Contamination is present only in the UTRA. Previous investigations have demonstrated that within the GSA Western GW OU, the GA is protected by a competent confinement unit and contamination is not migrating into the aquifer.

In 2013, the GSA Western GW OU was under a groundwater monitoring program that consisted of semi-annual sampling of 33 monitoring wells, 3 shallow sampling points at the seeplines (i.e., seepline piezometers), and 3 surface water

sampling stations (Table 1 and Figure A-2). Starting in 2014, samples for established wells are collected annually in accordance with Table 1 and new wells are sampled semi-annually until a baseline is established. The results from the 2013 monitoring of the well network are discussed below for the North, West, and South plumes. The analytical data for 2013 is presented in Appendix B.

Beginning in 2011, all locations in the North and West plumes have been sampled for TCE and degradation products. This is necessary to ensure that sufficient data are available to evaluate natural attenuation as a future remedial action. Currently cis-1,2-dichloroethylene is detected in the groundwater; however, concentrations are very low (0.51 ug/L) and below the laboratory analytical quantitation limit (i.e., 1 ug/L). Vinyl chloride is not detected (less than detection limit 0.084 ug/L).

Groundwater contaminants in the UTRA include VOCs, radionuclides, and nitrate. Tritium, TCE, and nonvolatile beta are recognized as the most widespread contaminants in the groundwater at the OU and thus are mapped each year. Other constituents are co-mingled with these primary contaminants. For example, TCE is the primary chlorinated solvent present yet the plume typically also contains limited quantities of tetrachloroethylene (PCE) and trichlorofluoromethane (TCFM) co-located with the TCE. Tritium and nonvolatile beta are the most widespread radioactive contaminants; however, other radionuclides such as iodine-129, strontium-90, uranium-238, etc., are also co-located within these plumes. Thus, mapping of the primary contaminants is useful to evaluate the distribution and nature of the plumes from year to year.

Beginning in the 2011 scoping summary annual meeting, the TCE plume (Figure A-4) was revised. The value of the contour line was changed from 10 ug/L to the MCL of 5 ug/L. Also, the general shape of the plume was modified to reflect the absence of TCE at the wells adjacent to the Old F-Area Seepage Basin (OFASB). This change resulted in two distinct plumes being interpreted (North and West

plumes) and the reassignment of well FGW 003C to the West plume monitoring network.

North Plume

The North plume covers an area of approximately 50 acres on the north side of the F-Area industrial facilities. Within this portion of the OU, the water table and the plume are located completely within the Lower Aquifer Zone (LAZ) of the UTRA. Groundwater flow in this aquifer is north toward Upper Three Runs Creek and its tributaries. During 2013, groundwater samples were collected from six wells, three seepline piezometers, and two surface water locations. All locations yielded samples in the both the first and third quarters.

Previous investigations have shown that elevated concentrations of TCE, gross alpha, and nonvolatile beta are present to the east and north-east of the OFASB. In 2002, depth discrete samples measured TCE concentrations up to 85 ug/L. Elevated concentrations of gross alpha and nonvolatile beta were also detected. Sample locations from this investigation were shown in the November 2005 Scoping Summary. This area of the plume is likely from sources within the F Area fence line such as facilities associated with the now decommissioned Naval Fuels and the Fabrication Shop located north of F Canyon.

During the 2013 monitoring period, TCE concentrations were the same as in 2012 and ranged between non-detect and 16.2 ug/L. Four monitoring locations detected TCE and only two locations exceeded the MCL (FNB 13 and FNB 15). The maximum concentration detected was 16.2 ug/L at well FNB 13. At adjacent well FNB 15 TCE was 12.8 ug/L. TCE was not detected above the MCL at the seepline piezometers. The only detection at the seepline occurred at piezometer UTR-16 and the concentration was 2.3 ug/L. Both PCE and TCFM were also below the MCL in the north plume.

In addition to VOCs, nonvolatile beta, nitrate, iodine-129, strontium-90, and tritium have been present in the UTRA at levels greater than MCLs. In 2013, at most locations, concentrations were lower than levels measured in 2012 and only slightly greater than respective MCLs. Near the OFASB, concentrations at well FNB 2 were lower than in 2012, but remain several times their respective MCL for I-129 (2013 max. 8.3 pCi/L; 2012 max. 9.0 pCi/L) and Sr-90 (2013 max. 12.4 pCi/L; 2012 max. 15.6 pCi/L). Tritium was highest down gradient of the OFASB and F Area facilities at well FNB 13 (2013 max. 31.9 pCi/mL; 2012 max. 35.8 pCi/mL). Nitrate exceeded the MCL at only two wells (FNB 13 and FNB 15) and the maximum concentration was 16.2 mg/L (FNB 15).

Shallow groundwater discharging at the seepline is monitored by three seepline piezometers (UTR 6, 7, and 16). Historically, primarily tritium has been detected near or slightly above the MCL at location UTR 16. However, I-129 has also been sporadically measured above the MCL in the past. During the 2013 sampling, both iodine-129 (2.42J pCi/L) and tritium (24.5 pCi/mL) exceeded the MCL at UTR 16. In 2012, iodine-129 and tritium also exceeded MCLs in the shallow groundwater at UTR 16; iodine-129 (2.34J pCi/L) and tritium (24.6 pCi/mL). In accordance with the monitoring strategy, surface water samples are also collected near the points of groundwater discharge (i.e., seepline piezometers). Samples from surface water station UTR 003, the station downstream of piezometer UTR 16, detected iodine-129 (6.14J pCi/L), but the result was “J”-qualified because the relative percent difference for the laboratory duplicate sample was outside quality control limits. In the other sample collected from UTR 003 surface water iodine-129 was not detected. Tritium was below the MCL in surface water at 4.03 pCi/mL.

Overall, the 2013 results are slightly lower than previous years. The data continue to indicate that the plume remains stable to decreasing with respect to

extent and concentrations. Surface water is not being impacted above MCLs. Monitoring results for 2013 are provided in Appendix B.

West Plume

The West plume occupies approximately 65 acres on the western side of F Area. The plume is located within both the Upper Aquifer Zone (UAZ) and LAZ of the UTRA. Groundwater flow in this area is generally west toward Upper Three Runs Creek. During 2013, groundwater samples were obtained from 14 of 16 wells. Two of the three wells closest to the seepline (FBP 44D and FBP 46D) were dry during both sampling events and FBP 47D was dry during the third quarter. These locations have historically been dry. In 2013, two samples were collected from the seepline piezometer (UTR 18R) which was dry in 2012. However, the surface water location (UTR 005) was dry. Sampling results from the monitoring network are included in Appendix B.

Overall, the West plume is comprised primarily of VOCs (PCE, TCE, and TCFM), nitrates, and gross alpha/nonvolatile beta constituents. Based on previous sampling, the isotopes present include iodine-129, strontium-90, technetium-99, uranium-233/234, and uranium-238. In 2013, the data show MCL exceedances for: PCE, TCE, TCFM, nitrates, gross alpha, nonvolatile beta, radium-226, radium-228, tritium, uranium 233/234, and uranium-238. VOCs and nitrates are the most widespread contaminants for the West plume.

VOCs are present beneath the burning rubble pits and up gradient of the pits toward the F Area facilities. The most prevalent VOCs are TCE and TCFM. The highest concentrations of TCE are located at the northwest edge of the F Area facilities at wells FGW 003C, FGW 005C, FGW 022C, and FBP43DL. In 2013, the maximum TCE concentration was 28 ug/L at well FGW 005C; slightly lower than the 2012 result (34 ug/L) and continuing to trend downward. TCE

concentrations at well FGW 005C and adjacent wells (FGW 003C, FGW 022C, and FBP 43DL) have been stable to decreasing over time (see Figure 1). In 2013 in the distal part of the plume, TCE increased in wells FBP 6D and FBP 13D to a maximum of 20 ug/L, but 2014 results show that concentrations have stabilized (Figure 2). PCE and TCFM are also present in the Western plume at concentrations consistent with recent results (2103 maximum results 13.4 and 43.2 ug/L, respectively).

The maximum concentrations of nitrates, gross alpha, and nonvolatile beta are present adjacent to the F Area facilities and the Inactive Process Sewer Line (IPSL) at wells FGW 005C and FGW 022C. In 2013, nitrates were slightly higher than last year at 68.8 mg/L (FGW 022C). Gross alpha and nonvolatile beta concentrations were lower than results from 2012; gross alpha 1,220 pCi/L (FGW 005C), nonvolatile beta 451 pCi/L (FGW 005C) (2013 results). At well FGW 005C, the specific isotopes associated with the elevated gross alpha are uranium-233/234 (295 pCi/L) and uranium-238 (880 pCi/L) and the beta emitting isotopes present are primarily strontium-90 (29.5 pCi/L) and technetium-99 (143 pCi/L). At the West plume, the concentrations of gross alpha and nonvolatile beta decrease rapidly with distance away from the F Area facilities. As shown in Figure A-5, the nonvolatile beta plume terminates approximately half-way between the facilities and the wetlands of Upper Three Runs Creek, and currently poses no threat to surface water.

In 2013, the surface water (UTR 005) location was dry during both sampling events, however samples were collected at the seepline monitoring location (UTR 18R). In previous years TCE has been detected at piezometer UTR 18R, however, surface water samples collected down gradient from UTR 18R have historically been non-detect for VOCs. In 2013, small amounts of PCE, TCE and TCFM were detected at UTR 18R. The maximum concentration was 4.4 ug/L for TCE and was below the MCL. UTR 018R is located at the base of a slope in an

area of localized groundwater seeps. At this area, the rate of groundwater discharge is so low that standing water is not present year round. Also, the seepline sample point is approximately 600 feet from Upper Three Runs Creek and groundwater discharged to the surface seeps back into the ground or evaporates before reaching the creek.

Overall, 2013 data continue to indicate that the plumes remain stable to decreasing with respect to extent and concentrations. Both the VOC and nonvolatile beta plumes terminate prior to discharging at seeps to Upper Three Runs Creek. Monitoring results for 2013 are provided in Appendix B.

Wells FBP 44D, FBP 46D, and FBP 47D have historically been dry since monitoring began for this OU in 2006. These wells were installed at the base of a steep slope up gradient of where groundwater outcrops at a seep. SRS installed the FBP wells in March 1998 as part of the F Area Burning/Rubble Pits OU and they yielded samples in April 1998. Since then water levels have dropped approximately 5 feet and currently the water table is at or below the screened interval. The last obtainable sample from these wells was in 1998 with the exception of FBP 47D which was sampled once in 2013. These wells are screened in the deepest sandy interval of the LAZ that will yield water for sample collection. The wells are constructed with 5 feet of screen and are terminated approximately 10 feet above the Gordon Confining Unit. The wells were not placed deeper (i.e., directly on top of the Gordon Confining Unit) because the bottom 10 feet of sediments in the LAZ are silt and clay rich and do not readily yield water for collection of samples. Water at the seep is currently monitored by well UTR 18R which routinely yields samples. This location is about 200 feet down gradient of the FBP wells and has been a reliable sample point, although it can be dry during unusually dry conditions.

South Plume

The South plume covers an area of approximately 55 acres on the south west corner of F Area. The plume is located within the UAZ and LAZ of the UTRA. Groundwater flow in this portion of the OU is generally south west toward Upper Three Runs Creek. During 2013 groundwater samples were collected from 14 wells, although wells BRR 6 was dry in the first quarter. The analyte list for monitoring includes nitrates, gross alpha, nonvolatile beta, tritium, iodine-129, radium- 226, radium-228, strontium-90, uranium-233/234, and uranium-238. Technetium-99 will be added to the analyte list for future monitoring. Analytical results are presented in Appendix B.

The South plume consists primarily of tritium and nonvolatile beta constituents. VOCs are not present at the South plume. Specific radionuclides that have been present above MCLs include iodine-129 and strontium-90. SRS believes these constituents are sourced from the RCRA permitted F-Area Inactive Process Sewer Line (FIPSL). Potential sources of contamination include historic releases along sections of the FIPSL. A collapsed section of the FIPSL is known to exist down gradient of the Tank Farm. The collapsed section is shown in Figure A-2.

In 2013, nonvolatile beta was the most widespread contaminant detected. It was present at levels exceeding 50 pCi/L in four of 14 wells with concentrations ranging from 71.3 pCi/L (FSL 11C) to 333 pCi/L (FTF 28). The current beta levels are essentially the same as concentrations in 2012 and are lower than the maximum detected to date (766 pCi/L in 2008). Historically the elevated concentrations have been detected in the area of wells FTF-28 and FSL 5D near the IPSL collapsed section, and also at down gradient well FGW 12C.

In addition to nonvolatile beta activities, a few wells near the IPSL have exceeded the MCL for iodine-129, strontium-90, and tritium. In 2013, only iodine-129 and

tritium exceeded the MCL and concentrations were lower for both constituents in 2013. Iodine-129 concentrations declined from 39.9 to 28.9 pCi/L and tritium reduced from 92 to 67 pCi/mL. Historically, both radium-228 and nitrate have also exceeded in at least one well. However, concentrations of radium-228 and nitrate are currently below MCLs at all wells in the South plume.

Overall, the 2013 data indicate that the plume remains stable with respect to extent and concentrations. Monitoring results are provided in Appendix B.

During the August 2012 Core Team meeting, uncertainties associated with the extent of the South plume in the LAZ and the possibility of the South plume discharging to surface water were discussed. The Core Team recommended investigating a tributary to Upper Three Runs Creek that is located down gradient of well FGW 012C for potential sampling locations. The potential locations investigated included one surface water sample station, one seepline piezometer location, and a location for one new groundwater monitoring well, if needed. A field walk-down was held on April 16, 2013 with representatives from EPA, SCDHEC, and SRS. Based on the walk-down, the tributary begins receiving groundwater discharge at approximately half-way down its length and the tributary discharges to the floodplain swamp of Upper Three Runs Creek. The upper reaches of the tributary were dry.

In September 2014, SRS installed a surface water sample station (FGW-024) near the discharge point to the swamp and in August 2014, a shallow piezometer (FGW-023) to sample groundwater discharging to the surface. Samples were collected for the South plume constituents in August and September of 2014. Nearly all of the constituents were not detected and results for the constituents detected (nitrate-nitrite, radium-226, and tritium) were all well below the MCLs. Based on the sampling results, the South plume is not impacting this tributary to Upper Three Runs. The need for further monitoring at these locations will be

determined by the Core Team based on the monitoring results. The new monitoring locations are shown on Figures A-2 through A-5. Figures A-3 through A-5 depict 2013 data and do not include the 2014 results for the two new stations. Instead, the sampling results for stations FGW-023 and FGW-024 are presented in Table 2. The monitoring frequency for these new stations will be semi-annual until a baseline is established; the analyte suite is the same as for the rest of the South plume.

F Area Retention Basin

Previously the Core Team decided to incorporate the monitoring and reporting for the F Area Retention Basin in this report. The GSA Western Groundwater OU monitoring network includes sampling at four wells for the F Area Retention Basin (FRB-1 through FRB-4). The monitoring network is shown on Figure A-2 and details are provided in Table 1. In the first quarter FRB 3 and FRB 4 were dry and in the third quarter samples were collected from all of the wells. All results were below MCLs at the F Area Retention Basin. The analytical data are presented in Appendix B.

4.1.1 Problem Warranting Action

- Volatile organic compounds (VOCs), nitrate, and radionuclides in the UTRA are present at levels that exceed the respective MCLs.
- VOCs and radionuclides have been present in groundwater at the seepline at levels above the MCLs. In 2013, tritium and iodine-129 exceeded the MCLs at the seepline (North plume).

4.1.2 Remedial Action Objectives

- Ensure that contaminants in groundwater do not impact surface water at levels that exceed MCLs.

- Prevent human exposure to contaminants in groundwater at levels that exceed MCLs.

4.1.3 Scope of Problem

Groundwater contaminants in the UTRA include VOCs, radionuclides, and nitrate. Tritium, TCE, and nonvolatile beta are recognized as the most widespread contaminants in the groundwater at the OU. Figures A-3, A-4, and A-5 show the distribution of these contaminants in the UTRA during 2013.

4.1.4 Likely Response Actions

- Continued monitoring of groundwater in the UTRA and at the seepline on an annual frequency. New wells added to the OU will be sampled semi-annually until a baseline is established.

4.1.5 Uncertainties

- There is some uncertainty regarding the potential sources of shallow groundwater contamination due to the number of operating facilities and waste units within the boundaries of the GSA Western GW OU. Individually and collectively, these facilities and waste sites have contaminated the shallow aquifer that underlies this groundwater OU. The closure of the F Area facilities will manage the uncertainties associated with residual sources. The uncertainty regarding source areas will ultimately be addressed by the F Area OU remedial investigation (prior to Area Closure). Until then, the impact of the combined sources on groundwater will be tracked by continued groundwater monitoring in the GSA Western GW OU. The well network for each plume area, sampling frequency, and specific analyte lists are summarized in Table 1.

4.2 Surface Water

Shallow groundwater within the OU discharges to surface water at the seeplines of Upper Three Runs Creek and Fourmile Branch. The Phase 1 Work Plan specified that if groundwater contamination was detected at the seeplines above the MCLs, then surface water quality would be evaluated. Three surface water sample locations are used to monitor water quality in the groundwater monitoring plan (see Figure A-2). In June 2010, the core team agreed to sample the surface water at the same frequency as the groundwater.

Characterization and monitoring well data show that groundwater contamination exists above MCLs adjacent to surface water at a few locations within the OU. At the North and West plumes groundwater at the seepline has exceeded MCLs for tritium, strontium-90, iodine-129, and VOCs in the past. However, confirmation sampling of the surface water has demonstrated that contaminant levels are below MCLs in the tributaries to Upper Three Runs Creek.

4.2.1 Problem Warranting Action

- No problems warranting action have been identified for surface water at the OU.

4.2.2 Remedial Action Objectives

- To date there were no MCL exceedances in surface water; therefore remedial action objectives are not applicable at this time.

4.2.3 Surface Water Scope of Problem Warranting Action

The GSA Western GW OU contains three distinct areas of groundwater contamination. Since routine monitoring started in 2005, two of these plumes, the North plume and the West plume, have been above MCLs in groundwater near the discharge zone to the seeplines. In 2013, the North plume groundwater was slightly above MCLs at a concentration of 2.42J pCi/L (iodine-129) and 24.5 pCi/mL (tritium). In 2013 at the

West plume, TCE was below the MCL in groundwater at the seepline. Historically, confirmation sampling of the surface water has demonstrated that contaminant levels have been and continue to be below MCLs in the tributaries to Upper Three Runs Creek.

4.2.4 Surface Water Likely Response Actions

- Monitoring of surface water per the schedule in Table 1.

4.2.5 Uncertainties

- It is uncertain if surface water of Upper Three Runs Creek and tributaries will be impacted by groundwater discharging from the North and West plumes. At some of the seepline locations contaminants have been detected above the MCL. As more data is obtained, trends will be developed as necessary. This uncertainty is managed by monitoring surface water in the tributaries to Upper Three Runs Creek. Sample locations and analytes are summarized in Table 1.

5.0 OPERABLE UNIT STRATEGY

- SRS will sample the monitoring network annually for contaminants of concern until there is a decision to modify the frequency. New monitoring locations added to the OU will be sampled semi-annually until a baseline is established. Evaluation will be based on data trends. This information is reported in an annual update to this scoping summary.

- SRS will convene the Core Team annually (or as necessary) to review data, re-evaluate the well network, sampling frequency, and analyte list, assess the effectiveness of the OU logic, and decide if the monitoring strategy is still appropriate or if changes are required (including the need for immediate action).

- SRS will notify the Core Team promptly if monitoring data indicate a problem that requires immediate action.

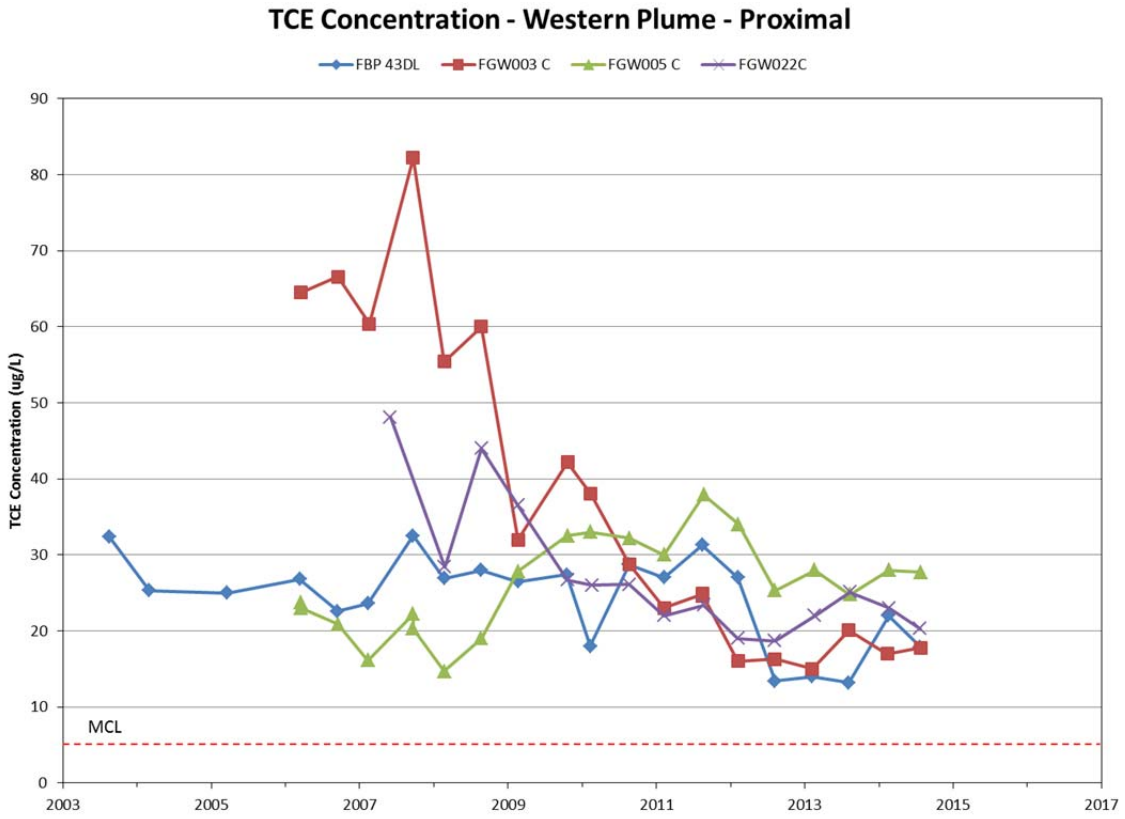


Figure 1. TCE Concentration Near the Source in the West Plume

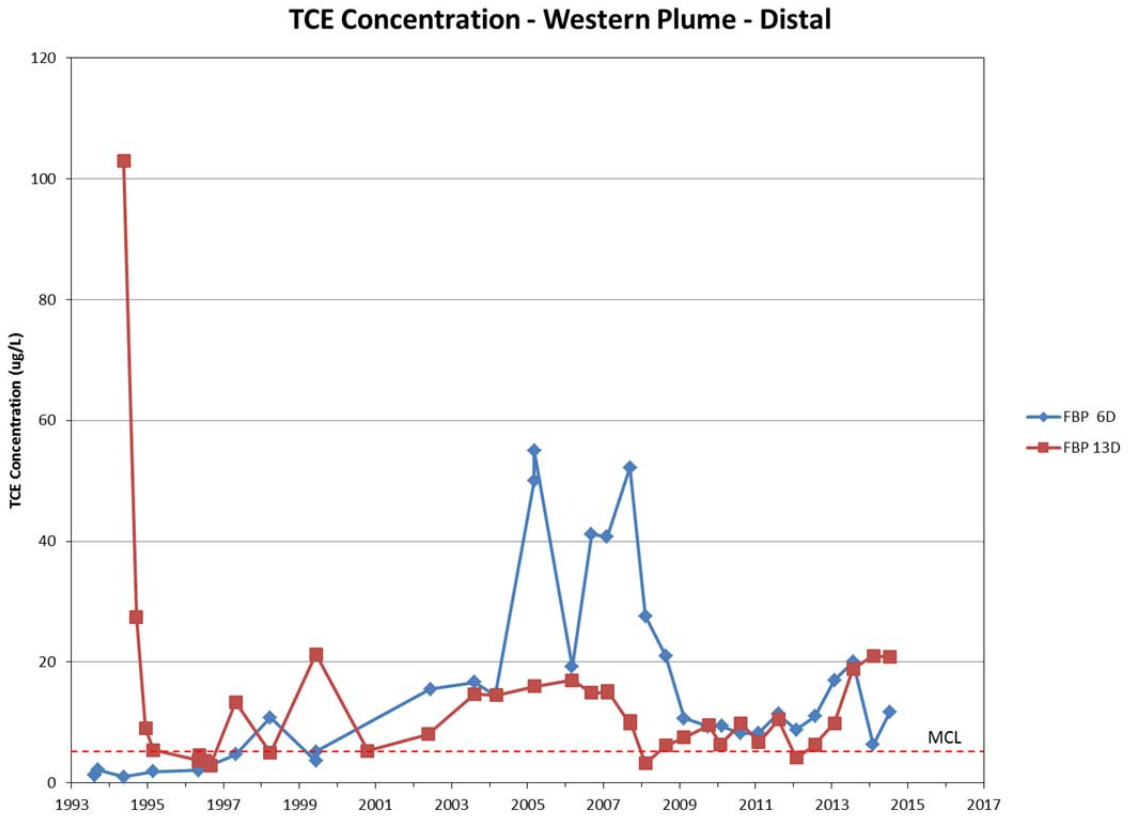


Figure 2. TCE Concentrations in the Distal Part of the West Plume

Table 1. Groundwater Monitoring Network

Plume Description	Aquifer Zone	Well ID	Analyte List
West Plume	UAZ of UTRA	FBP10D, FBP6D, FBP12D, ~~FBP13D~~, FBP43DL, FSL2D	Nitrate, gross alpha, nonvolatile beta, tritium, and TCL VOCs
	LAZ of UTRA	FBP1A, FBP2A, FBP43C, ~~FBP44D~~, ~~FBP46D~~, ~~FBP47D~~, FGW003C, FGW005C, FGW019C, FGW022C	Alpha and beta/gamma speciation for FGW005C
	Seepline/Surface Water	UTR18R, UTR005	At surface water locations: field parameters for VOC degradation and degradation products
North Plume	LAZ of UTRA	FNB2, ~~FNB3~~, FNB5, ~~FNB12~~, FNB13, FNB15	Nitrate, gross alpha, nonvolatile beta, tritium, iodine-129, strontium-90, and TCL VOCs
	Seepline/Surface Water	UTR16, UTR6, ~~UTR7~~, UTR003, UTR004	
South Plume	UAZ of UTRA	BRR1D, ~~BRR5D~~, BRR6D, FSL4D, FSL5D, FSL6D, FSL7D, FSB76C, FGW012D	Nitrate, gross alpha, nonvolatile beta, tritium, iodine-129, radium-226, 228, strontium-90, technetium-99, uranium-233/234, 238
	LAZ of UTRA	BRR6C, BRR7C, FTF28, FSL11C, FGW012C	
	Seepline/Surface Water	One new surface water location and one new seepline piezometer	
F Area Retention Basin	UAZ of UTRA	FRB1, FRB2, FRB3, FRB4	Gross alpha, nonvolatile beta, cesium-137, strontium-90, radium-226, TCE

Sampling of the well network is performed annually for existing wells starting in 2014. New monitoring locations added to the OU will be sampled semi-annually until a baseline is established.

Network was revised during the August 2013 scoping meeting based on the Monitoring Optimization White Paper, SRNS-RP-2012-00783, Rev. 1, January 2014, and shows wells removed (strikethrough) from the monitoring network.

Sample locations are shown on Figure A-2. FBP-45D was abandoned in 2009.

Table 2. Analytical Results for the South Plume New Sample Stations

Station	Type	Date	Analyte	MDL	PQL	Lab Qual	EPA Qual	Result	Units
FGW023	WELL	8/28/2014	GROSS ALPHA	2.23	6.85	J	J	3.09	pCi/L
FGW023	WELL	8/28/2014	IODINE-129	0.972	2.28	U	U	0.0313	pCi/L
FGW023	WELL	8/28/2014	IODINE-129	1	2.14	U	U	0.272	pCi/L
FGW023	WELL	8/28/2014	NITRATE-NITRITE AS NITROGEN	0.017	0.05			0.785	mg/L
FGW023	WELL	8/28/2014	NITRATE-NITRITE AS NITROGEN	0.017	0.05			0.788	mg/L
FGW023	WELL	8/28/2014	NONVOLATILE BETA	4.06	11.3	J	J	8.49	pCi/L
FGW023	WELL	8/28/2014	RADIUM-226	0.403	1.27			1.4	pCi/L
FGW023	WELL	8/28/2014	RADIUM-228	0.56	1.17	U	U	0.102	pCi/L
FGW023	WELL	8/28/2014	STRONTIUM-90	3.16	6.93	U	U	0.556	pCi/L
FGW023	WELL	8/28/2014	STRONTIUM-90	3.16	6.64	U	U	-0.0566	pCi/L
FGW023	WELL	8/28/2014	TRITIUM	0.416	1.27			3.54	pCi/mL
FGW023	WELL	8/28/2014	URANIUM-233/234	0.0554	0.221	U	U	0.0818	pCi/L
FGW023	WELL	8/28/2014	URANIUM-233/234	0.0549	0.17	U	U	0.0406	pCi/L
FGW023	WELL	8/28/2014	URANIUM-235	0.127	0.152	U	U	-0.0063	pCi/L
FGW023	WELL	8/28/2014	URANIUM-235	0.0678	0.0678	U	U	0	pCi/L
FGW023	WELL	8/28/2014	URANIUM-238	0.137	0.173	U	U	-0.0153	pCi/L
FGW023	WELL	8/28/2014	URANIUM-238	0.102	0.185	U	U	0.0152	pCi/L
FGW024	SURFACE WATER	9/11/2014	GROSS ALPHA	2.24	3.88	U	U	0.0358	pCi/L
FGW024	SURFACE WATER	9/11/2014	GROSS ALPHA	2.24	4.49	U	U	0.42	pCi/L
FGW024	SURFACE WATER	9/11/2014	IODINE-129	1.03	2.4	U	U	0.617	pCi/L
FGW024	SURFACE WATER	9/11/2014	IODINE-129	1.03	2.22	U	U	0.321	pCi/L
FGW024	SURFACE WATER	9/11/2014	NITRATE-NITRITE AS NITROGEN	0.017	0.05			0.231	mg/L
FGW024	SURFACE WATER	9/11/2014	NITRATE-NITRITE AS NITROGEN	0.017	0.05			0.231	mg/L
FGW024	SURFACE WATER	9/11/2014	NITRATE-NITRITE AS NITROGEN	0.017	0.05			0.23	mg/L
FGW024	SURFACE WATER	9/11/2014	NONVOLATILE BETA	3.99	10	J	J	4.46	pCi/L
FGW024	SURFACE WATER	9/11/2014	NONVOLATILE BETA	4	10.1	J	J	4.67	pCi/L
FGW024	SURFACE WATER	9/11/2014	RADIUM-226	0.459	1.19	J	J	0.634	pCi/L
FGW024	SURFACE WATER	9/11/2014	RADIUM-226	0.576	1.55	J	J	1.18	pCi/L
FGW024	SURFACE WATER	9/11/2014	RADIUM-228	0.528	1.09	U	U	0.0265	pCi/L
FGW024	SURFACE WATER	9/11/2014	RADIUM-228	0.545	1.33	U	U	0.865	pCi/L
FGW024	SURFACE WATER	9/11/2014	STRONTIUM-90	3.31	7.42	U	U	2.52	pCi/L
FGW024	SURFACE WATER	9/11/2014	STRONTIUM-90	3.27	7.36	U	U	2.22	pCi/L
FGW024	SURFACE WATER	9/11/2014	TRITIUM	0.436	1.85			12.3	pCi/mL
FGW024	SURFACE WATER	9/11/2014	TRITIUM	0.437	1.83			11.7	pCi/mL
FGW024	SURFACE WATER	9/11/2014	TRITIUM	0.438	1.84			12	pCi/mL
FGW024	SURFACE WATER	9/11/2014	URANIUM-233/234	0.101	0.185	U	U	0.0151	pCi/L
FGW024	SURFACE WATER	9/11/2014	URANIUM-233/234	0.104	0.125	U	U	-0.00519	pCi/L
FGW024	SURFACE WATER	9/11/2014	URANIUM-235	0.125	0.15	U	U	-0.00621	pCi/L
FGW024	SURFACE WATER	9/11/2014	URANIUM-235	0.0693	0.172	U	U	0.0256	pCi/L
FGW024	SURFACE WATER	9/11/2014	URANIUM-238	0.121	0.206	U	U	0.0101	pCi/L
FGW024	SURFACE WATER	9/11/2014	URANIUM-238	0.0561	0.201	U	U	0.0621	pCi/L

Appendix A

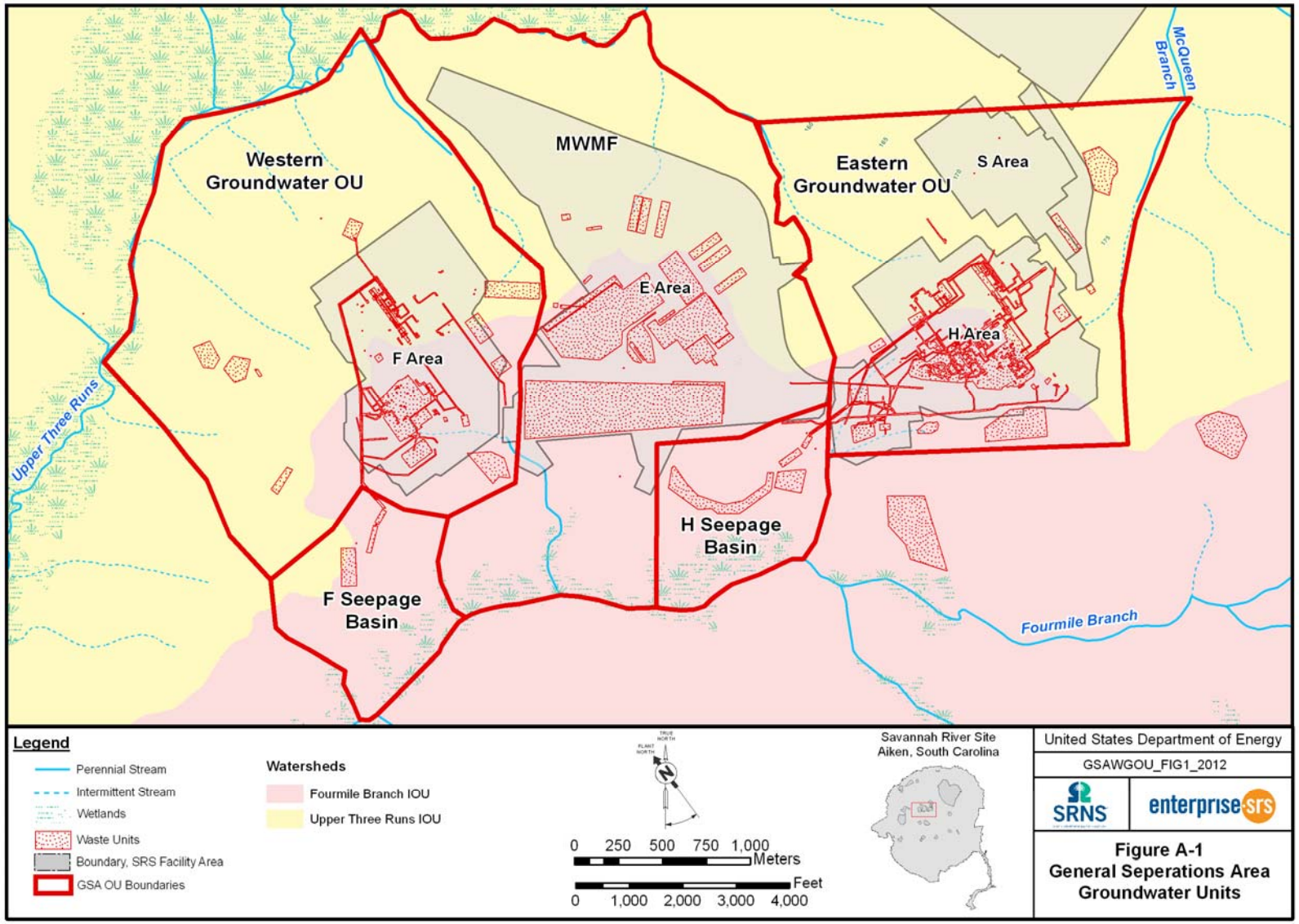
Figure A-1 Groundwater Operable Units at the General Separations Area

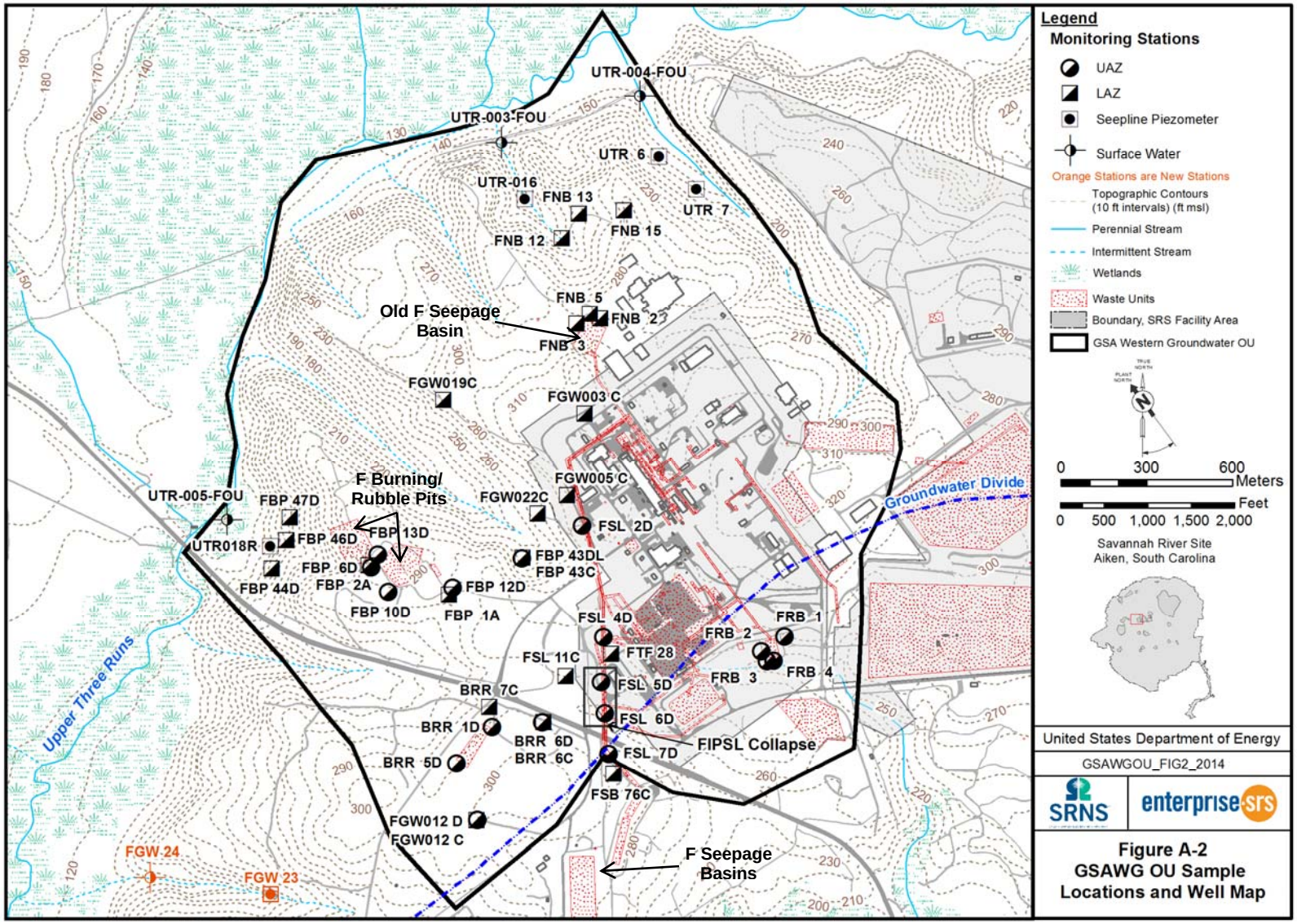
Figure A-2 GSA Western Groundwater OU Sample Locations and Well Map

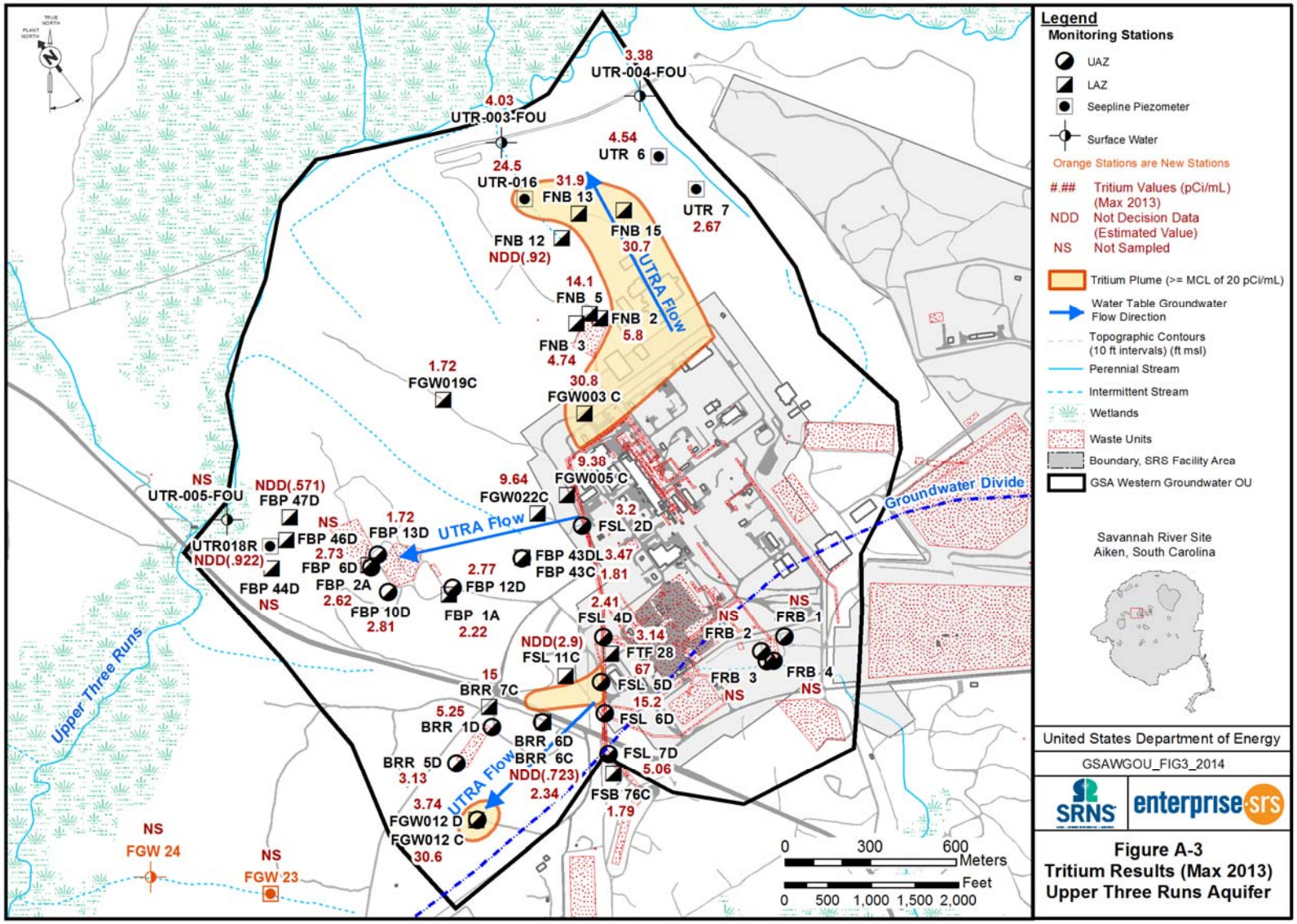
Figure A-3 Tritium Results (2013) Upper Three Runs Aquifer

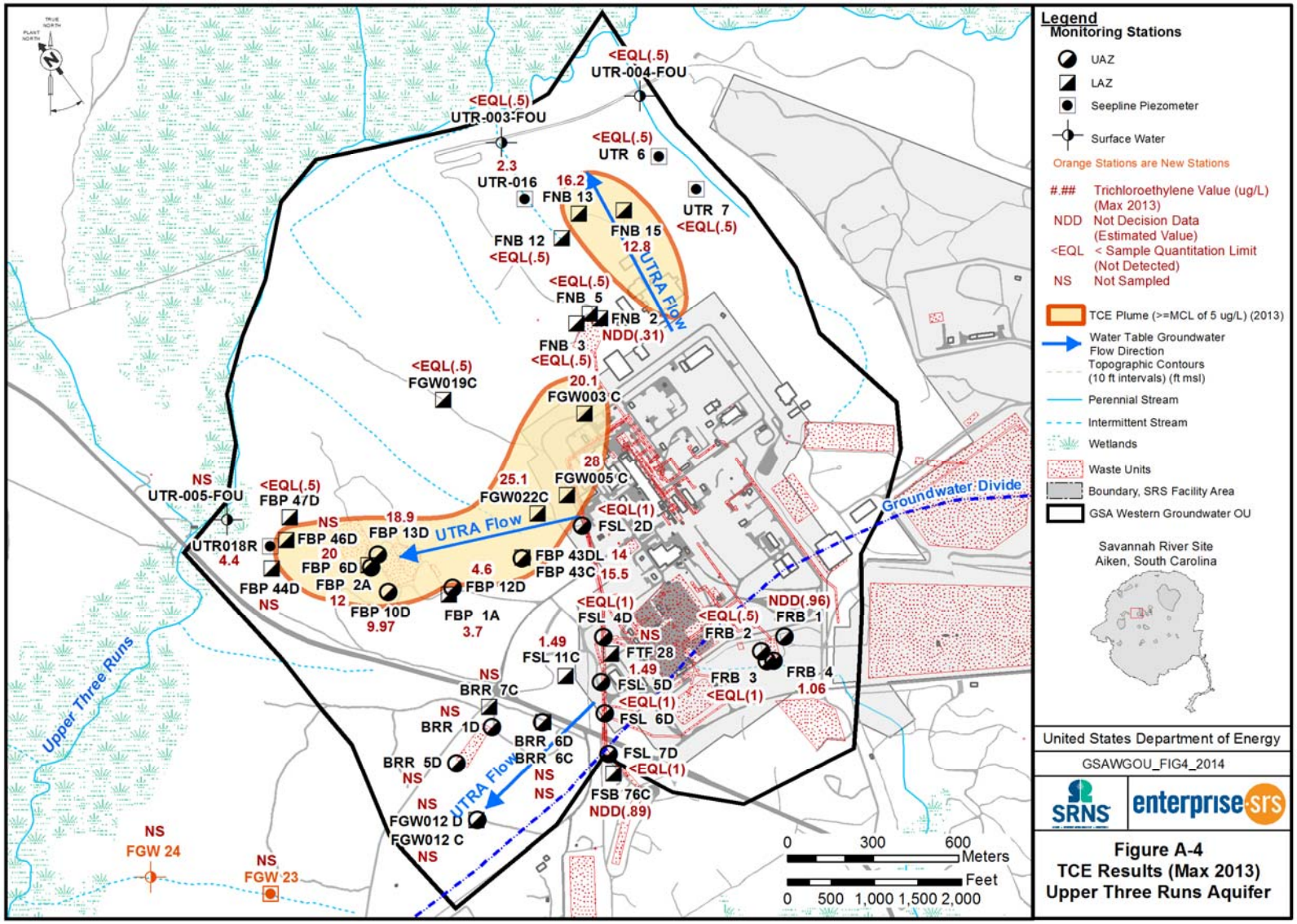
Figure A-4 Trichloroethylene Results (2013) Upper Three Runs Aquifer

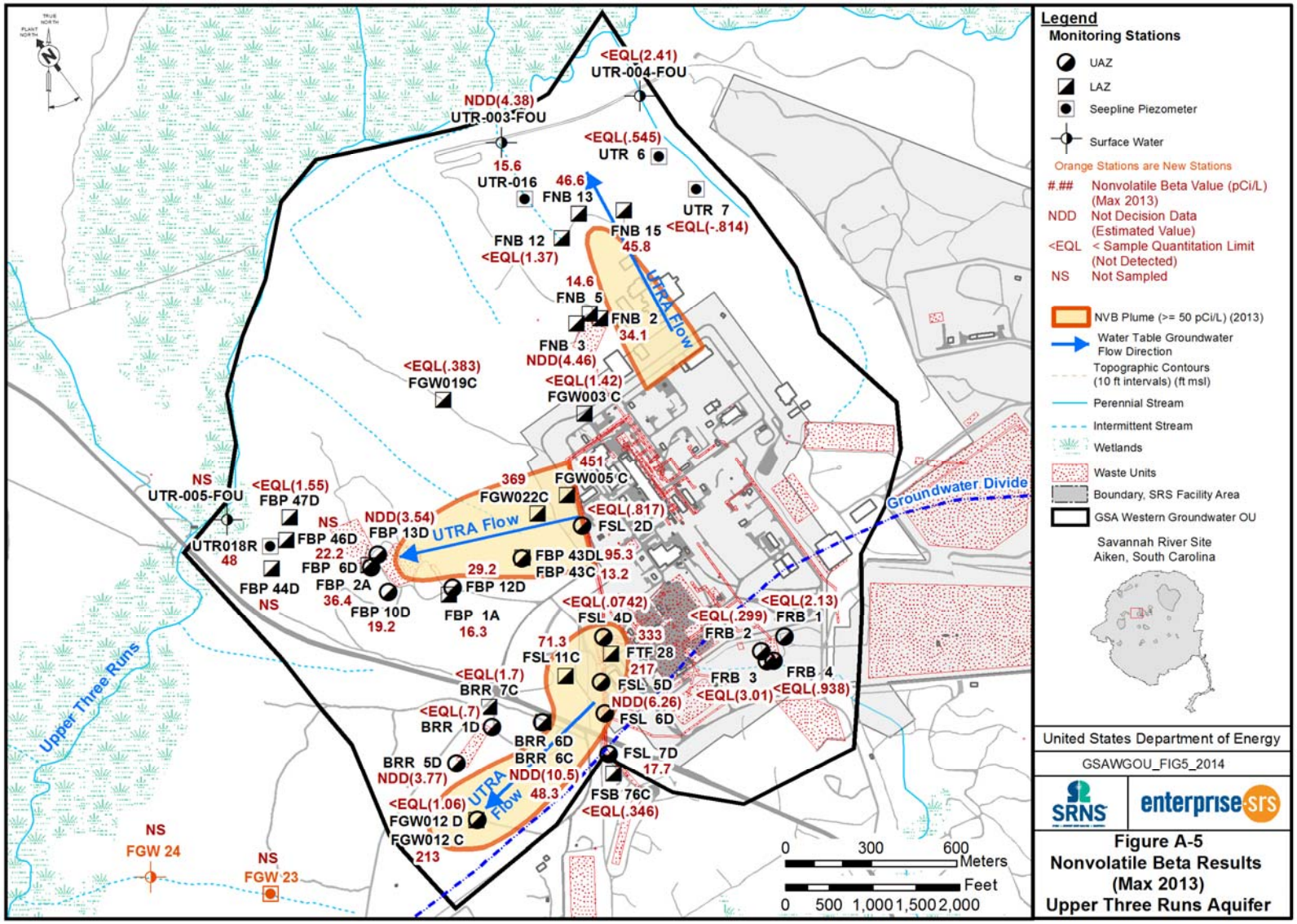
Figure A-5 Nonvolatile Beta Results (2013) Upper Three Runs Aquifer


Western Groundwater OU
MWMF
Eastern Groundwater OU
S Area
E Area
F Area
H Area
H Seepage Basin
F Seepage Basin
McQueen Branch
Upper Three Runs
Fourmile Branch
Legend
Perennial Stream
Intermittent Stream
Wetlands
Waste Units
Boundary, SRS Facility Area
GSA OU Boundaries
Watersheds
Fourmile Branch IOU
Upper Three Runs IOU
0 250 500 750 1,000 Meters
0 1,000 2,000 3,000 4,000 Feet
Savannah River Site
Aiken, South Carolina
United States Department of Energy
GSAWGOU_FIG1_2012
SRNS
enterprise srs
Figure A-1
General Seperations Area
Groundwater Units


Legend
Monitoring Stations
UAZ
LAZ
Seepline Piezometer
Surface Water
Orange Stations are New Stations
Topographic Contours (10 ft intervals) (ft msl)
Perennial Stream
Intermittent Stream
Wetlands
Waste Units
Boundary, SRS Facility Area
GSA Western Groundwater OU
0 300 600 Meters
0 500 1,000 1,500 2,000 Feet
Savannah River Site
Aiken, South Carolina
United States Department of Energy
GSAWGOU_FIG2_2014
SRNS
enterprise srs
Figure A-2
GSAWG OU Sample Locations and Well Map
UTR-004-FOU
UTR-003-FOU
UTR 6
UTR-016
FNB 13
UTR 7
FNB 15
FNB 12
FNB 5
FNB 2
FNB 3
Old F Seepage Basin
FGW019C
FGW003 C
FGW005 C
FGW022C
UTR-005-FOU
FBP 47D
F Burning/ Rubble Pits
FBP 13D
FBP 46D
UTR018R
FBP 6D
FBP 2A
FBP 44D
FBP 10D
FBP 12D
FBP 1A
FBP 43DL
FBP 43C
FSL 2D
Groundwater Divide
FSL 4D
FTF 28
FSL 11C
FSL 5D
FSL 6D
FSL 7D
FIPSL Collapse
FRB 1
FRB 2
FRB 3
FRB 4
BRR 7C
BRR 1D
BRR 6D
BRR 6C
BRR 5D
FSB 76C
FGW012 D
FGW012 C
F Seepage Basins
Upper Three Runs
FGW 24
FGW 23


Legend
Monitoring Stations
UAZ
LAZ
Seepline Piezometer
Surface Water
Orange Stations are New Stations
#.## Tritium Values (pCi/mL) (Max 2013)
NDD Not Decision Data (Estimated Value)
NS Not Sampled
Tritium Plume (>= MCL of 20 pCi/mL)
Water Table Groundwater Flow Direction
Topographic Contours (10 ft intervals) (ft msl)
Perennial Stream
Intermittent Stream
Wetlands
Waste Units
Boundary, SRS Facility Area
GSA Western Groundwater OU
Savannah River Site
Aiken, South Carolina
United States Department of Energy
GSAWGOU_FIG3_2014
SRNS
enterprise srs
Figure A-3
Tritium Results (Max 2013)
Upper Three Runs Aquifer
UTRA Flow
Groundwater Divide
Upper Three Runs
3.38 UTR-004-FOU
4.03 UTR-003-FOU
4.54 UTR 6
24.5 UTR-016
31.9 FNB 13
UTR 7 2.67
FNB 12 NDD(.92)
FNB 15 30.7
14.1 FNB 5
FNB 2 5.8
FNB 3 4.74
1.72 FGW019C
30.8 FGW003 C
9.38 FGW005 C
9.64 FGW022C
3.2 FSL 2D
NS UTR-005-FOU
NDD(.571) FBP 47D
NS FBP 46D
1.72 FBP 13D
UTR018R NDD(.922)
2.73 FBP 6D
FBP 44D NS
FBP 2A 2.62
FBP 10D 2.81
2.77 FBP 12D
FBP 1A 2.22
FBP 43DL 3.47
FBP 43C 1.81
2.41 FSL 4D
3.14 FTF 28
NDD(2.9) FSL 11C
67 FSL 5D
15.2 FSL 6D
NS FRB 1
NS FRB 2
FRB 3 NS
FRB 4 NS
15 BRR 7C
5.25 BRR 1D
BRR 6D
BRR 6C
NDD(.723)
BRR 5D 3.13
2.34
FSL 7D 5.06
FSB 76C 1.79
3.74 FGW012 D
FGW012 C 30.6
NS FGW 24
NS FGW 23
0 300 600 Meters
0 500 1,000 1,500 2,000 Feet


Legend
Monitoring Stations
UAZ
LAZ
Seepline Piezometer
Surface Water
Orange Stations are New Stations
#.## Trichloroethylene Value (ug/L) (Max 2013)
NDD Not Decision Data (Estimated Value)
<EQL < Sample Quantitation Limit (Not Detected)
NS Not Sampled
TCE Plume (>=MCL of 5 ug/L) (2013)
Water Table Groundwater Flow Direction
Topographic Contours (10 ft intervals) (ft msl)
Perennial Stream
Intermittent Stream
Wetlands
Waste Units
Boundary, SRS Facility Area
GSA Western Groundwater OU
Savannah River Site
Aiken, South Carolina
United States Department of Energy
GSAWGOU_FIG4_2014
SRNS
enterprise srs
Figure A-4
TCE Results (Max 2013)
Upper Three Runs Aquifer
UTRA Flow
Groundwater Divide
Upper Three Runs
0 300 600 Meters
0 500 1,000 1,500 2,000 Feet
<EQL(.5) UTR-004-FOU
<EQL(.5) UTR-003-FOU
2.3 UTR-016
<EQL(.5) UTR 6
UTR 7 <EQL(.5)
16.2 FNB 13
FNB 15 12.8
FNB 12 <EQL(.5)
<EQL(.5) FNB 5
FNB 2 NDD(.31)
FNB 3 <EQL(.5)
<EQL(.5) FGW019C
20.1 FGW003 C
28 FGW005 C
25.1 FGW022C
NS UTR-005-FOU
<EQL(.5) FBP 47D
NS FBP 46D
18.9 FBP 13D
UTR018R 4.4
20 FBP 6D
FBP 44D NS
FBP 2A 12
FBP 10D 9.97
4.6 FBP 12D
FBP 1A 3.7
FBP 43DL 14
FBP 43C 15.5
<EQL(1) FSL 2D
<EQL(1) FSL 4D
1.49 FSL 11C
NS FTF 28
1.49 FSL 5D
<EQL(1) FSL 6D
FSL 7D <EQL(1)
FSB 76C NDD(.89)
NS BRR 7C
NS BRR 1D
BRR 5D NS
BRR 6D
BRR 6C NS
NS FGW012 D
FGW012 C NS
NS FGW 24
NS FGW 23
<EQL(.5) FRB 2
NDD(.96) FRB 1
FRB 3 <EQL(1)
FRB 4 1.06


Legend
Monitoring Stations
UAZ
LAZ
Seepline Piezometer
Surface Water
Orange Stations are New Stations
#.## Nonvolatile Beta Value (pCi/L) (Max 2013)
NDD Not Decision Data (Estimated Value)
<EQL < Sample Quantitation Limit (Not Detected)
NS Not Sampled
NVB Plume (>= 50 pCi/L) (2013)
Water Table Groundwater Flow Direction
Topographic Contours (10 ft intervals) (ft msl)
Perennial Stream
Intermittent Stream
Wetlands
Waste Units
Boundary, SRS Facility Area
GSA Western Groundwater OU
Savannah River Site
Aiken, South Carolina
United States Department of Energy
GSAWGOU_FIG5_2014
SRNS
enterprise srs
Figure A-5
Nonvolatile Beta Results
(Max 2013)
Upper Three Runs Aquifer
<EQL(2.41)
UTR-004-FOU
NDD(4.38)
UTR-003-FOU
<EQL(.545)
UTR 6
15.6
UTR-016
46.6
FNB 13
UTR 7
<EQL(-.814)
FNB 15
45.8
FNB 12
<EQL(1.37)
14.6
FNB 5
FNB 2
34.1
UTRA Flow
FNB 3
NDD(4.46)
<EQL(.383)
FGW019C
<EQL(1.42)
FGW003 C
451
FGW005 C
369
FGW022C
<EQL(.817)
FSL 2D
NS
UTR-005-FOU
<EQL(1.55)
FBP 47D
NS
FBP 46D
NDD(3.54)
FBP 13D
UTR018R
48
22.2
FBP 6D
UTRA Flow
FBP 43DL
95.3
FBP 43C
13.2
29.2
FBP 44D
NS
FBP 2A
36.4
FBP 10D
19.2
FBP 12D
FBP 1A
16.3
<EQL(.0742)
FSL 4D
333
FTF 28
217
71.3
FSL 11C
<EQL(.299)
FRB 2
<EQL(2.13)
FRB 1
FRB 3
<EQL(3.01)
FRB 4
<EQL(.938)
FSL 5D
NDD(6.26)
FSL 6D
<EQL(1.7)
BRR 7C
<EQL(.7)
BRR 1D
BRR 6D
BRR 6C
NDD(10.5)
BRR 5D
NDD(3.77)
FSL 7D
17.7
UTRA Flow
48.3
FSB 76C
<EQL(.346)
<EQL(1.06)
FGW012 D
FGW012 C
213
NS
FGW 24
NS
FGW 23
Groundwater Divide
Upper Three Runs
0 300 600 Meters
0 500 1,000 1,500 2,000 Feet

Appendix B

2013 Monitoring Well Results
Tables B-1 and B-2

Key to Field Conditions Codes for Data Matrix Tables

Field Code	Explanation
A	Pump is surging excessively; aerated
B	Blank sample was collected
C	Well is continuously pumping
D	Well is dry-no sample or field data collected
E	Equipment blank was collected
I	Well went dry during sampling; field data collected but insufficient water to collect all samples
L	Well went dry before sampling began; only depth to water can be determined
N	Well was not stabilized before sampling began
P	Inaccessibility or mechanical failure prevented sample collection and field analysis of the water
S	No water in standpipe; for water level events only
T	Samples were collected, but some samples were not sent to the laboratory due to high turbidity
W	Unable to sample well because of stabilization or sampling equipment failure; water-level measurements were obtained
X	Well went dry during purging; samples collected after well recovered measurements obtained
0	OK
1	Pump Dry
2	Sampled after recovery
3	Gallons purged through sample port
4	DI water obtained from 772-7B
5	High turbidity
6	Flow meter leaking
7	Pump failure
8	Flow meter not operating
9	# gallons added
10	Well is inaccessible, well cannot be Sampled
11	Well abandoned
12	No water to surface
13	Field measurements only
14	Not all samples were collected
15	Equipment failure
16	No water in standpipe
17	Bailed well
18	Water level tape not long enough
19	Well not sampled, maintenance required
20	Well sampled, maintenance required
21	Measurement Exceeded Criteria

Table B1. First Quarter GSAWOU 2013 Monitoring Well Sampling Results

Station	Well Use	Aquifer Zone	SAMPLE COLLECTION DATE	PH	SAMPLING EVENT WATER ELEVATION	SPECIFIC CONDUCTANCE	TOTAL ALKALINITY (AS CACO3)	WATER TEMPERATURE	FIELD CONDITIONS	Constituent	GWPS Unit	NITRATE-NITRITE AS NITROGEN	CESIUM-137	COMBINED RADIUM (226 AND 228)	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM-226	RADIUM-228	STRONTIUM-90	TRITIUM	URANIUM-233/234	URANIUM-238	1,1,1-TRICHLOROETHANE	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,3-TRICHLOROBENZENE	1,2,4-TRICHLOROBENZENE	1,2-DIBROMO-3-CHLOROPROPANE	1,2-DICHLOROETHANE	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,3-DICHLOROBENZENE	1,4-DICHLOROBENZENE	1,4-DIOXANE	2-HEXANONE	ACETONE	BENZENE	BROMODICHLOROMETHANE	BROMODICHLOROMETHANE
			day-month-year	pH	ft	uS/cm	mg/L	degC				mg/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/mL	pCi/L	pCi/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
										GWPS		10	5	20	15	15	15	20	5	5	20	15	15																					
FRB 1	F Area Retention Basin Plume	UAZ_UTRAU	20-Feb-2013	4.4	219.65	33	0	23.1	No Comments			NS		<EQL (19.5)	NS	[4.67]	NS	<EQL (11)		2.07	NS	<EQL (6.1)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FRB 2	F Area Retention Basin Plume	UAZ_UTRAU	20-Feb-2013	4.6	218.06	50	0	22.2	No Comments			NS		<EQL (21.1)	NS	[2.81]	NS	<EQL (9.93)		1.12	NS	<EQL (6.12)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FRB 3	F Area Retention Basin Plume	UAZ_UTRAU	20-Feb-2013	NS	NS	NS	NS	NS	D			NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FRB 4	F Area Retention Basin Plume	UAZ_UTRAU	20-Feb-2013	NS	NS	NS	NS	NS	D			NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UTR 6	North Plume Seepline Piezometer	UAZ_UTRAU	20-Feb-2013	4.8	168.1	26	0	19	No Comments			[0.48]		NS	NS	[2.77]	<EQL (2.4)	<EQL (10)		NS	NS	<EQL (6.8)	3.56	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
UTR 7	North Plume Seepline Piezometer	UAZ_UTRAU	20-Feb-2013	4.7	174.3	33	0	18.2	No Comments			<EQL (0.025)		NS	NS	<EQL (3.31)	<EQL (2.29)	<EQL (10)		NS	NS	<EQL (6.17)	2.67	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	[0.62]	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
UTR-016	North Plume Seepline Piezometer	UAZ_UTRAU	20-Feb-2013	4.1	165.9	90	0	19	No Comments			[0.71]		NS	NS	<EQL (6.57)	[1.52]		15.6	NS	NS	[4.67]	2.24	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
UTR-003-FOU	North Plume Surface Water	UAZ_UTRAU	20-Feb-2013	6.6	NS	36	29	11.5	C			[0.41]		NS	NS	<EQL (5.35)	[6.14]	<EQL (10.3)		NS	NS	<EQL (6.87)	4.03	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	[0.85]	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
UTR-004-FOU	North Plume Surface Water	UAZ_UTRAU	20-Feb-2013	5.9	NS	85	19	7.7	C			0.82		NS	NS	<EQL (7.37)	<EQL (2.18)	<EQL (10.9)		NS	NS	<EQL (6.44)	2.64	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	[0.67]	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FNB 2	North Plume Well	UAZ_UTRAU	13-Mar-2013	3.9	200.08	50	0	20.1	No Comments			3.1	NS	NS	14.2	2.39	34.1	NS	NS	7.8	5.8	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	[1.3]	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FNB 3	North Plume Well	UAZ_UTRAU	14-Feb-2013	4.9	201.4	38	0	19.6	No Comments			2.2	NS	NS	[2.89]	<EQL (2.33)	[4.46]	NS	NS	NS	NS	<EQL (6.23)	3.33	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FNB 5	North Plume Well	UAZ_UTRAU	14-Feb-2013	4.6	200.1	72	0	20.3	No Comments			[7.3]		NS	8.22	<EQL (3.67)		9.87	NS	NS	NS	[5.32]	14.1	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FNB 12	North Plume Well	UAZ_UTRAU	14-Feb-2013	5.3	190.57	27	1	17.4	No Comments			[0.1]		NS	NS	<EQL (3.42)	<EQL (2.3)	<EQL (6.85)		NS	NS	<EQL (6.1)	[0.92]	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FNB 13	North Plume Well	UAZ_UTRAU	14-Feb-2013	4.9	188.15	113	0	19	No Comments			14.1	NS	NS	[6.23]	[6.03]	42.3	NS	NS	12.4	51.9	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	[0.35]	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	[0.13]	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FNB 15	North Plume Well	UAZ_UTRAU	14-Feb-2013	5.1	190.92	143	0	20	No Comments			16.2	NS	NS	12.6	[3.84]	45.8	NS	NS	NS	30.9	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	[0.27]	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
BRR 1D	South Plume Well	UAZ_UTRAU	14-Feb-2013	5.5	207.44	40	0	16.3	X			[1.6]		NS	NS	<EQL (3.62)	<EQL (2.45)	<EQL (6.71)		0.55	<EQL (0.71)	<EQL (5.66)	3.14	<EQL (0.241)	<EQL (0.132)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRR 5D	South Plume Well	UAZ_UTRAU	14-Feb-2013	5	204.89	50	0	18.6	No Comments			1.6	NS	NS	[2.67]	<EQL (2.33)	[3.77]		1.27	<EQL (0.84)	<EQL (6.08)	3.13	<EQL (0.201)	<EQL (0.224)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRR 6C	South Plume Well	UAZ_UTRAU	14-Feb-2013	5.7	203.7	43	0	20.7	No Comments			1.3	NS	NS	<EQL (3.43)	<EQL (2.29)	48.3	[0.34]	<EQL (0.73)	<EQL (5.7)	2.17	<EQL (0.188)	<EQL (0.0605)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRR 6D	South Plume Well	UAZ_UTRAU	14-Feb-2013	NS	199.79	NS	NS	NS	D			NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRR 7C	South Plume Well	UAZ_UTRAU	14-Feb-2013	5.3	201.4	67	11	22.7	No Comments			3.9	NS	NS	<EQL (3.87)	<EQL (2.36)	<EQL (7.29)	[0.34]	<EQL (0.89)	<EQL (5.89)	1.15	<EQL (0.121)	<EQL (0.195)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FGW012 C	South Plume Well	UAZ_UTRAU	13-Mar-2013	5.2	200	63	0	18.4	X			4.7	NS	NS	<EQL (6.9)	<EQL (2.78)	150	[0.95]	<EQL (0.56)	<EQL (5.79)	5.8	<EQL (0.141)	<EQL (0.0629)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FGW012 D	South Plume Well	UAZ_UTRAU	20-Feb-2013	4.4	204.6	31	2	20.2	No Comments			[1.9]		NS	NS	[3.77]	<EQL (2.52)	<EQL (10.9)		0.81	<EQL (0.68)	<EQL (5.95)	3.2	<EQL (0.269)	<EQL (0.165)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB 7G	South Plume Well	UAZ_UTRAU	30-Jan-2013	5.6	205.7	53	15	21	No Comments			1.55	<EQL (21.4)	NS	<EQL (6.33)	<EQL (2.25)	<EQL (9.93)	[0.768]	<EQL (1.47)	<EQL (6.26)	1.79	<EQL (0.164)	<EQL (0.0659)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL (1)	NS
FSL 4D	South Plume Well	UAZ_UTRAU	04-Feb-2013	5.8	209.2	67	18	20.2	No Comments			1.94	<EQL (20.2)	NS	<EQL (7.23)	<EQL (2.5)	<EQL (10.8)	[0.653]	<EQL (1.21)	<EQL (6.05)	1.95	<EQL (0.0663)	<EQL (0.224)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL (1)	NS
FSL 5D	South Plume Well	UAZ_UTRAU	04-Feb-2013	4.9	211.95	78	0	23.2	No Comments			2.79	<EQL (19.4)	NS	<EQL (7.01)	<EQL (2.26)	56.2	212	[1.1]	<EQL (1.33)	<EQL (5.92)	3.6	<EQL (0.0607)	<EQL (0.205)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL (1)	NS	NS
FSL 6D	South Plume Well	UAZ_UTRAU	20-Feb-2013	4.9	210.95	95	0	24.6	No Comments			3.58	<EQL (20.7)	NS	<EQL (6.98)	<EQL (2.5)	[0.26]		1.75	<EQL (1.46)	<EQL (6.09)	2.72	<EQL (0.28)	[0.231]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL (1)	NS	NS
FSL 7D	South Plume Well	UAZ_UTRAU	04-Feb-2013	4.2	209.36	83	0	23	No Comments			7.05	<EQL (19.9)	NS	[5.67]	<EQL (2.4)	17.7		4.39	<EQL (1.25)	[4.27]	5.06	[0.127]	<EQL (0.128)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL (1)	NS	NS
FSL 11C	South Plume Well	UAZ_UTRAU	04-Feb-2013	5.6	205.43	47	14	20.8	No Comments			1.61	<EQL (19)	NS	<EQL (7.26)	<EQL (2.26)	36.1	[0.418]	<EQL (0.962)	<EQL (5.56)	2.65	<EQL (0.205)	<EQL (0.164)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL (1)	NS	NS
FTF 28	South Plume Well	UAZ_UTRAU	25-Feb-2013	4.3	206.72	37	0	22.2	No Comments			[2.4]		NS	<EQL (4.85)	[1.91]	33.1	[0.391]	<EQL (0.68)	<EQL (6.04)	14.4	<EQL (0.0552)	<EQL (0.186)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UTR018R	West Plume Seepline Piezometer	UAZ_UTRAU	20-Feb-2013	4.7	147.9	33	0	13.2	No Comments			<EQL (0.025)		NS	<EQL (6.83)	NS	5.5	NS	NS	NS	[0.92]	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	[1.2]	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
UTR-005-FOU	West Plume Surface Water	UAZ_UTRAU	20-Feb-2013	NS	NS	NS	NS	NS	D			NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FBP 1A	West Plume Well	UAZ_UTRAU	14-Feb-2013	4.8	199.2	99	14	18.9	No Comments			9.8	NS	NS	[6.63]	NS	16.3	NS	NS	NS	2.03	NS	NS	<EQL (0.5)	<EQL (0.5)	[0.17]	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FBP 2A	West Plume Well	UAZ_UTRAU	14-Feb-2013	5.2	176.8	144	1	19.2	No Comments			14.9	NS	NS	[4.44]	NS	27.7	NS	NS	NS	2.37	NS	NS	<EQL (0.5)	<EQL (0.5)	[0.26]	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FBP 6D	West Plume Well	UAZ_UTRAU	14-Feb-2013	5	182.18	133	0	18.9	No Comments			14.6	NS	7.9	NS	NS	122.2	NS	NS	NS	2.73	NS	NS	<EQL (0.5)	<EQL (0.5)	0.16	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FBP 10D	West Plume Well	UAZ_UTRAU	14-Feb-2013	7.4	193.9	317	88	20.2	No Comments			14.2	NS	NS	<EQL (3.49)	NS	19.2	NS	NS	NS	2.81	NS	NS	<EQL (0.5)	<EQL (0.5)	0.42	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FBP 12D	West Plume Well	UAZ_UTRAU	14-Feb-2013	5	199.95	146	0	20.4	No Comments			14.9	NS	NS	[6.93]	NS	29.2	NS	NS	NS	2.77	NS	NS	<EQL (0.5)	<EQL (0.5)	0.23	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FBP 13D	West Plume Well	UAZ_UTRAU	14-Feb-2013	5.1	181.6	57	1	22.7	No Comments			7.4	NS	NS	[4.26]	NS	3.54		NS	NS	1.6	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FBP 43C	West Plume Well	UAZ_UTRAU	14-Feb-2013	7.8	203.3	274	1	19.4	No Comments			11.9	NS	NS	<EQL (3.63)	NS	13	NS	NS	NS	1.68	NS	NS	<EQL (0.5)	<EQL (0.5)	0.28	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FBP 43DL	West Plume Well	UAZ_UTRAU	14-Feb-2013	6.9	204.12	456	68	19.8	No Comments			34.8	NS	NS	<EQL (6.97)	NS	51.1	NS	NS	NS	3.46	NS	NS	<EQL (0.5)	<EQL (0.5)	0.52	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	0.19	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FBP 44D	West Plume Well	UAZ_UTRAU	25-Feb-2013	NS	NS	NS	NS	NS	D			NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FBP 46D	West Plume Well	UAZ_UTRAU	25-Feb-2013	NS	NS	NS	NS	NS	D			NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FBP 47D	West Plume Well	UAZ_UTRAU	25-Feb-2013	4.9	169.48	34	0	12.5	No Comments			<EQL (0.025)		NS	NS	[1.65]	NS	<EQL (7.16)	NS	NS	NS	[0.571]	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FGW003 C	West Plume Well	UAZ_UTRAU	14-Feb-2013	4.3	206.14	80	0	20.8	No Comments			7.5	NS	NS	<EQL (7.31)	NS	<EQL (10.9)	NS	NS	NS	[0.34]	NS	NS	<EQL (0.5)	<EQL (0.5)	0.34	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FGW005 C	West Plume Well	UAZ_UTRAU	26-Feb-2013	4	208.5	320	0	24.9	No Comments			[38.8]		<EQL (19.3)	NS	12.6	[1.4]	451	19.8	32	29.8	8	5.4	<EQL (0.5)	<EQL (0.5)	1.3	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FGW019C	West Plume Well	UAZ_UTRAU	14-Feb-2013	4.9	199.81	13	0	21	No Comments			0.084	NS	NS	<EQL (5.78)	NS	<EQL (9.84)	NS	NS	NS	1.47	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FGW022C	West Plume Well	UAZ_UTRAU	26-Feb-2013	4.2	205.98	456	0	22.7	No Comments			[62.4]		NS	NS	NS	2.8	334	NS	NS	9.39	NS	NS	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (100)	<EQL (2)	<EQL (2)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
FSL 2D	West Plume Well	UAZ_UTRAU	04-Feb-2013	4.6	220.3	38	0	21.3	I			1.47	<EQL (18.6)	NS	<EQL (5.96)	<EQL (2.26)	<EQL (9.86)	[0.725]	[0.535]	NS	<EQL (5.79)	3.2	<EQL (0.283)	<EQL (0.176)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL (1)	NS	NS

Table B1. First Quarter GSAWOU 2013 Monitoring Well Sampling Results

Station	Well Use	Aquifer Zone	SAMPLE COLLECTION DATE	PH	SAMPLING EVENT WATER ELEVATION	SPECIFIC CONDUCTANCE	TOTAL ALKALINITY (AS CACO3)	WATER TEMPERATURE	FIELD CONDITIONS	Constituent	GWPS Unit	BROMOFORM (TRIBROMOMETHANE)	BROMOMETHANE (METHYL BROMIDE)	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE (ETHYL CHLORIDE)	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CHLOROMETHANE (METHYL CHLORIDE)	CIS-1,2-DICHLOROETHYLENE	CIS-1,3-DICHLOROPROPENE	CUMENE (ISOPROPYLBENZENE)	CYCLOHEXYLAMINE	DIBROMOCHLOROMETHANE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	ETHYLBENZENE	M,P-XYLENE	METHYL ACETATE	METHYL ETHYL KETONE	METHYL ISOBUTYL KETONE	METHYL TERTIARY BUTYL ETHER (MTBE)	METHYLCYCLOHEXANE	O-XYLENE	STYRENE	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE
			day-month-year	pH	ft	uS/cm	mg/L	degC				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
										GWPS																											5				5	5
FRB 1	F Area Retention Basin Plume	UAZ_UTRAU	20-Feb-2013	4.4	219.65	33	0	23.1	No Comments			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.67	NS
FRB 2	F Area Retention Basin Plume	UAZ_UTRAU	20-Feb-2013	4.6	218.06	50	0	22.2	No Comments			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL (0.5)	NS
FRB 3	F Area Retention Basin Plume	UAZ_UTRAU	20-Feb-2013	NS	NS	NS	NS	NS	D			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FRB 4	F Area Retention Basin Plume	UAZ_UTRAU	20-Feb-2013	NS	NS	NS	NS	NS	D			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UTR 6	North Plume Seepline Piezometer	UAZ_UTRAU	20-Feb-2013	4.8	168.1	26	0	19	No Comments			<EQL (0.5)	<EQL (1)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	NS	<EQL (0.5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (3)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)
UTR 7	North Plume Seepline Piezometer	UAZ_UTRAU	20-Feb-2013	4.7	174.3	33	0	18.2	No Comments			<EQL (0.5)	<EQL (1)	<EQL (1)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (0.5)	<EQL (1)	<EQL (1)	<EQL (0.5)	<EQL (0.

Table B2. Third Quarter GSAWOU 2013 Monitoring Well Sampling Results

GSA Western GW OU Monitoring Constituents

Station	Well Use	Aquifer Zone	SAMPLE COLLECTION DATE	pH	SAMPLING EVENT WATER ELEVATION	SPECIFIC CONDUCTANCE	TOTAL ALKALINITY (AS CACO3)	WATER TEMPERATURE	FIELD CONDITIONS	Constituent	NITRATE-NITRITE AS NITROGEN	CESIUM-137	COMBINED RADIUM (226 AND 228)	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM-226	RADIUM-228	STRONTIUM-90	TRITIUM	URANIUM-233/234	URANIUM-238	1,1,1-TRICHLOROETHANE	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,3-TRICHLOROBENZENE	1,2,4-TRICHLOROBENZENE	1,2-DIBROMO-3-CHLOROPROPANE	1,2-DIBROMOETHANE	1,2-DICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROPROPANE	1,3-DICHLOROBENZENE	1,4-DICHLOROBENZENE	1,4-DIOXANE	2-HEXANONE	ACETONE	BENZENE	BROMODICHLOROMETHANE	BROMODICHLOROMETHANE
			Field Data								Inorganics	Radionuclides											VOC																						
			day-month-year	pH	ft	uS/cm	mg/L	degC		Unit	mg/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/mL	pCi/L	pCi/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
										GWPS	10	5	15	15	1	5	5	5	15	20	15	15																							
FRB 1	F Area Retention Basin Plume	UAZ_UTRAU	13-Aug-2013	4.3	221.95	39	0	23	No Comments		NS	<EQL (19.5)	NS	[3.21]	NS	<EQL (10.8)	3.08	NS	<EQL (7.4)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FRB 2	F Area Retention Basin Plume	UAZ_UTRAU	13-Aug-2013	4.4	220.48	51	0	23	No Comments		NS	<EQL (20.5)	NS	[3.21]	NS	<EQL (10.8)	1.51	NS	<EQL (6.57)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FRB 3	F Area Retention Basin Plume	UAZ_UTRAU	13-Aug-2013	4.8	220.23	61	0	21.3	No Comments		NS	<EQL (17.3)	NS	<EQL (4.72)	NS	<EQL (10.1)	[1.2]	NS	<EQL (6.61)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FRB 4	F Area Retention Basin Plume	UAZ_UTRAU	28-Aug-2013	4.8	220.96	38	0	22.8	No Comments		NS	<EQL (19.4)	NS	[3.66]	NS	<EQL (10.2)	[1.4]	NS	<EQL (7.1)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UTR 6	North Plume Seepline Piezometer	LAZ_UTRAU	14-Aug-2013	5.4	167	26	3	22.1	No Comments		0.093	NS	NS	<EQL (6.6)	[0.985]	<EQL (10.7)	NS	NS	<EQL (6.94)	NS	NS	NS	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
UTR 7	North Plume Seepline Piezometer	LAZ_UTRAU	14-Aug-2013	5	168.92	44	0	23.6	No Comments		<EQL (0.05)	NS	NS	<EQL (5.24)	<EQL (2.18)	<EQL (8.69)	NS	NS	<EQL (6.68)	2.56	NS	NS	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
UTR-016	North Plume Seepline Piezometer	LAZ_UTRAU	14-Aug-2013	4.9	166.16	57	0	21.1	No Comments		2.85	NS	NS	<EQL (4.64)	[2.42]	[11.7]	NS	NS	[4.21]	8.59	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
UTR-003-FOU	North Plume Surface Water	LAZ_UTRAU	14-Aug-2013	6.7	NS	37	27	24.3	C		0.101	NS	NS	<EQL (5.23)	<EQL (2.65)	[4.38]	NS	NS	[3.93]	4.01	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
UTR-004-FOU	North Plume Surface Water	LAZ_UTRAU	14-Aug-2013	6.4	NS	55	23	23.2	C		0.667	NS	NS	<EQL (5.27)	<EQL (2.7)	<EQL (9.96)	NS	NS	<EQL (7.27)	3.38	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FNB 2	North Plume Well	LAZ_UTRAU	19-Aug-2013	4.2	203.75	45	0	21.5	No Comments		2.6	NS	NS	[1.6]	[-0.2]	23.8	NS	NS	1013	5.51	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FNB 3	North Plume Well	LAZ_UTRAU	14-Aug-2013	4.9	204.4	40	0	20.1	No Comments		2.22	NS	NS	[2.76]	<EQL (2.64)	<EQL (10.9)	NS	NS	<EQL (7.06)	4.74	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FNB 5	North Plume Well	LAZ_UTRAU	13-Aug-2013	4.6	203.3	72	0	20.8	No Comments		6.61	NS	NS	[5.94]	[1.43]	14.6	NS	NS	[4.38]	12.4	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FNB 12	North Plume Well	LAZ_UTRAU	13-Aug-2013	5	193.27	41	0	20.5	No Comments		0.431	NS	NS	<EQL (3.56)	[2.64]	<EQL (9.73)	NS	NS	<EQL (6.59)	[0.812]	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FNB 13	North Plume Well	LAZ_UTRAU	13-Aug-2013	5.4	191.85	114	0	22.2	No Comments		9.7	NS	NS	[5.14]	5.68	46.6	NS	NS	6.7	43.7	29.7	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FNB 15	North Plume Well	LAZ_UTRAU	13-Aug-2013	5	194.42	147	0	20.3	No Comments		1.6	NS	NS	[8.47]	3.94	39.7	NS	NS	[7.67]	30.2	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
BRR 1D	South Plume Well	UAZ_UTRAU	13-Aug-2013	4.8	209.55	43	10	21.4	X		1.87	NS	NS	<EQL (6.44)	<EQL (2.53)	<EQL (10.3)	[0.793]	[0.46]	<EQL (7.99)	5.25	<EQL (0.245)	<EQL (0.0612)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRR 5D	South Plume Well	UAZ_UTRAU	13-Aug-2013	4.5	207.2	43	0	20.8	No Comments		1.02	NS	NS	<EQL (7.01)	<EQL (2.45)	<EQL (11)	1.66	[0.61]	<EQL (8.05)	2.56	<EQL (0.217)	<EQL (0.159)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRR 6C	South Plume Well	UAZ_UTRAU	13-Aug-2013	5.4	205.9	47	11	21.8	No Comments		1.17	NS	NS	<EQL (3.62)	<EQL (2.54)	30.4	[0.458]	<EQL (1.4)	<EQL (7.77)	2.34	<EQL (0.167)	<EQL (0.0747)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRR 6D	South Plume Well	UAZ_UTRAU	13-Aug-2013	5.5	201.7	61	19	20.1	E		0.571	NS	NS	<EQL (3.6)	NS	[10.5]	[0.646]	<EQL (1.01)	<EQL (7.22)	[0.723]	<EQL (0.254)	<EQL (0.129)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BRR 7C	South Plume Well	UAZ_UTRAU	13-Aug-2013	4.6	203.4	53	0	21.6	No Comments		3.6	NS	NS	<EQL (6.25)	<EQL (2.79)	<EQL (9.92)	1.22	<EQL (1.69)	<EQL (7.32)	14.8	<EQL (0.183)	<EQL (0.183)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FGW012 C	South Plume Well	UAZ_UTRAU	21-Aug-2013	4.6	202.77	72	0	20.2	No Comments		6.48	NS	NS	<EQL (6.86)	<EQL (2.46)	31.7	1.88	<EQL (1.41)	<EQL (6.58)	20.9	<EQL (0.137)	[0.122]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FGW012 D	South Plume Well	UAZ_UTRAU	14-Aug-2013	4.7	206.85	33	0	22	No Comments		1.5	NS	NS	<EQL (5.76)	<EQL (2.97)	<EQL (9.57)	1.07	<EQL (1.7)	<EQL (6.87)	3.74	<EQL (0.178)	<EQL (0.0589)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB 76C	South Plume Well	UAZ_UTRAU	24-Jul-2013	5.8	208.2	53	8	21	No Comments		1.61	NS	NS	<EQL (3.86)	<EQL (2.31)	<EQL (6.22)	<EQL (0.697)	<EQL (1.42)	<EQL (5.7)	[1.56]	<EQL (0.129)	<EQL (0.058)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSL 4D	South Plume Well	UAZ_UTRAU	06-Aug-2013	5.3	211.6	55	7	21.5	No Comments		2.52	NS	NS	<EQL (5.84)	<EQL (2.56)	<EQL (9.2)	[0.417]	<EQL (1.08)	<EQL (8.14)	2.41	<EQL (0.232)	<EQL (0.298)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSL 5D	South Plume Well	UAZ_UTRAU	30-Jul-2013	5.6	213.25	92	10	24.4	No Comments		2.97	NS	NS	<EQL (3.87)	<EQL (2.32)	13.8	[1.21]	<EQL (1.17)	<EQL (7.42)	0.84	<EQL (0.136)	<EQL (0.0548)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSL 6D	South Plume Well	UAZ_UTRAU	12-Aug-2013	4.6	212.8	138	0	23.8	No Comments		4.72	NS	NS	[4.76]	7.85	24.7	2.68	[1.11]	<EQL (11.6)	15.2	[0.234]	[0.228]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSL 7D	South Plume Well	UAZ_UTRAU	30-Jul-2013	4.9	210.96	68	0	22.9	No Comments		5.08	NS	NS	[5.05]	[1.83]	[10.8]	4.01	[0.706]	<EQL (9)	[3.16]	<EQL (0.238)	<EQL (0.148)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSL 11C	South Plume Well	UAZ_UTRAU	24-Jul-2013	5.6	207.02	50	13	22.9	No Comments		1.58	NS	NS	<EQL (3.72)	<EQL (2.29)	7.3	<EQL (0.868)	<EQL (1.31)	<EQL (5.68)	[2.9]	<EQL (0.204)	<EQL (0.227)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FTF 2B	South Plume Well	UAZ_UTRAU	13-Aug-2013	4.6	209.02	37	0	23.1	No Comments		2.01	NS	NS	<EQL (4.73)	<EQL (2.83)	7.02	[0.978]	<EQL (1.66)	<EQL (7.68)	2.59	<EQL (0.178)	<EQL (0.0573)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
UTR018R	West Plume Seepline Piezometer	LAZ_UTRAU	19-Aug-2013	4.9	159	31	0	21.3	No Comments		0.195	NS	NS	<EQL (6.21)	NS	48	NS	NS	NS	[0.922]	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
UTR-005-FOU	West Plume Surface Water	LAZ_UTRAU	14-Aug-2013	NS	NS	NS	NS	NS	D		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FBP 1A	West Plume Well	LAZ_UTRAU	13-Aug-2013	4.6	199.6	91	0	21.9	No Comments		7.87	NS	NS	[4.66]	NS	16.9	NS	NS	NS	2.22	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FBP 2A	West Plume Well	LAZ_UTRAU	13-Aug-2013	4.8	178.2	152	0	23.8	No Comments		14.1	NS	NS	[4.25]	NS	36.4	NS	NS	NS	2.62	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FBP 6D	West Plume Well	UAZ_UTRAU	13-Aug-2013	5	182.9	112	0	20.9	No Comments		9.06	NS	NS	[3.8]	NS	20.8	NS	NS	NS	2.35	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FBP 10D	West Plume Well	UAZ_UTRAU	13-Aug-2013	5	195.3	304	0	22	No Comments		13.4	NS	NS	<EQL (6.86)	NS	[13.7]	NS	NS	NS	2.61	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FBP 12D	West Plume Well	UAZ_UTRAU	13-Aug-2013	5.1	202.15	95	0	21.9	No Comments		7.36	NS	NS	<EQL (6.75)	NS	16.7	NS	NS	NS	2.25	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FBP 13D	West Plume Well	UAZ_UTRAU	13-Aug-2013	5	183.55	57	0	24.5	No Comments		2.41	NS	NS	[3.68]	NS	<EQL (11.2)	NS	NS	NS	1.72	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FBP 43C	West Plume Well	UAZ_UTRAU	13-Aug-2013	7.5	205.6	275	67	20	No Comments		3.6	NS	NS	<EQL (5.72)	NS	13.2	NS	NS	NS	1.81	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FBP 43DL	West Plume Well	UAZ_UTRAU	13-Aug-2013	7.1	206.42	445	89	21.1	No Comments		20.2	NS	NS	[3.14]	NS	99.7	NS	NS	NS	3.47	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FBP 44D	West Plume Well	UAZ_UTRAU	14-Aug-2013	NS	NS	NS	NS	NS	D		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FBP 46D	West Plume Well	UAZ_UTRAU	14-Aug-2013	NS	NS	NS	NS	NS	D		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FBP 47D	West Plume Well	UAZ_UTRAU	14-Aug-2013	NS	NS	NS	NS	NS	D		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FGW003 C	West Plume Well	UAZ_UTRAU	13-Aug-2013	5.3	208.94	81	0	23.2	No Comments		7.66	NS	NS	<EQL (5.34)	<EQL (3.26)	<EQL (9.62)	NS	NS	<EQL (6.84)	9.9	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FGW005 C	West Plume Well	UAZ_UTRAU	19-Aug-2013	3.5	210.06	278	0	22.8	No Comments		250	NS	168	NS	NS	1.19	NS	NS	NS	9.38	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FGW019C	West Plume Well	UAZ_UTRAU	14-Aug-2013	5.4	201.21	14	27	22.2	No Comments		0.056	NS	NS	<EQL (3.49)	NS	<EQL (8.96)	NS	NS	NS	1.72	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FGW022C	West Plume Well	UAZ_UTRAU	19-Aug-2013	3.7	208.5	604	0	21.6	No Comments		408	NS	NS	NS	NS	1.46	NS	NS	NS	9.64	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)
FSL 2D	West Plume Well	UAZ_UTRAU	24-Jul-2013	4.6	221.2	39	2	25.5	No Comments		1.4	NS	NS	<EQL (5.81)	NS	<EQL (9.49)	NS	NS	NS	[2.72]	NS	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (50)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)

Table B2. Third Quarter GSAWOU 2013 Monitoring Well Sampling Results

Station	Well Use	Aquifer Zone	SAMPLE COLLECTION DATE	pH	SAMPLING EVENT WATER ELEVATION	SPECIFIC CONDUCTANCE	TOTAL ALKALINITY (AS CACO3)	WATER TEMPERATURE	FIELD CONDITIONS	Constituent	BROMOFORM (TRIBROMOMETHANE)	BROMOMETHANE (METHYL BROMIDE)	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE (ETHYL CHLORIDE)	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CHLOROMETHANE (METHYL CHLORIDE)	CIS-1,2-DICHLOROETHYLENE	CIS-1,3-DICHLOROPROPENE	CUMENE (ISOPROPYLBENZENE)	CYCLOHEXYLAMINE	DIBROMOCHLOROMETHANE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	ETHYLBENZENE	M-P-XYLENE	METHYL ACETATE	METHYL ETHYL KETONE	METHYL ISOBUTYL KETONE	METHYL TERTIARY BUTYL ETHER (MTBE)	METHYLCYCLOHEXANE	O-XYLENE	STYRENE	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE
			Field Data																				VOC																			
			day-month-year	pH	ft	uS/cm	mg/L	degC		Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	N/A	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
										GWPS																									5				5	5
FRB 1	F Area Retention Basin Plume	UAZ_UTRAU	13-Aug-2013	4.3	221.95	39	0	23	No Comments		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[0.96]	NS
FRB 2	F Area Retention Basin Plume	UAZ_UTRAU	13-Aug-2013	4.4	220.48	51	0	23	No Comments		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL (1)	NS
FRB 3	F Area Retention Basin Plume	UAZ_UTRAU	13-Aug-2013	4.8	220.23	61	0	21.3	No Comments		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL (1)	NS
FRB 4	F Area Retention Basin Plume	UAZ_UTRAU	28-Aug-2013	4.8	220.96	38	0	22.8	No Comments		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.06	NS
UTR 6	North Plume Seepline Piezometer	LAZ_UTRAU	14-Aug-2013	5.4	167	26	3	22.1	No Comments		<EQL (1)	<EQL (1)	<EQL (1	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (2)	<EQL (5)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)
UTR 7	North Plume Seepline Piezometer	LAZ_UTRAU	14-Aug-2013	5	168.92	44	0	23.6	No Comments		<EQL (1)	<EQL (1)	<EQL (1	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (2)	<EQL (5)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)
UTR-016	North Plume Seepline Piezometer	LAZ_UTRAU	14-Aug-2013	4.9	166.16	57	0	21.1	No Comments		<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	NS	<EQL (1)	<EQL (1)	<EQL (5)	<EQL (1)	<EQL (2)	<EQL (5)	<EQL (5)	<EQL (5)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	1.16	<EQL (1)
UTR-003-FOU	North Plume Surface Water	LAZ_UTRAU	14-Aug-2013	6.7	NS	37	27	24.3	C		<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)	<EQL (1)