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Annual Corrective Action Report for the F-Area Hazardous Waste Management Facility, the H-Area Hazardous Waste Management Facility, and the Mixed Waste Management Facility (U)

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EXECUTIVE SUMMARY

This Corrective Action Report (CAR) has been prepared to support the regulatory reporting requirements for 2022 for the F-Area Hazardous Waste Management Facility (HWMF), the H-Area HWMF, and the Mixed Waste Management Facility (MWMF) at the Savannah River Site (SRS). The reporting requirements are defined by the Office of Environmental Quality Control Bureau of Land and Waste Management Hazardous and Mixed Waste Permit (SC1 890 008 989), dated February 11, 2014, modified on November 30, 2021, hereafter referred to as the "Permit" and by Section C of the Underground Injection Control (UIC) Permit Applications, as well as other information by agreement with the South Carolina Department of Health and Environmental Control (SCDHEC). In accordance with the Permit, an Annual CAR will be submitted on or before August 31 of each year and will document the effectiveness of the Corrective Action Program for the F-Area HWMF, the H-Area HWMF, and the MWMF for the period of January 1 through December 31 for the previous year (First, Second, Third and Fourth Quarters).

F-Area HWMF and H-Area HWMF

The well network for the F-Area HWMF and the H-Area HWMF monitors the Upper Aquifer Zone (UAZ) and the Lower Aquifer Zone (LAZ) of the Upper Three Runs Aquifer (UTRA), and the Gordon Aquifer (GA) in the uppermost aquifer system beneath the facility. Groundwater sampling and surface water sampling, analysis, and other monitoring requirements are conducted as required by the Permit.

The scheduled sampling was completed successfully in 2022 for all wells. Overall, there were no observed changes in regional groundwater flow direction or velocity from previous years. Compliance monitoring data revealed that inorganic and radionuclide constituents exceeded the Groundwater Protection Standard (GWPS), but overall continue to show downward trends as compared to previous monitoring data. At F- and H-Area, surface water in the wetlands (corrective action Phase 2b goal) exceeded the GWPS for cobalt, nitrate-nitrite, vanadium, gross alpha, iodine-129, nonvolatile beta, radium-226, strontium-90, tritium, uranium-233/234, and uranium-238. Surface water in Fourmile Branch (FMB) (corrective action goals Phase 2a and 2b F-Area HWMF;

Phase 2a H-Area HWMF) exceeded the GWPS for iodine-129 (two locations at F Area) and tritium (seven locations at F and H Areas). During 2022, no new constituents were added to the GWPS.

The corrective actions for the F-Area HWMF include an engineered groundwater funnel and gate system, a base injection system for treatment of metals and metallic radionuclides within the gates and in the wetlands, and placement of a silver chloride amendment within the central gate for in situ treatment of iodine-129. In 2022, base injection was performed starting in February and continued into July at the central gate. Approximately 53,000,0 liters (L) (14 million [M] gallons [gal]) of base solution was injected in 2022. The latest deployment of silver chloride was completed in May 2019 to augment previous injections along the eastern half of the central gate, where the majority of the iodine-129 flux occurs. SRS will continue to evaluate the effectiveness of the third deployment of silver chloride at the central gate by monitoring in accordance with the UIC and Resource Conservation and Recovery Act (RCRA) Permit.

The corrective actions for the H-Area HWMF consist of two engineered groundwater barriers (without gates) and a base injection system, which began initial operation in 2010. At H Area, operation of the base injection system was not required during 2022. Adjustment of pH has been achieved locally at H Area and SRS is observing the effects of the base injection prior to potentially injecting additional base.

For the F- and H-Area HWMFs, one of the Phase 2a corrective action goals is to reduce the mass flux of tritium discharging to FMB by 70% compared to baseline fluxes established in 2000. In 2022, SRS met these goals, in that the flux of tritium from the H-Area HWMF to FMB was reduced by approximately (~) 92%. At the F-Area HWMF, the annual tritium flux to FMB was reduced by 87% in 2022.

On February 11, 2014, the SCDHEC originally issued the 2014 RCRA Permit Renewal for the SRS. The SCDHEC modified the 2014 RCRA Permit Renewal on November 30, 2021, which became effective on December 15, 2021. The modifications to the Permit revised the GWPS limits for several constituents, revised the Phase 2 corrective action goals, and revised the date for achieving the GWPS for iodine-129 in FMB and all Appendix IVB-A constituents in surface water at the seepline to January 14, 2032. In addition, a management strategy is included for the Phase 2 goals to facilitate future goal revisions as necessary.

MWMF

The well network for the MWMF monitors the UAZ and LAZ of the UTRA and the GA in the uppermost aquifer system beneath the facility. The MWMF is divided into the following four plume areas: Southwest Plume (SWP), Northwest Plume (NWP), Northeast Plume (NEP), and Southeast Plume (SEP). Groundwater and surface water sampling and other monitoring requirements are conducted as required by the Permit. In 2017, the SCDHEC modified the 2014 RCRA Permit Renewal, which became effective on September 2, 2017. With the issuance of the permit renewal, natural attenuation remedies were approved for the NWP, NEP, and SEP.

During 2022, there were no identified changes in groundwater flow direction from previous years and groundwater velocities remained consistent with previous observations. In 2022, 15 separate constituents exceeded the GWPS within the four plume areas, but overall continue to show downward trends as compared to previous monitoring data. These exceedances included 13 constituents in the SWP, 10 constituents in the SEP, 10 constituents in the NEP, and 11 constituents in the NWP.

The corrective action for the SWP consists of the MWMF Phytoremediation System. In 2022, the MWMF Phytoremediation System irrigated and sprayed ~45 ML (~11.9M gal of tritiated water preventing ~36.8 curies (Ci) of tritium from reaching FMB. In addition, ~8.4 Ci of tritium directly evaporated from the surface of the collection pond. The current system has proven to be effective in managing nearly 70% of the water that is discharging from the plume that was originally impacting FMB, by preventing its discharge into FMB.

The average evapotranspirative efficiency of the irrigation system in 2022 was similar to what it was in 2021. The average evapotranspirative efficiency of the irrigation system during 2022 was ~86.7 ± 1.2% for the original plots, 77.0 ± 3.4% for the eastern expansion area, and 68.4 ± 1.2% for the western expansion area. The collective annual efficiency was 80.7 ± 7.4% for all irrigation plots. Lower efficiencies for the eastern and western areas are due to lower vegetative densities at these plots. SRS expects the efficiencies to increase as the trees grow and mature. The efficiency varies over the seasons and is least efficient during the winter months when evapotranspiration rates are low and during high rainfall periods. The full capacity of the new eastern and western irrigation areas will not be realized until the trees have grown to a mature size. SRS plans to maintain operation of the irrigation system into the winter months by using the two expansion areas and two new evaporators (that intake water from the pond) that began operating in 2022. The overall objective is to maintain the water level as low as practicable in the irrigation pond throughout the year to maximize the volume of groundwater collected by the pond from the UAZ and LAZ.

When tritium is evaporated and transpired to the atmosphere by the spray irrigation, it is likely that chlorinated volatile organic compounds (cVOCs) and 1,4-dioxane are volatilized, photo-oxidized, or degraded at a very high efficiency. The 1,4-dioxane and other VOCs in the SWP are commingled with the tritium, and it is likely these constituents were present in the plume as long as the tritium. Based on attenuation rates for tritium, cVOCs, and 1,4-dioxane at the SWP, the radioactive decay of tritium to below the GWPS is expected to take longer than the natural attenuation of 1,4-dioxane and the other cVOCs. Due to the constituents being commingled, SRS believes that continuing to manage tritium, cVOCs, and 1,4-dioxane with the collection pond and irrigation system is a reasonable approach with a high probability of success. In 2022, the phytoremediation project received the Innovative Approach to Sustainability, United States Department of Energy (USDOE) sustainability award and the phytoremediation team was also awarded a USDOE Secretary's Honor Award. These awards were for inventive methods and technologies that have been permitted at the MWMF, improve site sustainability, and can be applied across the USDOE complex.

Source control from the completed installation of a low-permeability cap at the Old Radioactive Waste Burial Ground is moderating the contamination concentration within the SWP, SEP, NEP, and NWP. Thus, the long-term corrective action employed for groundwater contamination at the SWP should be the continued operation of the irrigation system (operating at low pond levels to maximize efficiency) coupled with infiltration control via the Old Radioactive Waste Burial Ground cap. Natural attenuation continues to be an effective remedy at the SEP, NEP, NWP.

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LIST OF ABBREVIATIONS AND ACRONYMS

~	approximate, approximately
ac	acre
bgs	below ground surface
CAP	Corrective Action Plan
CAR	Corrective Action Report
CBCU	Crouch Branch Confining Unit
Ci	curie
cm	centimeter
CMIR	Corrective Measures Implementation Report
CPT	Cone penetrometer technology
CRML	Comprehensive Radiological Monitoring List
cVOC	Chlorinated volatile organic compounds
DCE	dichloroethylene
ED	Engineered Ditch
ERT	Electrical Resistivity Tomography
FMB	Fourmile Branch
ft	foot
gal	gallon
GA	Gordon Aquifer
GAC	Granular activated carbon
GCU	Gordon Confining Unit
GSA	General Separations Area
gpm	gallon per minute
GSACU	General Separations Area Consolidation Unit
GWPS	Groundwater Protection Standard
ha	hectare
HWMF	Hazardous Waste Management Facility
in.	inch
L	liter
LAZ	Lower Aquifer Zone
LLRWDF	Low Level Radioactive Waste Disposal Facility
MCL	maximum contaminant level
ug	microgram
m	meter
MDL	method detection limit
mL	milliliter
MWMF	Mixed Waste Management Facility
NEP	Northeast Plume
NWP	Northwest Plume

LIST OF ABBREVIATIONS AND ACRONYMS *(Continued/End)*

OFED	Old F-Area Effluent Ditch
ORWBG	Old Radioactive Waste Burial Ground
PCE	tetrachloroethylene
pCi	picocurie
PCR	Post-Construction Report
PNNL	Pacific Northwest National Laboratory
POC	point of compliance
PWMS	Purge Water Management System
RACR	Remedial Action Completion Report
RCRA	Resource Conservation and Recovery Act
RED	Zero valent iron and GAC mixture
ROD	Record of Decision
SCDHEC	South Carolina Department of Health and Environmental Control
SEP	Southeast Plume
SREL	Savannah River Ecology Lab
SRNL	Savannah River National Laboratory
SRNS	Savannah River Nuclear Solutions
SRS	Savannah River Site
SWP	Southwest Plume
TCE	trichloroethylene
TCCZ	tan clay confining zone
UAZ	Upper Aquifer Zone
UIC	Underground Injection Control
USDOE	United States Department of Energy
USEPA	United States Environmental Protection Agency
UTR	Upper Three Runs
UTRA	Upper Three Runs Aquifer
VOC	volatile organic compound
WTU	Wastewater Treatment Unit
yr	year

1.0 INTRODUCTION

1.1 Purpose and Scope

This Corrective Action Report (CAR) has been prepared to support the regulatory reporting requirements for the F-Area Hazardous Waste Management Facility (HWMF), the H-Area HWMF, and the Mixed Waste Management Facility (MWMF) at the Savannah River Site (SRS). The reporting requirements are defined by the Office of Environmental Quality Control Bureau of Land and Waste Management Hazardous and Mixed Waste Permit (SC1 890 008 989), dated February 11, 2014, last modified November 30, 2021, hereafter referred to as the "Permit" and by Section C of the Underground Injection Control (UIC) Permit Applications, as well as other information by agreement with the South Carolina Department of Health and Environmental Control (SCDHEC). In accordance with the Permit, an annual report will be submitted on or before August 31 of each year and will document the effectiveness of the Corrective Action Program for the F-Area HWMF, the H-Area HWMF, and the MWMF for the period of January 1 through December 31 (First, Second, Third and Fourth Quarters) of the previous year.

1.1.1 F-Area and H-Area HWMFs Regulatory Background

Groundwater at the F-Area and H-Area Seepage Basins is impacted by operations of the F-Area and H-Area HWMFs. Each area has an extensive monitoring well network that is sampled for a variety of chemical and radioactive contaminants. Groundwater monitoring results have indicated the major contaminants are metals, radionuclides, and nitrates at both areas. In addition, investigations performed at the F-Area HWMF and to a lesser extent the H-Area HWMF, revealed the presence of acid contamination in the subsurface, which increases mobility of metals.

The Corrective Action Plan (CAP) applies a phased approach for both the H-Area HWMF and the F-Area HWMF. Phase 1 was the implementation of a groundwater extraction and injection system to capture and remediate portions of the tritium plume with the highest activities. This phase was considered complete in October 2003 upon suspension of pump and treat operations.

Phase 2 implements several technologies including engineered groundwater barriers, base injection and silver chloride technology (F Area Only) to reduce the concentration of contaminants in surface water of Fourmile Branch (FMB) and reduce the discharge of contaminants from the plumes to surface water at the seeplines along FMB. The remedial technologies implemented for Phase 2 have proven effective and feasible in working toward the corrective action goals; however, additional time is needed for these technologies to work to meet Phase 2b remedial goals at the F- and H-Area seeplines along FMB. These remedial technologies will continue to be deployed as part of the corrective actions.

On February 11, 2014, the SCDHEC originally issued the 2014 Resource Conservation and Recovery Act (RCRA) Permit Renewal for the SRS. The SCDHEC modified the 2014 RCRA Permit Renewal on November 30, 2021, which became effective on December 15, 2021. The modifications to the Permit revised the Groundwater Protection Standard (GWPS) limits for several constituents, revised the Phase 2 corrective action goals, and revised the date for achieving the GWPS for iodine-129 in FMB and all Appendix IVB-A constituents in surface water at the seepline to January 14, 2032. In addition, a management strategy is included for the Phase 2 goals to facilitate future goal revisions as necessary.

The Phase 2 remedial action for the F-Area HWMF and H-Area HWMF consists of engineered groundwater barriers, base injection, and silver chloride injection (F-Area HWMF only). These technologies are targeted to address both stream/seepline and groundwater contamination and replaced the Phase 1 pump-treat-reinjection systems for both areas. Installation of the engineered barriers at the F-Area HWMF and the H-Area HWMF was completed September 13, 2004, and December 16, 2004, respectively. An extension to the F Area barrier system was constructed in 2011.

In 2011, an UIC Permit was approved to deploy a technology for the treatment of radioactive iodine (e.g., iodine-129) in-situ at the F-Area HWMF. SRS successfully injected a suspension containing finely ground silver chloride particles mixed with domestic water into the subsurface to test the capture potential for radioactive iodine. At the central gate, half of the permitted and purchased quantity (i.e., approximately [~] 291,500 liters [L] [77,000 gallons [gal]) were injected over two months. After monitoring the effect of silver chloride on iodine for several years, SRS concluded that silver chloride is effective at sequestering iodine-129 in-situ and that additional silver chloride is needed at the central gate to improve the effectiveness of treating iodine-129.

In 2015, SRS injected the remaining quantity of silver chloride in the central gate to boost the treatment effectiveness for iodine-129. During June and July 2015, 363.4 L (96 gal) of silver chloride concentrate (362,642.4 L [95,800 gal] diluted) were injected into the Upper Aquifer Zone (UAZ) on the eastern half of the central gate using seven temporary injection points.

Silver chloride technology has been demonstrated effective at managing iodine-129. In May 2016, SRS submitted Revision 2 to the 2000 RCRA Permit Renewal Application, Volume IV, that proposed adding silver chloride as a corrective action at the F-Area HWMF. SCDHEC approved the Renewal Application and incorporated silver chloride technology in the August 2017 modification of the RCRA Permit Renewal. Deployments of silver chloride will be managed under the UIC permit process.

In 2018, SRS performed a third deployment of silver chloride at the F-Area HWMF. This deployment of silver chloride was again placed at the central gate with the intent to augment previous silver chloride injections and increase robustness through further development of a permeable in situ treatment zone of silver chloride reactive particles along the eastern half of the central gate, where the majority of the iodine-129 flux occurs. The injections for the third deployment of silver chloride began in September of 2018 and were completed in May 2019.

1.1.2 MWMF Regulatory Background

An extensive monitoring well network monitors groundwater quality and remedial effectiveness associated with the MWMF (which included the Burial Ground Complex). The MWMF is divided into the following four plume areas: Southwest Plume (SWP), Northwest Plume (NWP), Northeast Plume (NEP), and Southeast Plume (SEP). A modification of the 2014 RCRA Permit Renewal was issued by the SCDHEC on August 17, 2017. With the issue of the modification, natural attenuation remedies were approved for the NWP, NEP and SEP. All four plume areas are monitored for a comprehensive GWPS that can be found in the Permit.

The SWP discharges tritium-contaminated groundwater into a small tributary that feeds FMB. Monitoring results revealed that tritium concentrations from these seeps exceed the GWPS.

The remedial action for the SWP involves phytoremediation and natural degradation. The remedial action consists of the following three major components: 1) construction of a small sheet pile dam across the portion of the seeps with the highest tritium concentration; 2) collection of contaminated groundwater behind the dam in a surface pond; and 3) pumping of the seep water from the surface pond to an irrigation system that distributes the water to a mixed pine/hardwood forest and to two engineered pine forests referred to as the eastern and western expansion areas. All the irrigation areas (~440 hectare {ha} 60 acres [ac]) are located over the plume area and cause direct evaporation of water containing contaminants (tritium and organic compounds e.g. 1,4-dioxane, TCE), oxidation of organics, and uptake of water into trees for transpiration to the atmosphere. Dose modeling indicates atmospheric levels of tritium are well below regulatory standards.

The primary contaminants in the SEP, NWP, and NEP are chlorinated volatile organic compounds (cVOCs) (e.g., trichloroethylene [TCE]) and tritium. Natural degradation with source control (capping of the Old Radioactive Waste Burial Ground [ORWBG]/MWMF/Low Level Radioactive Waste Disposal Facility [LLRWDF]) remedies have been approved for these plumes. The primary attenuation mechanisms for the cVOCs are reductive dechlorination beneath the caps and aerobic degradation within the plume. For tritium, the primary mechanism is radioactive decay.

As required by the permit, every five years SRS evaluates and prepares a report on remedial technologies available for tritiated groundwater. The 2019 technology review was provided in Appendix H of the April 2019 CAR and concluded that the current remedial action for tritium remains appropriate for the MWMF. The next tritium technology review will be completed in year 2024.

1.1.3 General Separations Area Comprehensive Environmental Response, Compensation, and Liability Act -Related Activities

The General Separations Area Consolidation Unit (GSACU) combined four waste sites (H-Area Retention Basin, Warner's Pond, HP-52 Ponds, and the ORWBG) into one program. Final remedial actions, which included waste consolidation and capping for the GSACU, began in December 2003 and are physically complete. The Regulatory approval of the Record of Decision (ROD), Revision 1 Post-Construction Report (PCR)/Corrective Measures Implementation Report (CMIR)/Remedial Action Completion Report (RACR) for the GSACU document was received from the United States Environmental Protection Agency (USEPA) on May 21, 2008, and from the SCDHEC on May 22, 2008.

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2.0 MONITORING/REPORTING REQUIREMENTS

2.1 F-Area HWMF and H-Area HWMF/Monitoring/Reporting Requirements

The F-Area HWMF groundwater monitoring requirements are described in Module IV, Section B, of the Permit. The H-Area HWMF groundwater monitoring requirements are described in Module IV, Section C, of the Permit. The well networks for the F-Area and H-Area HWMFs monitor the UAZ and the Lower Aquifer Zone (LAZ) of the Upper Three Runs Aquifer (UTRA), and the Gordon Aquifer (GA). (Refer to Maps 1A, 1B, and 1C, Volume II.) The wells that are Purge Water Management System (PWMS) wells are listed in Appendix A (Table A-2), Volume I.

Groundwater sampling, analysis, and other monitoring requirements are conducted as required by the Permit. The former F-Area and H-Area Waste Water Treatment Units (WTUs) were shut down and placed in a dry lay-up configuration during 1Q2005 and 4Q2003 (respectively), and their industrial wastewater permits closed during 4Q2009.

2.2 MWMF Monitoring/Reporting Requirements

The MWMF groundwater monitoring requirements are defined in Module IV, Section D of the Permit. The well network for the MWMF monitors the UAZ and LAZ of the UTRA and the GA beneath the facility in all four plume areas (SWP, SEP, NWP, and NEP). Refer to Maps 1A, 1B, and 1C, Volume II. Appendix A (Table A-2), Volume I, lists the wells in the PWMS network.

Groundwater and surface water monitoring is conducted as specified in the Permit. A modification of the 2014 RCRA Permit Renewal was issued by the SCDHEC on August 17, 2017. With the issuance of the permit renewal, natural attenuation remedies were approved for the NWP, NEP and SEP. All four plume areas are monitored with a comprehensive GWPS that can be found in the Permit.

Permit Section IVD.B.10.b.xii requires a list of wells and corresponding well construction details for wells installed since the submittal of the 2000 RCRA Part B Renewal Application. Appendix A, Volume I, contains a list of all existing, installed, and abandoned wells.

3.0 COMPLIANCE MONITORING

3.1 Water Quality and Elevation Data (IVB.B.11.b.i, IVC.B.11.b.i, and IVD.B.10.b.i)

All water quality (monitoring wells, wetland piezometers, and surface water) and water-elevation data (water levels) for the F-Area HWMF, the H-Area HWMF (Appendix B, Tables, Volume I), and the MWMF (Appendix B, Tables and Appendix C, Volume I) collected during 2022 are presented in accordance with the Permit requirements. The data tables present the analytical data in a matrix format depicting sampling stations and analytical constituents by aquifer unit. The data tables include laboratory-qualified data that are verified.

Field data for the F-Area HWMF, the H-Area HWMF, and the MWMF for 2022 are also included in the data tables, in accordance with the Permit requirements. The tables include water elevations as they correspond to a specific sampling event.

3.2 Hydrographs (IVB.B.11.b.ii, IVC.B.11.b.ii, and IVD.B.10.b.ii)

Hydrographs for selected wells for the F-Area HWMF, the H-Area HWMF, and the MWMF are provided in Appendix D, Volume I, in accordance with the Permit requirements. The wells were selected to provide a representative evaluation of the hydrogeology at the waste units. Hydrograph data include water-level specific measurements and water-level measurements taken during routine sampling from 1995 through 2022. Clustered wells are shown on a single graph. Unique symbols are assigned for each well cluster, and the aquifer zone for each well is identified in the legend.

3.3 Time Series Plots (IVB.B.11.b.iii, IVC.B.11.b.iii, and IVD.B.10.b.iii)

Appendix E, Volume I, contains time series plots for selected wells for the F-Area HWMF, the H-Area HWMF, and the MWMF in accordance with the Permit requirements. The wells selected provide a representative evaluation of the groundwater contamination and corrective actions at the waste units. The time series plots show permit-required constituents monitored from 1995 through 2022. Data from clustered wells are shown on a single graph, and the GWPS is depicted with a horizontal dashed line for reference. Unique symbols are assigned for each well in a cluster, and the aquifer zone for each well is identified in the legend. Scaling is optimized and all graphs are semi-log plots with concentration on the log scale.

Since it is possible to have negative values for radiological results below the detection limit, these negative values will not plot on the log scale and the plotted positive values on either side of the negative value are not connected by a line. This will only be apparent for plots below the detection limit.

The data used to develop the time series plots was not filtered to graphically present comparisons among the parent sample, field duplicates, field splits, reruns, and laboratory duplicates.

3.4 Isoconcentration Maps (IVB.B.11.b.iv, IVC.B.11.b.iv, and IVD.B.10.b.iv)

Isoconcentration plan-view maps for the F-Area HWMF, the H-Area HWMF, and the MWMF are provided in Volume II, in accordance with the Permit requirements. Individual maps depict the contaminant plumes. The concentration contour intervals on each map include the GWPS for that contaminant and additional contours that adequately represent the contaminant distribution.

3.5 Potentiometric Maps (IVB.B.11.b.v, IVC.B.11.b.v, and IVD.B.10.b.v)

Potentiometric contours and groundwater flow lines for 3Q2022 are provided on the isoconcentration maps for the F-Area HWMF, the H-Area HWMF, and the MWMF (Volume II). The combined maps show groundwater flow direction for the UAZ and LAZ of the UTRA and the GA.

Groundwater velocity calculations provide a basis for estimates of the transport rate for constituents. Groundwater velocities are calculated using the following equation:

$$\text{Velocity (ft/day)} = \frac{\text{Hydraulic Conductivity (ft/day)}}{\text{Porosity (unitless)}} \times \frac{\Delta h(\text{ft})}{\Delta l(\text{ft})}$$

The value Δh is the difference in head, and Δl is the length of the flow path. Flow path length is calculated to the nearest 7.62 meters (m [25 feet {ft}]).

During 2022, groundwater velocities are relatively constant in F Area and H Area, down gradient of the ORWBG (vicinity of the SWP and SEP), and in the north plumes of the MWMF, as has been reported for many years. The following tables provide the 2022 horizontal flow rate estimates for the hydrostratigraphic units for the F-Area HWMF (Table 1), the H-Area HWMF (Table 2), and the MWMF (Table 3).

Table 1. Horizontal Groundwater Velocities in the Hydrostratigraphic Units Beneath the F-Area HWMF

F-Area HWMF	UAZ of the UTRA	LAZ of the UTRA	GA
Kh (ft/day)	91.7	1.5	40
Effective Porosity	0.2	0.2	0.25
dh/dl	**Varies**	**Varies**	**Varies**
Groundwater Velocity (ft/yr) (Third Quarter 2022)			
Flow Path F	1,998	24	389

Note: **Table depicts approximate values.**
Flow was southwest in the UAZ of the UTRA, southwest in the LAZ of the UTRA, and northwest in the GA.

Table 2. Horizontal Groundwater Velocities in the Hydrostratigraphic Units Beneath the H-Area HWMF

H-Area HWMF	UAZ of the UTRA	LAZ of the UTRA	GA
Kh (ft/day)	37.1	1.5	39
Effective Porosity	0.2	0.2	0.25
dh/dl	**Varies**	**Varies**	**Varies**
Groundwater Velocity (ft/yr) (Third Quarter 2022)			
Flow Path H	864	38	161

Note: **Table depicts approximate values.**
Flow was southwest in the UAZ of the UTRA, southwest in the LAZ of the UTRA, and northwest in the GA.

Table 3. Horizontal Groundwater Velocities in the Hydrostratigraphic Units Beneath the MWMF

MWMF	UAZ of the UTRA	LAZ of the UTRA	GA
Kh (ft/day)	32	1.5	39
Effective Porosity	0.2	0.2	0.25
dh/dl	**Varies**	**Varies**	**Varies**
Groundwater Velocity (ft/yr) (Third Quarter 2022)			
Flow Path SWP	459	23	161
Flow Path SEP	722	24	161
Flow Path NWP	*	16	161
Flow Path NEP	*	45	161

Note: Table depicts approximate values.
Flow directions in the UAZ and LAZ of the UTRA were to the southwest (SWP), northwest (NWP), northeast (NEP), and southwest (SEP). Flow direction in the GA was to the northwest.
*Due to the limited extent of the UAZ (i.e., the water table drops into the LAZ), no calculation is made for the UAZ in the NWP and the NEP areas.

3.6 Isoconcentration Cross Sections (IVB.B.11.b.vi, IVC.B.11.b.vi, and IVD.B.10.b.vi)

Isoconcentration cross sections for the F-Area HWMF, the H-Area HWMF, and the MWMF are presented in Volume II of this report, in accordance with the Permit requirements. All cross sections selected to represent contamination transport are essentially parallel to groundwater flow from the waste units. For well clusters in a cross section, each screen in a cluster is depicted on the cross section and available data for each screen is posted. The plan-view location of the cross sections is shown on insets on each cross section map and on the plume maps in Volume II.

3.7 Determination and Extent of Severity of Groundwater Contamination (IVB.B.11.b.viii, IVC.B.11.b.viii, and IVD.B.10.b.vii)

Monitoring results for groundwater, surface water, and wetlands are included for the F-Area HWMF, the H-Area HWMF, and the MWMF. The extent and severity of the groundwater contamination is determined based on the analytical results of the groundwater sampling performed for that period. The following sections describe the extent and severity of the groundwater contamination in terms of compliance monitoring and GWPS exceedances for the F-Area HWMF, the H-Area HWMF, and the MWMF.

3.7.1 Compliance Groundwater Monitoring

3.7.1.1 F-Area HWMF Compliance Groundwater Monitoring

Compliance monitoring for the F-Area HWMF was performed quarterly during 2022, in accordance with the Permit requirements. Monitoring results are in Appendix B, Tables B-1, Volume I.

The scheduled 2022 sampling was completed for all wells in F-Area.

3.7.1.2 H-Area HWMF Compliance Groundwater Monitoring

Compliance monitoring for the H-Area HWMF was performed quarterly during 2022, in accordance with the Permit requirements. Monitoring results are in Appendix B, Table B-2, Volume I.

The scheduled 2022 sampling was completed for all wells in H Area.

3.7.1.3 MWMF Compliance Groundwater Monitoring

Compliance monitoring was performed for the MWMF, in accordance with the Permit, and is discussed by plume areas (SWP, SEP, NEP, and NWP). During 2022, all four plume areas were monitored.

All four of the plume areas (SWP, NWP, NEP, and SEP) have radiological indicator parameters (nonvolatile beta, gross alpha, sum of beta, sum of beta dose, or sum of alpha) that exceed GWPS levels. GWPS exceedances of radiological indicator parameters are only discussed when the indicator parameter exceeds the GWPS and are not supported by speciated radiological isotopes. However, due to an analysis phenomenon known as "cross talk", radiological indicator analyses such as gross alpha and nonvolatile beta rarely agree with the sum of the speciated data. Cross talk occurs when part of the alpha emissions is counted as beta and part of the beta emissions are counted as alpha so that the overall sum of gross measurements is usually higher than the sum of the speciation. Therefore, gross radiological parameter exceedances should not be considered at the same level of importance as speciated values.

SWP Compliance Monitoring

During 1Q2022 and 3Q2022, the SWP monitoring wells were monitored for compliance requirements. Analytical results indicate 13 constituents exceeded the GWPS. The results and the aquifer zones, in which the exceedances occurred, are presented in Appendix B, Table B-7, Volume I.

SEP Compliance Monitoring

For the SEP plume, the 1Q2022 and 3Q2022 data were compared to the GWPS.

During 2022, the SEP monitoring wells were monitored for semi-annual compliance requirements. Analytical results indicate ten constituents exceeded the GWPS. The results and the aquifer zones in which the exceedances occurred are presented in Appendix B, Table B-8, Volume I.

NEP Compliance Monitoring

For the NEP plume, the 1Q2022 and 3Q2022 data were compared to the GWPS.

During 2022, the NEP monitoring wells were monitored for semi-annual compliance requirements. Analytical results indicate ten constituents exceeded the GWPS. The results and the aquifer zones, in which the exceedances occurred, are presented in Appendix B, Table B-9, Volume I.

NWP Compliance Monitoring

For the NWP plume, the 1Q2022 and 3Q2022 data were compared to the GWPS.

During 2022, the NWP monitoring wells were monitored for compliance requirements. Analytical results indicate 11 constituents exceeded the GWPS. The results and the aquifer zones, in which the exceedances occurred, are presented in Appendix B, Table B-10, Volume I.

3.7.2 Wetland Compliance Monitoring

The following subsections discuss Wetland Compliance Monitoring for the F-Area HWMF, the H-Area HWMF, and the MWMF.

3.7.2.1 F-Area HWMF Wetland Compliance Monitoring

During all four quarters of 2022, groundwater sampling was scheduled for 17 F-Area HWMF wetland piezometers. Groundwater samples were collected from all 17 piezometers during each quarter.

In accordance with the Permit Application, all 17 wetland groundwater piezometers are analyzed for the full suite of GWPS constituents during the third quarter of each year. During the remaining quarters, the stations are analyzed for a reduced suite of GWPS constituents based on the analytes detected during the full suite sampling event. If a constituent is not detected above the GWPS during the third quarter sampling event, it is excluded from further analyses during the remaining quarters. However, gross alpha, nonvolatile beta, tritium, and nitrate-nitrite, are sampled for during all quarterly events. The sample results for 2022 are presented in Appendix B, Table B-3, Volume I, and the locations are shown on Map 1A, Volume II.

In groundwater beneath the wetlands of FMB, antimony, cadmium, cobalt, mercury, nitrate-nitrite, carbon-14, gross alpha, iodine-129, nonvolatile beta, radium-226, radium-228, strontium-90, tritium, uranium-233/234, and uranium-238 exceeded the GWPS. Tritium and iodine-129 were the most widespread constituents at the wetlands, exceeding the GWPS at all but four locations. The maximum concentration of tritium (696 picocuries per milliliter [pCi/mL]) occurred at FPZ 6A and was less than the result in 2021. The sample results are presented in Appendix B, Table B-3, Volume I. The locations are shown on Map 1A, Volume II.

3.7.2.2 H-Area HWMF Wetland Compliance Monitoring

During all four quarters of 2022, sampling was scheduled for ten H-Area HWMF wetland groundwater piezometers. All wetland piezometers were sampled during all four quarters.

In accordance with the Permit Application, during the third quarter of each year, all ten wetland groundwater piezometers are analyzed for the full suite of GWPS constituents. During the remaining quarters, the stations are analyzed for a reduced suite of GWPS constituents based on the analytes detected during the full suite sampling event. If a constituent is not detected above the GWPS during the third quarter sampling event, it is excluded from further analyses during the remaining quarters. However, gross alpha, nonvolatile beta, tritium, nitrate-nitrite, and mercury are sampled for during all quarterly events. The sample results are presented in Appendix B, Table B-4, Volume I, and the locations are shown on Map 1A, Volume II.

In groundwater beneath the wetlands of FMB, mercury, vanadium, carbon-14, nitrate-nitrite, iodine-129, nonvolatile beta, and tritium exceeded the GWPS. Tritium was the most widespread constituent at the wetlands, exceeding at all but one location (HPZ 5B). The maximum concentration for tritium was 794 pCi/mL at location HPZ 1A and was less than results measured in 2021. Vanadium exceeded the maximum contaminant level (MCL) at HPZ 1A and HPZ 5B. These exceedances appear to be an artifact of elevated turbidity. The sample results are presented in Appendix B, Table B-4. The locations are shown on Map 1A, Volume II.

3.7.2.3 MWMF SWP Wetland Compliance Monitoring

During 2022, seven wetland groundwater piezometers were monitored for tritium each quarter and in 3Q for the full GWPS list (Appendix B, Table B-11, Volume I). Analytical results indicate tritium (all locations), carbon-14 (one location) and 1,4-dioxane (one location) exceeded the GWPS. The sample results are presented in Appendix B, Table B-11, Volume I. The locations are shown on Map 1A, Volume II.

Tritium is the most prevalent contaminant in groundwater at the SWP wetlands. Tritium is usually measured at higher concentrations in the deeper piezometers because the deeper wetland piezometers monitor groundwater just above a clay horizon. This horizon has lower conductivities, higher effective porosities, and is not easily flushed by groundwater movement. In addition, the shallower piezometers are screened near the surface and intersect a highly conductive root zone near the surface, which can transmit rainwater or overland flow and dilute the concentrations.

3.7.3 Surface Water Compliance Monitoring

The following sections discuss Surface Water Compliance Monitoring for the F-Area HWMF, the H-Area HWMF, and the MWMF (SWP and NWP/NEP).

3.7.3.1 F-Area HWMF and H-Area HWMF Surface Water Compliance Monitoring in FMB

In accordance with the Permit Application, during the third quarter of each year, all 12 FMB surface water stations are analyzed for the full suite of GWPS constituents. During the remaining quarters, the stations are analyzed for a reduced suite of GWPS constituents determined based on the analytes detected during the full suite sampling event. If a constituent is not detected above the GWPS during the third quarter sampling event, it is excluded from further analyses during the remaining quarters. However, gross alpha, nonvolatile beta, tritium, nitrate-nitrite, and mercury are sampled for during all quarterly events. The sample results are presented in Appendix B, Table B-3 and B-4, Volume I, and the locations are shown on Figure 1.

As part of the tritium flux monitoring, an additional station (FMC 002H) was sampled for tritium only. The results for this station are also presented in Appendix B, Table B-3 and B-4, Volume I. The location is shown on Figure 1.

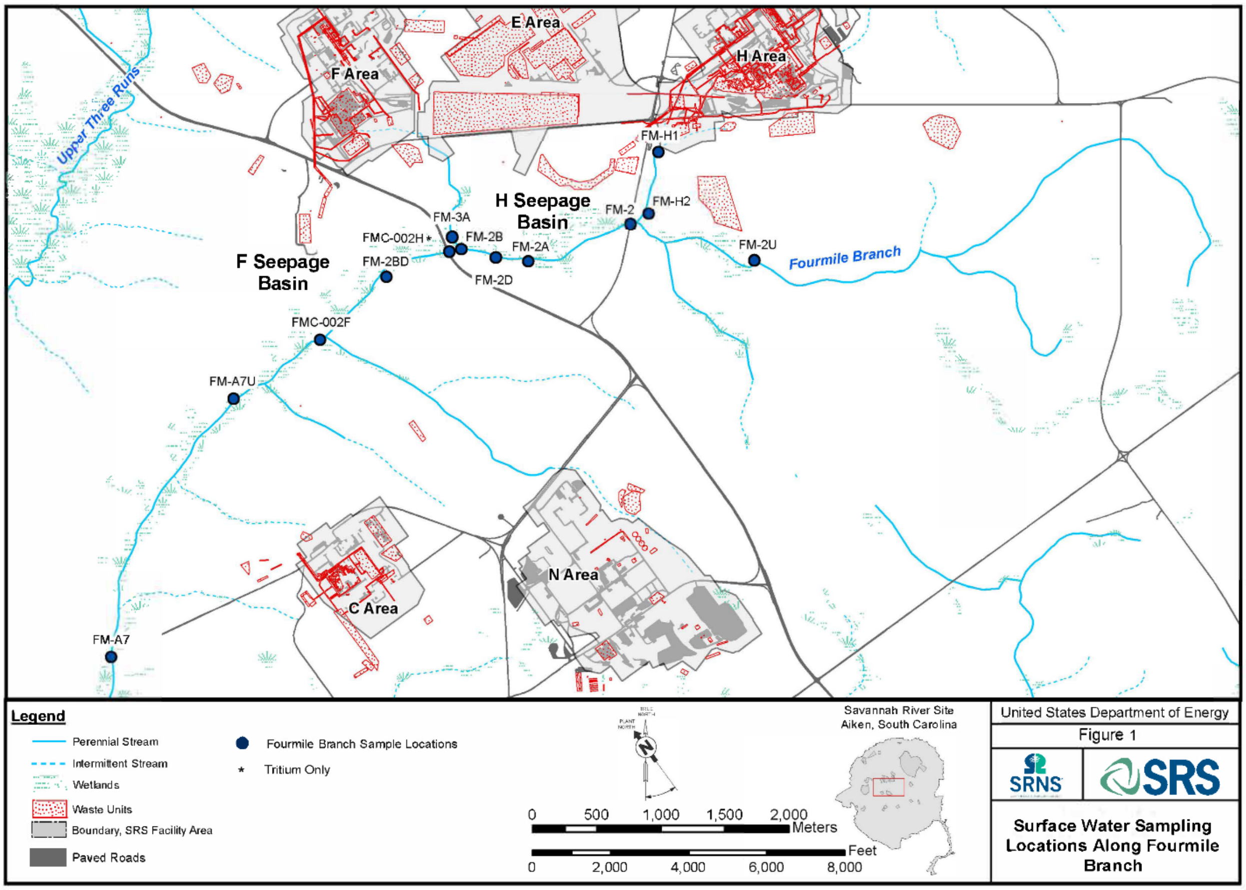

Figure 1. Surface Water Sampling Locations Along Fourmile Branch

During 2022, iodine-129 (two locations at F Area) and tritium (seven locations at F and H Areas) exceeded the GWPS in FMB. Tritium was the most prevalent contaminant exceeding the GWPS at 7 of 13 locations. The maximum concentration of tritium in Fourmile Branch was 59.3 pCi/mL at FM 2BD (located downgradient from the MWMF SWP).

3.7.3.2 MWMF Surface Water Compliance Monitoring in FMB and Upper Three Runs

SWP (FMB Watershed)

During 2022, SRS sampled the ten MWMF SWP surface water locations (Engineered Ditch [ED], OFED, phytoremediation pond, and FMB) for tritium. Analytical results indicate tritium exceeded the GWPS in FMB at every location except for FM-2B and the background station FM-2. The sample results are presented in Appendix B, Table B-11, Volume I. The locations are shown on Map 1A, Volume II.

Surface water locations ED-01, OFD-01, and OFD-02 monitor tritium concentrations from the ED, the OFED below the pond, and the OFED farther downstream of the pond, respectively. A surface water grab sample from the phytoremediation pond (location FHP-001) and a grab sample from the irrigation water tank (location FHP-001A) filled from the pond used to irrigate the phytoremediation plots are representative of the phytoremediation pond. During normal operation of the phytoremediation system, water from the entire pond exits at the pump intake as it is withdrawn for irrigation use. Samples collected at the pump intake represent the average concentration of tritium in the pond. Surface water in the ED originates from the discharge of F Area process water and storm water runoff. Surface water in the OFED consists of many braided streams originating from numerous groundwater seep locations that combine to form a single stream. Location FM-3A is located just below the confluence of the ED and the OFED and is the last sampling location before entering FMB. FMC-002H, and FM-2B are FMB sampling locations at the MWMF while FM-2 is a background station on FMB.

Tritium exceeded the GWPS at 8 of 10 monitoring locations during 2022. Overall, maximum concentrations in 2022 were similar to last year’s results. The maximum concentration in the pond was 1,240 pCi/mL at location FHP-001. At the ED, the maximum concentration was 569 pCi/mL while at the OFED tritium was 1,190 pCi/mL below the pond. Downstream at the confluence of the ED and OFED tritium was 620 pCi/mL in 2022. In FMB, the maximum tritium concentration was 59.3 pCi/mL at location FM-2BD.

NWP and NEP (Upper Three Runs Watershed)

Stream locations CBS 010, CBS 020, and CBS 030 monitor surface water in Crouch Branch, a tributary of Upper Three Runs (UTR). This tributary’s headwaters originate in H Area. Crouch Branch also receives water from groundwater seeps emanating from the

NEP. Stream location UTR-155 monitors an unnamed tributary to Upper Three Runs Creek, which receives water from seeps where the NWP is projected to discharge.

Ten MWMF NWP and NEP surface water locations (Crouch Branch and an unnamed tributary to UTR) are monitored quarterly for tritium. During 2022, tritium exceeded the GWPS at seven locations: CBS-10, CBS-20, CBS-30, CBS-BF1, UTR-120, UTR-140 and UTR-BF1. Additional discussion regarding tritium measured at UTR-120 is provided in Section 5.3.

Tritium was most prevalent at locations CBS-BF1 and UTR-BF1 exceeding the GWPS during each quarter in 2022. The maximum concentration overall was 118 pCi/mL at CBS-BF1.

The sample results for 2022 are presented in Appendix B, Table B-12, Volume I. The locations are shown on Map 1B, Volume II.

3.8 Statistical Evaluation for Changes in Groundwater Elevations and pH for F-Area HWMF and H-Area HWMF

In accordance with the Permit requirements, the F-Area and the H-Area HWMFs are required to perform a statistical evaluation of annual groundwater quality and elevation changes for the point of compliance (POC) wells and selected assessment wells. No statistical evaluation is required for the MWMF.

Since the remedial system consists of groundwater barriers and base injection systems, the statistical evaluation focuses on the impacts of the barriers and base injection on the groundwater elevations and change in pH. It is important to assess the effects of the barriers and the base injection on the aquifer to better understand the long-term impacts on groundwater quality. Base injection (pH adjustment) represents the treatment mechanism for metals at the F Area barriers and at the wetlands of F and H Areas. Several years after the installation of the remedial systems during the April 2007 reporting period, a simple hypothesis test was used to assess the impact of the barriers and base injection system on the groundwater elevations (F- and H-Areas HWMFs) and changes in pH (F-Area HWMF).

A detailed description of the test and the trend statistics for all available wells are presented in Appendix F, Volume I. A review of the previous statistical analysis during this reporting period indicates that the statistical evaluation continues to be valid and is included in this report as Section 3.8.1 and 3.8.2.

3.8.1 Groundwater Elevations

The groundwater elevation statistical results for the F-Area HWMF and the H-Area HWMF are included in Appendix F, Table 1 and Table 2, Volume I, respectively.

Water level changes resulting from barrier installation were statistically evaluated by analyzing the gradients between wells located across the barriers. Although many wells exist near the barriers, only a few well pairs contained sufficient data to adequately perform statistical tests. The majority of the well pairs excluded from the analysis had an insufficient number of measurements collected before the installation of the barriers.

The water level gradient evaluation for the F-Area HWMF and the H-Area HWMF indicates that groundwater flow has changed, due to the installation of the barriers. This is demonstrated by at least four well pairs. At F Area, at least one well pair indicated a significant change in gradient, due to the installation of the barrier walls. This well pair is in the area with the greatest groundwater contamination. The remaining three well pairs are located at the H Area barriers. Due to the configuration of the barriers, located both up gradient and down gradient of the waste unit, the H Area barriers had an immediate impact on groundwater flow.

3.8.2 Change in pH

The change in pH statistical results for the F-Area HWMF are included in Appendix F, Table 3, Volume I.

Significant changes in groundwater pH were statistically evaluated using monitoring wells and wetland sampling locations within the vicinity of the injection wells. The differences in pH before and after injection of the base solution are often a function of location of the monitoring wells and geochemical buffering of the groundwater plume. The most appropriate locations for monitoring pH are the wells that are located down gradient in close proximity of the injection zone.

Five of the wells that were statistically evaluated showed significant indications of change in the groundwater plume pH, due to base injection. The majority of these wells are in the eastern portion of the plume. This is also the area of the plume containing the most significant groundwater contamination. As expected, all the wells located up gradient and outside of the influence of the base injection, except for one (FSB 118), show no statistical impact to pH. Well FSB 118 shows a significant change in pH; however, it is located up gradient a significant distance away from the injection system and thus is not impacted by the base injection.

The statistical evaluation indicates that pH adjustment was accomplished near the gates, due to the injection of base into the aquifer. This is supported by monitoring data from the wells that are located close to the zone of injection.

3.8.3 Changes in Tritium Concentration

The time series plots in Appendix E, Volume I illustrate the trends in tritium concentration in the groundwater near the barriers, since the termination of pump and treat operations at the F-Area and H-Area Seepage Basins.

Since installation of the barriers and operation of the base injection system, the tritium concentration down gradient of the F-Area Seepage Basin barriers and gates has decreased significantly. The reduction in concentration is attributed to the control of the contaminated groundwater by the barriers and the release of less contaminated groundwater through the gates.

The tritium concentrations down gradient of the H-Area Seepage Basin barriers have also decreased significantly, as shown in the time series graphs. The reduction in concentration is due to the control of the contaminated groundwater by the barrier.

In conclusion, sampling and analysis performed during this reporting period has confirmed that significant reductions in concentration of tritium continue to occur and are consistent with the planned performance of the barriers and gates. The barriers are reducing contamination in FMB. Sections 5.1.3.4 and 5.2.2.3 provide more information on tritium flux to FMB for the F-Area HWMF and the H-Area HWMF, respectively.

3.9 Rainfall (IVB.B.11.b.xi, IVC.B.11.b.xi, and IVD.B.10.b.viii)

Due to the central proximity, the H Area rain gauge station was selected to represent rainfall patterns within the study area. The monthly, quarterly, and cumulative rainfall data in inches for the F-Area HWMF, the H-Area HWMF, and the MWMF during 2022 are presented in Table 4.

Figure 2 presents monthly rainfall totals for January 1 through December 31, 2022. Rainfall for 2022 was approximately 6 inches less than the long-term annual average (120 centimeters [cm] 47.23 inches). A pattern of above average rainfall began in 2013 continuing through 2020. Prior to this SRS experienced below average rainfall in most of the years since 1998.

Table 4. Rainfall for 2022

Month	Rainfall (in)
January	4.22
February	2.02
March	2.8
First Quarter Total	**9.04**
April	5.48
May	2.22
June	2.57
Second Quarter Total	**10.27**
Cumulative Total for First Half of 2022	**19.31**
July	5.68
August	6.7
September	2.47
Third Quarter Total	**14.85**
October	1.91
November	1.63
December	3.93
Fourth Quarter Total	**7.47**
Cumulative Total for Second Half of 2022	**22.32**
Cumulative Annual Total	**41.63**

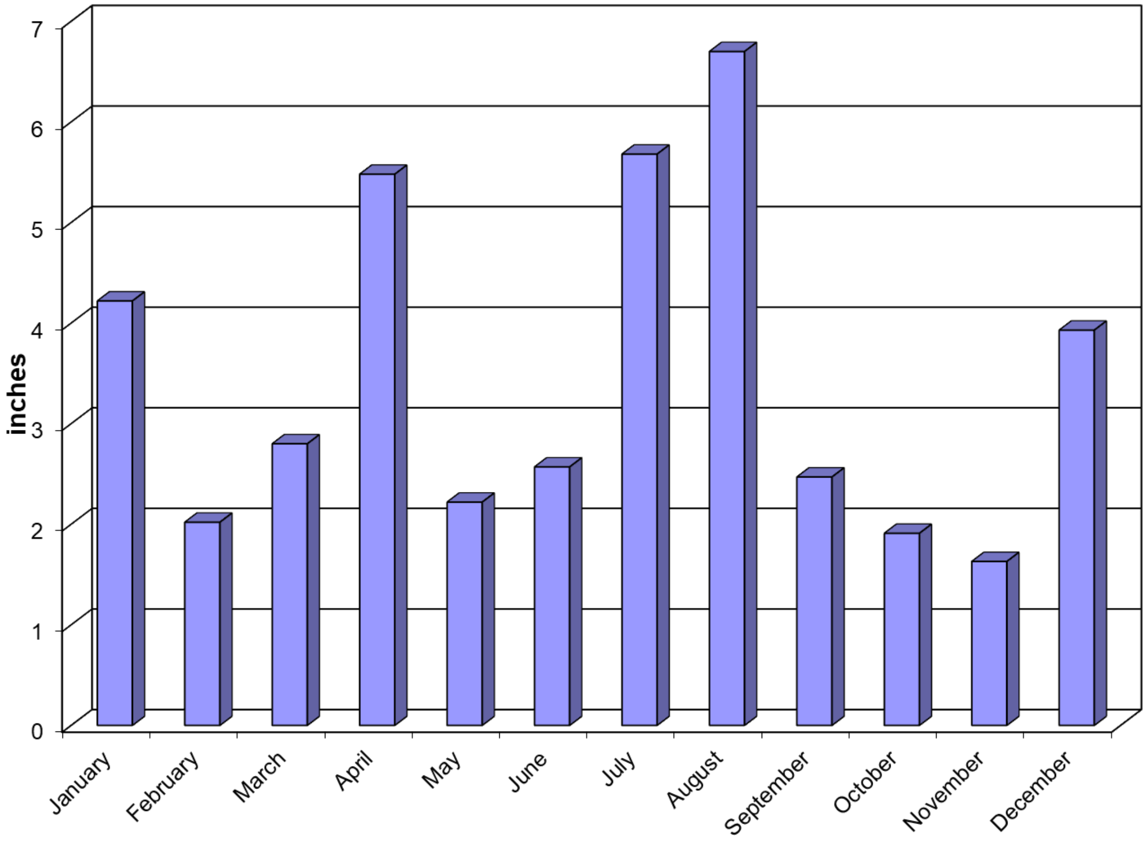

Figure 2. Rainfall for 2022

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4.0 DETECTION MONITORING

4.1 F-Area HWMF Appendix IX (IVB.B.10.c)Table

SRS performed detection monitoring for the F-Area HWMF during 3Q2022, in accordance with the Permit requirements. Twenty percent of the POC wells were sampled for Appendix IX constituents, carbon-14, and cesium-134. The sample results for the wells are presented in Appendix B, Table 5, Volume I.

During detection monitoring in 2022, no new constituents were detected at F-Area HWMF

4.2 H-Area HWMF Appendix IX (IVC.B.10.c)

SRS performed detection monitoring for the H-Area HWMF during 3Q2022, in accordance with the Permit requirements. Twenty percent of the POC wells were sampled for Appendix IX constituents, carbon-14, and cesium-134. The sample results for the wells are presented in Appendix B, Table 6, Volume I.

During detection monitoring in 2022, no new constituents were detected at H-Area HWMF

4.3 MWMF Appendix IX and Comprehensive Radiological Monitoring List (IVD.B.9.d)

SRS performed detection monitoring for the MWMF during 3Q2022, in accordance with the Permit requirements. Samples were collected from 20% of the POC wells for Appendix IX and Comprehensive Radiological Monitoring List (CRML) constituents. The CRML constituents are specified in the Permit. The sample results are presented in Appendix B, Tables B-13 through B-16, Volume I.

Detection monitoring for the SWP indicated that two constituents (beta-benzene hexachloride and naphthalene) not on the current GWPS for the MWMF were detected in 2022. Beta-benzene hexachloride was detected in well BGO 33C (0.037 micrograms per liter [ug/L]). Beta-benzene hexachloride has not been previously detected at BGO 33C and is not known to be associated with the waste unit. Naphthalene was detected in wells

BGO 30D and BGO 32D (1.03 ug/L and 1.35 ug/L. Naphthalene has been previously detected in wells at the MWMF but is present in insect repellant (samples are collected during the summer) and is not known to be associated with the waste unit. SRS will evaluate the presence of these constituents at the wells they were detected by resampling in 2023.

Detection monitoring for the SEP indicated that four constituents (bis[2-ethylhexyl)Phthalate, Aroclor 1248, Aroclor 1254, and Aroclor 1260) not on the current GWPS for the MWMF were detected in 2022. Bis(2-ethylhexyl)Phthalate was detected in well BGO 35D (1.22 ug/L). Bis(2-ethylhexyl)Phthalate has been detected sporadically at the MWMF. Bis(2-ethylhexyl)Phthalate is the most commonly used plasticizing agent for polyvinylchloride (PVC), the construction material for all of the monitoring well screens and casings, and PVC is the probable source of these bis(2-ethylhexyl)phthalate detections. Aroclor 1248, Aroclor 1254, and Aroclor 1260 were detected in well BGO 39A. None of these Aroclors have been previously detected at well BGO 39A and are not known to be associated with the waste unit. SRS will evaluate the presence of these constituents at the wells they were detected by resampling in 2023.

During detection monitoring in 2022, no new constituents were detected in the NWP nor NEP.

Additionally, detection monitoring detected 2,6-dinitrotoluene at background well HSB 85B. 2,6-dinitrotoluene is not known to be associated with the waste unit and SRS will evaluate the presence of this constituent by resampling in 2023. SRS will continue to monitor for Appendix IX constituents at the MWMF in 2023.

5.0 CORRECTIVE ACTION EFFECTIVENESS MONITORING

5.1 F-Area HWMF Corrective Action Program

The current corrective actions for the F-Area HWMF include an engineered low-permeability cap over the seepage basins, an engineered groundwater barrier system with gates, a base injection system as treatment within the gates and in the wetlands of FMB, and silver chloride amendment for treatment of iodine-129. Further discussion on the effectiveness of the corrective action is provided in Section 5.1.3.

Installation of the original length of engineered groundwater barriers at F Area was completed in 2004. A section of barriers ~350.5-m (1,150-ft) long, including an additional gate, was added in 2011 to extend the barrier system to the east. The barrier system now consists of three gates: west gate, central gate, and east gate. The groundwater barrier funnel and gate system were designed to manage tritium and metal releases to FMB and the seepline. The groundwater barriers have been effective at moderating the flow of contaminated groundwater and reducing the discharge of contaminants to FMB.

During June 2005, SRS completed construction and commenced operation of the base injection system within the original two gates (west gate and central gate) at the F-Area groundwater barrier. In 2008, the base injection system was expanded to treat groundwater beneath the wetlands located down gradient of the barriers. In 2011, SRS expanded the base injection system to include the east gate at the extension of the barriers. The base injection system is designed to mitigate acidic groundwater contamination in situ. Figure 3 shows the system configuration.

Figure 3. Base Injection Layout

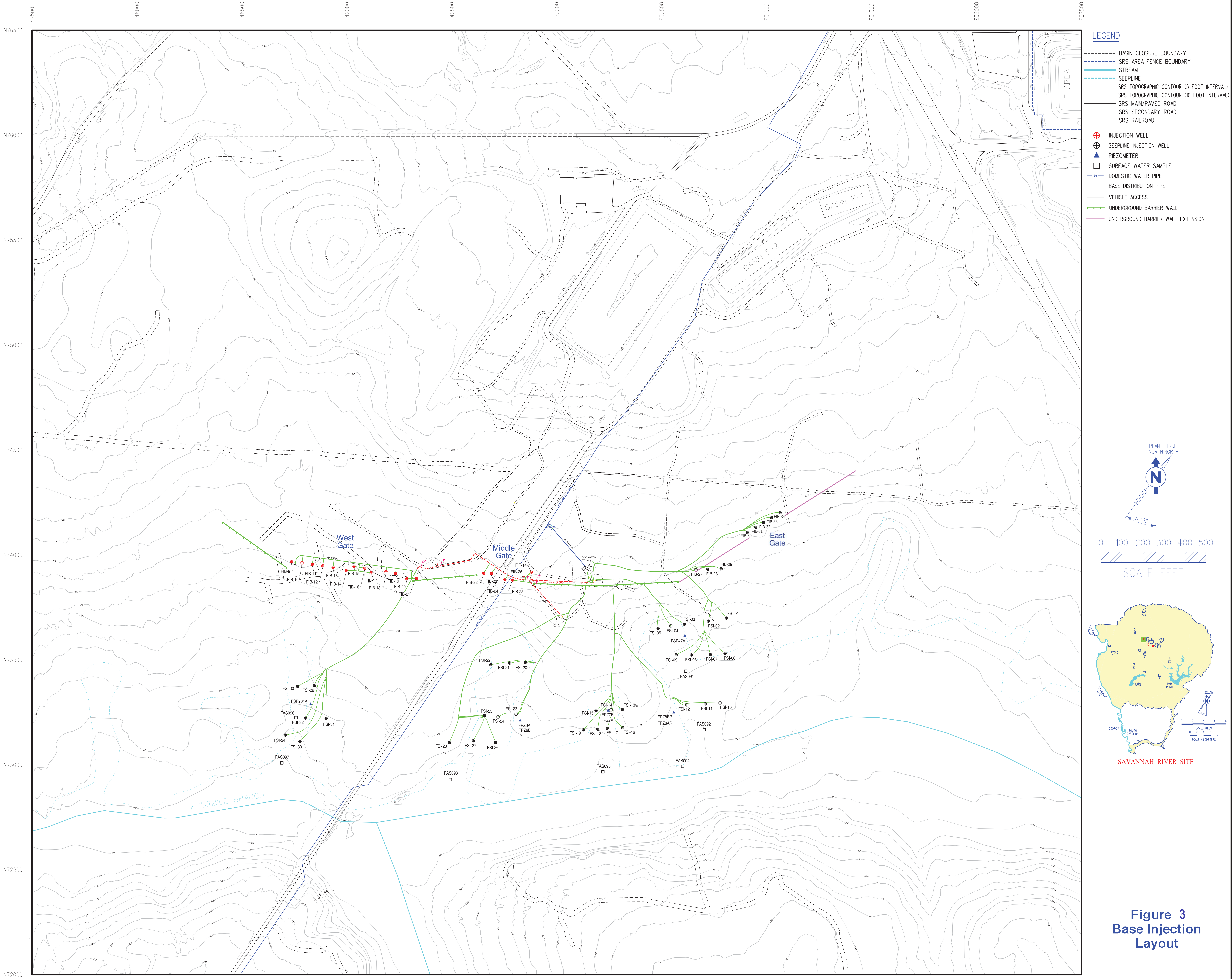


Figure 3
Base Injection Layout

Figure 3. Base Injection Layout

Iodine-129 is currently present at levels greater than the GWPS in the groundwater beneath the wetlands and in surface water within the wetlands and in FMB. In May 2016, SRS submitted a modification to the 2000 RCRA Permit Renewal Application, Volume IV, Revision 2, proposing to add silver chloride technology as part of the corrective action for iodine-129. The SCDHEC approved the 2000 RCRA Permit Renewal Application and modified the 2014 RCRA Permit Renewal on August 17, 2017. The permit renewal became effective on September 2, 2017, adding silver chloride technology as the corrective action for iodine-129. The installed engineered groundwater barriers, base injection system, and silver chloride technology form the remediation system for the F-Area HWMF. Section 5.1.3.3 provides additional information on the silver chloride technology.

5.1.1 Injection Well Volumes and Injection Rates (IVB.B.11.b.xii)

In 2022, base injection was performed starting in February and continued into July at the central gate. Approximately 53,000,000 L (14M gal) of base solution was injected in 2022 at F-Area HWMF. The base injection treatment areas are shown on Figure 3. Table 5 summarizes the volumes injected, average rate of injection, and period of injection, for 2022.

5.1.2 Surface Water Monitoring at the Seeplines

SRS has surface water monitoring stations within the seeplines below the closed F-Area Seepage Basins. These monitoring stations support corrective action effectiveness determinations for the Phase 2b corrective action goals of the Permit. SRS installed four of the monitoring stations in 2010 and incorporated the stations into the quarterly monitoring program in 2011. In 2015, SRS discussed with the SCDHEC the addition of two more surface water sample stations within the wetlands (one new location in F Area and one in H Area). In 2015, SRS submitted a revised permit application that added the two new surface water stations to the monitoring program.

Table 5. F-Area Base Injection Flow Rate 2022

Treatment Area	Well Number	January			February			March			April			May			June			July			August			September			October			November			December			12-month Well Volume
		Tot	Tot	Avg	Tot	Tot	Avg	Tot	Tot	Avg	Tot	Tot	Avg	Tot	Tot	Avg	Tot	Tot	Avg	Tot	Tot	Avg	Tot	Tot	Avg	Tot	Tot	Avg	Tot	Tot	Avg	Tot	Tot	Avg	Tot	Tot	Avg	
		Hours	gal	gpm	Hours	gal	gpm	Hours	gal	gpm	Hours	gal	gpm	Hours	gal	gpm	Hours	gal	gpm	Hours	gal	gpm	Hours	gal	gpm	Hours	gal	gpm	Hours	gal	gpm	Hours	gal	gpm	Hours	gal	gpm	gal
West Gate	FIB-9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Middle Gate	FIB-22	0.0	0.0	0.0	672.0	500,976.0	12.4	24.0	14,400.0	10.0	432.0	264600.0	10.2	696.0	532440.0	12.8	648.0	364,500.0	9.4	144.0	60,480.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,737,396
	FIB-23	0.0	0.0	0.0	672.0	595,392.0	14.8	24.0	20,160.0	14.0	432.0	314280.0	12.1	696.0	894360.0	21.4	648.0	584,415.0	15.0	144.0	104,940.0	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,513,547
	FIB-24	0.0	0.0	0.0	672.0	569,856.0	14.1	24.0	20,160.0	14.0	432.0	325080.0	12.5	696.0	981360.0	23.5	648.0	698,625.0	18.0	144.0	125,820.0	14.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,720,901
	FIB-25	0.0	0.0	0.0	672.0	517,104.0	12.8	24.0	20,160.0	14.0	432.0	336960.0	13.0	696.0	937860.0	22.5	648.0	636,660.0	16.4	144.0	110,880.0	12.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,559,624
	FIB-26	0.0	0.0	0.0	672.0	555,408.0	13.8	24.0	20,160.0	14.0	432.0	339120.0	13.1	696.0	939600.0	22.5	648.0	704,700.0	18.1	144.0	129,600.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,688,588
	FIT-14	0.0	0.0	0.0	672.0	574,896.0	14.3	24.0	20,160.0	14.0	432.0	388800.0	15.0	696.0	1002240.0	24.0	648.0	726,570.0	18.7	144.0	127,080.0	14.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,839,746
East Gate	FIB-30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FIB-34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Wetlands	FSI-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	FSI-34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	Monthly Volume	0	0	0	4,032	3,313,632	82	144	115,200	80	2,592	2,434,673	76	4,176	2,051,523	127	3,888	2,218,548	96		1,593,108	76		2,254,934	0	0	0	0		0	0		0	0		0	0	13,981,618

Similar to the monitoring strategy used for surface water in FMB and the wetland piezometers, the seepline surface water stations are analyzed for the full suite of GWPS constituents during the third quarter of each year. During the remaining quarters, the stations are analyzed for a reduced suite of GWPS constituents determined based on the analytes detected during the full suite sampling event. If a constituent is not detected above the GWPS during the third quarter sampling event, it is excluded from further analyses during the remaining quarters. However, gross alpha, nonvolatile beta, tritium, and nitrate-nitrite are sampled for during all quarterly events. The sample results are presented in Appendix B, Table B-3, Volume I, and the locations are shown on Map 1A, Volume II.

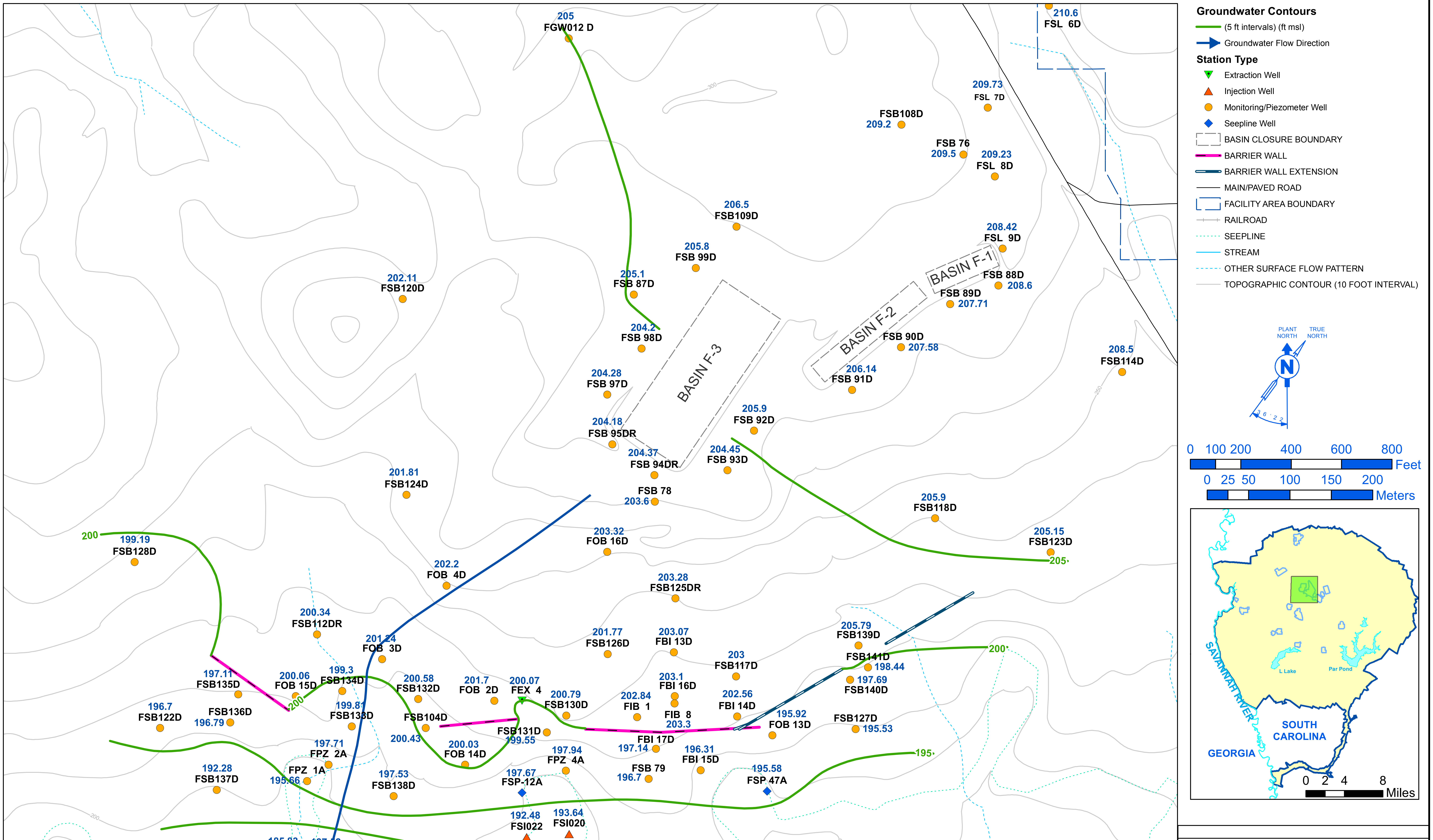
In 2022, surface water samples were collected during each quarter from all the locations. At the F Area seepline (Phase 2b corrective action goals), beryllium, cadmium, cobalt, lead, nitrate-nitrite, vanadium, gross alpha, nonvolatile beta, iodine-129, radium-126, strontium-90, tritium, uranium-233/234, and uranium-238 exceeded the GWPS in surface water. Beryllium, cadmium, and lead only exceeded their respective MCLs one time, in the same sample taken at FAS-96. These exceedances appear to be an artifact of elevated turbidity. Iodine-129 and tritium were the most widespread constituents in surface water at the wetlands, exceeding the GWPS at all five locations. The maximum concentration of iodine-129 (208 picocuries per liter [pCi/L]) occurred at FAS-91. The maximum concentration of tritium (117 pCi/mL) was measured at FAS-92.

5.1.3 Effectiveness of the F-Area HWMF Corrective Action Program (IVB.B.11.b.xiii)

5.1.3.1 Groundwater Barriers

In 2004, SRS constructed three groundwater barriers at the F-Area HWMF. The barriers consisted of ~419.4 linear meters (~1,375 linear feet) of low-permeability wall installed from just below the ground surface to the base of the UAZ. Construction utilized an in-situ soil mixing technique to blend acid resistant pozzolan cement and attapulgite clay with native soils. A small percentage of caustic was also added to the cement to facilitate curing. Upon hardening, the resulting soil/cement mixture formed a low-permeability subsurface barrier ~0.85-m (~2.8-ft) thick on average. Configuration of the engineered barriers is shown in Figure 4.

Figure 4. F-Area HWMF Groundwater Barriers and Potentiometric Surface



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Date: April 30, 2013

GSA Corrective Action Report, Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, F-Area Seepage Basin and F-Area Barrier Walls Third Quarter 2012

GSA Corrective Action Report, Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, F-Area Seepage Basin and F-Area Barrier Walls,Third Quarter 2012

To improve the F-Area HWMF barrier system, in 2011 SRS installed an extension to the barriers on the east side. The barrier extension is ~350.5-m (~1,150-ft) long and includes a 61-m (200-ft) wide gate with base injection wells at the gate. The barrier is tied-in to the eastern most side of the existing barriers and was constructed using the same soil mixing techniques. Construction occurred in February and March 2011. The general location of the extension is shown on the plume maps in Volume II and on Figure 4. Figure 4 also shows the potentiometric surface and flow directions for the UAZ.

The barriers function as a funnel and gate system which increases tritium travel time allowing for more radioactive decay and decreasing tritium flux to FMB; and restricts the flow of other constituents to the gates, increasing the effectiveness of in situ treatment. Base injection, iodine treatment (silver chloride injection), and tritium flux reduction are discussed in more detail in Sections 5.1.3.2 through 5.1.3.4.

5.1.3.2 Base Injection

The primary objective of the base injection technology is reducing concentrations of metals and metallic radionuclides in the groundwater. Previous studies and current monitoring demonstrate that adjusting the acidic groundwater plume to neutral or background pH levels results in reduced concentrations of many metals and radionuclides in the groundwater.

In June 2005, SRS started the base injection system for the F-Area HWMF. Per the approved UIC permit, a dilute base solution was injected into the UAZ at the two gate areas located between the groundwater barrier walls (west and central gates). The injected solution consisted of sodium hydroxide and sodium bicarbonate mixed with domestic water to a pH of ~10. The base solution provides treatment of the acidic groundwater at the gates and is an integral component of the groundwater funnel and gate remedial system. The initial injection was completed in 2005.

Since the initial injection in 2005, injections have been performed almost every year either to deliver maintenance doses of base solution or to perform technology evaluations. In

2022, base injection was performed starting in February and continued into July at the central gate. A summary of base injection campaigns at the F-Area HWMF is provided in Table 6.

Construction of the barrier extension in 2011 created the east gate injection area. To date only one injection campaign has been performed in the east gate. From 2012 to 2013, 11,734,780 L (3.1M gal) were injected at the east gate. Since then, SRS has been monitoring groundwater conditions and additional injections of base have not been required at the east gate.

Table 6. F-Area HWMF Base Injection Volumes Injected (million gallons)

Year	West Gate	Central Gate	East Gate[1]	Wetlands	Totals
2005	7.4	5.1	--	--	**12.5**
2006	--	3.6	--	--	**3.6**
2007	5	0.9	--	--	**5.9**
2008	--	3.2	3.8[1]	4.8	**11.8**
2009	0.5	0.5	2.6[1]	13.1	**16.7**
2010	2.8	1.4	--	3.1	**7.3**
2011	--	--	--	1.1	**1.1**
2012	--	--	2.8[1]	3.2	**6.0**
2013	1.9	1.4	0.3[1]	--	**3.6**
2014	--	1.8	--	--	**1.8**
2015	--	--	--	--	--
2016	11.9	5.1	--	5.4	**22.4**
2017	0	0	0	11.5	**11.5**
2018	10.1	8.1	--	--	**18.2**
2019	--	--	--	2.6	**2.6**
2020	--	5.4	--	12.0	**17.4**
2021	10.6	6.9	--	--	**17.5**
2022	**--**	**14.0**	**--**	**--**	
Totals	**50.2**	**57.4**	**9.5[1]**	**56.8**	**173.9**

1. In 2011, the east gate was renamed from injection wells FIB 27-29 to injection wells FIB 30-34.

The effects of injection vary across each of the injection areas, due to the differences in geochemical conditions and contaminant concentrations within the plumes, groundwater velocity, and proximity of the monitoring wells to the injection galleries. When base is injected, the portions of the aquifer impacted by the base can be identified by changes in indicator parameters, such as tritium, nitrate, chlorides, conductivity, and pH. Monitoring one or more of these parameters before and after break-through of the injection front demonstrates that movement of the injected solution through the aquifer (from point of injection to the monitoring locations) occurs over a 100–150-day period at the central gate and a 150-200 day period at the western gate.

The base injection has been effective in neutralizing the acidity of the plume to natural pH levels (5.5-6). During a typical injection campaign, groundwater pH in the treatment zone is initially increased to levels approaching the injectate concentration. This serves to alter not only the groundwater chemistry (immediate effect), but also the surfaces of the aquifer sediments such that buffering persist after injection is stopped. Monitoring results reveal that after the initial increase in pH, the groundwater pH remains elevated for some period, due to buffering by the aquifer. This buffering effect persists for ~12 - 18 months at the central gate and ~30-plus months at the west gate. Cationic metals and radionuclides are less mobile at natural pH and once neutral pH levels prevail, there is no need to continue injections.

Base injection has been effective in the in situ precipitation of cationic radionuclides, most evident with strontium-90 and uranium-238. In 2004, before the commencement of base injection, the concentrations of strontium-90 and uranium-238 at well FSB131D directly below the central gate were 68.4 pCi/L and 192 pCi/L, respectively. In 2022, the maximum concentration of both constituents has decreased dramatically to 16.8 pCi/L for strontium-90 and 25.1 pCi/L for uranium-238, demonstrating the effectiveness of the base injection system. Furthermore, higher concentrations of each constituent are present directly upgradient of the injection system. Concentrations at well FSB126D were 119 pCi/L and 123 pCi/L for strontium-90 and uranium-238, respectively, indicating that both radionuclides are precipitating as the plume flows through the base injection area. This effect is also evident in the plume map for strontium-90 (Map 4A, Volume II) and uranium-238 (Map 7A, Volume II), where an area of cleaner water exists down gradient of the injection area. The precipitation of these cationic metals and radionuclides has allowed concentrations of these constituents in FMB to fall below their respective GWPS, as well as reducing the concentration of these constituents in the seepline surface water and groundwater. The continued use of the system will ensure concentrations remain below the GWPS in FMB (Phase 2a goal) and continue to reduce the concentrations of cations in the seepline surface water (Phase 2b goal) and in the groundwater at the F-Area HWMF.

The engineered barriers and base injection continue to reduce concentrations of cations and metallic radionuclides down gradient of the injection areas and in the seeplines. Although concentrations of many constituents are now below GWPS limits in surface water at the seepline, some constituents are still above GWPS limits. To facilitate meeting corrective action goals, SRS is investigating potential amendments that could be used in the seepline to immobilize contaminants in situ prior to discharging to surface water. In 2019, SRS tested ten materials in the laboratory for potential use as amendments in the seepline. The laboratory studies identified at least three materials that warrant further study. In 2020, SRS executed additional laboratory testing and developed a field study plan to evaluate individually the effectiveness of the materials in a system representing the in situ groundwater conditions along the FMB seepline. In 2021, SRS executed field testing of four potential amendments: a porous iron composite material, a zero valent iron material, a granular activated carbon (GAC) material, and a zero valent iron and GAC mixture. Each of the sorbent materials was tested individually over a two-week period by pumping groundwater from a piezometer with known contamination through a flow cell filled with the sorbent material. During the testing of each sorbent material, samples were taken of the groundwater before flowing through the flow cell containing the sorbent and after flowing through the sorbent. The canisters containing the sorbent material were also sent to the lab for analysis. Field tests for two mixtures of the test sorbents were executed early in 2022.

The field testing utilized groundwater pumped directly from a well with an average iodine-129 concentration of 32.3 pCi/L. The experiments were designed to simulate the conditions of a permeable reactive barrier. In the initial field study, the most effective sorbent was GAC. The GAC achieved an average of 76.2% removal of the iodine present in the groundwater and reached a minimum concentration of 0.1 pCi/L after the water passed through the sorbent material. A commercial sorbent (RED) that contained a mixture of GAC and iron-based material removed on average 61.3% of the iodine and reached a minimum concentration of 9.34 pCi/L. However, for both these sorbents the iodine concentration in the effluent increased over time during the experiments. Additional experimentation is needed to determine if the implementation of these sorbents could be adjusted to increase iodine sorption to achieve and maintain the GWPS of 1 pCi/L. Another type of sorbent or a combination of more than one sorbent may be necessary to effectively sorb iodine-129, especially considering the complex speciation chemistry of iodine. SRS plans to continue studying the GAC and RED materials along with innovative biochar and organoclay materials. Recent literature suggests new sorbents like biochars, organoclays, and similar organic based materials show significant promise for attenuating iodine. If the additional studies identify promising amendments for a treatability study, one would be proposed at that time. SRS will continue to implement base injection per the approved CAP while evaluating the potential use of amendments to assist with achieving corrective action goals at the seeplines of FMB

5.1.3.3 Iodine Treatment

In 2009, a treatment pilot study was initiated to evaluate the removal of iodine-129 by the injection of silver chloride into the plume. Ultra-fine ground silver chloride particles were mixed with domestic water to form an aqueous suspension and then injected into the water table using wells FIB27R, FIB-28R, and FIB29R. Approximately 4,277,515 L (~1.13M gal) of suspension (45.4 kilograms [kg] 100 pounds [lb] of silver chloride) were injected. The pilot test demonstrated that a suspension of silver chloride could successfully be dispersed in the aquifer and that silver chloride could reduce the concentration of iodine-129. Levels of iodine-129 were reduced between 55 and 70%.

In 2011, a Temporary Authorization was approved to deploy silver chloride technology at the central gate as part of the corrective action. During August and September 2011, per an approved UIC permit, an aqueous suspension of ultra-fine ground silver chloride particles was injected into the UAZ of the UTRA. Seven temporary injection points, installed by a cone penetrometer technology (CPT) rig, were used to place the silver chloride into the subsurface. Depth discrete placement of the amendment with the CPT rig was used to achieve better distribution in the subsurface versus the traditional wells used in the 2009 pilot study. The 2011 injection locations are shown in Figure 5.

The silver chloride concentrate consisted of ground silver chloride particles suspended in a food grade propylene glycol carrier fluid. This concentrated material was diluted with domestic water prior to injection into the subsurface. The dilution factor was roughly 460:1 (domestic water to silver chloride concentrate). The resulting concentration of silver chloride in the diluted solution was ~130 milligrams per liter (mg/L).

The treatment zone (7.6- to 15.2-m [25- to 50-ft] below ground surface [bgs]) was established from the top of the water table down to the tan clay confining zone. Injection was performed starting at the bottom of the aquifer and proceeded upward placing a specific volume of amendment into each zone at 0.76-m (2.5-ft) intervals. The minimum quantity of diluted solution injected at each of the seven injection locations was 40,882.4 L (10,800 gal). Overall, 291,143.6 L (76,912 gal) were injected across the seven locations. This equates to ~29 kg (~64 lb) of metallic silver placed into the subsurface.

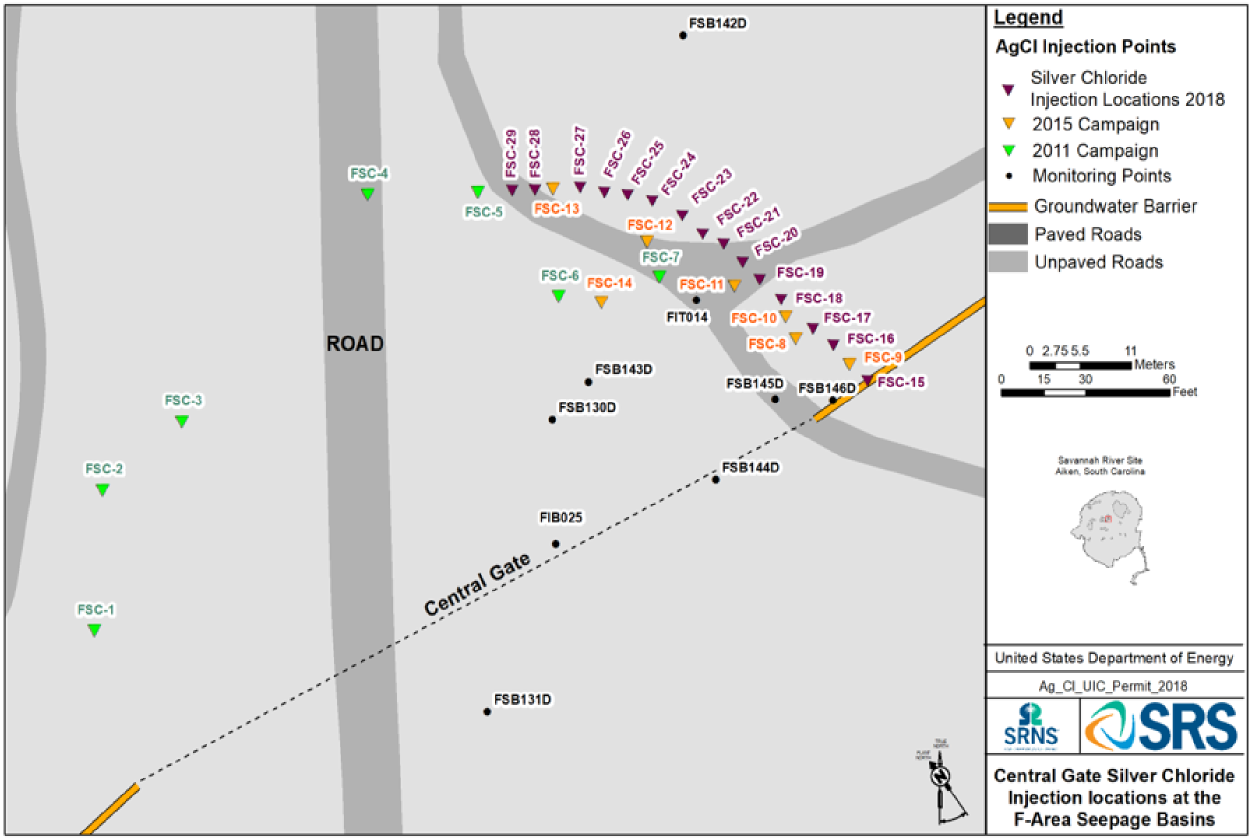


Figure 5. F-Area HWMF Silver Chloride Injection Layout

SRS evaluated the effectiveness of the treatment zone at the central gate on iodine-129. A reduction of iodine-129 was observed in two of the monitoring wells (FSB130D and FIT14) closest to the injection zone. The degree of reduction due to the silver chloride ranged from 50 to 75%. The monitoring data also demonstrated that the silver chloride particles do not migrate a significant distance away from the treatment zone. Data from monitoring wells located further from the injection zone were ambiguous due to changing hydrology (and plume movement) through the central gate resulting from installation of an extension to the adjacent groundwater barriers a few months before the injection. Due to shifting groundwater flow, iodine-129 increased at one of the monitoring wells. This indicated a need for additional treatment of iodine-129 at other areas within the central gate.

Based on this first deployment of silver chloride at the central gate, SRS concluded that 1) silver chloride effectively sequesters iodine-129 in situ, 2) the silver chloride particles do not migrate a significant distance away from the treatment zone, 3) the barrier extension improved control of the plume (increased water volumes and contaminant mass going through the central gate), and 4) additional silver chloride is needed at the central gate to establish a more effective treatment zone for iodine-129.

During the placement of silver chloride in 2011, only half of the permitted and purchased quantity (i.e., ~291,476.7 L [77,000 gal] diluted with potable water) was injected. In 2015, SRS injected the remaining quantity of silver chloride in the central gate in order to boost the treatment effectiveness. During June and July 2015, 364.9 L (96.4 gal) of silver chloride concentrate were injected into the UAZ on the eastern side of the central gate. Injection of the material was performed in the same manner as in 2011 using seven temporary injection points. Including the water used to inject the material, a total of 362,642.4 L (95,800 gal) was injected. The 2015 injection locations are shown on Figure 5.

Based on the monitoring data collected, a reduction of iodine-129 has been observed in wells near the injection locations. Specifically, wells FSB 143D, FSB 144D, FSB 145D, FIT 14, and FIB 26 measured lower concentrations of iodine-129 following the injection of silver chloride. The degree of reduction ranged from 25% to 65%. There was no change in iodine-129 at the up-gradient well FSB 142D.

Based on the pilot test and the two rounds of injection at the central gate, silver chloride has been demonstrated effective at sequestering iodine-129 in situ. Variations in the degree of reduction have been observed during each deployment. Monitoring points closest to the injection show the greatest reduction in concentration and wells further away show less of an impact. In 2018, a UIC Permit was approved for the third deployment of silver chloride at the F-Area HWMF. This deployment of silver chloride was again placed at the central gate with the intent to augment previous silver chloride injections and increase robustness through further development of a permeable in situ treatment zone of silver chloride reactive particles along the eastern half of the central gate, where the majority of the iodine-129 flux occurs. A total of 15 uniformly spaced direct-push injection points were used to inject 624.6 L (165 gal) of concentrated silver chloride. The spacing between the injection points for this injection campaign was based on an expected distribution of silver chloride particles between 1.2 to 2.4 m (4 to 8 ft) from the injection location. Injections for the third deployment of silver chloride began in September 2018 and were completed in May 2019. The injection locations are shown on Figure 5.

In 2019, SRS prepared and executed a strategy to assess the distribution of silver chloride particles in the subsurface resulting from the 2019 injections. To assess the distribution, 10.2-cm (4-in.) diameter soil cores were collected from the injection zone at four locations along a transect extending upgradient away from one of the 2019 injection locations (FSC-24). Cores were collected at distances of 0.46-m (1.5-ft), 1.2-m (4-ft), 2.4-m (8 ft), and 4.6-m (15-ft) stepping away from the location where silver chloride was injected at FSC-24. Intervals of the core were identified in the field to be sampled and analyzed for silver in an attempt to assess the distribution of silver chloride in the subsurface after injection. Results from the sampling showed the majority of the injected silver is located within 0.46 m (1.5 ft) of the injection location and within the top of the injection zone (11- to 1.2-m [36- to 40-ft]) bgs and the bottom of the injection zone (15.2- to 18.3-m [50- to 60-ft] bgs).

Very little silver was detected from 12.5- to 16.8-m (41- to 55-ft) bgs. This is likely due to heterogeneity of the geology in the area. An estimated 54% of the silver injected remained within 1.2 m (4 ft) of the injection zone, but an estimated 22% of the silver injected was located between 1.2 and 2.1 m (4 and 7.4 ft) from the injection zone. Silver was not detected in a significant number of samples from the core located 4.6 m (15 ft) from the injection location. Results from the study show that the silver chloride is being distributed between 1 and ~2.4 m (8 ft) from the injection locations which is consistent with the design spacing of injection locations used in the 2018-2019 campaign.

Iodine-129 remains the only constituent consistently greater than the GWPS (other than tritium) in FMB (Phase 2b F-Area HWMF Corrective Action Goal). The 2021 modifications to the Permit revised the corrective action goal date to reduce the concentration of iodine-129 in FMB to levels that are less than the GWPS to January 14, 2032 (note: the Permit includes an agreed-to-understanding with SCDHEC that SRS may request an extension to this date as part of the permit renewal process, e.g., in the event SRS needs additional time for its remedial technologies to work to achieve remedial goals). SRS is implementing silver chloride technology to reduce the concentration of iodine-129 in groundwater at F-Area HWMF and in FMB and continues to evaluate the need for additional silver chloride injection(s) in the future.

5.1.3.4 Tritium Flux

Overall, the flux of tritium to FMB from F-Area HWMF has been declining since 2003. Flux is calculated from the monthly paired tritium concentration and flow measurements at strategic locations (to isolate sources) within FMB. The monthly fluxes are then averaged over a 1-year period to account for seasonal variability. The total tritium flux to FMB from F-Area HWMF for calendar year 2022 was 88 curies per year (Ci/yr), a reduction of ~87% compared to the baseline flux in 2000 (660 Ci/yr in 2000 versus 88 Ci/yr in 2022). A combination of radioactive decay, reduced flow behind the barriers, and increased travel times likely led to this decrease in flux. The annual flux from the F-Area HWMF to FMB since 2003 is tabulated in Table 7.

Table 7. F-Area HWMF Annual Tritium Flux to FMB

Year	Tritium Flux *(Ci/yr)*	Reduction*
2000	660	NA
2003	352	47%
2004	352	47%
2005	254	61%
2006	177	73%
2007	173	74%
2008	168	74%
2009	115	82%
2010	240	64%
2011	117	82%
2012	141	79%
2013	243	63%
2014	256	61%
2015	195	70%
2016	187	72%
2017	146	78%
2018	133	80%
2019	122	81%
2020	159	76%
2021	106	84%
2022	88	87%

*Percent reduction from baseline established in year 2000.

5.1.4 Status of Technology Demonstration

The Savannah River National Laboratory (SRNL) along with the Pacific Northwest National Laboratory (PNNL) is performing a technology demonstration for the United States Department of Energy (USDOE) at the F-Area HWMF beginning in calendar year 2022 with ~5 years of data collection. SRNL and PNNL completed test measurements in August 2021 to obtain conductivity data of the low-permeability clay layer that serves as a design input for the deployment of the larger technology demonstration system array. This technology demonstration will evaluate the application and feasibility of Electrical Resistivity Tomography (ERT) as a monitoring technology for capped waste units and its potential application elsewhere within the USDOE complex. The purpose of the study is to evaluate the application of ERT as a non-intrusive, long-term monitoring technology of the RCRA cover system performance. ERT is a geophysical measurement tool that can image the electrical conductivity distribution of the subsurface. For this application, ERT will be used to monitor subsurface conductivity to identify areas where soil moisture is changing beneath the cap's low-permeability clay layer. The images taken of soil moisture content over an estimated 5-year study period can be compared and used to diagnose anomalous conditions such as a breach or failure of the low-permeability layer of the cap system. Pursuant to discussions with SCDHEC providing insight as to how cap integrity would be maintained and not compromised during the installation of the ERT system, SCDHEC (RCRA) acceptance was provided to allow SRS to proceed to implement this technology at the F-Area HWMF Seepage Basin cap (Basin F-3). Subsequently, the ERT system was installed in July 2022 and consists of 8 shallow trenches that were created across the cap to bury the cables containing 128 electrodes into the top 15.2 cm (6 in.) of soil. The system covers the north end of Basin F-3. The electrodes are installed in the topsoil layer and do not penetrate the much deeper drainage layer and protective barrier that begins at 61-cm (24-in.) below the surface.

The collection of ERT measurements began on September 28, 2022. Changes in soil moisture beneath the clay cap can be investigated by collecting time-lapse measurements of bulk soil conductivity using the ERT system. An ERT measurement is collected by inducing current flow between two electrodes and measuring the resulting voltage across two different electrodes. Many such measurements with different electrode pairs are collected during an ERT survey to produce a subsurface ERT image. The initial survey consisted of 9,195 individual measurements, which required approximately 1 hour to collect. The initial survey on September 28, 2022, is considered the baseline survey. A comparison of subsequent surveys against the baseline survey can identify changes in soil bulk electrical conductivity beneath the clay cap. Changes to bulk electrical conductivity are anticipated to be governed by precipitation-driven changes in moisture content. Thus, ERT imaging can detect changes in moisture content of soils beneath the clay cap.

Since September 28, 2022, ERT surveys have been scheduled every 6 hours. In early June 2023, the electrical equipment controlling the ERT system failed, and the system went offline. SRS is currently waiting to receive replacement control equipment from the

USDOE PNNL. SRS will provide an evaluation of the ERT results in the 2023 CAR after a years' worth of data have been acquired.

5.2 H-Area HWMF Corrective Action Program

The current corrective action for the H-Area HWMF includes an engineered low-permeability cap over the seepage basins, an engineered groundwater barrier system and a base injection system in the wetlands of FMB.

SRS completed installation of the engineered groundwater barriers at H Area in 2004. The groundwater barriers are the replacement remedial action for the groundwater pump and treat system. The engineered barriers were designed to reduce the flow of groundwater through the residual contamination beneath the waste unit in order to better manage tritium and metal releases to surface waters. Upon installation of the barriers, the water levels adjacent to the walls changed as the groundwater flow patterns adjusted. Groundwater levels on the up-gradient side of the walls increased, levels down gradient of the walls decreased, and the horizontal gradient beneath the waste unit flattened.

SRS constructed a base injection system at H Area in 2010 to augment the remedial action. The injection system provides treatment for the acidic plume and metals within the wetlands prior to groundwater discharging to FMB. Initial operations began in September 2010 and were completed in June of 2013. A second injection campaign began in July 2019 and was completed in May 2020.

In 2011, enhancements to the cover system over the basins were completed. Specifically, the drainage system, consisting of concrete lined swales, was re-graded and new concrete installed to facilitate storm water management. In addition, modifications to tie the drainage layer from the cap to the swales were completed.

5.2.1 Surface Water Monitoring at the Seeplines

SRS has surface water monitoring stations within the seeplines below the closed H-Area Seepage Basins. These monitoring stations support corrective action effectiveness determinations for the Phase 2b corrective action goals of the Permit. SRS installed four monitoring stations in 2010 and incorporated the stations into the quarterly monitoring program in 2011. In 2015, SRS discussed with the SCDHEC the addition of two more surface water sample stations within the wetlands (one new location in F Area and one in H Area). In 2016, SRS submitted a revised permit application that added the additional surface water stations to the monitoring program.

Similar to the monitoring strategy used for surface water in FMB and the wetland piezometers, during the third quarter of each year, the seepline surface water stations are analyzed for the full suite of GWPS constituents. During the remaining quarters, the stations are analyzed for a reduced suite of GWPS constituents determined based on the analytes detected above the GWPS during the full suite sampling event. If a constituent is not detected during the third quarter sampling event, it is excluded from further analyses during the remaining quarters. However, gross alpha, nonvolatile beta, tritium, nitrate-nitrite, and mercury are sampled for during all quarterly events. The sample results are presented in Appendix B, Table B-4, Volume I, and the locations are shown on Map 1A, Volume II.

In 2022 at the H Area seepline (Phase 2b corrective action goals), iodine-129, nonvolatile beta, strontium-90, and tritium exceeded the GWPS in surface water. Iodine-129 was the most widespread constituent in surface water at the wetlands, exceeding the GWPS at each of the five locations. The maximum concentration of iodine-129 (13.6 pCi/L) was measured at location HAS-106. Although detected above the GWPS at the seepline, iodine-129 is below the GWPS in FMB surface water adjacent to the H-Area HWMF.

5.2.2 Effectiveness of the H-Area HWMF Corrective Action Program (IVC.B.11.b.x)

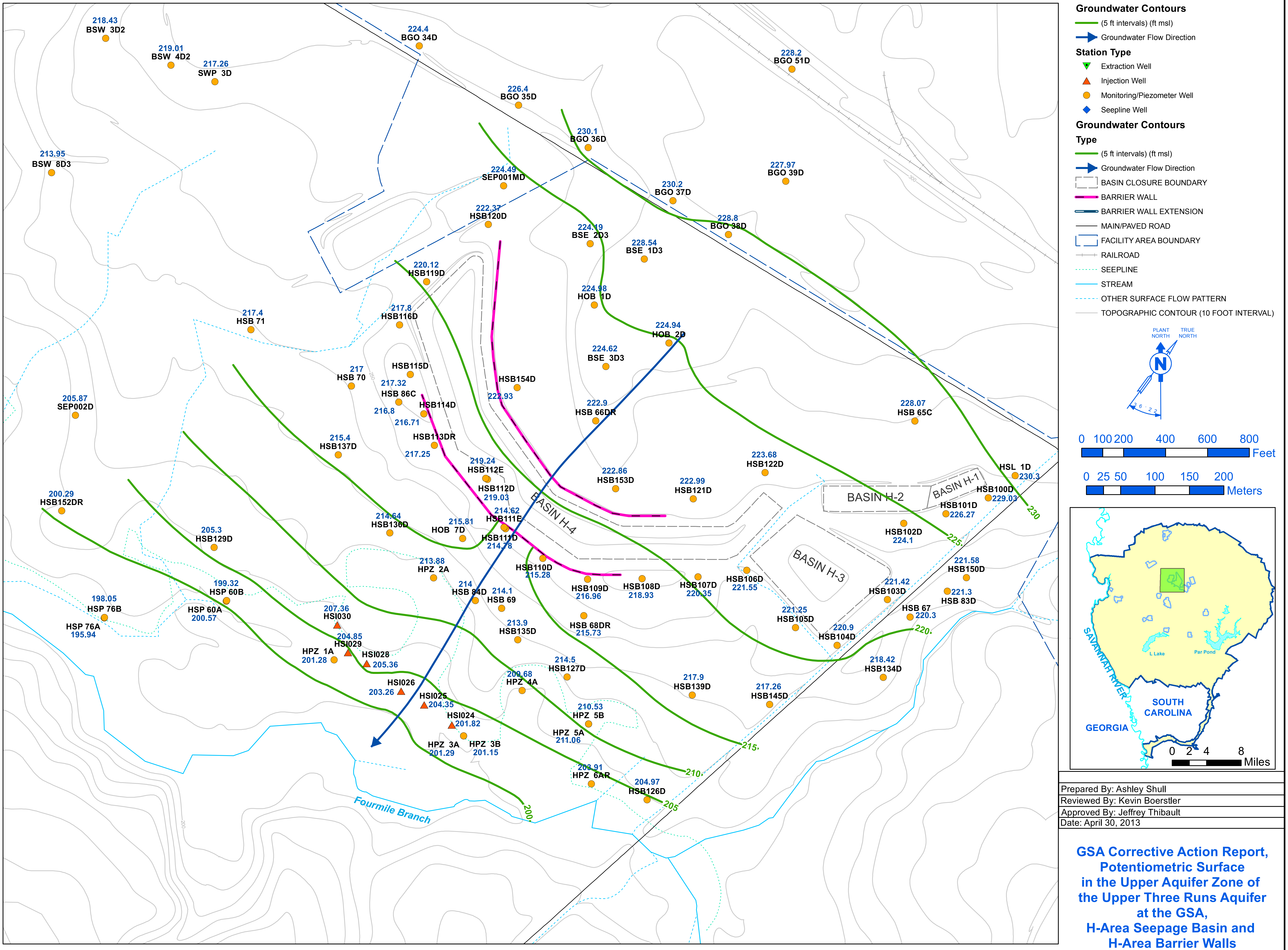
5.2.2.1 Groundwater Barriers

In 2004, SRS installed two groundwater barriers at the H-Area HWMF. One barrier was placed up gradient of Basin H-4 and a second barrier was placed down gradient of the basin. Approximately 963.2 linear meters (~3,160 linear feet) of low-permeability walls were installed from just below the ground surface to the base of the UAZ. Construction utilized an in-situ soil mixing technique to blend pozzolan cement and attapulgite clay with native soils. A small percentage of caustic was also added to the cement to facilitate curing. Upon hardening, the resulting soil/cement mixture formed a low-permeability subsurface barrier ~0.85-m (~2.8-ft) thick on average. Configuration of the engineered barriers is shown on the plume maps in Volume II and on Figure 6.

Placement of the barriers altered groundwater levels near the walls. After installation of the barriers, water levels on the up-gradient side increased between 0.9 to 1.8 m (3 to 6 ft). Down gradient of the barriers water levels declined 0.3 to 0.6 m (1 to 2 ft).

Installation of the barriers has resulted in a flattening of the water table on the up gradient and down gradient sides. As water backs up behind the barriers, the head level rises, resulting in a smaller horizontal flow gradient. Due to lower gradients, groundwater travel times at the seepage basins have increased, resulting in reduced transport of contamination to surface water and seeplines, and added time for radioactive decay. Figure 6 shows the potentiometric surface for the UAZ.

Figure 6. H-Area HWMF Groundwater Barriers and Potentiometric Surface



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5.2.2.2 Base Injection

In 2010, SRS constructed and commenced operations of a base injection system at the H-Area HWMF. The primary objective of the base injection technology at H Area is to reduce concentrations of metals and metallic radionuclides in the groundwater beneath the wetlands of FMB. Previous injections at the F-Area HWMF demonstrated that adjusting the acidic groundwater plume to neutral or background pH levels results in reduced concentrations of many metals and metallic radionuclides.

The injected solution consists of sodium hydroxide and sodium bicarbonate mixed with domestic water to a pH of ~10. The base solution provides treatment of the acidic groundwater beneath the wetlands and is an integral component of the groundwater barrier remedial system.

SRS routinely monitors the effects of base injection and evaluates the need for additional base. The previous injection campaign at H Area began in July 2019 and was completed in May 2020. At H Area, operation of the base injection system was not required during 2022 (Table 8). Adjustment of pH has been achieved locally at H Area and SRS is observing the effects of the base injection prior to potentially injecting additional base. Since 2011, SRS has injected ~227,881,800 L (~60.2M gal) of base solution at H Area.

The engineered barriers and base injection continue to reduce concentrations of cations and metallic radionuclides down gradient of the injection areas in the seeplines. Although concentrations of many constituents are now below GWPS limits in surface water at the seepline, some constituents are still above GWPS limits. To facilitate meeting the corrective action goals at the F-Area HWMF, SRS is investigating potential mineral amendments that could be used in the seepline to immobilize contaminants in situ prior to discharging to surface water. See discussion in Section 5.1.3.2 for information on the amendment studies. If the studies identify promising amendments for a treatability study, one would be proposed at that time. SRS will continue to implement base injection per the approved corrective action plan while evaluating the potential use of amendments to assist with achieving corrective action goals at the seeplines of FMB.

Table 8. H-Area Base Injection Flow Rate 2022

	January		February		March		April		May		June		July		August		September		October		November		December		12-month Well Volume
Well	Tot	Avg	Tot	Avg	Tot	Avg	Tot	Avg	Tot	Avg	Tot	Avg	Tot	Avg	Tot	Avg	Tot	Avg	Tot	Avg	Tot	Avg	Tot	Avg	
Number	gal	gpm	gal	gpm	gal	gpm	gal	gpm	gal	gpm	gal	gpm	gal	gpm	gal	gpm	gal	gpm	gal	gpm	gal	gpm	gal	gpm	gal
HSI-001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-002	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-004	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-005	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-006	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-010	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-017	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-023	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-024	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-025	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-026	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-027	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-028	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-029	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
HSI-030	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Monthly Volume	0		0		0	0	0		0		0		0		0		0		0		0		0		0

5.2.2.3 Tritium Flux

Overall, the flux of tritium to FMB from H-Area HWMF has been declining. Flux from H-Area HWMF to FMB is calculated in the same way as F-Area HWMF, i.e., from the monthly paired tritium concentration and flow measurements at strategic locations (to isolate sources) within FMB since 2003. The monthly fluxes are averaged over a year period to account for seasonal variability. The total tritium flux to FMB from H-Area HWMF for calendar year 2022 was ~19 Ci/yr, a reduction of ~92% compared to the baseline flux in 2000 (240 Ci/yr in 2000 versus 19 Ci/yr in 2022). A combination of radioactive decay, increased travel times, and the presence of the ORWBG cap likely contributed to this decrease in flux. The annual flux from the H-Area HWMF to FMB since 2003 is tabulated in Table 9.

Table 9. H-Area HWMF Annual Tritium Flux to FMB

Year	Tritium Flux *(Ci/yr)*	Reduction*
2000	240	NA
2003	221	8%
2004	147	39%
2005	114	52%
2006	116	52%
2007	81	66%
2008	90	62%
2009	67	72%
2010	50	79%
2011	56	77%
2012	44	82%
2013	50	79%
2014	52	78%
2015	54	77%
2016	42	82%
2017	41	83%
2018	39	83%
2019	42	82%
2020	49	80%
2021	34	86%
2022	19	92%

*Percent reduction from baseline established in year 2000.

5.3 Description of the MWMF Corrective Action Program

In accordance with the agreement with the SCDHEC, each of the four plume areas are addressed under separate corrective actions.

SWP

The SWP was the first of the four plume areas addressed for corrective action under the 2000 RCRA Permit Renewal Application. The 2013 RCRA Permit Renewal Application is the current CAP for the SWP. On or before September 15, 2023, SRS will submit the 2023 RCRA Permit Renewal Application for the MWMF. The SWP is the area to the south of the western section of the ORWBG. This plume extends from the ORWBG to FMB, with the primary contaminants consisting of tritium, TCE, and 1,4-dioxane. These groundwater contaminants are currently discharging to the surface at a natural seepage area north of FMB at the OFED.

The SWP Module of the Permit, which included approval of the CAP, was issued on September 30, 2003, and became effective on October 30, 2003. This has been superseded by the 2014 Permit Renewal issued by the SCDHEC on February 11, 2014, and last modified in November 2021. This modification became effective on December 15, 2021.

The SWP CAP is in Phase 1 with the following objectives:

- reduction of tritium flux from the SWP Area to FMB by 70% using phytoremediation and natural attenuation (radioactive decay)
- reduction of volatile organic compound (cVOC) and 1,4-dioxane concentrations using phytoremediation and natural attenuation
- natural attenuation for mercury
- minimization of human exposure to constituents of concern in the SWP area using institutional controls (e.g., restricted access to the general public)

The potential for human exposure to contaminated groundwater and seepline areas in the SWP is managed to prevent exposure of on-site workers during sampling activities. These exposures are mitigated through the use of personal protective equipment and routine training regarding the handling of contaminated sample media. Unauthorized access to seepline areas by on-site workers is restricted through the Site Use/Site Clearance Program. SRS restricts access to the general public and trespassers using security procedures and equipment, 24-hour surveillance systems, artificial and natural boundaries, control entry systems, and warning signs in place at the SRS boundary.

In 2004, mercury was detected in one POC well (BGO 33C) with values near the GWPS (2 ug/L). Consequently, mercury has been added to the GWPS for the SWP and passive natural attenuation was selected as the remedial component for mercury in the UAZ and LAZ.

The installation of a low-permeability cap at the ORWBG was completed, in accordance with the GSACU signed ROD, in 2007. The Revision 1 PCR/CMIR/RACR was approved by the USEPA on May 21, 2008, and the SCDHEC on May 22, 2008, respectively. Final USEPA concurrence was received on June 25, 2008. The low-permeability cap is expected to provide source control for the SWP mercury plume and other constituents (iodine-129, technetium-99, 1,4-dioxane), by reducing infiltration and flux to the groundwater.

SRS monitored the BSW, BGO, and SWP wells for mercury, to better determine plume attenuation. Sample results indicate that mercury is above the GWPS in only two wells in the proximal and central areas of the plume. However, mercury is not affecting the pond (< estimated quantitation limit [0.2 ug/L]). All the exceedances occur in the LAZ of the UTRA. In 2022, the maximum result was 4.5 ug/L at SWP 1C. During a detailed evaluation of mercury in 2005, there were no exceedances of filtered and unfiltered mercury in the LAZ or the UAZ of the UTRA at the distal portion of the SWP near FMB, which indicates significant mercury attenuation (Figure 7).

SRS will continue to monitor the natural attenuation of mercury in the SWP, and the benefit achieved by installation of a low-permeability cap on the ORWBG.

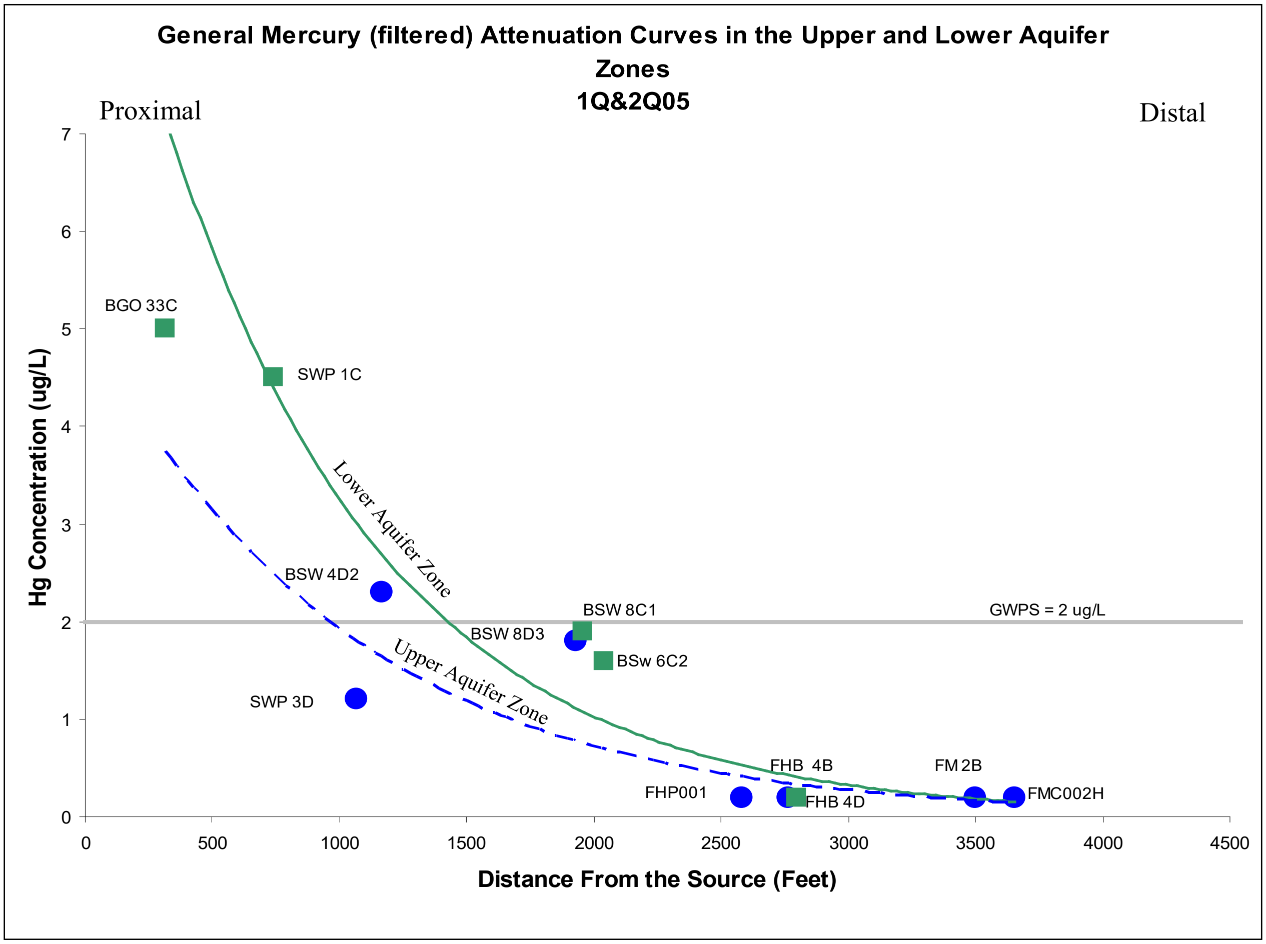


Figure 7. MWMF General Mercury Attenuation Curves (UAZ and LAZ)

SEP

The 2013 RCRA Permit Renewal Application (Revision 2) is the current CAP for the SEP. On or before September 15, 2023, SRS will submit the 2023 RCRA Permit Renewal Application for the MWMF. The SEP is the area to the south of the eastern section of the ORWBG. This plume extends from the ORWBG and comingles with the H-Area HWMF plume. The primary contaminants include tritium and TCE.

The SEP Module of the Permit is included in the November 30, 2021, modification of the 2014 Permit Renewal, which was issued on February 11, 2014. This modification became effective on December 15, 2021.

The SEP CAP is in Phase 1 and includes the following main objectives:

- reduction of cVOC and tritium (radioactive decay) concentrations using natural attenuation

In order to achieve these objectives, the following actions have been defined in the Corrective Action Program:

- low permeability cap over the ORWBG (source control)
- passive natural attenuation of cVOCs and tritium in the original SEP area within the LAZ sourced near monitoring wells BGO-36, BGO-37, and BGO-38

The CAP also includes a contingent correction action (e.g., a reactive zone composed of edible oil) to be implemented in the LAZ (near the POC) to degrade cVOCs. This will be implemented if cVOC concentrations reach unacceptable levels in monitoring wells BGO-35C, BGO-49C, and HIW-5MC. Levels would be unacceptable when cVOC releases have the potential to impact surface water in FMB (greater than the MCL) or create a large high concentration plume. SRS will evaluate the need to implement this contingency remedy if concentrations of TCE in wells exceed 1,000 ug/L in the vicinity of the SEP.

The SEP is located immediately up gradient of the H-Area HWMF. Prior to the H Area WTU injection operations, the tritium concentrations in the UAZ of the UTRA were slightly above the GWPS with a maximum concentration of ~43 pCi/mL. Hot spots in the LAZ of the UTRA were present during 1997 and ranged from 200 pCi/mL to 260,000 pCi/mL (BGO 37C) (Figure 8). Operation of the H Area WTU injection wells between 1997 and 2003 has influenced the tritium concentrations in the SEP, as documented in previous CARs. Since the 1990s, tritium concentrations have decreased significantly near the source (ORWBG) in the LAZ of the UTRA. However, the concentrations remain above the GWPS. In 2005, well BGO 37C was ~7,350 pCi/mL. The concentration at this well continues to be relatively high (4,860 pCi/mL and 4,070 pCi/mL during the first and third quarter of 2022, respectively) but appears to have stabilized and has followed an overall decreasing trend since 2013. Tritium in the LAZ at the edge of the ORWBG increased following construction of the low-permeability cap. The rise in concentration is believed to be due to the reduction in recharge due to the cap, and in previous years, to the lower-than-normal precipitation pattern. Reduced recharge of the LAZ beneath the cap can result in higher concentrations because there is less dilution. Along with reduced recharge, the cap is expected to reduce the migration of contamination from the buried waste to the groundwater. The tritium concentrations in well BGO 37C are beginning to decrease as shown in the time series plots in Appendix E.

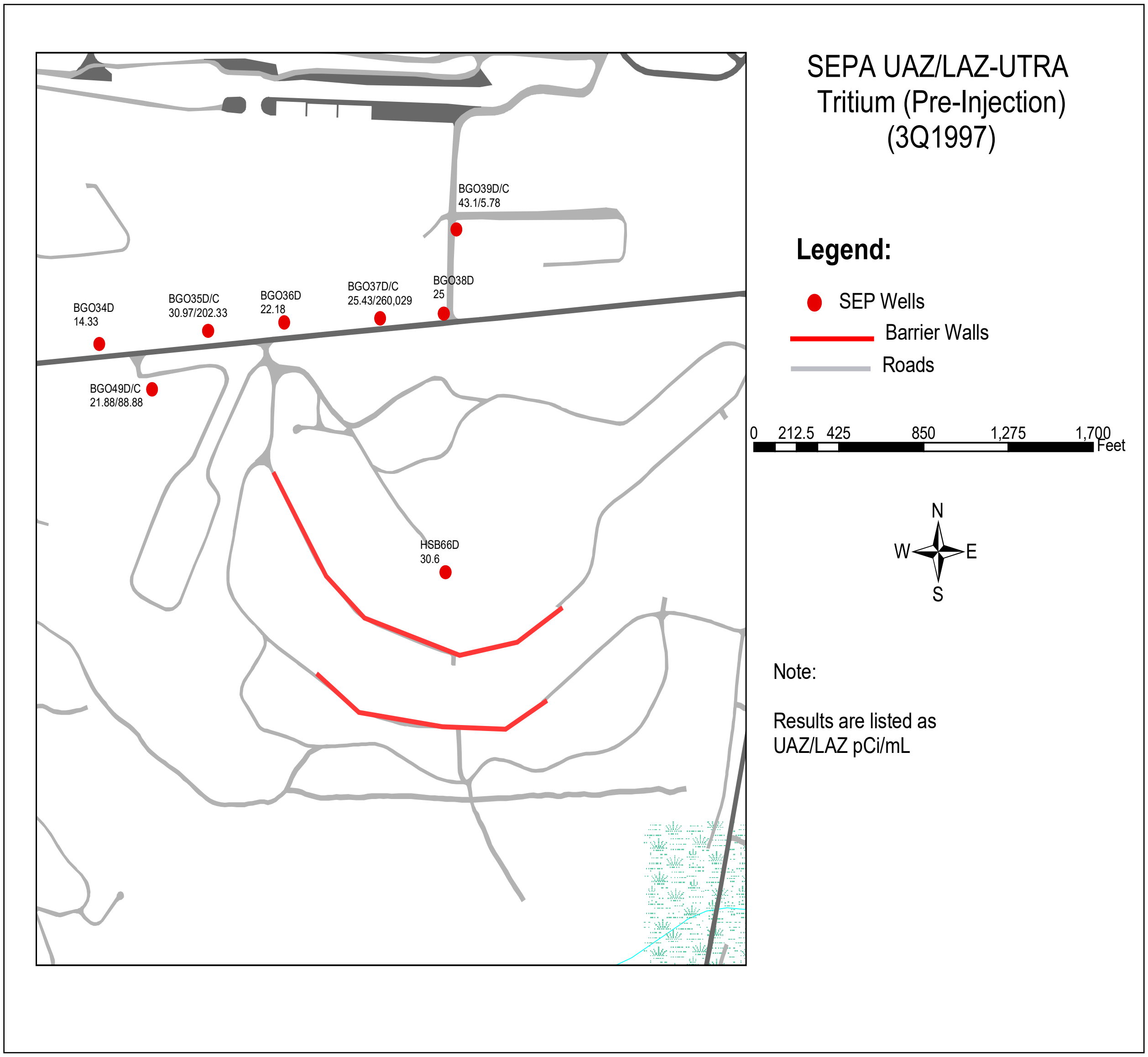


Figure 8. MWMF Southeast Plume Area (UAZ/LAZ-UTRA) Tritium Concentration Pre-Injections

Down gradient from the ORWBG at assessment wells in the LAZ (close to BGO 37C and the LAZ plume from the H Area WTU injection), tritium concentrations ranged from 750 pCi/mL to 3,660 pCi/mL in 2005. The 2022 results show that concentrations at these wells have decreased over time. The assessment monitoring well that is further down gradient of the injection plume (BSE 3C) was low in concentration (~53 pCi/mL) in 2005. This well continues to be low in concentration (144 pCi/mL) relative to concentrations closer to the ORWBG, thus demonstrating the slow travel time in the LAZ as determined in 2005 (Figure 9).

The original CAP was submitted for the tritium in the SEP in Revision 6 of the 2000 Part B Renewal Application. The CAP assumed that the SEP tritium would be captured by the H Area WTU extraction well network (hydraulic control). However, the H Area WTU was placed in dry lay-up during October 2003 and has been replaced by a subsurface barrier system immediately up gradient and down gradient of Seepage Basin H-4 and extending down through the UAZ of the UTRA to the Tan Clay Confining Zone. The barriers will have no effect on the LAZ of the UTRA. However, the engineered barrier will create a longer flow path allowing more time for tritium decay in the UAZ of the UTRA between the SEP and FMB. The travel time from the SEP to FMB in the LAZ of the UTRA is naturally slower than the UAZ, due to the low aquifer hydraulic conductivity. This allows for considerable decay in the LAZ. Estimates indicate that the travel time in the LAZ of the UTRA will allow for eight to ten half-lives, thereby reducing a concentration of 7,350 pCi/mL to 20 pCi/mL (Figure 10).

Construction of the low-permeability cap at the ORWBG was completed in accordance with the GSACU signed ROD. The cap is expected to reduce infiltration and tritium flux in the SEP. SRS believes that radioactive decay along with the long travel time and the source control for the ORWBG will be sufficient to manage the tritium releases associated with the SEP and that natural attenuation with monitoring is an effective remedy. SRS will continue to monitor tritium in the SEP to verify the benefit achieved by installation of the H Area groundwater barrier and a low-permeability cap on the ORWBG.

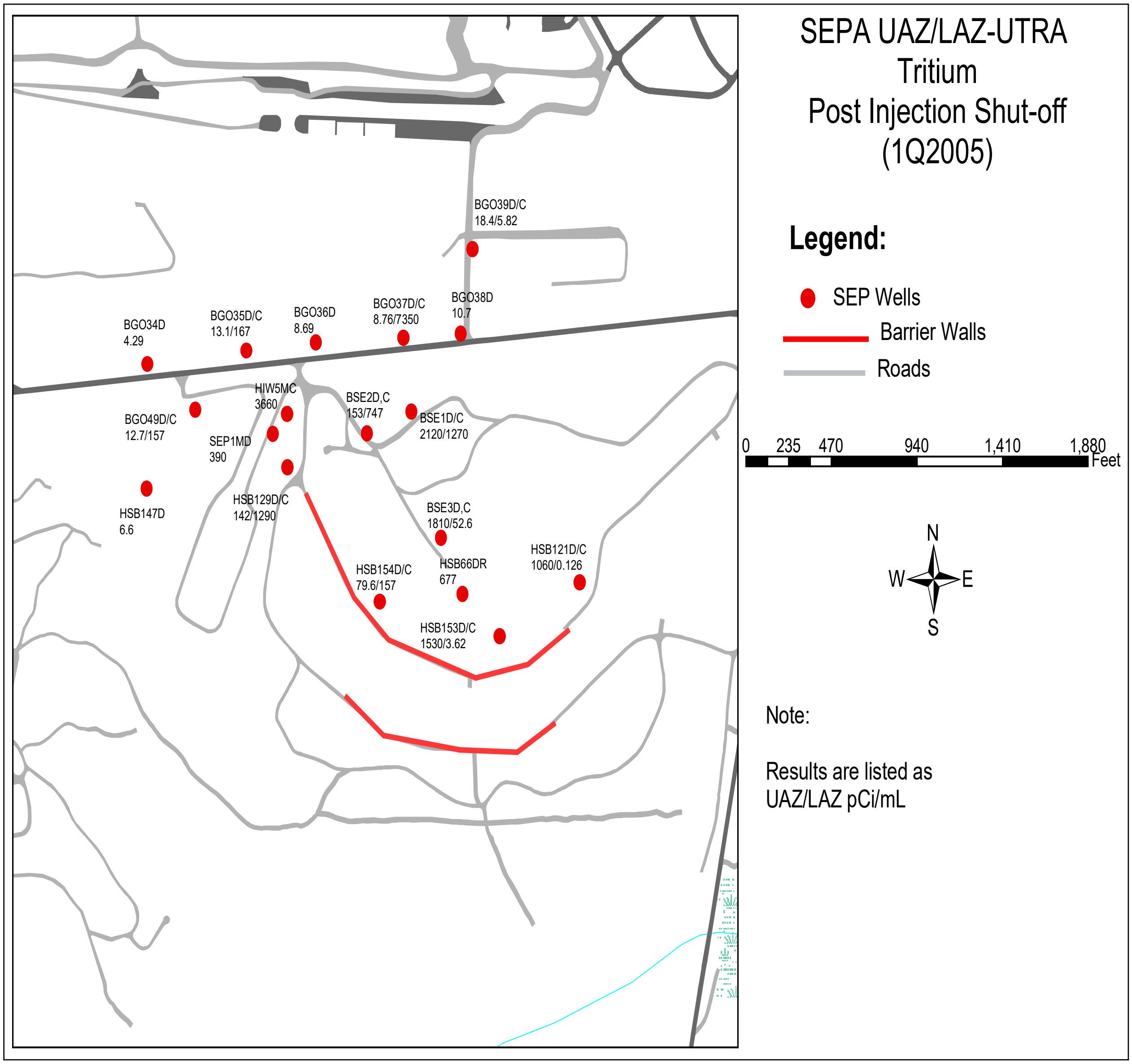


Figure 9. MWMF Southeast Plume Area (UAZ/LAZ/UTRA) Tritium Concentrations Post Injection Shut-Off

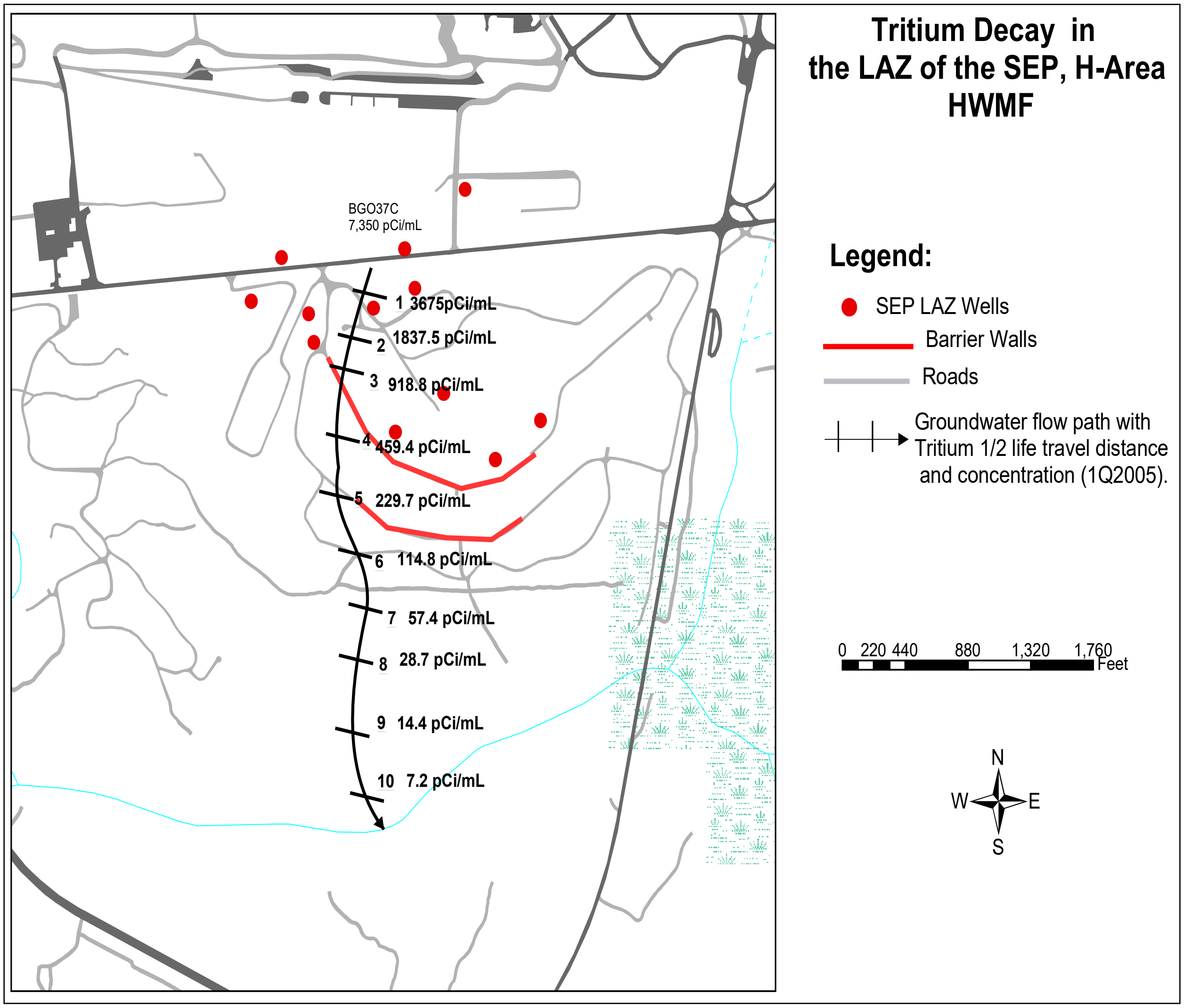


Figure 10. Tritium Decay in the LAZ of the Southeast Plume Area and the H-Area HWMF

NEP

The 2013 RCRA Permit Renewal Application (Revision 2) is the current CAP for the NEP. On or before September 15, 2023, SRS will submit the 2023 RCRA Permit Renewal Application for the MWMF. The NEP is the area to the north of the eastern section of the MWMF and LLRWDF. This plume is sourced mainly from the MWMF/LLRWDF. The primary contaminants include tritium and TCE. Tritium is emanating from the northeast corner of the MWMF and is discharging at low concentrations to seeps that feed tributaries to Upper Three Runs Creek. Tritium is not expected to exceed the GWPS at the sample stations in Upper Three Runs Creek down-stream of the NEP discharge zone.

The NEP Module of the Permit is included in the November 30, 2021, modification of the 2014 Permit Renewal, which was issued on February 11, 2014. This modification became effective on December 15, 2021.

The NEP CAP is in Phase 1 and includes the following main objectives:

- reduction of cVOC and tritium (radioactive decay) concentrations using natural attenuation

In order to achieve these objectives, the following actions have been defined in the Corrective Action Program:

- low permeability caps over the MWMF and LLRWDF (source control)
- passive natural attenuation of cVOCs and tritium (radioactive decay) in the UAZ and LAZ
- optional subsurface engineered low-permeability barrier to redirect groundwater flow direction and significantly increase travel time for radioactive decay of tritium; to be implemented if tritium concentrations reach unacceptable levels in groundwater on the north and northeast sides of the MWMF and LLRWDF. Levels would be unacceptable when tritium releases have the potential to impact surface water in Upper Three Runs Creek (above 20 pCi/mL), or create a large high concentration plume
- institutional controls for seepline areas where low concentration tritiated water is currently present

The option to install a subsurface engineered barrier was developed to address the potential failure of containment measures associated with the Mound burial. This burial from the DOE Mound Laboratory is estimated to contain a significant amount of the total tritium inventory buried at the MWMF/LLRWDF. If a significant amount of tritium were to leach to groundwater from this source, the likely result would be tritium concentrations several orders of magnitude higher than currently observed in the plume. At this time, tritium levels and concentration trends measured in groundwater at the plume definition wells and in the POC wells at the edge of the MWMF low-permeability cap remain relatively stable from year to year indicating a significant release of tritium from the Mound burial has not occurred. Based on monitoring results from the well network, seeplines, and surface water stations, SRS does not believe implementing the optional barrier is warranted at this time.

The potential for human exposure to contaminated groundwater and seepline areas in the NEP is managed to prevent exposure of on-site workers during sampling activities. These exposures are mitigated through the use of personal protective equipment and routine training regarding the handling of contaminated sample media. Unauthorized access to seepline areas by on-site workers is restricted through the Site Use/Site Clearance Program. SRS restricts access to the general public and trespassers using security procedures and equipment, 24-hour surveillance systems, artificial and natural boundaries, control entry systems, and warning signs in place at the SRS boundary.

The NEP emanates mainly from the northeast corner of the MWMF. The migration of the plume is north and northeast toward Crouch Branch and Upper Three Runs Creek.

Characterization data from the mid-1990s identified a relatively extensive tritium plume and a smaller cVOC plume in the UAZ and LAZ. The extent of the tritium plume is larger than the cVOC plume due to the greater mobility of tritium in the environment. The UAZ generally contains higher concentrations than the LAZ. The early characterization data indicated the highest tritium activity in UAZ well BGO 6 (greater than 5,000 pCi/mL) and a TCE concentration of over 200 ug/L in the same well. In 2022, the highest concentration of tritium occurred in BGO 5D (3,260 pCi/mL) and the maximum TCE concentration in

BGX 2D (37.6 ug/L). Overall, current data are much lower than historic maximum concentrations demonstrating the plumes are continuing to shrink over time. Current plume maps for tritium (Maps 6A, 6B and 6C) and TCE (Maps 5A, 5B and 5C) and TCE are provided in Volume II.

Statistical analysis of the groundwater data (2013 RCRA Permit Renewal Application, Revision 2) showed that the overall concentration trend for contaminants in the NEP is decreasing and natural attenuation with monitoring is an effective remedy. The analysis also showed that within the commingled plume (tritium and cVOCs), the radioactive decay of tritium to below the GWPS will take significantly longer than the natural attenuation of the cVOCs. Groundwater flow in the UAZ and LAZ (15.2 m [50 ft/yr] and 7.6 [25 ft/yr], respectively) is relatively slow providing significant time for radioactive decay. Water velocity calculations suggest a travel time of ~60 years (or 4 tritium half-lives) for the plume to reach Upper Three Runs Creek. The presence of source control, downward contaminant trend, shrinking plume, and ample time for attenuation of contaminants all support the continued management of contamination with natural attenuation and monitoring at the NEP.

Tritium concentrations at surface water location UTR-120 have been measured on a quarterly frequency since 2002 and have shown to exhibit a high degree of environmental variation. While the majority of tritium results are below the GWPS, occasionally tritium exceeds the GWPS during a sampling quarter. The varied nature of these exceedances prompted SRS to investigate the cause of the variation and evaluate whether UTR-120 is properly located to monitor surface water quality in UTRs. As part of the investigation, SRS conducted field visits to UTR-120, UTR-BF1 and UTR-90 in May and August of 2022.

An unnamed tributary to UTRs receives groundwater discharge from the NEP. Sample station UTR-BF1 is located on this tributary near the groundwater springs. The tributary flows from UTR-BF1 for ~152.4-m (~500-ft) before flowing out onto the wide and flat floodplain of UTRs. Before reaching the floodplain, the tributary is contained in a well-defined channel. At the floodplain boundary the tributary fans out and flows in more than one channel across the floodplain toward the UTRs main channel. Due to the extensive and flat width of the floodplain, it is likely that the tributary channels migrate over time and overflow their shallow channels during high water flows. On the floodplain, the tributary branches appear to flow both upstream and downstream of the UTR-120 sample location. UTR-120 is located ~106.7 m (~350 ft) from the edge of the floodplain (Map 1B, Volume II).

During both field visits, physical access to UTR-120 was restricted by dense vegetation and swampy conditions. Personnel were able to walk approximately halfway to the UTR-120 station before ground conditions became impassible on foot.

Figure 11 shows tritium concentrations over time at stations UTR-BF1, UTR-120 and UTR-90. At UTR-BF1, tritium levels have been decreasing from a maximum of 243 pCi/mL then leveling off between 30 and 60 pCi/mL from 2013 to present. At UTR-120 most results are very low and below the GWPS with occasional peaks where concentrations exceed the GWPS. Since late 2014, most of the tritium peaks at UTR-120 are the same concentration as tritium measured at UTR-BF1. This indicates that UTR-120 is sampling tributary water from UTR-BF1 and not water from UTRs. Although this condition occurs sporadically as shown in Figure 11, location UTR-120 does not provide representative samples of UTRs water quality.

A more appropriate sampling station is located downstream of UTR-120. Tritium levels are monitored quarterly in UTRs at station UTR-90 located downstream of the NEP discharge zone. Station UTR-90 is located along the south bank of UTRs at a powerline easement in an easily accessible area with no flood plain. Due to the nature of this location, there is no uncertainty as surface water is collected directly from the single channel of UTRs. A photograph of station UTR-90 is provided in Figure 12. Based on evaluation of field conditions and analysis of historical data at UTR-120, UTR-BF1 and UTR-90, SRS recommends that results from location UTR-90 be used to evaluate the surface water quality in UTRs and future sampling of UTR-120 be discontinued as results are not reliably representative of surface water quality in UTRs. In 2022, tritium was low (maximum of 0.435 picocuries/milliliter [pCi/mL]) in samples collected at UTR-90, indicating that surface water in Upper Three Runs Creek is not being impacted above the GWPS by tritium from the NEP. In addition, long term data from UTR-90 also indicates that tritium levels are below the GWPS (Figure 11)

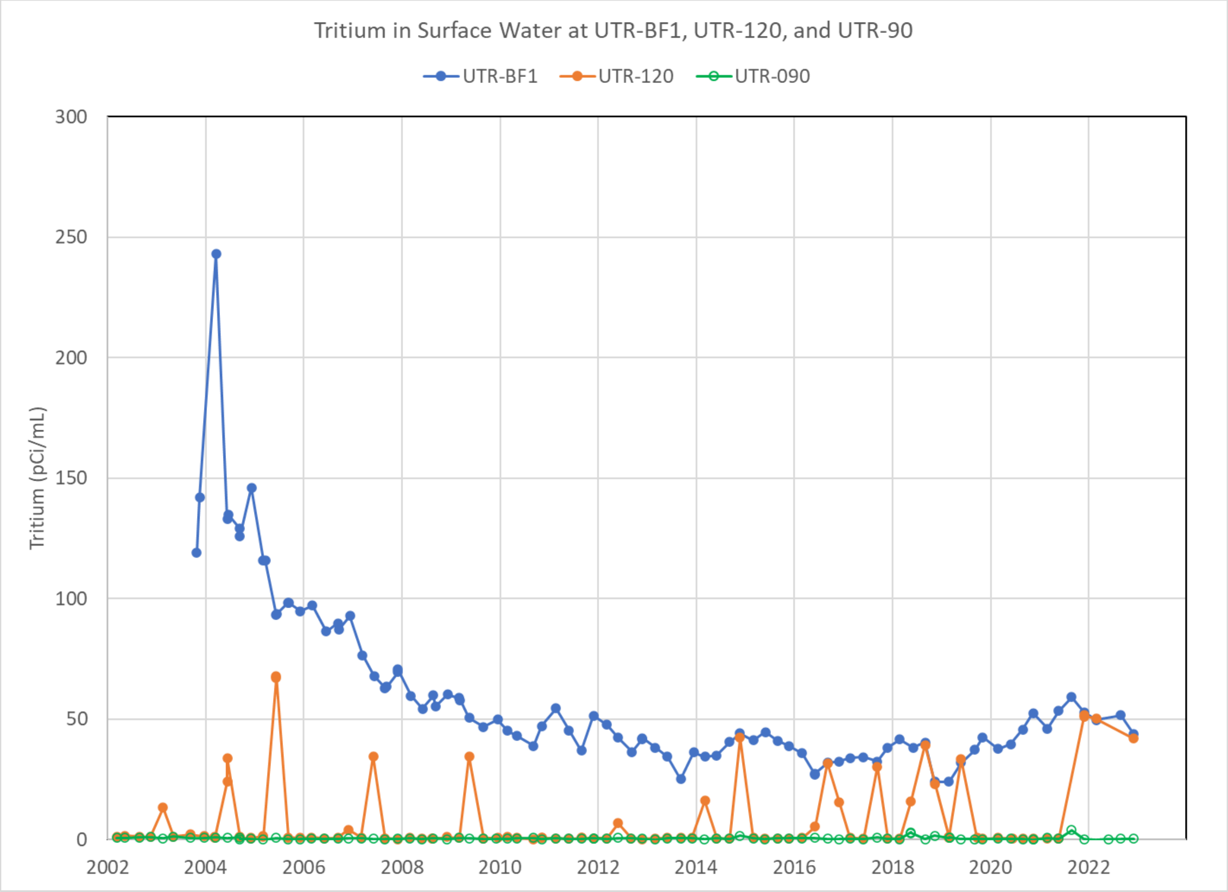


Figure 11. Tritium in Surface Water at Sample Locations UTR-BF1 and UTR-120

Figure 12. **Sample Station UTR-90 on Upper Three Runs. Photo Taken 8/2/2022**

NWP

The 2013 RCRA Permit Renewal Application (Revision 2) is the current CAP for the NWP. On or before September 15, 2023, SRS will submit the 2023 RCRA Permit Renewal Application for the MWMF. The NWP is the area to the north of the western section of the ORWBG and west of the MWMF. This plume is sourced mainly from the ORWBG and extends from the ORWBG a short distance northwest toward Upper Three Runs Creek. The primary contaminants include tritium and TCE.

The NWP Module of the Permit is included in the November 30, 2021, modification of the 2014 Permit Renewal which was issued on February 11, 2014. This modification became effective on December 15, 2021.

The NWP CAP is in Phase 1 and includes the following main objectives:

- reduction of cVOC and tritium (radioactive decay) concentrations using natural attenuation

In order to achieve these objectives, the following actions have been defined in the Corrective Action Program:

- low-permeability caps over the MWMF, LLRWDF, and ORWBG (source control)
- passive natural attenuation of cVOCs and tritium (radioactive decay) in the UAZ and LAZ

The NWP is located very close to the groundwater divide. The migration of contaminants tends to be downward with little lateral movement in the UAZ; migration in the LAZ is toward Upper Three Runs Creek to the northwest. Tritium and cVOCs (mostly TCE) are the prominent groundwater contaminants.

Characterization data from the mid-1990s identified a small tritium and TCE plume in the UAZ and LAZ. Current data indicate similar plume extent, but with lower overall concentrations, (i.e., the plumes are not expanding). Tritium activities and TCE concentrations in the UAZ have tended to decrease over time and since installation of the ORWBG cap. Tritium and TCE in the LAZ have remained relatively stable, except for at UAZ well BGO 15D where tritium concentrations were 21,500 pCi/mL in 2014 then dropped to below 3,000 pCi/mL until rising again to 76,400 pCi/mL in the first quarter of 2022 and decreasing again to 37,100 pCi/mL in the third quarter of 2022. SRS will continue to monitor tritium at BGO 15D. Current plume maps for tritium and TCE are provided in Volume II.

Statistical analysis of the groundwater data (2013 RCRA Permit Renewal Application, Revision 2) showed that the overall concentration trend in the NWP is decreasing and that natural attenuation with monitoring provides an effective remedy. The analysis also showed that within the commingled plume (tritium and cVOCs), the radioactive decay of tritium to below the GWPS will take significantly longer than the natural attenuation of the cVOCs. Groundwater flow in the UAZ and LAZ (15.2 m/yr and 7.6 m/yr [50 ft/yr and 25 ft/yr], respectively) is relatively slow providing significant time for radioactive decay. Water velocity calculations suggest a travel time of ~220 years (or 18 tritium half-lives) for the plume to reach Upper Three Runs Creek. The presence of source control, the downward contaminant trend, shrinking plume, and ample time for attenuation of contaminants all support the continued management of contamination with natural attenuation and monitoring at the NWP.

5.3.1 MWMF Operational Data

The SWP Phytoremediation System consists of 51 irrigation plots. All 51 plots received irrigation in 2022. Approximately 45M L (11.9M gal) of tritiated water were irrigated on the plots and sprayed over the pond between January 1 and December 31, 2022. The average tritium concentration of the applied water was 1,038 pCi/mL and concentrations ranged from 543 to 1,310 pCi/mL. Operation of the irrigation system and spray evaporators prevented ~36.8 Ci of tritium from reaching FMB during 2022. It is estimated that an additional 8.4 Ci of tritium evaporated from the pond surface due to ~8,132,579 L (2,148,400 gal) of pond surface water evaporation based on surface area, annual evaporation rate, and average tritium concentration. Table 10 contains the irrigation rates, the average monthly tritium concentrations, and the monthly totals of tritium sprayed (in curies).

Table 10. Phytoremediation Irrigation Rates and Tritium Concentrations for 2022

Month	Total Irrigation (G)/Month	Total Tritium (in Curies) Irrigated to Plots/Month	Total Tritiated Water Sprayed by Evaporator (G)/Month	Total Tritium (in Curies) Sprayed by Evaporator / Month	Average Tritium Concentrations in the Water/Month *(pCi/mL)*
January	186,952	0.88	0	0.00	1,240
February	577,531	2.56	400	0.00	1,170.00
March	1,034,349	4.40	0	0.00	1,125.00
April	1,004,428	3.78	0	0.00	994.00
May	1,942,331	7.27	3410	0.01	989.33
June	1,366,552	5.36	0	0.00	1,037.00
July	1,454,687	5.11	0	0.00	928.00
August	1,289,304	4.52	0	0.00	927.00
September	1,268,368	5.02	0	0.00	1,046.00
October	1,098,815	3.61	0	0.00	868.33
November	714,105	2.50	0	0.00	926.50
December	24,640	0.11	471,145	2.21	1,210.00
Total	**11,962,058**	**45.12**	**474955**	**2.22**	**1,038.43**

Note: Table depicts approximate rates and concentrations.

The application rates of pond water to the plots were in accordance with seasonal irrigation schedules derived from calculated soil moisture deficits and pan evaporation rates. The summer schedule (April 15 to October 15) is based on soil moisture deficit. Soil moisture deficit is the difference between evapotranspiration and net precipitation in terms of rainfall and irrigation.

5.3.2 Corrective Action Monitoring System

The Corrective Action Monitoring System at the MWMF SWP Phytoremediation System consists of the monitoring wells specified in the RCRA Permit, pond samples, wetland samples, and surface water samples in FMB. These components are sampled in accordance with the schedule provided in the RCRA Permit. Sampling results are evaluated to determine the effectiveness of the phytoremediation project and reported in the Compliance Monitoring Section of the Annual (August) CAR each year.

The concentration of tritium in the pond water has been decreasing since the start of irrigation, due to radioactive decay of the tritium. The highest average tritium concentration occurred in year 2002 (13,140 pCi/mL). Since the installation of the low-permeability cap on the ORWBG in 2007-2008, there has been further reduction in tritium concentration in the pond that seems to be significantly greater than the previous decay component. From 2007 to 2010, tritium concentration decreased from 9,258 pCi/mL to 2,666 pCi/mL. Since then, average tritium concentrations have continued to show a decreasing trend. Concentrations averaged 1,038.43 pCi/mL in 2022, due to capping of the ORWBG, natural attenuation, and in part to the pattern of above average rainfall since 2013.

5.3.3 Summary of Downtime (IVD.B.10.b.xiii)

Permit Section IVD.B.10.b.xiii requires a summary of any downtime at the SWP Phytoremediation System that exceeds 72 hours and is caused by mechanical or equipment failure.

- There were no downtimes that exceeded 72 hours due to mechanical or equipment failure in 2022.

5.3.4 Modifications to System (IVD.B.10.b.ix)

In accordance with the Permit Section IVD.B.10.b.ix, a summary of the modifications to the Correction Action System (SWP Phytoremediation System) is required.

In January 2011, SRS expanded the MWMF Phytoremediation System area by ~9.7 ha (24 ac). The additional acreage is located to the east of the original irrigation site over the plume area. The expansion consisted of 12 plots (plots 31 through 42) and distribution piping. SRS has also expanded the irrigation area to the west. The western expansion is ~6.1 ha (15 ac) and consists of nine plots (plots 43 through 51) and distribution piping. The western expansion was completed in 2013 and placed into operation in 2014. The expansion areas utilize the existing irrigation system equipment, with the addition of a distribution pump for the western expansion and larger filtration system. These expansions provide additional acreage needed to maximize the irrigation capacity, especially during winter operations, and maintain the pond level as low as possible. They also provide additional irrigation acreage to accommodate any silviculture treatment that may be needed in the future. The full potential of the expansion areas will be realized when the trees become mature in size.

In 2015, SRS completed the replanting of ~10,000 loblolly pine seedlings at the eastern and western expansions. The replanting was necessary due to the natural mortality of some original seedlings at the western expansion and the loss of trees at the eastern area due to the ice storm in 2014. Additional minor replanting was needed in 2016 due to natural tree mortality. No trees from the irrigation plots have been removed from the remediation site. Fallen trees and trees or limbs cut during forest maintenance activities remain on unit to naturally decay.

In 2019, SRS purchased two new evaporators to replace the existing units. SRS installed the new evaporators (which intake water directly from the pond) in 2021. The new evaporators will provide increased evaporation efficiency and enhance water management capabilities, especially during the winter months and during periods of rainy weather when irrigation capacity is reduced. The new evaporators began operation in December 2022. In 2020, SRS constructed a new equipment shed/storage/work area at the MWMF Phytoremediation System in support of irrigation system maintenance.

5.3.5 Effectiveness of the MWMF Corrective Action Program

As part of the effectiveness monitoring, tritium concentration is measured in FMB downstream of the SWP. Tritium concentration in FMB dropped ~68% immediately upon closing the valve on the discharge side of the phytoremediation pond in 2000 (Figure 13). The closed position of the valve on the discharge side of the pond results in the collection of tritiated water from the seeps and prevents the tritiated water from reaching FMB. Tritium concentrations remained reduced by 60% to 80% until September 23, 2005, when the pond valve was opened to drain the pond to FMB for maintenance and for upgrades to the irrigation system. During this time, tritium concentrations increased in FMB to 642 pCi/mL. During March 2006, the pond valve was closed again, and tritium concentrations dropped to 111 pCi/mL by April 2006, and have remained below

200 pCi/mL since that time, with most measurements less than 100 pCi/mL. In 2022, the concentration of tritium ranged from ~14.3 pCi/mL to 81.9 pCi/mL in FMB. In previous years, the operation of the collection pond and phytoremediation system resulted in an ~100 Ci/yr reduction in tritium flux to FMB (phytoremediation + evaporation from the pond). In 2022, due reduced tritium concentrations, the reduction in tritium flux was ~45.2 Ci/yr. Overall, the current system has proven to be effective in reducing tritium flux by nearly 70% of the water that is discharging from the plume and was originally impacting FMB.

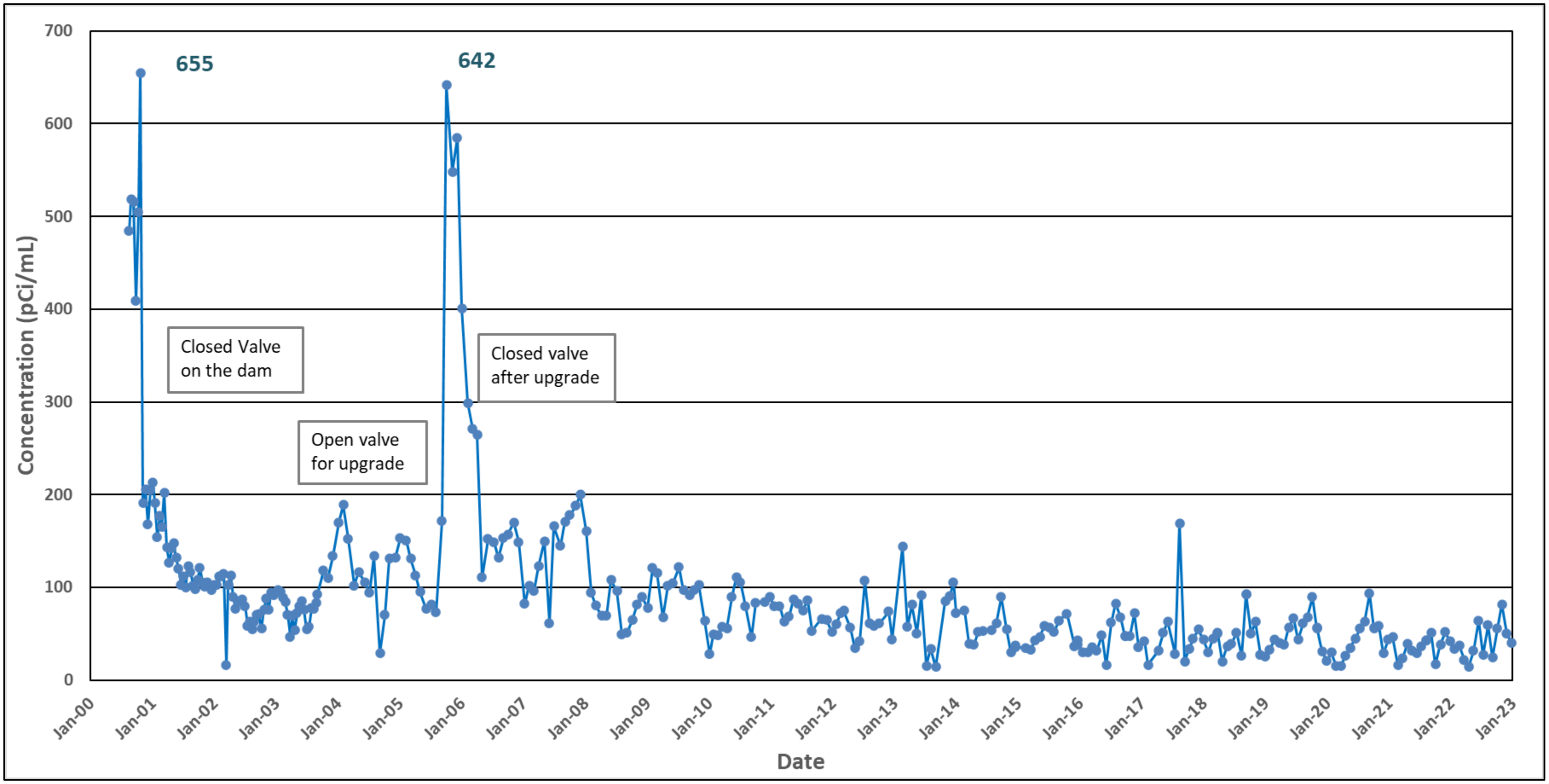
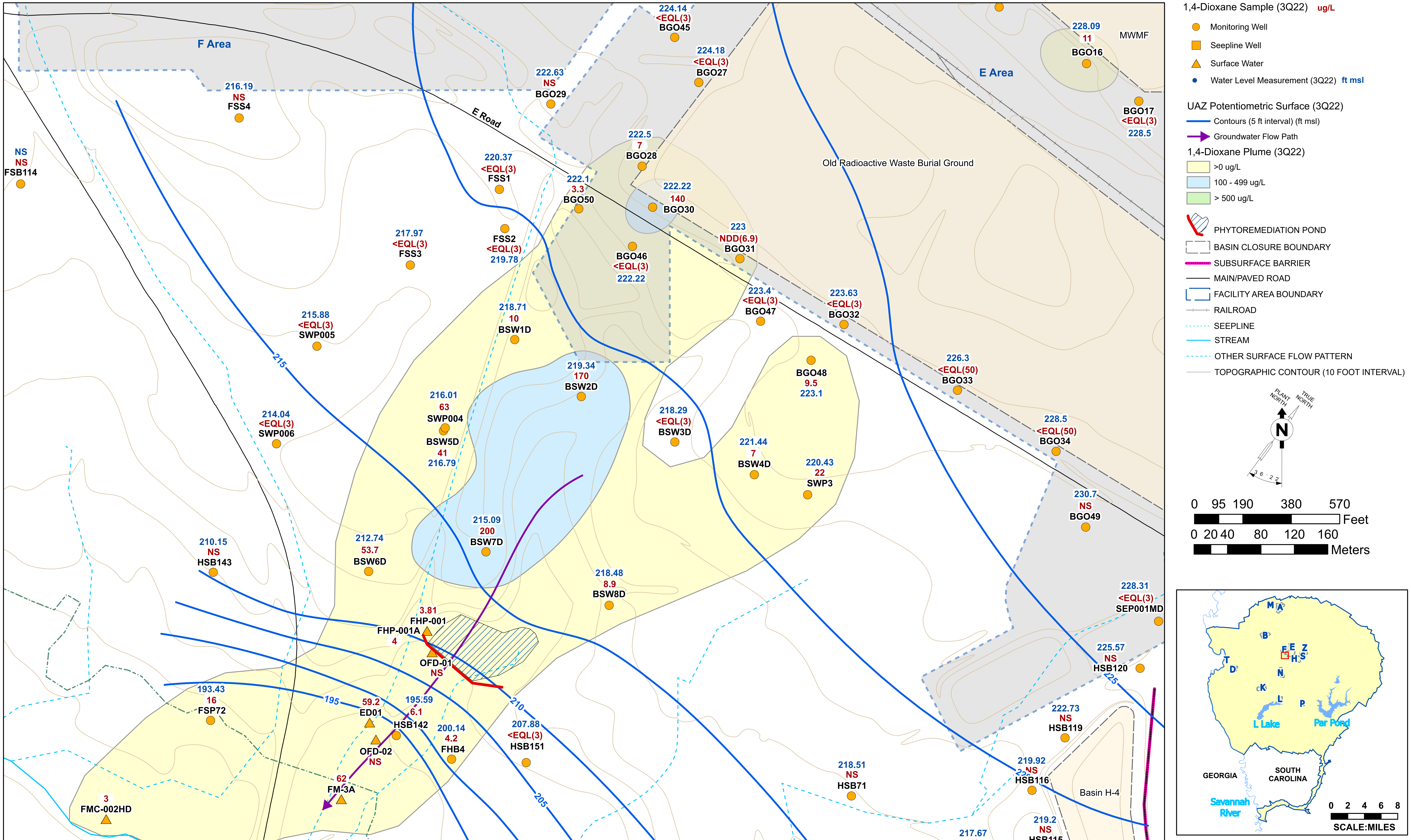


Figure 13. **Tritium Concentrations in FMB**

Figure 14. MWMF SW Plume 1,4-dioxane Concentrations in the UAZ



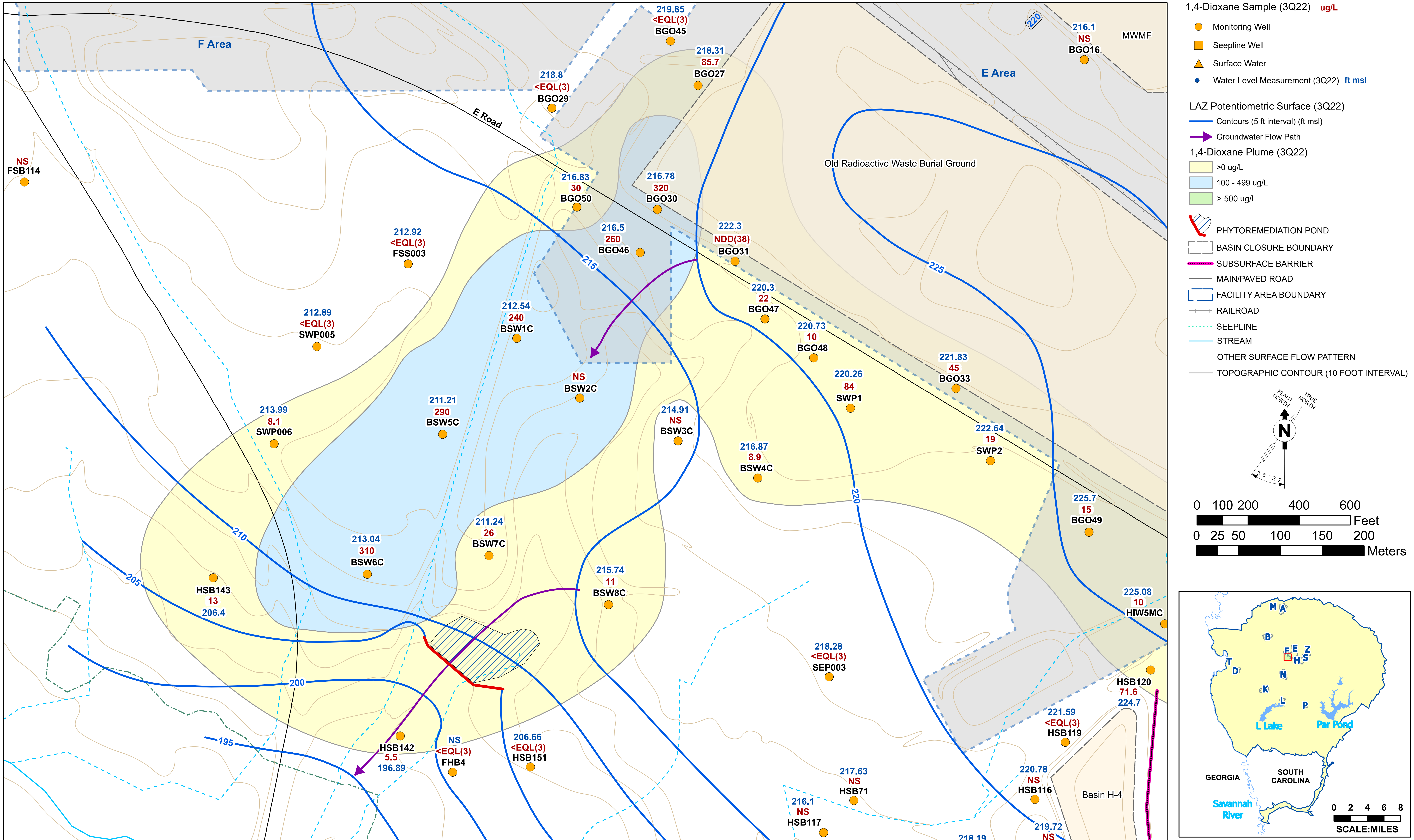
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffery Thibault
Date: August 31, 2023

GSA Corrective Action Report, Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, and 1,4-Dioxane Plume at the Southwest Plume Third Quarter 2022

GSA Corrective Action Report, Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at GSA and 1,4-Dioxane at the Southwest Plume,Third Quarter 2022

Figure 15. MWMF SW Plume 1,4-dioxane Concentrations in the LAZ



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GSA Corrective Action Report, Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, and 1,4-Dioxane Plume at the Southwest Plume Third Quarter 2022

GSA Corrective Action Report, Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at GSA and 1,4-Dioxane at the Southwest Plume,Third Quarter 2022

Annually, the Savannah River Ecology Lab (SREL) estimates the evapotranspiration efficiency of the irrigation plots (Appendix G, Volume I). In 2022, the average evapotranspirative efficiency of the irrigation system was ~86.7 ± 1.2% for the original plots, 77.0 ± 3.4% for the eastern expansion area, and 68.4 ± 1.2% for the western expansion area. The collective annual efficiency was 80.7 ± 7.4% for all irrigation plots. The calculated evaporative efficiency of the spray evaporator is 17%.

Lower efficiencies for the eastern and western areas are due to lower vegetative densities at these plots. SRS expects the efficiencies to increase as the trees become mature. SRS plans to apply fertilizer in the future to promote increased vegetative canopy growth.

5.3.6 Progress and Implementation of the CAPs (IVD.B.10.b.x)

During 2022, the maximum groundwater concentration of 1,4-dioxane in the UAZ of the UTRA was 270 ug/L, which was observed in well BGO 30D and the maximum concentration in the LAZ of the UTRA was 558 ug/L observed in well BSW 6C3. The maximum concentration of 1,4-dioxane in surface water was 62 ug/L, which was observed at sampling station FM-3A, stream monitoring station located downstream of the pond and sampling station ED-01. Figures 14 and 15 are 2022 plume maps for 1,4-dioxane in the UAZ and LAZ.

In the past, the concentration of 1,4-dioxane in the SWP was not well understood due to analytical uncertainty. However, it was known that 1,4-dioxane was present above the GWPS of 6.1 ug/L in the SWP. Current analytical methods now provide better concentration certainty within the groundwater and the irrigation pond. Past pond concentrations have ranged from ~10 to 20 ug/L. The 2022 concentration was 3.81 ug/L in the pond. 1,4-Dioxane is also present in surface water downstream of the pond. The current corrective action for 1,4-dioxane is continued operation of the phytoremediation system, natural degradation, the low-permeability cap of the ORWBG, and institutional (access) controls.

Current literature indicates that irrigated 1,4-dioxane (in the pond water) will likely degrade to levels that do not represent a threat to receptors or the groundwater. 1,4-Dioxane is prone to evaporation and photo-oxidation in air (7 to 10-hour half-life, maximum lifetime of 23 hours) in a spray irrigation setting, and it is reported by researchers to be highly degradable in biologically active soils by filamentous bacteria and fungus present in the leaf mulch. When tritium is evaporated and transpired to the atmosphere by the spray irrigation, it is likely that 1,4-dioxane is evaporated, photo-oxidized, or degraded at a very high efficiency. SRS believes that conditions present in the irrigation plots are favorable for the evaporation, transpiration, and degradation of 1,4-dioxane.

SRS believes that continuing to manage tritium, cVOCs and 1,4-dioxane with the collection pond and irrigation system is a reasonable approach with a high probability of success. The current system has proven to be effective in managing nearly 70% of the water that is discharging from the plume and was originally impacting FMB. The 1,4-dioxane and other cVOCs in the SWP are commingled with the tritium, and it is likely that their presence in the plume is as old as the tritium. Based on attenuation rates for tritium, cVOCs, and 1,4-dioxane at the SWP, the radioactive decay of tritium to below the GWPS is expected to take longer than the natural attenuation of 1,4-dioxane and the other cVOCs. Thus, the long-term corrective action employed for groundwater contamination at the SWP should be the continued operation of the irrigation system (operating at low pond levels to maximize efficiency) coupled with infiltration control via capping of the ORWBG.

Recent additions to irrigation capacity in the eastern and western expansions help to maximize reductions in contaminant flux to FMB by reducing water overflowing the dam and bypassing in the subsurface. SRS is able to operate the system into the winter months using the two expansion areas. The overall objective is to maintain as low a level as possible in the irrigation pond throughout the year to maximize the volume of water going to the pond from the UAZ and LAZ. Maintaining water levels as low as possible will support SRS meeting the overall remedial goal for tritium reduction to FMB.

5.3.7 cVOC Degradation

Relative concentrations of cVOC parent and daughter degradation products can give a direct indication of the presence or absence of microbial degradation processes. The production of cis-1,2-dichloroethylene (DCE) and chloride ions along aquifer flow paths is direct evidence of reductive dechlorination. The ratios of cis-1,2-DCE to the total 1,2-DCE indicate that the 1,2-DCE observed in the groundwater is likely of biogenic origin.

SWP

The MWMF SWP monitoring wells were sampled for VOCs during 2022 (Appendix B, Table B-7, Volume I). The presence of cis-1,2-DCE indicates that reductive biodegradation of TCE is occurring as TCE will degrade to DCE only under an anaerobic degradation pathway. Because of the large amount of organic matter (wood and paper products) and carbon steel that was included in the burial trenches, it is believed that reducing conditions exist in and beneath the burial ground waste trenches. Low oxygen levels allow for anaerobic degradation of tetrachloroethylene (PCE) and TCE to produce DCE in and beneath the burial trenches while aerobic degradation occurs within the SWP groundwater where dissolved oxygen levels are much higher. The oxidizing conditions in the SWP groundwater rapidly degrade the DCE and vinyl chloride limiting their accumulation. Thus, reductions in cVOC parents (TCE and PCE) and the presence of cis-1,2-DCE, and low levels of chloroethene (vinyl chloride) are evidence of dechlorination at the SWP.

Overall, concentrations of cVOCs continue to exhibit decreasing trends. SRS believes continued implementation of the SWP Corrective Action Effectiveness Monitoring Program and operation of the phytoremediation system for the cVOC degradation component of the CAP, as discussed in Sections E.8.1.3 and E.8.1.4 of the 2013 RCRA Permit Renewal Application, remains appropriate for cVOCs.

SEP

The MWMF SEP monitoring wells were sampled for volatile organic compounds (VOCs) during 2022 (Appendix B, Table B-8, Volume I). The lower hydraulic conductivity in the LAZ aquifer is beneficial to VOC degradation. The low flow conditions cause an increase in travel time within the aquifer, creating greater opportunity for degradation before discharging to surface water in FMB. In 1997, the highest concentration of VOCs was associated with well BGO 37C, which had a concentration of 1,160 ug/L of TCE. By 2003, the TCE concentration in the well had decreased to 126 ug/L and currently remains lower at 43.3 ug/L. The drop in the concentration is attributed to natural attenuation and capping of the ORWBG.

The flux of VOCs to the groundwater beneath the source area in the ORWBG is expected to be reduced by infiltration control. The low-permeability cap installed at the ORWBG is part of the corrective action for VOCs at the SEP. Installation of the cap was completed in 2007. In 2006, prior to capping, the concentration of TCE at BGO 37C was 170 ug/L. After capping, the concentration of TCE has had an overall decreasing trend and in 2022, the maximum concentration was 43.3 ug/L.

Monitoring data show evidence that degradation of the cVOCs is occurring within the SEP. The highest concentrations of TCE occur at POC well BGO 35C (326 ug/L) adjacent to the ORWBG and plume assessment well HSB 120C (369 ug/L). The presence of daughter products (cis-1,2 DCE) indicates that degradation of PCE and TCE is occurring beneath the ORWBG. Well BGO 35C has the highest concentration of cis-1,2 DCE at 206 ug/L. The accumulation of vinyl chloride was not observed; however, dissolved oxygen levels beyond the footprint of the cap ranged from 1.07 to 9.55 mg/L and are sufficient to prevent the accumulation of vinyl chloride. Vinyl chloride is known to degrade rapidly under aerobic groundwater conditions and is not expected to be present at high concentrations. Trace levels of ethane and ethylene have been present in these wells indicating dechlorination is proceeding to completion. These conditions are also observed in plume definition wells within the cVOC plume.

NEP

The MWMF NEP monitoring wells were sampled for VOCs in 2022 (Appendix B, Table B-9, Volume I). The NEP VOC plume occurs in both the UAZ and LAZ. The NEP is sourced from the MWMF and because of groundwater flow paths, the VOC plume in the UAZ is adjacent to the MWMF whereas the LAZ plume is located further down gradient. The highest concentrations of TCE in the UAZ at the NEP occur near the source at UAZ POC well BGO 6D (10.5 ug/L). The highest concentrations in the LAZ occur in well BGX 2D (37.6 ug/L).

Monitoring data show evidence that degradation of cVOCs is occurring within the NEP. In 2022, at BGO 6D concentrations of parent compounds PCE and TCE were 5.04 ug/L and 10.5 ug/L, respectively. The concentration of cis-1,2 DCE was 0.69 J ug/L. The presence of daughter products (cis-1,2 DCE) indicates that degradation of PCE and TCE is occurring in the NEP. Vinyl chloride was not detected in BGO 6D; however, dissolved oxygen levels (5.2 to 5.3 mg/L) in the aquifer are sufficient to prevent the accumulation of vinyl chloride. Vinyl chloride is known to degrade rapidly under aerobic groundwater conditions and is not expected to be present at high concentrations. Trace levels of ethane have been observed indicating that dechlorination is proceeding to completion. Similar conditions are also observed in other UAZ and LAZ monitoring wells within the cVOC plume.

NWP

The MWMF NWP monitoring wells were sampled for VOCs in 2022 (Appendix B, Table B-10, Volume I). The NWP VOC plume is relatively small and occurs mainly in the LAZ. The highest concentrations of TCE in the NWP have historically occurred near the source at wells BGO 14CR and BGO 53C. In 2006, concentrations of TCE were as high as 54 ug/L at well BGO 14CR. Since then, concentrations have been decreasing and are currently 26.8 ug/L TCE. In 2022, the highest concentration of TCE occurred at POC well BGO 15D (83.9 ug/L).

Monitoring data show evidence that degradation of cVOCs is occurring within the NWP. In 2022, at BGO 14CR concentrations of parent compounds PCE and TCE were 3.16 ug/L and 26.8 ug/L, respectively. The concentration of cis-1,2 DCE was 5.13 ug/L. The presence of daughter products (cis-1,2 DCE) indicates that degradation of PCE and TCE is occurring in the NWP. Vinyl chloride was not observed to be accumulating in BGO 14CR; however, dissolved oxygen levels (4.25 to 4.81 mg/L) in the aquifer are sufficient to prevent the accumulation of vinyl chloride. Vinyl chloride is known to degrade rapidly under aerobic groundwater conditions and is not expected to be present at high concentrations. Trace levels of ethane and ethylene have also observed indicating that dechlorination is proceeding to completion. Similar conditions are also observed in other monitoring wells within the cVOC plume.

Monitoring data show that the low-permeability cap on the ORWBG is reducing the flux of VOCs to the groundwater beneath the source area. The low-permeability cap installed at the ORWBG is part of the corrective action for VOCs at the NWP. Installation of the cap was completed in 2007. In 2006, prior to capping, the concentration of TCE at BGO 42C was 130 ug/L. After capping, the concentration of TCE has been decreasing and in 2015 was below the GWPS of 5 ug/L. In 2022, the maximum concentration was 2.37 ug/L.

5.3.8 History of the Corrective Action Program

The pond and the phytoremediation system are continuing to effectively reduce the tritium concentrations in FMB. Since closure of the valve on the pond and beginning the collection of water from the seeps, tritium concentrations in FMB have remained 60% to 80% lower (with the exception of 2005, when the pond valve was opened to empty the pond to FMB for maintenance and system upgrades). After this time, the tritium concentration increased in FMB until 2006, when the pond valve was again closed (see Figure 13). The maintenance actions and upgrades were necessary in order to improve wintertime operation, maintain pond volume at a low level to drive groundwater toward the pond, and to reduce water outcropping from under the dam. After a review of the upgraded irrigation system, SRS determined that the system was adequate to supply water for additional irrigation acreage. SRS expanded the irrigation area at MWMF SWP. The eastern expansion consists of 9.7 ha (24 ac) and was completed in January 2011. The western expansion consists of 6.1 ha (15 ac) located to the west of original irrigation plots. Construction of the western expansion was completed in 2013 and it is fully operational.

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6.0 CONCLUSION

6.1 F-Area HWMF and H-Area HWMF

Overall, concentrations of most constituents continue to decrease over time in both F-Area HWMF and H-Area HWMF. The low-permeability caps, base injection, groundwater barriers, and silver chloride amendment (F Area only) at the F-Area and H-Area HWMFs are having a positive effect on the aquifer. Despite decreasing concentrations over time for most constituents, compliance monitoring data in 2022 indicated several inorganics and radiological constituents exceeded the GWPS in the wetlands/FMB at both HWMFs (Table 11). No new constituents were added to the GWPS for the F-Area nor H-Area HWMFs as a result of detection monitoring in 2022.

Table 11. Constituents exceeding the GWPS in the wetlands/FMB in 2022

Monitoring Network	F Area	H Area
FMB Surface Water (Phase 2a and 2b F Area; Phase 2a H Area Corrective Action Goals)	Iodine-129, tritium	Tritium
Wetland Seepline Surface Water (Phase 2b Corrective Action Goals)	Cobalt, nitrate-nitrite, vanadium, gross alpha, iodine-129, nonvolatile beta, radium-226, strontium-90, tritium, uranium-233/234, uranium-238	Iodine-129, nonvolatile beta, strontium-90, tritium
Wetland Groundwater	Antimony, cadmium, cobalt, mercury, nitrate-nitrite, carbon-14, gross alpha, iodine-129, nonvolatile beta, radium-226, radium-228, strontium-90, tritium, uranium-233/234, uranium-238	Mercury, carbon-14, nitrate-nitrite, vanadium, iodine-129, nonvolatile beta, tritium

The most widespread contaminant was tritium (radiological), which is being addressed with subsurface barriers at the F-Area HWMF and H-Area HWMF. An evaluation of the tritium concentration in the vicinity of the barriers at both F Area and H Area indicates that the barrier systems are controlling tritium releases to the seeplines and FMB. Tritium flux reduction to FMB in 2022 exceeded targets. For F Area it was ~87% (calculated flux of 88 Ci/yr), and for H Area it was ~92% (calculated flux of 19 Ci/yr), respectively, demonstrating that the barriers are having the desired effects. Tritium flux to FMB will continue to be monitored.

Most metal and metallic radiological contaminants (except tritium and iodine-129) are being addressed with base injection. Base injection at the F-Area HWMF was performed starting in February 2022 at the central gate and continuing into July. Approximately 53,000,000 L (14M gal) of base solution was injected at F-Area HWMF in 2022. At H Area, operation of the base injection system was not required during 2022. Adjustment of pH has been achieved locally at H Area and SRS is observing the effects of the base injection prior to potentially injecting additional base.

Base injection has been effective in the in situ precipitation of cationic radionuclides, most evident with strontium-90 and uranium-238. The precipitation of these cationic metals and radionuclides has allowed concentrations of these constituents in FMB to fall below their respective GWPS, as well as reducing the concentration of these constituents in the seepline surface water and groundwater. The continued use of the system will ensure concentrations remain below the GWPS in FMB (Phase 2a goal) and continue to reduce the concentrations of cations in the seepline surface water (Phase 2b goal) and in the groundwater at the F-Area and H-Area HWMFs.

The remedial technologies implemented for Phase 2 have proven effective and feasible in working toward the corrective action goals and will continue to be deployed as part of the corrective actions; however, additional time is needed for these technologies to work to meet remedial goals at the F- and H-Area seeplines along FMB. These remedial technologies will continue to be implemented as part of the corrective actions.

The approved corrective action to address iodine-129 in F Area is the use of silver chloride technology. The latest deployment of silver chloride was completed in May 2019 to augment previous injections along the eastern half of the central gate, where the majority of the iodine-129 flux occurs. SRS will continue to evaluate the effectiveness of the third deployment of silver chloride at the central gate by monitoring in accordance with the UIC and RCRA Permit and evaluate the need for future silver chloride injections in the future.

6.2 MWMF

The phytoremediation system along with low-permeability caps and natural attention are being utilized in improving groundwater and surface water impacted by the four MWMF plumes (SWP, NWP, SEP, and NEP). Compliance monitoring for the MWMF indicated several constituents exceeded the GWPS with tritium and TCE as the primary constituents at all four plume areas. Sampling of groundwater beneath the FMB wetland and surface water at FMB and UTR indicated tritium was the most widespread contaminant. No new constituents were added to the GWPS for any of the four MWMF plumes as a result of detection monitoring in 2022.

The SWP discharges tritium-contaminated groundwater with low amounts of cVOCs and 1,4-dioxane into a small tributary that feeds FMB. The MWMF Phytoremediation System is being used to collect contaminated groundwater from the seeps stopping the contaminated groundwater from reaching FMB. The system had a positive effect by reducing the amount of tritium reaching FMB during 2022. The MWMF Phytoremediation System irrigated and sprayed ~45M L (~11.9M gal) in 2022 preventing ~36.8 Ci of tritium from reaching FMB, nearing a 70% tritium flux reduction to FMB. In addition, ~8.4 Ci of tritium directly evaporated from the surface of the collection pond. The average evapotranspirative efficiency of the irrigation system in 2022 was similar to what it was in 2021. The average evapotranspirative efficiency of the irrigation system during 2022 was ~86.7 ± 1.2% for the original plots, 77.0 ± 3.4% for the eastern expansion area, and 68.4 ± 1.2% for the western expansion area. The collective annual efficiency was 80.7 ± 7.4% for all irrigation plots. 1,4-dioxane and cVOCs are also removed by volatilization, transpiration, and degradation in the phytoremediation system. SRS believes that continuing to manage tritium, cVOCs and 1,4-dioxane with the collection pond and irrigation system is a reasonable approach with a high probability of success. The SWP also contained mercury, which is being successfully addressed by natural attenuation and the ORWBG low-permeability cap. Thus, the long-term corrective action employed for groundwater contamination at the SWP is the continued operation of the irrigation system (operating at low pond levels to maximize efficiency) coupled with rainwater infiltration control via the ORWBG cap.

In 2022, the phytoremediation project received the Innovative Approach to Sustainability, United States Department of Energy (USDOE) sustainability award and the phytoremediation team was also awarded a USDOE Secretary's Honor Award. These awards were for inventive methods and technologies that have been permitted at the MWMF, improve site sustainability, and can be applied across the USDOE complex.

Natural attenuation coupled with the ORWBG low-permeability cap are the approved remedial actions for the NWP, NEP, and SEP. Monitoring data show that the ORWBG low-permeability cap is reducing the flux of VOCs to the groundwater to all plumes. Monitoring data also show evidence that degradation of the VOCs is occurring within each of the plumes. Overall, current tritium concentrations are much lower than historic maximum concentrations demonstrating the plumes are continuing to shrink over time. SRS will continue to monitor natural attenuation in the NWP, NEP, and SEP. Natural attenuation continues to be an effective remedy at the NWP, NEP, and SEP.

7.0 APPENDICES

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APPENDIX A

MIXED WASTE MANAGEMENT FACILITY

WELL CONSTRUCTION DATA

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F-AREA HWMF, H-AREA HWMF, AND MWMF

PWMS WELLS

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Table A-1. MWMF Monitoring Well Construction Details

Monitoring Well Designation as Used in This Report	Monitoring Well Designation as Used in the MWMF RCRA Part B Permit Application (Rev. 6)	Installation Date (mo/day/yr)	Well Casing/ Screen Material	Well Casing Diameter (in)	Length of Screen (ft)	Top of Casing Reference Elevation (ft msl)	Land Surface/ Ground Elevation (ft msl)	Top Depth of Screen (ft below land surface)	Bottom Depth of Screen (ft below land surface)	Top of Screen Elevation (ft msl)	Bottom of Screen Elevation (ft msl)	Northing	Easting	Date Abandoned (mo/day/yr)
BGO 1D	BGO 01D	9/10/1987	PVC	4	20	295.3	293	48	68	245	225	3682856	438984	
BGO 2D	BGO 02D	8/12/1987	PVC	4	20	297	297.74	56	76	241.74	221.74	3683062	438846	
BGO 3A	BGO 03A	5/13/1994	PVC	2	10	291.9	288.7	175	185	113.7	103.7	3683310	438664	
BGO 3C	BGO 03C	5/13/1994	PVC	2	10	291.9	288.7	100	110	188.7	178.7	3683307	438666	
BGO 3DR	BGO 03D(R)	10/23/1995	*PVC*	*2*	20.1	291.8	289.3	51.7	71.8	237.6	217.5	3683301	438676	
BGO 4D	BGO 04D	8/13/1987	PVC	4	20	297.5	295.6	55	75	240.6	220.6	3683455	438558	
BGO 5C	BGO 05C	9/4/1987	PVC	4	10	296.1	294.2	101	111	193.2	183.2	3683534	438497	
BGO 5D	BGO 05D	9/4/1987	PVC	4	20	296.3	294.2	54.9	74.9	239.3	219.3	3683532	438494	
BGO 6A	BGO 06A	10/8/1987	PVC	4	10	285.8	283.8	166.3	176.3	117.5	107.5	3683450	438377	
BGO 6B	BGO 06B	3/18/1992	*PVC*	*4*	10	287	284.5	134.8	144.8	149.7	139.7	3683472	438373	
BGO 6C	BGO 06C	9/2/1987	PVC	4	10	285.8	283.5	115.5	125.5	168	158	3683449	438375	
BGO 6D	BGO 06D	8/31/1987	PVC	4	20	285.7	283.2	46	66	237.2	217.2	3683447	438372	
BGO 7D	BGO 07D	8/15/1987	PVC	4	20	287.2	285.2	45	65	240.2	220.2	3683381	438277	
BGO 8AR	BGO 08A(R)	2/25/1991	PVC	4	10	286.8	284.6	180	190	104.6	94.6	3683353	438185	
BGO 8C	BGO 08C	8/28/1987	PVC	4	10	288	285.8	101.5	111.5	184.3	174.3	3683348	438189	
BGO 8D	BGO 08D	8/28/1987	PVC	4	20	288	285.6	45	65	240.6	220.6	3683350	438187	
BGO 9AA	BGO 09AA	7/10/1991	*PVC*	*4*	10	285	282.8	199	209	83.8	73.8	3683401	438057	
BGO 9D	BGO 09D	8/20/1987	*PVC*	*4*	20	285.3	283.2	54	74	229.2	209.2	3683380	438113	
BGO 10AA	BGO 10AA	8/21/1991	*PVC*	*4*	10	300.9	298.8	208	218	90.8	80.8	3683338	437959	
BGO 10AR	BGO 10A(R)	2/20/1991	*PVC*	*4*	10	300.7	298.5	192	202	106.5	96.5	3683304	438011	
BGO 10B	BGO 10B	8/21/1991	*PVC*	*4*	10	301.1	299	150	160	149	139	3683332	437959	
BGO 10C	BGO 10C	9/15/1987	*PVC*	*4*	10	301.5	299.3	132	142	167.3	157.3	3683300	438006	
BGO 10DR	BGO 10D(R)	2/8/1991	*PVC*	*4*	20	300.6	298.3	60	80	238.3	218.3	3683306	438014	
BGO 11DR	BGO 11D(R)	9/7/1995	*PVC*	*4*	19.9	305.5	302.9	69.9	89.8	233	213.1	3683241	437902	
BGO 12AX	BGO 12A(X)	10/3/1995	*PVC*	*4*	10	313.1	310.5	201	211	109.5	99.5	3683167	437808	
BGO 12CX	BGO 12C(X)	9/12/1995	*PVC*	*4*	20.1	313.9	311.3	78.5	98.6	232.8	212.7	3683159	437797	
BGO 12DR	BGO 12D(R)	9/29/1995	*PVC*	*4*	10	313.6	311	159.8	169.8	151.2	141.2	3683162	437801	
BGO 13DR	BGO 13D(R)	2/27/1991	*PVC*	*4*	10	319.5	317.3	97	107	220.3	210.3	3683090	437707	
BGO 14AR	BGO 14A(R)	3/5/1991	*PVC*	*4*	10	300.9	298.7	191.9	201.9	106.8	96.8	3682964	437779	
BGO 14CR	BGO 14C(R)	3/5/1991	*PVC*	*4*	10	300.7	298.4	98.3	108.3	200.1	190.1	3682960	437781	
BGO 14DR	BGO 14D(R)	3/8/1991	*PVC*	*4*	20	300.4	298.2	60.1	80.1	238.1	218.1	3682957	437784	
BGO 15D	BGO 15D	8/25/1987	*PVC*	*4*	20	298.8	296.7	58	78	238.7	218.7	3682883	437864	
BGO 16AR	BGO 16A(R)	7/22/1992	*PVC*	*4*	10	303.8	301.6	187.9	197.9	113.7	103.7	3682891	437993	

Table A-1. MWMF Monitoring Well Construction Details

Monitoring Well Designation as Used in This Report	**Monitoring Well Designation as Used in the MWMF RCRA Part B Permit Application (Rev. 6)**	**Installation Date (mo/day/yr)**	**Well Casing/ Screen Material**	**Well Casing Diameter (in)**	**Length of Screen (ft)**	**Top of Casing Reference Elevation (ft msl)**	**Land Surface/ Ground Elevation (ft msl)**	**Top Depth of Screen (ft below land surface)**	**Bottom Depth of Screen (ft below land surface)**	**Top of Screen Elevation (ft msl)**	**Bottom of Screen Elevation (ft msl)**	**Northing**	**Easting**	**Date Abandoned (mo/day/yr)**
BGO 16B	BGO 16B	2/20/1992	*PVC*	*4*	10	305.3	302.9	156.9	166.9	146	136	3682891	437981	
BGO 16D	BGO 16D	8/24/1987	*PVC*	*4*	20	304.8	302.3	65	85	237.3	217.3	3682890	437988	
BGO 17DR	BGO 17D(R)	4/30/1992	*PVC*	*4*	20	299.4	296.9	60	80	236.9	216.9	3682890	438065	
BGO 18A	BGO 18A	10/30/1987	*PVC*	*4*	10	295.3	292.9	183.4	193.4	109.5	99.5	3682942	438138	
BGO 18D	BGO 18D	11/4/1987	*PVC*	*4*	20	295.1	292.6	53	73	239.6	219.6	3682944	438141	
BGO 19DR	BGO 19D(R)	10/19/1995	*PVC*	*4*	20	294.2	291.6	74.9	94.9	216.7	196.7	3682940	438177	
BGO 20A	BGO 20A	1/27/1995	*PVC*	*4*	10	283.9	281.3	185	195	96.3	86.3	3682858	438350	
BGO 20AA	BGO 20AA	1/17/1995	*PVC*	*4*	10	283.6	281.3	253	263	28.3	18.3	3682852	438351	
BGO 20B	BGO 20B	2/21/1995	*PVC*	*4*	10	283.5	281	140	150	141	131	3682858	438358	
BGO 20C	BGO 20C	3/2/1995	*PVC*	*4*	10	283.5	281	97	107	184	174	3682852	438357	
BGO 20D	BGO 20D	3/2/1988	*PVC*	*4*	20	283.7	281.3	45	65	236.3	216.3	3682859	438354	
BGO 21D	BGO 21D	11/11/1987	*PVC*	*4*	20	285.6	283	45.3	65.3	237.7	217.7	3682856	438491	
BGO 22DX	BGO 22D(X)	6/14/1996	*PVC*	*4*	20	286.1	283.35	45.5	65.5	237.85	217.85	3682878	438588	
BGO 23D	BGO 23D	8/6/1987	*PVC*	*4*	20	289.4	287	45	65	242	222	3682863	438735	
BGO 24D	BGO 24D	7/29/1987	*PVC*	*4*	20	293.4	291	50	70	241	221	3682863	438851	
BGO 25A	BGO 25A	10/19/1987	*PVC*	*4*	10	296.6	294.7	180.6	190.6	114.1	104.1	3682895	437784	
BGO 26A	BGO 26A	3/15/1989	*PVC*	*4*	10	287.4	285.1	194.1	204.1	91	81	3682774	437625	
BGO 26D	BGO 26D	12/2/1988	*PVC*	*4*	20.1	285.7	283.5	50	70.1	233.5	213.4	3682770	437628	
BGO 27C	BGO 27C	3/17/1989	*PVC*	*4*	9	276.2	273.9	110	119	163.9	154.9	3682595	437626	
BGO 27D	BGO 27D	12/5/1988	*PVC*	*4*	20	276.6	274.3	45	65	229.3	209.3	3682599	437627	
BGO 28D	BGO 28D	12/16/1988	*PVC*	*4*	20	277.7	275.1	45	65	230.1	210.1	3682478	437631	
BGO 29A	BGO 29A	2/17/1989	*PVC*	*4*	10	264.4	262.1	149.6	159.6	112.5	102.5	3682466	437506	
BGO 29C	BGO 29C	11/14/1991	*PVC*	*4*	10	265	262.8	76	86	186.8	176.8	3682470	437501	
BGO 29D	BGO 29D	11/13/1991	*PVC*	*4*	20	265.6	263.5	35	55	228.5	208.5	3682474	437499	
BGO 30C	BGO 30C	4/5/1989	PVC	4	10	274.7	272.6	84.2	94.2	188.4	178.4	3682446	437674	
BGO 30D	BGO 30D	2/6/1989	PVC	4	20	275	272.8	45	65	227.8	207.8	3682446	437670	
BGO 31C	BGO 31C	4/5/1989	PVC	4	10	273.3	271.1	84.7	94.7	186.4	176.4	3682451	437785	
BGO 31D	BGO 31D	2/11/1989	PVC	4	20	273.9	271.6	40.5	60.5	231.1	211.1	3682457	437790	
BGO 32D	BGO 32D	12/16/1988	PVC	4	20	281.9	279.5	45	65	234.5	214.5	3682467	437937	
BGO 33C	BGO 33C	4/4/1989	PVC	4	10	279.6	277.4	89.6	99.6	187.8	177.8	3682483	438088	
BGO 33D	BGO 33D	12/6/1988	PVC	4	20	280.5	278.1	45	65	233.1	213.1	3682483	438093	
BGO 34D	BGO 34D	12/7/1988	PVC	4	20	275.1	272.7	40	60	232.7	212.7	3682493	438232	
BGO 35C	BGO 35C	4/3/1989	PVC	4	10	273.7	271.4	99.5	109.5	171.9	161.9	3682509	438395	

Table A-1. MWMF Monitoring Well Construction Details

Monitoring Well Designation as Used in This Report	Monitoring Well Designation as Used in the MWMF RCRA Part B Permit Application (Rev. 6)	Installation Date (mo/day/yr)	Well Casing/ Screen Material	Well Casing Diameter (in)	Length of Screen (ft)	Top of Casing Reference Elevation (ft msl)	Land Surface/ Ground Elevation (ft msl)	Top Depth of Screen (ft below land surface)	Bottom Depth of Screen (ft below land surface)	Top of Screen Elevation (ft msl)	Bottom of Screen Elevation (ft msl)	Northing	Easting	Date Abandoned (mo/day/yr)
BGO 35D	BGO 35D	12/8/1988	PVC	4	20	273.8	271.4	32	52	239.4	219.4	3682509	438399	
BGO 36D	BGO 36D	12/8/1988	PVC	4	20	275.7	273.3	30	50	243.3	223.3	3682518	438517	
BGO 37C	BGO 37C	3/31/1989	PVC	4	10	286.5	284.3	105.5	115.5	178.8	168.8	3682528	438658	
BGO 37D	BGO 37D	12/9/1988	PVC	4	20	287.5	285.1	39	59	246.1	226.1	3682529	438662	
BGO 38D	BGO 38D	12/15/1988	PVC	4	20	291.8	289.3	47	67	242.3	222.3	3682536	438756	
BGO 39A	BGO 39A	9/12/1994	*PVC*	*2*	10	296.4	293.7	198.9	208.9	94.8	84.8	3682644	438778	
BGO 39C	BGO 39C	9/12/1994	PVC	2	10	296.9	293.6	108.7	118.7	184.9	174.9	3682640	438778	
BGO 39D	BGO 39D	12/14/1988	PVC	4	20	295.9	293.7	49	69	244.7	224.7	3682648	438778	
BGO 40D	BGO 40D	3/14/1991	PVC	4	9.9	288.5	286.4	59.9	69.8	226.5	216.6	3682702	437536	
BGO 41A	BGO 41A	5/24/1991	*PVC*	*4*	10	300.5	298.3	185	195	113.3	103.3	3682924	437663	
BGO 42C	BGO 42C	5/10/1991	*PVC*	*4*	10	298.1	295.9	100	110	195.9	185.9	3682929	437704	
BGO 43A	BGO 43A	4/26/1991	*PVC*	*4*	10	315.1	312.9	197	207	115.9	105.9	3683222	437766	
BGO 43AA	BGO 43AA	4/1/1991	*PVC*	*4*	10	314.5	312.2	240	250	72.2	62.2	3683226	437769	
BGO 43CR	BGO 43C(R)	6/6/1991	*PVC*	*4*	10	315.5	313.4	125	135	188.4	178.4	3683213	437767	
BGO 43D	BGO 43D	4/29/1991	*PVC*	*4*	10	315.5	313.2	105	115	208.2	198.2	3683218	437763	
BGO 44A	BGO 44A	7/18/1991	*PVC*	*4*	10	285.5	283	175	185	108	98	3683433	438214	
BGO 44AA	BGO 44AA	6/18/1991	*PVC*	*4*	10.1	285.4	283.3	212	222.1	71.3	61.2	3683439	438221	
BGO 44B	BGO 44B	6/27/1991	*PVC*	*4*	10	285.3	283.1	125	135	158.1	148.1	3683436	438218	
BGO 44C	BGO 44C	6/21/1991	*PVC*	*4*	10	285.7	283.4	82.8	92.8	200.6	190.6	3683441	438225	
BGO 44D	BGO 44D	6/13/1991	*PVC*	*4*	10	285.6	283.4	50	60	233.4	223.4	3683445	438228	
BGO 45A	BGO 45A	3/6/1991	*PVC*	*4*	10	279.1	276.9	150	160	126.9	116.9	3682613	437567	
BGO 45B	BGO 45B	3/8/1991	*PVC*	*4*	10	278.7	276.6	129.6	139.6	147	137	3682618	437569	
BGO 45C	BGO 45C	3/11/1991	*PVC*	*4*	10	278.8	276.5	76	86	200.5	190.5	3682619	437573	
BGO 45D	BGO 45D	3/14/1991	*PVC*	*4*	20	278.8	276.6	47	67	229.6	209.6	3682625	437572	
BGO 46B	BGO 46B	11/12/1991	*PVC*	*4*	10	265.6	263.4	113	123	150.4	140.4	3682393	437688	
BGO 46C	BGO 46C	11/19/1991	*PVC*	*4*	10	265.2	263	75	85	188	178	3682393	437683	
BGO 46D	BGO 46D	11/19/1991	*PVC*	*4*	10	265.3	263.1	51	61	212.1	202.1	3682394	437678	
BGO 47A	BGO 47A	4/15/1991	*PVC*	*4*	10	267	264.8	168	178	96.8	86.8	3682407	437854	
BGO 47C	BGO 47C	4/22/1991	*PVC*	*4*	10	267.8	265.6	77	87	188.6	178.6	3682416	437855	
BGO 47D	BGO 47D	4/17/1991	*PVC*	*4*	10	267.6	265.4	52	62	213.4	203.4	3682411	437855	
BGO 48C	BGO 48C	5/6/1991	*PVC*	*4*	10	276.8	274.7	88	98	186.7	176.7	3682413	437929	
BGO 48D	BGO 48D	5/9/1991	*PVC*	*4*	10	277.1	275	63	73	212	202	3682409	437931	
BGO 49A	BGO 49A	5/14/1991	*PVC*	*4*	10	271.4	269.1	184	194	85.1	75.1	3682435	438320	

Table A-1. MWMF Monitoring Well Construction Details

Monitoring Well Designation as Used in This Report	Monitoring Well Designation as Used in the MWMF RCRA Part B Permit Application (Rev. 6)	Installation Date (mo/day/yr)	Well Casing/ Screen Material	Well Casing Diameter (in)	Length of Screen (ft)	Top of Casing Reference Elevation (ft msl)	Land Surface/ Ground Elevation (ft msl)	Top Depth of Screen (ft below land surface)	Bottom Depth of Screen (ft below land surface)	Top of Screen Elevation (ft msl)	Bottom of Screen Elevation (ft msl)	Northing	Easting	Date Abandoned (mo/day/yr)
BGO 49C	BGO 49C	5/24/1991	*PVC*	*4*	10	271.3	269	93	103	176	166	3682438	438317	
BGO 49D	BGO 49D	5/24/1991	*PVC*	*4*	20	271.7	269.5	31	51	238.5	218.5	3682441	438314	
BGO 50A	BGO 50A	11/27/1991	*PVC*	*4*	10	255.6	253.5	153	163	100.5	90.5	3682392	437589	
BGO 50C	BGO 50C	11/27/1991	*PVC*	*4*	10	255.7	253.5	81	91	172.5	162.5	3682392	437595	
BGO 50D	BGO 50D	11/27/1991	*PVC*	*4*	20	256.2	254	26	46	228	208	3682392	437599	
BGO 51A	BGO 51A	6/3/1994	*PVC*	*4*	10	289.6	287.1	202	212	85.1	75.1	3682785	438682	
BGO 51AA	BGO 51AA	5/31/1994	*PVC*	*4*	10	289.5	287.2	248	258	39.2	29.2	3682785	438692	
BGO 51B	BGO 51B	6/7/1994	*PVC*	*4*	10	289.4	286.9	160	170	126.9	116.9	3682785	438685	
BGO 51C	BGO 51C	6/8/1994	*PVC*	*4*	10	289.3	287.1	102	112	185.1	175.1	3682785	438687	
BGO 51D	BGO 51D	6/8/1994	*PVC*	*4*	20	289.6	287.1	47	67	240.1	220.1	3682785	438690	
BGO 52A	BGO 52A	9/14/1994	*PVC*	*4*	10	284.4	281.7	190	200	91.7	81.7	3682790	438431	
BGO 52AA	BGO 52AA	8/11/1994	*PVC*	*4*	10	284.5	281.6	235	245	46.6	36.6	3682791	438428	
BGO 52B	BGO 52B	9/19/1994	*PVC*	*4*	10	284.4	281.7	145	155	136.7	126.7	3682790	438433	
BGO 52C	BGO 52C	9/23/1994	*PVC*	*4*	10	284.5	281.4	92.7	102.7	188.7	178.7	3682790	438435	
BGO 52D	BGO 52D	9/23/1994	*PVC*	*4*	20	284.8	282.1	42.7	62.7	239.4	219.4	3682790	438438	
BGO 53A	BGO 53A	12/1/1994	*PVC*	*4*	10	291.5	288.7	200	210	88.7	78.7	3682829	437739	
BGO 53AA	BGO 53AA	11/18/1994	*PVC*	*4*	10	291.78	288.9	240	250	48.9	38.9	3682829	437742	
BGO 53B	BGO 53B	12/2/1995	*PVC*	*4*	10	291.5	288.6	135.1	145.1	153.5	143.5	3682829	437736	
BGO 53C	BGO 53C	12/2/1994	*PVC*	*4*	10	291.3	288.4	95.2	105.2	193.2	183.2	3682829	437733	
BGO 53D	BGO 53D	12/7/1994	*PVC*	*4*	20	292	289	43.7	63.7	245.3	225.3	3682826	437742	
BGX 1A	BGX 01A	4/12/1991	*PVC*	*4*	10	291.3	289.1	165	175	124.1	114.1	3683584	438383	
BGX 1C	BGX 01C	4/25/1991	*PVC*	*4*	10	291.4	289.3	103.3	113.3	186	176	3683583	438387	
BGX 1D	BGX 01D	4/29/1991	*PVC*	*4*	20	291.4	289.2	54.5	74.5	234.7	214.7	3683582	438391	
BGX 2B	BGX 02B	2/15/1991	*PVC*	*4*	10	291.5	289.2	142	152	147.2	137.2	3683616	438234	
BGX 2D	BGX 02D	3/1/1991	*PVC*	*4*	10	291.3	289.1	98	108	191.1	181.1	3683615	438238	
BGX 3D	BGX 03D	2/7/1991	*PVC*	*4*	20	291.4	289.1	67.5	87.5	221.6	201.6	3683623	438050	
BGX 4A	BGX 04A	1/22/1991	*PVC*	*4*	10	291	288.8	172	182	116.8	106.8	3683596	437856	
BGX 4C	BGX 04C	1/29/1991	*PVC*	*4*	10	290.9	288.7	108	118	180.7	170.7	3683595	437852	
BGX 4D	BGX 04D	1/29/1991	*PVC*	*4*	20	291.1	288.8	65	85	223.8	203.8	3683594	437846	
BGX 5D	BGX 05D	2/5/1991	*PVC*	*4*	20	285.2	283	68	88	215	195	3683741	437785	
BGX 6D	BGX 06D	4/15/1991	*PVC*	*4*	20	277.2	275	64	84	211	191	3683863	437778	6/20/2012
BGX006DR	BGX006DR	6/21/2012	*PVC*	*2*	20	278.9	276.4	73	93	203.4	183.4	3683838	437734	
BGX 7D	BGX 07D	4/12/1991	*PVC*	*4*	20	279.4	277.1	63	83	214.1	194.1	3683908	438042	

Table A-1. MWMF Monitoring Well Construction Details

Monitoring Well Designation as Used in This Report	**Monitoring Well Designation as Used in the MWMF RCRA Part B Permit Application (Rev. 6)**	**Installation Date (mo/day/yr)**	**Well Casing/ Screen Material**	**Well Casing Diameter (in)**	**Length of Screen (ft)**	**Top of Casing Reference Elevation (ft msl)**	**Land Surface/ Ground Elevation (ft msl)**	**Top Depth of Screen (ft below land surface)**	**Bottom Depth of Screen (ft below land surface)**	**Top of Screen Elevation (ft msl)**	**Bottom of Screen Elevation (ft msl)**	**Northing**	**Easting**	**Date Abandoned (mo/day/yr)**
BGX 8DR	BGX 08D(R)	6/6/1991	*PVC*	*4*	20	278.4	276.1	73	93	203.1	183.1	3683834	438334	
BGX 9D	BGX 09D	3/18/1991	PVC	4	20	279.6	277.4	45	65	232.4	212.4	3683777	438594	
BGX 10D	BGX 10D	2/6/1991	PVC	4	20	277	274.8	38.6	58.6	236.2	216.2	3683635	438789	
BGX 11D	BGX 11D	1/24/1991	*PVC*	*4*	20	276.5	273.8	37.1	57.1	236.7	216.7	3683385	438902	
BGX 12C	BGX 12C	1/21/1991	PVC	4	10	275.3	273.1	89	99	184.1	174.1	3683187	439081	
BGX 12D	BGX 12D	1/21/1991	PVC	4	20	275.4	273.2	29.5	49.5	243.7	223.7	3683182	439084	
BGX 13D	BGX 13D	11/1/2010	PVC	4	10	278.57	275.78	72.8	82.8	202.98	192.98	3683849	438267	
BSE 1C1	BSE 01C	9/10/1997	PVC	4	2.5	292.07	283.65	112.06	114.56	171.59	169.09	3682435	438675	
BSE 1C2	BSE 01C	9/10/1997	PVC	4	2.5	292.07	283.65	130.62	133.12	153.03	150.53	3682435	438675	
BSE 1C3	BSE 01C	9/10/1997	PVC	4	2.5	292.07	283.65	143.16	145.66	140.49	137.99	3682435	438675	
BSE 1C4	BSE 01C	9/10/1997	PVC	4	2.5	292.07	283.65	158.2	160.7	125.45	122.95	3682435	438675	
BSE 1D1	BSE 01D	9/10/1997	PVC	4	2.5	286.52	283.76	57.48	59.98	226.28	223.78	3682436	438679	
BSE 1D2	BSE 01D	9/10/1997	PVC	4	2.5	286.52	283.76	70.02	72.52	213.74	211.24	3682436	438679	
BSE 1D3	BSE 01D	9/10/1997	PVC	4	2.5	286.52	283.76	80.04	82.54	203.72	201.22	3682436	438679	
BSE 1D4	BSE 01D	9/10/1997	PVC	4	2.5	286.52	283.76	97.6	100.1	186.16	183.66	3682436	438679	
BSE 2CR1	BSE 02C(R)	10/24/2001	PVC	2	2.5	287.09	286.09	107.9	110.4	178.19	175.69	3682277	438725	
BSE 2CR2	BSE 02C(R)	10/24/2001	PVC	2	2.5	287.09	286.09	127.4	129.9	158.69	156.19	3682277	438725	
BSE 2CR3	BSE 02C(R)	10/24/2001	PVC	2	2.5	287.09	286.09	137.9	140.4	148.19	145.69	3682277	438725	
BSE 2CR4	BSE 02C(R)	10/24/2001	PVC	2	2.5	287.09	286.09	153.4	155.9	132.69	130.19	3682277	438725	
BSE 2D1	BSE 02D	9/2/1997	PVC	4	2.5	286.48	279.72	53.48	55.98	226.24	223.74	3682407	438602	
BSE 2D2	BSE 02D	9/2/1997	PVC	4	2.5	286.48	279.72	66.02	68.52	213.7	211.2	3682407	438602	
BSE 2D3	BSE 02D	9/2/1997	PVC	4	2.5	286.48	279.72	76.04	78.54	203.68	201.18	3682407	438602	
BSE 2D4	BSE 02D	9/2/1997	PVC	4	2.5	286.48	279.72	93.6	96.1	186.12	183.62	3682407	438602	
BSE 3C1	BSE 03C	8/21/1997	PVC	4	2.5	287.07	286.07	112.78	115.28	173.29	170.79	3682276	438728	
BSE 3C2	BSE 03C	8/21/1997	PVC	4	2.5	287.07	286.07	132.84	135.34	153.23	150.73	3682276	438728	
BSE 3C3	BSE 03C	8/21/1997	PVC	4	2.5	287.07	286.07	145.4	147.9	140.67	138.17	3682276	438728	
BSE 3C4	BSE 03C	8/21/1997	PVC	4	2.5	287.07	286.07	160.46	162.96	125.61	123.11	3682276	438728	
BSE 3D1	BSE 03D	9/2/1997	PVC	4	2.5	287.09	286.09	63.72	66.22	222.37	219.87	3682277	438725	
BSE 3D2	BSE 03D	9/2/1997	PVC	4	2.5	287.09	286.09	71.24	73.74	214.85	212.35	3682277	438725	
BSE 3D3	BSE 03D	9/2/1997	PVC	4	2.5	287.09	286.09	81.26	83.76	204.83	202.33	3682277	438725	
BSE 3D4	BSE 03D	9/2/1997	PVC	4	2.5	287.09	286.09	93.8	96.3	192.29	189.79	3682277	438725	
BSW 1C1	BSW 01C	4/7/2000	PVC	2	2.51	256.68	254.88	74.38	76.89	180.5	177.99	3682223	437629	
BSW 1C2	BSW 01C	4/7/2000	PVC	2	2.5	256.72	254.88	83.88	86.38	171	168.5	3682223	437629	

Table A-1. MWMF Monitoring Well Construction Details

Monitoring Well Designation as Used in This Report	Monitoring Well Designation as Used in the MWMF RCRA Part B Permit Application (Rev. 6)	Installation Date (mo/day/yr)	Well Casing/ Screen Material	Well Casing Diameter (in)	Length of Screen (ft)	Top of Casing Reference Elevation (ft msl)	Land Surface/ Ground Elevation (ft msl)	Top Depth of Screen (ft below land surface)	Bottom Depth of Screen (ft below land surface)	Top of Screen Elevation (ft msl)	Bottom of Screen Elevation (ft msl)	Northing	Easting	Date Abandoned (mo/day/yr)
BSW 1C3	BSW 01C	4/7/2000	PVC	2	2.5	256.72	254.88	101.38	103.88	153.5	151	3682223	437629	
BSW 1C4	BSW 01C	4/7/2000	PVC	2	2.5	256.71	254.88	108.88	111.38	146	143.5	3682223	437629	
BSW 1D1	BSW 01D	4/10/2000	PVC	2	2.5	256.63	254.63	39.46	41.96	215.17	212.67	3682221	437630	
BSW 1D2	BSW 01D	4/10/2000	PVC	2	2.5	256.62	254.63	48.97	51.47	205.66	203.16	3682221	437630	
BSW 1D3	BSW 01D	4/10/2000	PVC	2	2.51	256.63	254.63	60.49	63	194.14	191.63	3682221	437630	
BSW 2C1	BSW 02C	4/11/2000	PVC	2	2.51	241.42	240.06	71.88	74.39	168.18	165.67	3682210	437732	
BSW 2C2	BSW 02C	4/11/2000	PVC	2	2.51	241.41	240.06	96.38	98.89	143.68	141.17	3682210	437732	
BSW 2C3	BSW 02C	4/11/2000	PVC	2	2.51	241.39	240.06	103.89	106.4	136.17	133.66	3682210	437732	
BSW 2D1	BSW 02D	4/13/2000	PVC	2	2.51	241.94	240.01	23.4	25.91	216.61	214.1	3682212	437734	
BSW 2D2	BSW 02D	4/13/2000	PVC	2	2.51	241.93	240.01	29.91	32.42	210.1	207.59	3682212	437734	
BSW 2D3	BSW 02D	4/13/2000	PVC	2	2.51	241.92	240.01	52.42	54.93	187.59	185.08	3682212	437734	
BSW 3C1	BSW 03C	4/4/2000	PVC	2	2.5	260.35	128.3	78.87	81.37	49.43	46.93	3682238	437857	
BSW 3C2	BSW 03C	4/4/2000	PVC	2	2.5	260.35	258.52	96.57	99.07	161.95	159.45	3682238	437857	
BSW 3C3	BSW 03C	4/4/2000	PVC	2	2.51	260.36	258.52	108.87	111.38	149.65	147.14	3682238	437857	
BSW 3C4	BSW 03C	4/4/2000	PVC	2	2.5	260.34	258.52	123.38	125.88	135.14	132.64	3682238	437857	
BSW 3D1	BSW 03D	4/5/2000	PVC	2	2.5	259.54	258.18	39.91	42.41	218.27	215.77	3682234	437857	
BSW 3D2	BSW 03D	4/5/2000	PVC	2	2.51	259.53	258.18	53.41	55.92	204.77	202.26	3682234	437857	
BSW 4C1	BSW 04C	3/29/2000	PVC	2	2.51	267.56	266.44	93.38	95.89	173.06	170.55	3682258	437960	
BSW 4C2	BSW 04C	3/29/2000	PVC	2	2.5	267.42	266.44	110.88	113.38	155.56	153.06	3682258	437960	
BSW 4C3	BSW 04C	3/29/2000	PVC	2	2.51	267.52	266.44	125.39	127.9	141.05	138.54	3682258	437960	
BSW 4D1	BSW 04D	3/31/2000	PVC	2	2.5	268.56	266.61	47.39	49.89	219.22	216.72	3682259	437956	
BSW 4D2	BSW 04D	3/31/2000	PVC	2	2.5	268.51	266.61	61.89	64.39	204.72	202.22	3682259	437956	
BSW 4D3	BSW 04D	3/31/2000	PVC	2	2.5	268.56	266.61	67.39	69.89	199.22	196.72	3682259	437956	
BSW 5C1	BSW 05C	3/14/2000	PVC	2	2.5	257.31	255.41	80.87	83.37	174.54	172.04	3682079	437625	
BSW 5C2	BSW 05C	3/14/2000	PVC	2	2.5	257.23	255.41	90.37	92.87	165.04	162.54	3682079	437625	
BSW 5C3	BSW 05C	3/14/2000	PVC	2	2.5	257.05	255.41	109.88	112.38	145.53	143.03	3682079	437625	
BSW 5C4	BSW 05C	3/14/2000	PVC	2	2.5	257.21	255.41	121.38	123.88	134.03	131.53	3682079	437625	
BSW 5D1	BSW 05D	3/16/2000	PVC	2	2.51	257.24	255.5	41.43	43.94	214.07	211.56	3682082	437625	
BSW 5D2	BSW 05D	3/16/2000	PVC	2	2.52	257.25	255.5	51.94	54.46	203.56	201.04	3682082	437625	
BSW 5D3	BSW 05D	3/16/2000	PVC	2	2.5	257.37	255.5	60.46	62.96	195.04	192.54	3682082	437625	
BSW 6C1	BSW 06C	3/8/2000	PVC	2	2.5	244.06	242.16	67.4	69.9	174.76	172.26	3681891	437651	
BSW 6C2	BSW 06C	3/8/2000	PVC	2	2.5	244.05	242.16	78.9	81.4	163.26	160.76	3681891	437651	
BSW 6C3	BSW 06C	3/8/2000	PVC	2	2.5	243.89	242.16	85.4	87.9	156.76	154.26	3681891	437651	

Table A-1. MWMF Monitoring Well Construction Details

Monitoring Well Designation as Used in This Report	Monitoring Well Designation as Used in the MWMF RCRA Part B Permit Application (Rev. 6)	Installation Date (mo/day/yr)	Well Casing/ Screen Material	Well Casing Diameter (in)	Length of Screen (ft)	Top of Casing Reference Elevation (ft msl)	Land Surface/ Ground Elevation (ft msl)	Top Depth of Screen (ft below land surface)	Bottom Depth of Screen (ft below land surface)	Top of Screen Elevation (ft msl)	Bottom of Screen Elevation (ft msl)	Northing	Easting	Date Abandoned (mo/day/yr)
BSW 6C4	BSW 06C	3/8/2000	PVC	2	2.5	244.07	242.16	104.9	107.4	137.26	134.76	3681891	437651	
BSW 6D1	BSW 06D	3/10/2000	PVC	2	2.5	244.65	242.41	29.4	31.9	213.01	210.51	3681893	437652	
BSW 6D2	BSW 06D	3/10/2000	PVC	2	2.5	244.62	242.41	35.9	38.4	206.51	204.01	3681893	437652	
BSW 6D3	BSW 06D	3/10/2000	PVC	2	2.5	244.65	242.41	44.4	46.9	198.01	195.51	3681893	437652	
BSW 7C1	BSW 07C	3/20/2000	PVC	2	2.5	249.34	248.01	76.89	79.39	171.12	168.62	3681994	437755	
BSW 7C2	BSW 07C	3/20/2000	PVC	2	2.51	249.3	248.01	89.39	91.9	158.62	156.11	3681994	437755	
BSW 7C3	BSW 07C	3/20/2000	PVC	2	2.5	249.31	248.01	102.91	105.41	145.1	142.6	3681994	437755	
BSW 7C4	BSW 07C	3/20/2000	PVC	2	2.51	249.32	248.01	120.42	122.93	127.59	125.08	3681994	437755	
BSW 7D1	BSW 07D	3/23/2000	PVC	2	2.51	250.63	248.7	40.41	42.92	208.29	205.78	3681995	437751	
BSW 7D2	BSW 07D	3/23/2000	PVC	2	2.51	250.67	248.7	49.92	52.43	198.78	196.27	3681995	437751	
BSW 7D3	BSW 07D	3/23/2000	PVC	2	2.5	250.68	248.7	64.93	67.43	183.77	181.27	3681995	437751	
BSW 8C1	BSW 08C	3/27/2000	PVC	2	2.5	234.04	231.79	55.98	58.48	175.81	173.31	3682031	437905	
BSW 8C2	BSW 08C	3/27/2000	PVC	2	2.5	234.04	231.79	70.48	72.98	161.31	158.81	3682031	437905	
BSW 8C3	BSW 08C	3/27/2000	PVC	2	2.51	234.03	231.79	91.97	94.48	139.82	137.31	3682031	437905	
BSW 8C4	BSW 08C	3/27/2000	PVC	2	2.51	234.05	231.79	104.48	106.99	127.31	124.8	3682031	437905	
BSW 8D1	BSW 08D	3/28/2000	PVC	2	2.5	233.5	232.27	21.9	24.4	210.37	207.87	3682030	437908	
BSW 8D2	BSW 08D	3/28/2000	PVC	2	2.51	233.47	232.27	33.4	35.91	198.87	196.36	3682030	437908	
BSW 8D3	BSW 08D	3/28/2000	PVC	2	2.5	233.45	232.27	39.9	42.4	192.37	189.87	3682030	437908	
FAB 2	(1)	5/9/1994	PVC	4	20	328.5	326.5	90	110	236.5	216.5	3683122	437418	
FAB002MC	(4)	2/24/2004	PVC	2	10	329.07	326.5	130	140	196.5	186.5	3683126.88	437417.558	
FCB 2	FCB 02	9/3/1981	PVC	4	30	307.5	305.2	70	100	235.2	205.2	3682911	437537	11/3/2003
FCB 2C	(2)	11/10/2003	PVC	2	10.2	308.51	305.6	124.7	134.72	180.9	170.88	3682918	437536	
FCB 2D	**(1)**	**11/10/2003**	**PVC**	**2**	**10.2**	**308.02**	**305.3**	**70.34**	**80.36**	**234.96**	**224.94**	**3682916**	**437534**	
FCB 2D	**(1)**	**11/10/2003**	**PVC**	**2**	**10.2**	**308.02**	**305.3**	**80.36**	**90.38**	**224.94**	**214.92**	**3682916**	**437534**	
FSS 1D	FSS 01D	10/6/1988	PVC	4	20	266.3	263.9	34	54	229.9	209.9	3682355	437509	
FSS 2D	FSS 02D	10/7/1988	PVC	4	20	261.8	259.4	35	55	224.4	204.4	3682321	437542	
FSS 3D	FSS 03D	10/10/1988	PVC	4	20	258.4	255.8	30	50	225.8	205.8	3682219	437476	
FSS003C	FSS003C	6/29/2012	PVC	2	20	258.96	256	74.5	94.5	181.5	161.5	3682219	437472	
FSS 4D	FSS 04D	10/16/1988	PVC	4	20	292	289.8	67.2	87.2	222.6	202.6	3682241	437207	
HIW5MC	**HIW5MC**	**11/12/1993**	**PVC**	**4**	**29.9**	**268.2**	**266.1**	**84.1**	**114**	**182**	**152.1**	**3682402.9**	**438454.745**	
HIW5MC	**HIW5MC**	**11/12/1993**	**PVC**	**4**	**14.8**	**268.2**	**266.1**	**129**	**143.8**	**137.1**	**129**	**3682402.9**	**438454.745**	
HMD 1D	HMD 01D	2/1/1991	*PVC*	*4*	20	264.7	262.7	43	63	219.7	199.7	3683762	437644	
HMD 2D	HMD 02D	2/1/1991	*PVC*	*4*	20	261.4	259.3	48.5	68.5	210.8	190.8	3684046	437549	

Table A-1. MWMF Monitoring Well Construction Details

Monitoring Well Designation as Used in This Report	Monitoring Well Designation as Used in the MWMF RCRA Part B Permit Application (Rev. 6)	Installation Date (mo/day/yr)	Well Casing/ Screen Material	Well Casing Diameter (in)	Length of Screen (ft)	Top of Casing Reference Elevation (ft msl)	Land Surface/ Ground Elevation (ft msl)	Top Depth of Screen (ft below land surface)	Bottom Depth of Screen (ft below land surface)	Top of Screen Elevation (ft msl)	Bottom of Screen Elevation (ft msl)	Northing	Easting	Date Abandoned (mo/day/yr)
HMD 3D	HMD 03D	2/1/1991	*PVC*	*4*	20	259.6	257.5	49.8	69.8	207.7	187.7	3684110	437682	
HMD 4B	HMD 04B	5/18/2001	*PVC*	*4*	10.04	251.24	248.72	75	85.04	173.72	163.68	3684088	437869	
HMD 4D	HMD 04D	2/1/1991	*PVC*	*4*	20	251.1	248.5	39.6	59.6	208.9	188.9	3684086	437866	
HSB 85A	HSB 85A	7/1/1984	PVC	3	10	294.5	292.1	221	231	71.1	61.1	3682899	439015	
HSB 85B	HSB 85B	7/1/1984	PVC	4	10	294.7	292	148.8	158.8	143.2	133.2	3682900	439018	
HSB 85C	HSB 85C	8/1/1984	PVC	4	10	294.3	292	67.8	77.8	224.2	214.2	3682902	439014	
HSB142C	HSB 142C	11/5/1990	PVC	4	10	204.2	201.6	30	40	171.6	161.6	3681758	437796	
HSB142D	HSB142D	11/5/1990	PVC	4	10	204.4	201.7	2	12	199.7	189.7	3681754	437794	
HSB143C	HSB 143C	10/9/1990	PVC	4	10	222.4	220.1	41	51	179.1	169.1	3681779	437505	
HSB143D	HSB 143D	10/9/1990	PVC	4	20	223.1	220.9	4	24	216.9	196.9	3681783	437502	
HSB151C	HSB 151C	8/9/1990	PVC	4	10	213.8	211.6	31	41	180.6	170.6	3681819	437943	
HSB151D	HSB 151D	8/20/1990	PVC	4	10	213.8	211.6	4	14	207.6	197.6	3681821	437946	9/18/2003
HSB151DR	(2)	9/8/2003	PVC	2	5.03	214.16	211	14.76	19.79	196.24	191.21	3681819	437939	
NEP 1D	NEP 01D	5/18/2001	PVC	2	10.02	260.27	257.75	64	74.02	193.75	183.73	3684180	437358	
NEP 2D	NEP 02D	5/21/2001	PVC	2	10.01	267.98	265.35	65	75.01	200.35	190.34	3684137	437511	
NEP 4D	NEP 04D	5/18/2001	PVC	2	10	233.32	230.72	34	44	196.72	186.72	3684136	438473	
NEP 3D	*NEP 03D*	*5/15/2001*	*PVC*	*2*	*10*		*238.91*	*45*	*55*	*193.91*	*183.91*	*78358*	*59278*	
NWP 1B	NWP 01B	6/5/2001	PVC	2	10.02	275.76	273.36	92	102.02	181.36	171.34	3683413	437742	
NWP 1D	NWP 01D	6/5/2001	PVC	2	10.1	275.06	272.72	60	70.1	212.72	202.62	3683420	437742	
NWP 2D	NWP 02D	5/24/2001	PVC	2	10.02	249.8	247.33	45	55.02	202.33	192.31	3683875	437500	
NWP 3C	NWP 03C	6/5/2001	PVC	2	10.2	315.69	313.17	114	124.02	199.17	189.15	3682996	437579	
NWP 3D	NWP 03D	5/25/2001	PVC	2	20.12	315.93	313.45	78	98.12	235.45	215.33	3683000	437577	
NWP101D	NWP 101D	2/17/1999	PVC	2	10	336	333.59	110	120	223.59	213.59	3683188	437540	
NWP202C	NWP 202C	2/16/1999	PVC	2	10	336.61	334.3	150.8	160.8	183.5	173.5	3683189	437519	
NWP302A	(1)	3/17/1999	PVC	2	10	337.91	333.37	254	264	79.37	69.37	3683183	437494	
NWP303A	(1)	2/11/1999	PVC	2	10	329.43	326.71	201	211	125.71	115.71	3683117	437420	
SEP001MD	(4)	2/23/2004	PVC	2	20	268.01	265.45	40	60	225.45	205.45	3682401.23	438450.548	
SEP002B	(4)	2/17/2004	PVC	2	10	214.93	212.35	57	67	155.35	145.35	3681765.31	438145.86	
SEP002D	(4)	2/18/2004	PVC	2	10	214.86	212.3	30	40	182.3	172.3	3681765.4	438143.731	
SEP003CL	(4)	2/19/2004	PVC	2	10	254.85	252.35	100	110	152.35	142.35	3682116.16	438168.098	
SEP003CU	(4)	2/20/2004	PVC	2	10	254.7	252.25	76	86	176.25	166.25	3682116.62	438166.045	
SWP 1C	(1)	10/30/2003	PVC	2	10	280.86	278.2	96.35	106.35	181.85	171.85	3682390	438000	
SWP 2C	(1)	10/31/2003	PVC	2	10.02	272.04	269.4	88.34	98.36	181.06	171.04	3682438	438172	

Table A-1. MWMF Monitoring Well Construction Details

Monitoring Well Designation as Used in This Report	Monitoring Well Designation as Used in the MWMF RCRA Part B Permit Application (Rev. 6)	Installation Date (mo/day/yr)	Well Casing/ Screen Material	Well Casing Diameter (in)	Length of Screen (ft)	Top of Casing Reference Elevation (ft msl)	Land Surface/ Ground Elevation (ft msl)	Top Depth of Screen (ft below land surface)	Bottom Depth of Screen (ft below land surface)	Top of Screen Elevation (ft msl)	Bottom of Screen Elevation (ft msl)	Northing	Easting	Date Abandoned (mo/day/yr)
SWP 3D	**(1)**	**10/31/2003**	**PVC**	**2**	**15.02**	**269.03**	**266.4**	**57.77**	**72.79**	**208.63**	**193.61**	**3682277**	**438022**	
SWP 3D	**(1)**	**10/31/2003**	**PVC**	**2**	**5.01**	**269.03**	**266.4**	**47.75**	**52.76**	**218.65**	**213.64**	**3682277**	**438022**	
SWP004MD	**(4)**	2/25/2004	PVC	2	10	257.73	255.1	58	68	197.1	187.1	3682086.21	437624.581	
SWP005C	SWP005C	7/2/2012	PVC	2	10	253.39	249.55	75	85	174.55	164.55	3682075	437442	
SWP005D	SWP005D	7/3/2012	PVC	2	20	252.18	249.42	30	50	219.42	199.42	3682073	437441	
SWP006C	SWP006C	7/9/2012	PVC	2	10	253.56	250.64	70	80	180.64	170.64	3681951	437467	
SWP006D	SWP006D	7/9/2012	PVC	2	20	253.69	250.88	29.5	49.5	221.38	201.38	3681950	437470	
HSB 66DR	**(5)**	10/1/2003	PVC	2	20	281.9	278.6	70	90	208.59	188.57	3682203.93	438759.879	
HSB 119C	**(5)**	11/26/2003	PVC	2	10	257.95	255	95.18	105.17	159.82	149.83	3682218.85	438441.82	
HSB 120C	**(5)**	12/3/2003	PVC	2	10	268.28	265.3	100.02	110.02	165.28	155.28	3682348.43	438473.476	
HSB 154D	**(5)**	12/3/2003	PVC	2	10	264.84	261.6	46.92	56.92	214.68	204.68	3682175.78	438639.034	

(1) Added to the monitoring program or installed in 2003; however, will not be sampled for the first time until 1Q04.

(2) Replacement well for HSB151D and sampled for the first time in 4Q03.

(3) Installed in 2003; however, will not be sampled for the first time until 2Q04.

(4) Installed in 2004; however, will not be sampled for the first time until 2Q04.

Italics indicate from ESH-EMS-2000470, Environmental Protection Department's Well Inventory (U), March 2001.

Bold indicates two screen zones.

Table A-2. F-Area HWMF, H-Area HWMF, and MWMF PWMS Wells

F-Area HWMF PWMS Wells

Well ID	PWMS Type	Well ID	PWMS Type
FSB 77	Tank	FSB 104D	Tank
FSB 78	Tank	FSB 105C	Tank
FSB 78C	TAP	FSB 106C	Tank
FSB 79	Tank	FSB 107C	TAP
FSB 79C	Tank	FSB 107D	Tank
FSB 87C	TAP	FSB 110C	TAP
FSB 89D	Tank	FSB 110D	Tank
FSB 91D	Tank	FSB 112DR	Tank
FSB 92D	Tank	FSB 117D	Tank
FSB 93C	TAP	FSB 119D	Tank
FSB 94C	TAP	FSB 120C	TAP
FSB 94DR	Tank	FSB 121C	TAP
FSB 97C	TAP	FSB 121DR	Tank
FSB 98C	TAP	FSB 122C	TAP
FSB 99C	TAP	FSB 127D	Tank
FSB 104C	TAP		

H-Area HWMF PWMS Wells

Well ID	PWMS Type
HSB 67	Tank
HSB 69	Tank
HSB 84D	Tank
HSB 86C	Tank
HSB 86D	Tank
HSB 102D	Tank
HSB 103D	Tank
HSB 104D	Tank
HSB 105D	Tank
HSB 106D	Tank
HSB 107D	Tank
HSB 108D	Tank
HSB 109D	Tank
HSB 114D	Tank
HSB 115D	Tank
HSB 116D	Tank
HSB 134D	Tank
HSB 136D	Tank
HSB 139D	Tank

MWMF PWMS Wells

Well ID	PWMS Type
BGO 6D	Tank
BGO 7D	Tank
BGO 12DR	Tank
BGO 14CR	Tank
BGO 14DR	Tank
BGO 27C	TAP
BGO 28D	Tank
BGO 30C	TAP
BGO 31D	Tank
BGO 33C	TAP
BGO 37C	TAP
BGO 41A	Tank
BGO 42C	Tank
BGO 46C	TAP
BGO 46D	Tank
BGO 48C	TAP
BGO 48D	Tank
BGO 50C	TAP
BGO 53C	Tank
BGX 2D	Tank

APPENDIX B

F-AREA, H-AREA, AND MIXED WASTE MANAGEMENT FACILITY GROUNDWATER AND SURFACE WATER MONITORING RESULTS TABLES

List of Matrix Tables (Annual)

Available Laboratories

Laboratory name	Acronym	SC Certification Number
EBL	Environmental Bioassay Lab (SRS)	02550001
GEL	General Engineering Laboratories	10120001
PACE	Pace Analytical Energy Services, LLS	89009003
SHE	Shealy Environmental Services, Inc	32010
TAL	TestAmerica Labs, Inc	85002001

Data Qualification

The qualifiers and qualification codes to be used when validating analytical data are listed in the following tables. Qualifiers are given in order of "usability," i.e., lower ones supercede higher ones as validation functions are applied. Qualification codes form a series in validation.

USEPA Functional Guideline Qualifiers

Qualifier	Description
[null]	Data not remarked. The **detected** analyte result is acceptable for use as reported.
J	The **detected** analyte was positively identified but the **result is approximate**.
NJ	The **detected** analyte was only **tentatively identified** and the **result is approximate**. All usable tentatively identified compounds results receive this code.
U	The analyte was analyzed for, but **not detected**. The sample quantitation limit (SQL) is valid unless blank contamination is indicated.
UJ	The analyte was analyzed for, but **not detected**. The **Sample Quantitation Limit (SQL) is approximate**, and may be inaccurate or imprecise.
R	The sample result is **rejected** as unusable due to serious deficiencies in meeting quality control criteria. The **analyte may be present or absent**.

Qualification Codes

Qual Codes	Description
(Null)	Data not remarked.
A	The result is the mean of two or more results.
C	The result is calculated.

Qualification Codes	
G	The result reported is the maximum of two or more results.
H	The result is from a field kit determination and may not be accurate.
I[1]	The result is less than the SQL, but equal to or greater than the sample-specific method detection limit (ssMDL).
K[2]	The actual concentration is suspected to be less than the reported result.
L	The actual concentration is suspected to be greater than the reported result.
Q	The sample was held beyond the normal holding time prior to analysis.
T	The result is less than the criteria of detection.
V	The analyte was detected in the method blank.
Y	The result is from an unpreserved or incorrectly preserved sample; the data may not be accurate.
Z[2]	There were too many colonies present to count; the numeric value represents the filtration volume.
1	Compound identification criteria were not met.
2	Laboratory control sample criteria were not met.
3	Instrument performance check serial dilution criteria were not met.
4	Matrix interference was present.
5	Matrix spike concentration was ≤ 0.25× the sample concentration, and the percent recovery cannot be determined.
6	The analyte was detected in the field blank.
7	The analyte was detected in the rinsate blank.
8	The analyte was detected in the trip blank.
9	The field duplicate relative percent difference (RPD) was not within control limits.
10	Internal standard or carrier criteria were not met when affecting quantitation.
11	Matrix spike recovery was not within the control limits.
12	A tentatively identified compound is a suspected aldol-condensation product.
13	Initial or continuing calibration criteria was not met.
14	Surrogate or tracer spike recovery is out of specification.

Qualification Codes	
15[2]	Graphite furnace atomic absorption quality control (QC) a. Duplicate injection criteria were not met. b. Post-digestion spike recovery was not within control limits and the sample absorbance is > 50% of the post-digestion spike absorbance.
16	The sample was analyzed by the method of standard additions.
17[2]	Graphite furnace atomic absorption QC: The post-digestion spike recovery is not within control limits and the sample absorbance is < 50% of the post-digestion spike absorbance.
18	The laboratory duplicate RPD or matrix spike (MS)/matrix spike duplicate RPD was not within control limits.
19	Analyte detected in storage blank.
21	Result is above detection, but less than SQL.
22	South Carolina Department of Health and Environmental Control (SCDHEC)-required certification for analyte-method combination was not held by lab.
23	Result was derived beyond the calibration range of the instrument/method.

NOTES: [1] *This code is not currently used, but may be used in the future or in other SRS programs.*

[2] *This code is redundant to another code and is not used at this time.*

Results below Detection

The contract laboratories perform method detection limit studies on an annual or as-needed basis to establish threshold values for determination of detected and nondetected constituents. Results below detection are reported differently for radiological and nonradiological analyses.

For radiological analyses, the analytical result field contains the result calculated by the analytical instrument software. Because the result is calculated, it may be reported as a value below the minimum detectable activity or even a negative number.

For nonradiological analyses, nondetected results are converted to the value of estimated quantitation limit (EQL). The EQL is defined as the lowest concentration that can be achieved reliably for a specific sample within specified limits of precision and accuracy during routine laboratory operating conditions. The EQL is modified for sample dilution or concentration or because of an unusual aliquot size that affects analytical sensitivity. In some cases, a detected result is requalified as nondetected during the validation process. This occurs when the constituent is detected in an associated blank sample, requiring a higher detection threshold for the analytical batch or well clusters. If an analyte is reported by the laboratory as detected but is converted to a nondetect during validation, the numeric value reported by the laboratory is retained in the result column, but the < symbol is added to the record.

Data Filtering

Data in this report have been filtered per Westinghouse Savannah River Company (WSRC) protocol specifically designed Resource Conservation and Recovery Act (RCRA) groundwater reporting to define data quality objectives and data usability. The purpose of the filtering logic and the data retrieval process is to select the maximum result that has the least amount of uncertainty based upon qualifiers applied during the validation process.

Rej is used to indicate rejected data. For nondetects, <EQL for nonradiological results or the sample-specific minimum detectable activity for radiological results. For all data qualified with the United States Environmental Protection Agency (USEPA) Functional Guideline code *J*, indicating an estimated quantity, the result is replaced by the letters *NDD*, meaning that these data are considered not decision data.

None of the data classified as rejected, undetected, or estimated are considered in discussions of results above standards in this report.

Holding Times

Action when criteria are not met and the holding time is exceeded:

Criteria	**Functional Guideline Qualifier**	**Qualification Code**
Holding time exceeded by <2x	*J*-detects *UJ*-nondetects	*Q*
Holding time grossly exceeded ($\geq$2x)	*J*-detects *R*-nondetects	*Q*

Beta Dose (F- and H-Area HWMF only)

If any beta-emitting radionuclides on the Groundwater Protection Standard (GWPS) list exceed their minimum detectable activity (MDA), beta dose is calculated and entered into the data tables in this appendix. Nondetected, rejected, or estimated values are not included in the calculation of beta dose.

The dose is obtained by dividing each detected result for beta-emitting radionuclides by the USEPA conversion factor shown in table below:

Activity to Dose Conversion Factors

Analyte	**USEPA 1976 Dose (4 mrem/yr) Limit**
Carbon-14	2,000 pCi/L
Cesium-137	200 pCi/L
Cobalt-60	100 pCi/L
Iodine-129	1 pCi/L
Radium-228*	5 pCi/L
Strontium-90	8 pCi/L
Technetium-99	900 pCi/L

*The USEPA's 1976 guidance document gives no equivalent for radium-228, so the GWPS of 5 pCi/L for the sum of radium-226 and -228 is used for radium-228.

For each well, the unfiltered activities (in pCi/L) for each of the beta emitters on the GWPS is divided by its individual limit (also in pCi/L) x 4mrem/yr, as shown below:

$A_{C\text{-}14}$/2,000 x 4mrem/yr + $A_{Cs\text{-}137}$/200 x 4mrem/yr + $A_{Co\text{-}60}$/100 x 4mrem/yr+ $A_{I\text{-}129}$/1 x 4mrem/yr + $A_{Ra\text{-}228}$/5 x 4mrem/yr + $A_{Sr\text{-}90}$/8 x 4mrem/yr + $A_{Tc\text{-}99}$/900 x 4mrem/yr = beta dose, where A is the measured activity for each radionuclide.

The beta dose for a theoretical person drinking 2 L/day of that well's water exceeds the USEPA standard of 4 mrem/yr.

Beta Dose, Sum of Beta, and Sum of Alpha (MWMF only)

Sum of beta dose <4 mrem/yr and <50 pCi/L is defined as follows: sum of beta dose <4mrem/yr = the measured concentration (pCi/L) of carbon-14/2000 x 4mrem/yr + the measured concentration (pCi/L) of iodine-129/1.0 x 4mrem/yr + the measured concentration (pCi/L) of strontium-90/8.0 x 4mrem/yr. This value must be <1.0 for sum of beta dose to be <4 mrem/yr for the period of review.

Sum of Beta: <50 pCi/L = the measured concentration (pCi/L) of carbon-14 + the measured concentration (pCi/L) of iodine 129. This value must be <50 pCi/L for the period of review.

Sum of Alpha <15 pCi/L = the measured concentration (pCi/L) of uranium-233/234 + the measured concentration (pCi/L) of uranium-235 + the measured concentration (pCi/L) of uranium-238. This value must be <15 pCi/L for the period of review.

Table B-1a. UAZ 2022 F-Area Annual Compliance Monitoring

Station	Well Use	Aquifer Zone	Field Data SAMPLE COLLECTION DATE	PH	SPECIFIC CONDUCTANCE	WATER TEMPERATURE	TURBIDITY	SAMPLING EVENT WATER ELEVATION	Constituent	FIELD CONDITIONS	Inorganics ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	NITRATE-NITRITE AS NITROGEN	SELENIUM	SILVER	THALLIUM	VANADIUM	ZINC	Organics BENZENE	CHLOROFORM	DICHLOROMETHANE (METHYLENE CHLORIDE)	PHENOLS	TETRACHLOROETHYLENE (PCE)	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	Radionuclides AMERICIUM-241	CARBON-14	CESIUM-137	COBALT-60	COMBINED RADIUM (226 AND 228)	CURIUM-242	CURIUM-243/244	CURIUM-245/246	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	PLUTONIUM-238	PLUTONIUM-239/240	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (F/H)	SUM OF BETA (F/H)	SUM OF BETA DOSE (F/H)	TECHNETIUM-99	THORIUM-228	THORIUM-230	THORIUM-232	TRITIUM	URANIUM-233/234	URANIUM-234	URANIUM-235	URANIUM-238
			day-month-year	unitless	uS/cm	degC	NTU	ft	Unit		n/a	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/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	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/L	pCi/L	pCi/L	pCi/mL	pCi/L	pCi/L	pCi/L	pCi/L
									GWPS			6	10	2000	4	5	100	3	1300	15	2	390	10	50	94	2	4	6000	5	80	5	5800	5	5	5200	15	50	50	50	5	15	15	15	15	1	50	15	15	5	5	8	15	50	4	900	15	15	15	20	15	15	15	15
FSB108D	Background Well	UAZ_UTRAU	10-Jan-2022	5.7	27	21.1	0.3	216.2		No Comments	<EQL	<EQL	<EQL	[6.39]	<EQL	<EQL	<EQL	<EQL	7.59	<EQL	<EQL	[0.649]	[0.539]	<EQL	<EQL	<EQL	<EQL	[13.2]	<EQL	<EQL	[0.59]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.855]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.855]	<EQL	<EQL	[0.222]	<EQL	<EQL	<EQL	<EQL	[0.222]	<EQL	[0.953]	<EQL	NS	<EQL	<EQL
																																												<EQL		<EQL																	
			07-Apr-2022	NS	NS	NS	NS	199.76		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
			28-Jul-2022	6.1	30	20.1	0.6	215.4		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	0.605	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[1.2]	NS	NS	NS	NS
			13-Oct-2022	NS	NS	NS	NS	214.92		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
			24-Oct-2022	5.6	149	20.5	3.5	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	0.715	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.585494589	NS	2.36234361	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.45	NS	NS	NS	NS
FBI 14D	Plume Assessment Well	UAZ_UTRAU	05-Jan-2022	5.3	92	19.1	0.2	207.41		No Comments	[124]	<EQL	<EQL	[8.56]	[0.116]	[0.492]	<EQL	[3.67]	[5.36]	[1.61]	[0.13]	[1.23]	[7.29]	<EQL	<EQL	<EQL	<EQL	[12]	<EQL	<EQL	[0.56]	<EQL	<EQL	<EQL	<EQL	[0.102]	[23.5]	<EQL	<EQL	2.47	<EQL	<EQL	[0.0537]	[3.68]	17.6	14.7	<EQL	<EQL	2.47	<EQL	[7.84]	[3.12]	[60.1]	[74.3]	11.4	<EQL	[0.194]	<EQL	44.4	1.48	NS	[0.125]	1.24
																																					[0.0703]					<EQL	<EQL	<EQL				<EQL	<EQL			[7.62]					<EQL	[0.15]	<EQL		1.46		<EQL	1.12
			06-Apr-2022	5.2	95	19.2	0.3	206.96		No Comments	NS	NS	NS	NS	NS	[0.526]	NS	NS	NS	[0.574]	NS	NS	[7.9]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	12.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	45.5	NS	NS	NS	NS
			27-Jul-2022	5.2	96	19.3	0.3	206.86		No Comments	[109]	<EQL	<EQL	[7.76]	[0.12]	[0.494]	<EQL	[3.39]	[2.42]	<EQL	[0.0947]	[1.19]	6.79	<EQL	<EQL	<EQL	<EQL	[10.6]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[28.6]	<EQL	<EQL	1.59	<EQL	<EQL	[0.111]	[8.05]	15.9	22.4	<EQL	<EQL	1.59	<EQL	[4.72]	[3.19]	[57.9]	[66.1]	[8.72]	<EQL	<EQL	<EQL	34.8	1.61	NS	<EQL	1.47
											[106]	<EQL	<EQL	[7.54]	[0.111]	[0.455]	<EQL	[3.3]	[2.25]	<EQL	[0.0925]	[1.12]		<EQL	<EQL	<EQL	<EQL	[7.21]																[3.58]		15.5			[0.837]						[7.39]								
			04-Oct-2022	NS	NS	NS	NS	205.99		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
			10-Oct-2022	5.2	94	19.4	0.3	NS		No Comments	NS	NS	NS	NS	NS	[0.473]	NS	NS	NS	<EQL	NS	NS	8.07	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4.237976682	NS	17.76898716	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	39.9	NS	NS	NS	NS
				5.2	94	19.4	0.3																																																								
				5.2	94	19.4	0.3																																																								
			10-Oct-2022	NS	NS	NS	NS	206.01		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FEX 4	Plume Assessment Well	UAZ_UTRAU	05-Jan-2022	4.6	51	19.4	0.3	205.42		No Comments	494	<EQL	<EQL	21.5	<EQL	[0.474]	<EQL	[5.64]	[1.84]	<EQL	[0.14]	[1.27]	[4.34]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.47]	[0.63]	<EQL	<EQL	<EQL	<EQL	[0.686]	[21.8]	<EQL	<EQL	1.54	<EQL	[0.42]	<EQL	44.2	45.3	41.2	<EQL	<EQL	1.54	<EQL	[8.32]	[26.2]	[83.4]	[185]	[8]	<EQL	[0.128]	<EQL	38	8.95	NS	[0.418]	15.6
			12-Apr-2022	4.4	94	19.7	0.3	205.27		No Comments	NS	NS	NS	NS	NS	1.54	NS	NS	NS	<EQL	NS	NS	[7.53]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	39.7	NS	53.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	40.4	NS	NS	NS	NS
																1.5				<EQL																																											
			27-Jul-2022	3.6	463	21.3	0.2	204.92		No Comments	2580	<EQL	<EQL	64.1	[0.251]	3.37	<EQL	12.7	[5.06]	<EQL	0.22	[3.39]	12.1	<EQL	<EQL	<EQL	[7.27]	[9.85]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.35]	<EQL	2	36.4	<EQL	<EQL	8.35	<EQL	1.56	<EQL	85	108	107	<EQL	<EQL	5.03	3.32	25.5	60.5	187	448	13.9	<EQL	<EQL	<EQL	47.2	18.5	NS	1.43	37
			10-Oct-2022	3.7	457	19.4	0.2	NS		No Comments	NS	NS	NS	NS	NS	3.13	NS	NS	NS	<EQL	NS	NS	26.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	117.3118829	NS	135.0908175	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	130	NS	NS	NS	NS

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
☐	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (F/H Areas): (C-14/2000 + Cs-137/200 +Co-60/100 +I-129/1 +Ra-228/5 +Sr-90/8 + Tc-99/900)*4
Sum of Betas (F/H Areas): (C-14+Cs-137+Co-60+Ni-63+I-129+Ra-228+Sr-90+Tc-99)
Sum of Alphas (F/H Areas): (Am-241 +Cm-242+Cm-243/244+Cm-245/246+Pu-238+Pu-239/240+Th-228+Th-230+Th-232+U-233/234+U-235+U-238)
Radium Total (F/H and MWMF Areas): Ra-226+Ra-228

Table B-1b. LAZ 2022 F-Area Annual Compliance Monitoring

			Field Data								Inorganics																		Organics							Radionuclides																										
			SAMPLE COLLECTION DATE	PH	SPECIFIC CONDUCTANCE	WATER TEMPERATURE	TURBIDITY	SAMPLING EVENT WATER ELEVATION	Constituent	FIELD CONDITIONS	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	NITRATE-NITRITE AS NITROGEN	SELENIUM	SILVER	THALLIUM	VANADIUM	ZINC	BENZENE	CHLOROFORM	DICHLOROMETHANE (METHYLENE CHLORIDE)	PHENOLS	TETRACHLOROETHYLENE (PCE)	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	AMERICIUM-241	CARBON-14	CESIUM-137	COBALT-60	COMBINED RADIUM (226 AND 228)	CURIUM-242	CURIUM-243/244	CURIUM-245/246	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	PLUTONIUM-238	PLUTONIUM-239/240	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (F/H)	SUM OF BETA (F/H)	SUM OF BETA DOSE (F/H)	TECHNETIUM-99	THORIUM-228	THORIUM-230	THORIUM-232	TRITIUM	URANIUM-233/234	URANIUM-234	URANIUM-235	URANIUM-238
			day-month-year	unitless	uS/cm	degC	NTU	ft	Unit		n/a	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/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	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/L	pCi/L	pCi/L	pCi/mL	pCi/L	pCi/L	pCi/L	pCi/L
Station	Well Use	Aquifer Zone							GWPS			6	10	2000	4	5	100	3	1300	15	2	390	10	50	94	2	4	6000	5	80	5	5800	5	5	5200	15	50	50	50	5	15	15	15	15	1	50	15	15	5	5	8	15	50	4	900	15	15	15	20	15	15	15	15
FSB 76C	Background Well	LAZ_UTRAU	05-Jan-2022	5.9	51	20.8	0.6	211.78		No Comments	576	<EQL	<EQL	[8.48]	[0.13]	<EQL	<EQL	<EQL	53.6	[1.3]	<EQL	[0.744]	[1.49]	<EQL	<EQL	<EQL	<EQL	[13.1]	<EQL	[0.68]	[0.54]	<EQL	<EQL	[0.82]	1.48	<EQL	<EQL	<EQL	<EQL	[1.8]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.8]	<EQL	<EQL	[0.153]	<EQL	<EQL	<EQL	<EQL	[0.153]	<EQL	[0.839]	<EQL	NS	<EQL	<EQL
																							[1.48]																																								
			06-Apr-2022	5.6	53	20.8	0.3	211.22		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	[1.09]	NS	NS	[1.76]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[0.826]	NS	NS	NS	NS
			27-Jul-2022	5.3	52	20.9	0.5	210.57		No Comments	<EQL	NS	NS	NS	NS	<EQL	NS	NS	NS	[0.676]	NS	NS	1.68	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[1.848]	NS	NS	NS	<EQL	R	<EQL	NS	NS	[0.618]	[1.23]	<EQL	<EQL	[1.23]	[0.984]	<EQL	NS	NS	NS	[0.807]	<EQL	NS	<EQL	<EQL
			11-Oct-2022	5.8	53	21.3	2	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	[1.53]	NS	NS	1.55	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-0.07858764	NS	0.957611075	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.755	NS	NS	NS	NS
			11-Oct-2022	NS	NS	NS	NS	210.48		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB 78C	Plume Assessment Well	LAZ_UTRAU	05-Jan-2022	4.2	865	19.4	0.5	207.7		No Comments	9520	<EQL	<EQL	307	5.78	5.58	<EQL	59.7	8.34	<EQL	[0.0766]	24.3	[92.5]	[3.75]	<EQL	[0.428]	<EQL	101	<EQL	<EQL	[0.59]	<EQL	<EQL	9.53	[0.42]	[0.506]	65	<EQL	<EQL	37.1	<EQL	[0.147]	<EQL	193	60	429	<EQL	<EQL	24.9	12.2	170	[250]	386	335	78.6	[0.201]	[0.116]	<EQL	760	109	NS	5.84	134
			06-Apr-2022	4.1	87	19.6	0.3	207.5		No Comments	NS	NS	NS	NS	NS	6.3	NS	NS	NS	<EQL	NS	NS	[99.4]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	176	NS	457	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	752	NS	NS	NS	NS
																6.26				<EQL																																											
			27-Jul-2022	3.5	915	20	0.2	206.92		No Comments	8220	<EQL	<EQL	316	4.78	5.82	<EQL	68.3	10.1	<EQL	[0.119]	30.1	98.5	[7.29]	<EQL	[0.568]	<EQL	141	<EQL	<EQL	<EQL	<EQL	<EQL	11.8	[0.34]	[0.734]	104	<EQL	<EQL	36.73	<EQL	[0.337]	<EQL	214	60.7	476	<EQL	<EQL	28.8	7.93	179	[258]	423	339	70.9	[0.225]	<EQL	<EQL	771	108	NS	7.28	141
																																																											769				
			10-Oct-2022	4.1	944	20	0.3	NS		No Comments	NS	NS	NS	NS	NS	5.77	NS	NS	NS	<EQL	NS	NS	97.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	144.5295981	NS	444.4558565	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	744	NS	NS	NS	NS
			10-Oct-2022	NS	NS	NS	NS	206.26		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
☐	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (F/H Areas): (C-14/2000 + Cs-137/200 +Co-60/100 +I-129/1 +Ra-228/5 +Sr-90/8 + Tc-99/900)*4

Sum of Betas (F/H Areas): (C-14+Cs-137+Co-60+Ni-63+I-129+Ra-228+Sr-90+Tc-99)

Sum of Alphas (F/H Areas): (Am-241 +Cm-242+Cm-243/244+Cm-245/246+Pu-238+Pu-239/240+Th-228+Th-230+Th-232+U-233/234+U-235+U-238)

Radium Total (F/H and MWMF Areas): Ra-226+Ra-228

Table B-1c. GAU 2022 F-Area Annual Compliance Monitoring

			Field Data								Inorganics																		Organics							Radionuclides																											
			SAMPLE COLLECTION DATE	PH	SPECIFIC CONDUCTANCE	WATER TEMPERATURE	TURBIDITY	SAMPLING EVENT WATER ELEVATION	Constituent	FIELD CONDITIONS	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	NITRATE-NITRITE AS NITROGEN	SELENIUM	SILVER	THALLIUM	VANADIUM	ZINC	BENZENE	CHLOROFORM	DICHLOROMETHANE (METHYLENE CHLORIDE)	PHENOLS	TETRACHLOROETHYLENE (PCE)	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	AMERICIUM-241	CARBON-14	CESIUM-137	COBALT-60	COMBINED RADIUM (226 AND 228)	CURIUM-242	CURIUM-243/244	CURIUM-245/246	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	PLUTONIUM-238	PLUTONIUM-239/240	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (F/H)	SUM OF BETA (F/H)	SUM OF BETA DOSE (F/H)	TECHNETIUM-99	THORIUM-228	THORIUM-230	THORIUM-232	TRITIUM	URANIUM-233/234	URANIUM-234	URANIUM-235	URANIUM-238
			day-month-year	unitless	uS/cm	degC	NTU	ft	Unit		n/a	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/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	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/L	pCi/L	pCi/L	pCi/mL	pCi/L	pCi/L	pCi/L	pCi/L
Station	Well Use	Aquifer Zone							GWPS			6	10	2000	4	5	100	3	1300	15	2	390	10	50	94	2	4	6000	5	80	5	5800	5	5	5200	15	50	50	50	5	15	15	15	15	1	50	15	15	5	5	8	15	50	4	900	15	15	15	20	15	15	15	15
HSB 85A	Background Well	GAU	28-Jan-2022	7	189	20	0.8	168.3		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	<EQL	[0.75]	NS	<EQL	<EQL	<EQL	NS	NS	NS	NS	[7.6]	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	[7.6]	NS	NS	[7.6]	[6.08]	NS	NS	NS	NS	NS	NS	NS	NS	NS
			04-Feb-2022	7.1	189	20.1	0.3	168.15		No Comments	<EQL	<EQL	<EQL	25.5	<EQL	NS	<EQL	<EQL	[2.86]	<EQL	<EQL	[0.683]	[0.0255]	<EQL	<EQL	<EQL	[5.7]	<EQL	NS	NS	NS	NS	NS	NS	NS	[0.0565]	<EQL	<EQL	<EQL	NS	<EQL	<EQL	[0.0922]	<EQL	NS	<EQL	<EQL	<EQL	NS	NS	<EQL	[0.507]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.159]	NS	<EQL	[0.199]
											<EQL	<EQL	<EQL	25.3	<EQL		<EQL	<EQL	[2.85]	<EQL		[0.683]	[0.0216]	<EQL	<EQL	<EQL	<EQL	<EQL																											<EQL				<EQL				
			19-Apr-2022	6.8	189	20.6	0.2	168.46		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	<EQL	NS	[0.0411]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
																<EQL				<EQL	<EQL		[0.0371]																																								
			02-Aug-2022	7	188	20.6	0.3	167.58		No Comments	NS	<EQL	<EQL	25.3	<EQL	NS	<EQL	<EQL	[1.84]	<EQL	[0.031]	[0.916]	0.0817	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL
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FSB 78A	Plume Assessment Well	GAU	05-Jan-2022	5.9	183	18.7	0.6	154.7		No Comments	<EQL	<EQL	<EQL	22.8	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.709]	[4.98]	<EQL	<EQL	<EQL	[5.5]	<EQL	<EQL	<EQL	[0.58]	[1.73]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.47	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.47	<EQL	<EQL	0.491	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	24.4	<EQL	NS	<EQL	0.491
			06-Apr-2022	6.6	112	19.8	0.6	155.46		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	[0.749]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.87	NS	NS	NS	NS
			27-Jul-2022	6.4	110	20	0.4	154.8		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	0.655	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.57	NS	NS	NS	NS
																							0.619																																				2.57				
			10-Oct-2022	6.8	109	20.3	1.1	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	0.77	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-0.08381	NS	1.6746	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.04	NS	NS	NS	NS
			10-Oct-2022	NS	NS	NS	NS	153.9		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB 78B	Plume Assessment Well	GAU	05-Jan-2022	6.5	223	19.6	1.5	153.2		No Comments	<EQL	<EQL	<EQL	33.9	<EQL	<EQL	<EQL	<EQL	[2.05]	<EQL	[0.0214]	[0.854]	[9.95]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.56]	<EQL	<EQL	<EQL	<EQL	[0.0587]	<EQL	<EQL	<EQL	[1.29]	<EQL	<EQL	<EQL	[2.24]	<EQL	[3.97]	<EQL	<EQL	[1.29]	<EQL	<EQL	[0.253]	13.7	0.061	13.7	<EQL	<EQL	<EQL	58.7	<EQL	NS	<EQL	[0.194]
			06-Apr-2022	7.1	240	19.8	0.6	153.78		No Comments	NS	NS	NS	NS	NS	[0.119]	NS	NS	NS	[0.557]	NS	NS	[11.5]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[6.14]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	74.1	NS	NS	NS	NS
			27-Jul-2022	7	244	20	0.8	153.1		No Comments	<EQL	<EQL	<EQL	42.1	<EQL	<EQL	<EQL	<EQL	9.54	[1.13]	<EQL	[1.15]	12	<EQL	<EQL	<EQL	[7.47]	[7.95]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	0.942	<EQL	<EQL	<EQL	<EQL	[1.08]	<EQL	<EQL	<EQL	0.942	<EQL	<EQL	[0.0525]	[14.7]	[4.38]	13.6	<EQL	<EQL	<EQL	72.6	[0.0525]	NS	<EQL	<EQL
			10-Oct-2022	NS	NS	NS	NS	152.64		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
			11-Oct-2022	7.2	241	20	1.1	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	12.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.5893	NS	7.05115	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	68.8	NS	NS	NS	NS
FSB 79B	Plume Assessment Well	GAU	05-Jan-2022	6.7	202	19.3	0.3	157.3		No Comments	<EQL	<EQL	<EQL	37.3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0253]	[1.16]	[5.49]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.63]	[2.64]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.958]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.958]	<EQL	<EQL	<EQL	[7.26]	[0.0323]	[7.26]	<EQL	<EQL	<EQL	26.3	<EQL	NS	<EQL	<EQL
			06-Apr-2022	6.2	200	20.7	0.1	157.3		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	[7.46]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	41.3	NS	NS	NS	NS
			27-Jul-2022	6.8	202	20.6	0.7	156.68		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	7.13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	42.5	NS	NS	NS	NS
																							7.12																																								
			10-Oct-2022	6.2	204	19.7	0.6	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	8.98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.13944	NS	4.00068	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	45.1	NS	NS	NS	NS
			10-Oct-2022	NS	NS	NS	NS	156.62		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB 87BR	Plume Assessment Well	GAU	05-Jan-2022	6.3	143	19.3	0.4	150.17		No Comments	<EQL	<EQL	<EQL	24.3	<EQL	[0.12]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.559]	[0.567]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.55]	[4.63]	<EQL	<EQL	<EQL	[0.0835]	<EQL	<EQL	<EQL	[0.824]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.824]	<EQL	<EQL	[0.0835]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.71	<EQL	NS	<EQL	<EQL
																							[0.555]																																								
			06-Apr-2022	6.7	147	20.6	0.6	150.09		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	[2.11]	NS	NS	[0.795]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4.19	NS	NS	NS	NS
																							[0.792]																																								
			27-Jul-2022	6.9	143	21.7	0.2	149.32		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	0.677	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.66	NS	NS	NS	NS
			10-Oct-2022	NS	NS	NS	NS	139.73		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB112A	Plume Assessment Well	GAU	11-Jan-2022	7.3	163	19.8	0.6	152.5		No Comments	[94.3]	<EQL	<EQL	39.7	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	[0.859]	[2.1]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.64]	<EQL	<EQL	<EQL	[0.102]	<EQL	<EQL	<EQL	[1.39]	<EQL	<EQL	<EQL	[2.73]	[1.5]	[4.49]	<EQL	<EQL	[1.39]	<EQL	<EQL	[0.102]	[1.5]	[6]	<EQL	<EQL	<EQL	<EQL	10.3	<EQL	NS	<EQL	<EQL
			07-Apr-2022	6.9	171	19.6	0.4	152.8		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	[4.27]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[9.83]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	17.5	NS	NS	NS	NS
			29-Jul-2022	6.1	150	19.6	1.3	151.52		No Comments	<EQL	<EQL	<EQL	36.3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.595]	0.909	<EQL	<EQL	<EQL	<EQL	[7.08]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.36	<EQL	<EQL	<EQL	<EQL	R	<EQL	<EQL	<EQL	1.36	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.87	<EQL	NS	<EQL	<EQL
											<EQL	<EQL	<EQL	35.5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL		[0.509]		<EQL	<EQL	<EQL	<EQL	<EQL									<EQL																										
			13-Oct-2022	NS	NS	NS	NS	151.07		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
			24-Oct-2022	6.5	155	19.4	2.1	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	1.68	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.31043	NS	4.04798	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7.91	NS	NS	NS	NS
FSB113A	Plume Assessment Well	GAU	10-Jan-2022	11.3	819	20	2.3	157.27		No Comments	779	<EQL	<EQL	146	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.46]	[4.33]	<EQL	<EQL	<EQL	[8.89]	<EQL	<EQL	<EQL	[0.59]	<EQL	1.68	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.914]	<EQL	<EQL	<EQL	<EQL	[0.665]	<EQL	<EQL	<EQL	[0.914]	<EQL	<EQL	[0.439]	[5.9]	[2.68]	[5.24]	<EQL	<EQL	<EQL	20.4	[0.102]	NS	<EQL	[0.337]
											777	<EQL	<EQL	143	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL		[1.45]	[4.3]	<EQL	<EQL	<EQL	[8.87]	<EQL									<EQL							<EQL	<EQL	<EQL																	
			07-Apr-2022	11.4	719	19.7	0.3	157.32		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	[3.83]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	17.1	NS	NS	NS	NS
			28-Jul-2022	10.4	1055	18.7	1.1	156.7		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	6.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	26.7	NS	NS	NS	NS
			13-Oct-2022	11.2	351	20.3	0.2	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	2.44	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.56036	NS	1.14781	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	10.3	NS	NS	NS	NS
			13-Oct-2022	NS	NS	NS	NS	156.48		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB114A	Plume Assessment Well	GAU	11-Jan-2022	7.9	197	17.8	0.4	154.8		No Comments	<EQL	<EQL	<EQL	26.6	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.859]	[1.5]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.86	<EQL	<EQL	<EQL	<EQL	<EQL	[4.611]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.681]	[3.93]	<EQL	[0.308]	[3.93]	[3.14]	<EQL	<EQL	<EQL	<EQL	1.22	[0.189]	NS	<EQL	[0.119]
			07-Apr-2022	7.8	206	20.5	0.4	155.06		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	[1.74]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[1.06]	NS	NS	NS	NS
																																												<EQL		<EQL																	
			28-Jul-2022	7.7	206	18.9	0.2	154.2		No Comments	[322]	<EQL	<EQL	101	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	[2.77]	1.59	<EQL	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[0.777]	NS	NS	NS	NS
																<EQL				<EQL																																											
FSB120AR	Plume Assessment Well	GAU	11-Jan-2022	6.5	249	19.4	0.3	147.88		No Comments	<EQL	<EQL	<EQL	45.3	<EQL	<EQL	<EQL	<EQL	[0.796]	<EQL	<EQL	[2.27]	[19.2]	<EQL	<EQL	[0.111]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.65]	<EQL	<EQL	[0.0702]	[2.2]	[1.72]	[11]	<EQL	<EQL	[1.65]	<EQL	<EQL	[0.113]	[36.1]	[7.03]	34.4	[0.0433]	<EQL	<EQL	94.7	<EQL	NS	<EQL	<EQL
			12-Apr-2022	6.1	211	18.9	0.5	148.59		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	[14.9]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[4.73]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	74.9	NS	NS	NS	NS
			29-Jul-2022	6.6	255	22.4	0.2	147.29		No Comments	<EQL	<EQL	<EQL	49.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.06]	18.9	<EQL	<EQL	[0.123]	[5.18]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.12	<EQL	<EQL	<EQL	<EQL	R	<EQL	<EQL	<EQL	1.12	<EQL	<EQL	<EQL	35	0.156	35	<EQL	<EQL	<EQL	92.1	<EQL	NS	<EQL	<EQL
			13-Oct-2022	6.8	260	20.4	0.6	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	19.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.31068	NS	9.72074	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	99.6	NS	NS	NS	NS
			13-Oct-2022	NS	NS	NS	NS	147.19		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB 96AR	Point of Compliance Well	GAU	10-Jan-2022	6.5	228	19.4	1.8	152.5		No Comments	<EQL	<EQL	<EQL	47.3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.877]	[9.3]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.61]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.02]	<EQL	<EQL	[0.0608]	<EQL	[1.88]	<EQL	<EQL	<EQL	[1.02]	<EQL	<EQL	[0.938]	[8.27]	[7.55]	[6.39]	<EQL	<EQL	<EQL	54.5	[0.351]	NS	<EQL	[0.526]
			06-Apr-2022	7	231	20.2	0.8	152.56		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	[7.85]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	47.1	NS	NS	NS	NS
			28-Jul-2022	6.5	181	22.6	1	152.3		No Comments	[41.4]	<EQL	<EQL	39.2	[0.745]	[0.911]	<EQL	<EQL	[1.4]	<EQL	<EQL	[4.16]	8.16	<EQL	<EQL	<EQL	[9.38]	[20.3]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.98]	<EQL	<EQL	<EQL	[3.28]	[1.62]	[5.8]	<EQL	<EQL	[0.98]	<EQL	<EQL	[0.22]	[14.6]	[6.54]	13	<EQL	<EQL	<EQL	36.3	[0.0563]	NS	<EQL	[0.164]
																																					<EQL							<EQL		<EQL																	
			13-Oct-2022	7.2	223	21.7	6.3	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	7.03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0845	NS	1.76314	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	42.2	NS	NS	NS	NS
			13-Oct-2022	NS	NS	NS	NS	152.05		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB 97A	Point of Compliance Well	GAU	10-Jan-2022	6.5	302	19.5	1.1	151.9		No Comments	<EQL	<EQL	<EQL	37.6	<EQL	[0.117]	<EQL	<EQL	[1.78]	6.58	<EQL	[2.84]	[18.2]	<EQL	<EQL	<EQL	<EQL	[5.21]	<EQL	<EQL	[0.58]	<EQL	<EQL	<EQL	<EQL	<EQL	[20.8]	<EQL	<EQL	[0.957]	<EQL	<EQL	<EQL	<EQL	[2.16]	[9.69]	<EQL	<EQL	[0.957]	<EQL	<EQL	[0.379]	[39.8]	[8.76]	16.8	<EQL	<EQL	<EQL	142	[0.253]	NS	<EQL	[0.126]
																																																	[0.604]															
			06-Apr-2022	7.2	312	20.4	0.6	151.42		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	[2.71]	NS	NS	[18.7]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[9.6]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	145	NS	NS	NS	NS
			15-Aug-2022	7	303	20.8	0.7	150.72		No Comments	<EQL	<EQL	<EQL	[35.6]	<EQL	<EQL	<EQL	<EQL	[0.786]	[2.5]	<EQL	[1.36]	19.4	<EQL	<EQL	<EQL	[5.93]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[30.8]	<EQL	<EQL	[0.942]	<EQL	<EQL	<EQL	<EQL	[2.22]	[7.77]	<EQL	<EQL	[0.942]	<EQL	<EQL	[0.409]	[51.5]	[9.02]	18.5	<EQL	[0.103]	<EQL	[135]	[0.306]	NS	<EQL	<EQL
			13-Oct-2022	6.5	301	20.8	1.1	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	[2.88]	NS	NS	18.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.666	NS	14.1804	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	138	NS	NS	NS	NS
			13-Oct-2022	NS	NS	NS	NS	150.2		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB 98AR	Point of Compliance Well	GAU	10-Jan-2022	6.4	176	19.3	0.4	151		No Comments	[62.8]	<EQL	<EQL	30.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.652]	[7.42]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.67]	[2.46]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.709]	<EQL	<EQL	<EQL	[2.93]	<EQL	[5.09]	<EQL	<EQL	[0.709]	<EQL	<EQL	[0.316]	[10.2]	[0.0453]	[10.2]	<EQL	[0.124]	<EQL	35.7	[0.0959]	NS	<EQL	[0.0958]
			07-Apr-2022	6.4	176	19.5	0.8	151.1		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	[7.38]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[11.7]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	42	NS	NS	NS	NS
																																												<EQL		[6.99]																	
			29-Jul-2022	6.9	177	20.2	0.5	150.2		No Comments	<EQL	<EQL	<EQL	31.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.807]	7.02	<EQL	<EQL	<EQL	[8.21]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[10.2]	[0.0453]	[10.2]	<EQL	<EQL	<EQL	32.3	<EQL	NS	<EQL	<EQL
			13-Oct-2022	6.8	187	19.9	3.9	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	8.03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.45303	NS	9.03473	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	37.3	NS	NS	NS	NS
			13-Oct-2022	NS	NS	NS	NS	150.1		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB 99A	Point of Compliance Well	GAU	10-Jan-2022	7.2	177	19.3	0.3	150		No Comments	<EQL	<EQL	<EQL	24.1	<EQL	<EQL	<EQL	<EQL	[0.607]	<EQL	<EQL	[0.679]	[8.92]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.66]	<EQL	<EQL	[0.48]	<EQL	[0.0835]	<EQL	<EQL	<EQL	[0.745]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.55]	<EQL	<EQL	[0.745]	<EQL	<EQL	[0.236]	14.4	0.064	14.4	<EQL	<EQL	<EQL	37.9	<EQL	NS	<EQL	[0.152]
			07-Apr-2022	6.5	167	20.1	0.9	150.2		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	[6.18]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	25.5	NS	NS	NS	NS
			29-Jul-2022	6.4	169	20.7	0.8	149.42		No Comments	<EQL	<EQL	<EQL	21.8	<EQL	<EQL	<EQL	<EQL	[1.02]	<EQL	<EQL	[0.586]	9.12	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.5]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.537]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.24]	<EQL	<EQL	[0.537]	<EQL	<EQL	<EQL	13.8	0.061	13.8	<EQL	<EQL	<EQL	36.8	<EQL	NS	<EQL	<EQL
			13-Oct-2022	NS	NS	NS	NS	149.29		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
			19-Oct-2022	6.4	170	20.3	0.7	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	8.74	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.26922	NS	3.56857	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	37.7	NS	NS	NS	NS
FSB100A	Point of Compliance Well	GAU	10-Jan-2022	7.1	142	20.2	0.4	150.9		No Comments	<EQL	<EQL	<EQL	21.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.03]	<EQL	<EQL	[0.196]	<EQL	[4.7]	<EQL	<EQL	[0.58]	<EQL	<EQL	[0.92]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5.69	<EQL	NS	<EQL	<EQL
																							[2.03]																																								
			07-Apr-2022	6.5	139	19.3	0.4	151		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	[0.82]	NS	NS	[1.78]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4.94	NS	NS	NS	NS
			29-Jul-2022	7.1	141	20.3	0.3	150.3		No Comments	<EQL	<EQL	<EQL	22.1	<EQL	<EQL	<EQL	<EQL	[0.868]	<EQL	<EQL	[0.71]	57.2	<EQL	<EQL	[0.208]	[8.68]	[5.23]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.76]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.902]	<EQL	<EQL	<EQL	<EQL	R	<EQL	<EQL	<EQL	[0.902]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5.7	<EQL	NS	<EQL	<EQL
			13-Oct-2022	7.1	142	19.9	0.2	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	2.12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.47944	NS	1.7344	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6.13	NS	NS	NS	NS
			13-Oct-2022	NS	NS	NS	NS	150.17		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB101A	Point of Compliance Well	GAU	11-Jan-2022	7.2	160	19	0.2	151.2		No Comments	<EQL	<EQL	<EQL	22.8	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0318]	[0.653]	[1.05]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.24	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.506]	<EQL	NS	<EQL	<EQL
			07-Apr-2022	6.5	157	19.4	0.7	151.2		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	[1.04]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[0.555]	NS	NS	NS	NS
			29-Jul-2022	7	162	21.1	0.2	150.55		No Comments	<EQL	<EQL	<EQL	22.8	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.937]	1.18	<EQL	<EQL	<EQL	[11.3]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.02	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.06]	<EQL	NS	<EQL	<EQL
			13-Oct-2022	7.4	164	20.7	0.1	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	<EQL	NS	NS	1.25	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.4815	NS	2.44159	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[0.824]	NS	NS	NS	NS
			13-Oct-2022	NS	NS	NS	NS	150.37		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (F/H Areas): (C-14/2000 + Cs-137/200 +Co-60/100 +I-129/1 +Ra-228/5 +Sr-90/8 + Tc-99/900)*4
Sum of Betas (F/H Areas): (C-14+Cs-137+Co-60+Ni-63+I-129+Ra-228+Sr-90+Tc-99)
Sum of Alphas (F/H Areas): (Am-241 +Cm-242+Cm-243/244+Cm-245/246+Pu-238+Pu-239/240+Th-228+Th-230+Th-232+U-233/234+U-235+U-238)
Radium Total (F/H and MWMF Areas): Ra-226+Ra-228

Table B-2a. UAZ 2022 H-Area Annual Compliance Monitoring

			Field Data								Inorganics																			Organics					Radionuclides																											
			SAMPLE COLLECTION DATE	WATER TEMPERATURE	SAMPLING EVENT WATER ELEVATION	TURBIDITY	SPECIFIC CONDUCTANCE	PH	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	CYANIDE	LEAD	MERCURY	NICKEL	NITRATE-NITRITE AS NITROGEN	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	BENZENE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	AMERICIUM-241	CARBON-14	COBALT-60	COMBINED RADIUM (226 AND 228)	CURIUM-242	CURIUM-243/244	CURIUM-245/246	GROSS ALPHA	IODINE-129	NICKEL-63	NONVOLATILE BETA	PLUTONIUM-238	PLUTONIUM-239/240	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (F/H)	SUM OF BETA (F/H)	SUM OF BETA DOSE (F/H)	TECHNETIUM-99	THORIUM-228	THORIUM-230	THORIUM-232	TRITIUM	URANIUM-233/234	URANIUM-234	URANIUM-235	URANIUM-238
			day-month-year	degC	ft	NTU	uS/cm	unitless	Unit		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	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/L	pCi/L	pCi/L	pCi/mL	pCi/L	pCi/L	pCi/L	pCi/L
Station	Well Use	Aquifer Zone							GWPS		6	10	2000	4	5	100	3	1300	200	15	2	390	10	50	94	2	2.6	4	6000	5	5	5	5	5200	15	50	50	5	15	15	15	15	1	60	50	15	15	5	5	8	15	50	4	900	15	15	15	20	15	15	15	15
HSB 66DR	Background Well	UAZ_UTRAU	13-Jan-2022	20.6	226.06	0.3	35	4.4		No Comments	<EQL	<EQL	[2.23]	<EQL	<EQL	<EQL	<EQL	[1.25]	<EQL	[0.599]	<EQL	[1.1]	[1.89]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.77]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.975]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.975]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	56.3	<EQL	NS	<EQL	<EQL
			19-Apr-2022	19.6	225.65	0.6	36	5.2		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[2.04]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	58.6	NS	NS	NS	NS
			28-Jul-2022	20.6	225.3	1.2	34	5.5		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	1.94	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	63.1	NS	NS	NS	NS
			19-Oct-2022	19.7	NS	0.5	34	5.8		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	1.83	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.944418569	NS	NS	2.10416603	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	64.4	NS	NS	NS	NS
			19-Oct-2022	NS	224.8	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 65C	Plume Assessment Well	UAZ_UTRAU	13-Jan-2022	19.7	230.58	0.7	47	4.5		No Comments	<EQL	<EQL	[4.43]	[0.103]	<EQL	<EQL	<EQL	10.2	<EQL	[1.62]	[0.0435]	[0.614]	[2.81]	<EQL	<EQL	<EQL	<EQL	<EQL	[7.51]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.38	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[4.34]	<EQL	<EQL	2.38	<EQL	<EQL	[0.48]	<EQL	<EQL	<EQL	<EQL	[0.113]	<EQL	6.53	[0.23]	NS	<EQL	[0.137]
																																				<EQL						<EQL			<EQL																	
			19-Apr-2022	21.8	230.77	2	49	4.9		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[0.0991]	NS	[3]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[2.72]	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6.05	NS	NS	NS	NS
			28-Jul-2022	23.1	229.8	3	39	4.7		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	2.35	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[3.13]	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.73	NS	NS	NS	NS
			19-Oct-2022	21	NS	1.9	46	5.3		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[0.0201]	NS	2.67	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4.496640284	NS	NS	3.346969116	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6.26	NS	NS	NS	NS
			19-Oct-2022	NS	229.2	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 67	Plume Assessment Well	UAZ_UTRAU	12-Jan-2022	18.2	221.9	0.8	54	4		No Comments	<EQL	<EQL	[11.1]	[0.162]	<EQL	<EQL	[6.51]	<EQL	<EQL	<EQL	1.28	[0.903]	[3.05]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.61	<EQL	<EQL	[0.0741]	[6.97]	R	<EQL	105	<EQL	<EQL	4.61	<EQL	40.7	[0.648]	[45.8]	[20.4]	[5.05]	<EQL	<EQL	<EQL	13.9	[0.376]	NS	<EQL	[0.198]
																																										[4.61]			102																	
			19-Apr-2022	19.7	222.48	0.3	53	4.5		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.35	NS	[3.44]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[6.14]	NS	NS	82.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	11.3	NS	NS	NS	NS
																																																										11.2				
			28-Jul-2022	20.3	221.09	0.6	49	4.3		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.09	NS	3.02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[6.18]	NS	NS	80.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	11.3	NS	NS	NS	NS
			19-Oct-2022	20.3	NS	0.4	52	4.4		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.818	NS	2.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	9.533205731	NS	NS	80.07872384	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	11.2	NS	NS	NS	NS
			19-Oct-2022	NS	220.7	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 68DR	Plume Assessment Well	UAZ_UTRAU	13-Jan-2022	18.8	218.27	2	51	4.1		No Comments	<EQL	<EQL	[19.1]	[0.261]	[0.202]	<EQL	[2.05]	[1.48]	<EQL	<EQL	0.604	5.12	[2.78]	<EQL	<EQL	<EQL	<EQL	<EQL	[11.2]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[10.2]	<EQL	<EQL	[0.086]	[5.9]	<EQL	13	302	<EQL	<EQL	2.25	[7.95]	147	[0.563]	[168]	[79.9]	<EQL	<EQL	<EQL	<EQL	71.1	[0.477]	NS	<EQL	<EQL
			19-Apr-2022	19.8	218.68	1.4	56	4.1		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.57	NS	[3.26]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[7.43]	NS	NS	317	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	27.7	NS	NS	NS	NS
			28-Jul-2022	21.3	217.63	2.4	53	4.1		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.65	NS	2.97	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[5.14]	NS	NS	268	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	29.5	NS	NS	NS	NS

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (F/H Areas): (C-14/2000 + Cs-137/200 +Co-60/100 +I-129/1 +Ra-228/5 +Sr-90/8 + Tc-99/900)*4

Sum of Betas (F/H Areas): (C-14+Cs-137+Co-60+Ni-63+I-129+Ra-228+Sr-90+Tc-99)

Sum of Alphas (F/H Areas): (Am-241 +Cm-242+Cm-243/244+Cm-245/246+Pu-238+Pu-239/240+Th-228+Th-230+Th-232+U-233/234+U-235+U-238)

Radium Total (F/H and MWMF Areas): Ra-226+Ra-228

Table B-2b. LAZ 2022 H-Area Annual Compliance Monitoring

			Field Data								Inorganics																			Organics					Radionuclides																											
			SAMPLE COLLECTION DATE	WATER TEMPERATURE	SAMPLING EVENT WATER ELEVATION	TURBIDITY	SPECIFIC CONDUCTANCE	PH	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	CYANIDE	LEAD	MERCURY	NICKEL	NITRATE-NITRITE AS NITROGEN	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	BENZENE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	AMERICIUM-241	CARBON-14	COBALT-60	COMBINED RADIUM (226 AND 228)	CURIUM-242	CURIUM-243/244	CURIUM-245/246	GROSS ALPHA	IODINE-129	NICKEL-63	NONVOLATILE BETA	PLUTONIUM-238	PLUTONIUM-239/240	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (F/H)	SUM OF BETA (F/H)	SUM OF BETA DOSE (F/H)	TECHNETIUM-99	THORIUM-228	THORIUM-230	THORIUM-232	TRITIUM	URANIUM-233/234	URANIUM-234	URANIUM-235	URANIUM-238
			day-month-year	degC	ft	NTU	uS/cm	unitless	Unit		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	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/L	pCi/L	pCi/L	pCi/mL	pCi/L	pCi/L	pCi/L	pCi/L
Station	Well Use	Aquifer Zone							GWPS		6	10	2000	4	5	100	3	1300	200	15	2	390	10	50	94	2	2.6	4	6000	5	5	5	5	5200	15	50	50	5	15	15	15	15	1	60	50	15	15	5	5	8	15	50	4	900	15	15	15	20	15	15	15	15
HSB 85B	Background Well	LAZ_UTRAU	28-Jan-2022	20.1	231.6	0.7	153	10.1		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	[1.38]	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	[1.38]	<EQL	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS
																			<EQL																													<EQL														
			04-Feb-2022	20.4	230.59	0.1	140	10.3		No Comments	<EQL	<EQL	[15.9]	<EQL	NS	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	[1.31]	<EQL	<EQL	<EQL	[1.98]	[21]	<EQL	NS	NS	NS	NS	NS	<EQL	<EQL	<EQL	NS	<EQL	<EQL	[0.107]	<EQL	NS	<EQL	<EQL	<EQL	<EQL	NS	NS	<EQL	[0.311]	<EQL	<EQL	<EQL	<EQL	[0.168]	<EQL	3.04	[0.0364]	NS	<EQL	<EQL
			19-Apr-2022	20.5	230.47	0.2	147	10.4		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[1.39]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.2	NS	NS	NS	NS
			02-Aug-2022	21.2	230.07	0.6	152	10.2		No Comments	<EQL	<EQL	[17.7]	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.48	<EQL	<EQL	<EQL	<EQL	[25.8]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.269]	<EQL	<EQL	<EQL	[0.163]	[0.106]	<EQL	3.27	<EQL	NS	<EQL	<EQL
											<EQL	<EQL	[17.7]	<EQL		<EQL	<EQL	<EQL		<EQL		<EQL		<EQL	<EQL	<EQL	<EQL	[24.7]	<EQL							<EQL																										
																																				<EQL																										
																																				<EQL																										
HSB 65B	Plume Assessment Well	LAZ_UTRAU	13-Jan-2022	19.6	222.62	0.8	192	6.5		No Comments	<EQL	<EQL	[13.6]	<EQL	1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.04]	[0.175]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.123]	<EQL	<EQL	<EQL	<EQL	[0.123]	<EQL	2.73	<EQL	NS	<EQL	<EQL
																							[0.166]																					<EQL																		
			19-Apr-2022	20.5	222.92	1.7	193	7.7		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[0.17]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.43	NS	NS	NS	NS
																							[0.167]																																							
			28-Jul-2022	21.2	221.87	11.6	182	7.1		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	0.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[2.87]	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.23	NS	NS	NS	NS
																							0.159																																							
			19-Oct-2022	20.1	NS	4.8	195	7.2		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	0.0969	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.503677938	NS	NS	1.031917786	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.328	NS	NS	NS	NS
			19-Oct-2022	NS	221.6	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 68C	Plume Assessment Well	LAZ_UTRAU	13-Jan-2022	19	216.34	0.4	88	5.2		No Comments	<EQL	<EQL	[8.87]	<EQL	[0.935]	<EQL	<EQL	[1.87]	<EQL	<EQL	1.02	[1.52]	[8.62]	<EQL	<EQL	<EQL	<EQL	<EQL	[9.81]	<EQL	<EQL	[0.94]	[0.35]	<EQL	<EQL	[22.7]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.11]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.125]	[28.9]	[4.51]	[5.11]	<EQL	[0.187]	<EQL	237	<EQL	NS	<EQL	<EQL

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (F/H Areas): (C-14/2000 + Cs-137/200 +Co-60/100 +I-129/1 +Ra-228/5 +Sr-90/8 + Tc-99/900)*4
Sum of Betas (F/H Areas): (C-14+Cs-137+Co-60+Ni-63+I-129+Ra-228+Sr-90+Tc-99)
Sum of Alphas (F/H Areas): (Am-241 +Cm-242+Cm-243/244+Cm-245/246+Pu-238+Pu-239/240+Th-228+Th-230+Th-232+U-233/234+U-235+U-238)
Radium Total (F/H and MWMF Areas): Ra-226+Ra-228

Table B-2c. GAU 2022 H-Area Annual Compliance Monitoring

			Field Data								Inorganics																			Organics					Radionuclides																											
			SAMPLE COLLECTION DATE	WATER TEMPERATURE	SAMPLING EVENT WATER ELEVATION	TURBIDITY	SPECIFIC CONDUCTANCE	PH	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	CYANIDE	LEAD	MERCURY	NICKEL	NITRATE-NITRITE AS NITROGEN	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	BENZENE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	AMERICIUM-241	CARBON-14	COBALT-60	COMBINED RADIUM (226 AND 228)	CURIUM-242	CURIUM-243/244	CURIUM-245/246	GROSS ALPHA	IODINE-129	NICKEL-63	NONVOLATILE BETA	PLUTONIUM-238	PLUTONIUM-239/240	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (F/H)	SUM OF BETA (F/H)	SUM OF BETA DOSE (F/H)	TECHNETIUM-99	THORIUM-228	THORIUM-230	THORIUM-232	TRITIUM	URANIUM-233/234	URANIUM-234	URANIUM-235	URANIUM-238
			day-month-year	degC	ft	NTU	uS/cm	unitless	Unit		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	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/L	pCi/L	pCi/L	pCi/mL	pCi/L	pCi/L	pCi/L	pCi/L
Station	Well Use	Aquifer Zone							GWPS		6	10	2000	4	5	100	3	1300	200	15	2	390	10	50	94	2	2.6	4	6000	5	5	5	5	5200	15	50	50	5	15	15	15	15	1	60	50	15	15	5	5	8	15	50	4	900	15	15	15	20	15	15	15	15
HSB 83A	Background Well	GAU	13-Jan-2022	20.2	172.64	0.2	185	6.3		No Comments	<EQL	<EQL	33.5	<EQL	<EQL	<EQL	<EQL	[2.16]	<EQL	<EQL	<EQL	[0.91]	[0.0299]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.31]	<EQL	<EQL	[0.0657]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.31]	<EQL	<EQL	[0.164]	<EQL	<EQL	<EQL	<EQL	[0.0983]	<EQL	<EQL	<EQL	NS	<EQL	<EQL
			19-Apr-2022	18.5	173	0.5	190	6.3		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[0.124]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
																							[0.0898]																																							
			29-Jul-2022	20	171.71	1.4	190	7.1		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[0.0345]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
			24-Oct-2022	19.8	NS	1	188	6.5		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[0.0283]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.338208295	NS	NS	0.27652139	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0457	NS	NS	NS	NS
			24-Oct-2022	NS	171.9	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 84A	Plume Assessment Well	GAU	13-Jan-2022	19.1	171.22	0.4	101	6.5		No Comments	<EQL	<EQL	26.7	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.56]	[0.0326]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.765]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[7.22]	<EQL	<EQL	[0.765]	<EQL	<EQL	[0.414]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.262]	NS	<EQL	[0.152]
																							[0.0326]																																							
			19-Apr-2022	19.4	171.3	0.3	106	8.3		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[0.0447]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
			29-Jul-2022	20.7	170.46	0.7	107	6.5		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[0.0222]	NS	[0.0241]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	[4.63]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
			24-Oct-2022	18.2	NS	1.2	106	6.1		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[0.0376]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.670011337	NS	NS	3.780620574	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-0.00366	NS	NS	NS	NS
			24-Oct-2022	NS	169.9	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Plume Assessment Well	GAU	28-Jan-2022	20	168.3	0.8	189	7		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	[0.75]	<EQL	<EQL	<EQL	NS	NS	NS	[7.6]	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	<EQL	[7.6]	NS	NS	[7.6]	[6.08]	NS	NS	NS	NS	NS	NS	NS	NS	NS
			04-Feb-2022	20.1	168.15	0.3	189	7.1		No Comments	<EQL	<EQL	25.5	<EQL	NS	<EQL	<EQL	[2.86]	NS	<EQL	<EQL	[0.683]	[0.0255]	<EQL	<EQL	<EQL	<EQL	[5.7]	<EQL	NS	NS	NS	NS	NS	[0.0565]	<EQL	<EQL	NS	<EQL	<EQL	[0.0922]	<EQL	NS	<EQL	<EQL	<EQL	<EQL	NS	NS	<EQL	[0.507]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.159]	NS	<EQL	[0.199]
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			19-Apr-2022	20.6	168.46	0.2	189	6.8		No Comments	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	<EQL	<EQL	NS	[0.0411]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
															<EQL					<EQL	<EQL		[0.0371]																																							
			02-Aug-2022	20.6	167.58	0.3	188	7		No Comments	<EQL	<EQL	25.3	<EQL	NS	<EQL	<EQL	[1.84]	<EQL	<EQL	[0.031]	[0.916]	0.0817	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL
																							0.0712																																							
HSB118A	Plume Assessment Well	GAU	14-Jan-2022	19.9	167	0.8	140	6.5		No Comments	<EQL	<EQL	32.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.11]	[0.0671]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[3.71]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	23.4	<EQL	NS	<EQL	<EQL
																			<EQL				[0.0561]																				<EQL						<EQL													
			21-Apr-2022	20.5	166.95	0.4	144	6.4		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	0.0625	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	23.6	NS	NS	NS	NS
																							0.0586																																							
			08-Aug-2022	20.5	165.99	0.9	142	6.7		No Comments	<EQL	<EQL	35.5	<EQL	[0.122]	<EQL	<EQL	[0.756]	<EQL	<EQL	<EQL	[1.38]	0.0765	<EQL	<EQL	<EQL	<EQL	[6]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.34]	<EQL	<EQL	[0.0642]	<EQL	<EQL	<EQL	[4.19]	<EQL	<EQL	[1.34]	<EQL	<EQL	[0.0642]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	26.9	<EQL	NS	<EQL	<EQL
			26-Oct-2022	19.9	NS	1	142	6.7		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	0.0661	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.385083193	NS	NS	1.710289235	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	28.3	NS	NS	NS	NS
			26-Oct-2022	NS	166.03	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB139A	Plume Assessment Well	GAU	18-Jan-2022	18.7	172.96	0.5	216	7.3		No Comments	<EQL	<EQL	[18.3]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.998]	[0.0654]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.541]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.541]	<EQL	<EQL	[0.285]	<EQL	<EQL	<EQL	<EQL	[0.128]	<EQL	<EQL	[0.157]	NS	<EQL	<EQL
			21-Apr-2022	19.3	173.02	0.9	222	7.5		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	0.0662	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
																							0.0646																																							
			04-Aug-2022	19.2	171.92	0.6	215	7.3		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0703	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
																							0.0682																																							
			31-Oct-2022	19.2	NS	1.7	220	6.8		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	0.088	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.085860225	NS	NS	2.00355506	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
			31-Oct-2022	NS	172.5	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB144A	Plume Assessment Well	GAU	18-Jan-2022	19.5	169.89	0.9	135	6.6		No Comments	<EQL	<EQL	32.8	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.754]	[0.119]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0421]	<EQL	<EQL	[0.931]	<EQL	<EQL	[0.107]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.931]	<EQL	<EQL	[0.16]	<EQL	<EQL	<EQL	<EQL	[0.091]	<EQL	[0.85]	[0.0791]	NS	<EQL	<EQL
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			25-Apr-2022	19	169.94	0.6	136	6.8		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	0.062	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
																																																										<EQL				
			04-Aug-2022	22.7	168.99	1	143	6.4		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	0.134	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
																					<EQL																																									
			31-Oct-2022	19.8	NS	0.3	138	6.7		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	0.146	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.132931058	NS	NS	4.943369092	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
			31-Oct-2022	NS	168.75	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB119A	Point of Compliance Well	GAU	17-Jan-2022	18.1	166.4	0.8	76	5.8		No Comments	<EQL	<EQL	[7.86]	[0.377]	[0.125]	<EQL	<EQL	[1.46]	<EQL	<EQL	<EQL	[2.29]	[3.59]	<EQL	<EQL	<EQL	<EQL	<EQL	[11]	<EQL	[1.74]	<EQL	<EQL	<EQL	[0.0598]	33.7	<EQL	2.19	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[4.24]	<EQL	<EQL	2.19	<EQL	<EQL	[0.129]	[41.5]	[0.102]	[7.82]	<EQL	[0.129]	<EQL	147	<EQL	NS	<EQL	[0.0841]
																																			<EQL				<EQL	<EQL	<EQL					<EQL	<EQL			<EQL					<EQL	[0.0691]	<EQL		<EQL		<EQL	<EQL
			21-Apr-2022	20.5	166.45	0.5	92	5.9		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	4.44	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	[5.69]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	171	NS	NS	NS	NS
																					<EQL																					<EQL			[5.52]																	
			18-Aug-2022	20.3	165.6	0.7	78	6.1		No Comments	<EQL	<EQL	[8.43]	[0.243]	[0.129]	<EQL	<EQL	[1.11]	<EQL	<EQL	<EQL	[1.82]	4	<EQL	<EQL	<EQL	<EQL	<EQL	[14.1]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	44.9	<EQL	[1.29]	<EQL	<EQL	<EQL	[3.21]	<EQL	<EQL	[7.94]	<EQL	<EQL	[1.29]	<EQL	<EQL	<EQL	59.8	0.156	14.9	<EQL	<EQL	<EQL	151	<EQL	NS	<EQL	<EQL
			29-Sep-2022	22.2	165.4	3.1	81	6.1		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
			26-Oct-2022	20.7	NS	0.8	93	6.1		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	3.97	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.469117358	NS	NS	5.716799264	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	162	NS	NS	NS	NS
			26-Oct-2022	NS	165.37	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB120A	Point of Compliance Well	GAU	17-Jan-2022	18.7	165.68	0.6	183	6.6		No Comments	<EQL	<EQL	25.9	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.733]	[0.222]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.68	<EQL	NS	<EQL	<EQL
																							[0.0454]													<EQL																										
			25-Apr-2022	20	165.71	0.4	186	6.5		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	0.083	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.75	NS	NS	NS	NS
																					<EQL																																									
			08-Aug-2022	20.7	164.67	1.3	186	6.4		No Comments	<EQL	<EQL	25.7	<EQL	<EQL	<EQL	<EQL	[0.76]	<EQL	<EQL	<EQL	[0.946]	0.157	<EQL	<EQL	<EQL	<EQL	[5.59]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.23]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.23]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.17	<EQL	NS	<EQL	<EQL
																																												<EQL																		
			27-Oct-2022	20.1	NS	0.5	188	7.3		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	0.0655	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-0.086392978	NS	NS	1.203984819	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.983	NS	NS	NS	NS
			27-Oct-2022	NS	164.69	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB121A	Point of Compliance Well	GAU	17-Jan-2022	20.1	171.11	0.3	234	7.4		No Comments	<EQL	<EQL	28.1	[0.104]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.938]	[0.0251]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.97]	<EQL	1.64	<EQL	<EQL	<EQL	<EQL	[1.83]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.83]	<EQL	<EQL	[0.184]	<EQL	<EQL	<EQL	<EQL	[0.184]	<EQL	<EQL	<EQL	NS	<EQL	<EQL
																							[0.0158]																																							
			21-Apr-2022	19.9	170.96	0.4	232	6.5		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[0.0182]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
			08-Aug-2022	20.7	169.83	0.6	232	7.6		No Comments	<EQL	<EQL	44.5	1	<EQL	<EQL	<EQL	[0.931]	<EQL	<EQL	<EQL	[1.18]	[0.0461]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL
			27-Oct-2022	19.2	NS	1.2	235	7		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[0.0469]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.210945031	NS	NS	2.805076562	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
			27-Oct-2022	NS	169.63	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB122A	Point of Compliance Well	GAU	17-Jan-2022	19.9	170.88	0.8	198	7.1		No Comments	<EQL	<EQL	21.2	[0.119]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.851]	[0.0165]	<EQL	<EQL	<EQL	<EQL	[7.71]	<EQL	<EQL	[1.96]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.15]	<EQL	<EQL	<EQL	<EQL	[0.15]	<EQL	<EQL	<EQL	NS	<EQL	<EQL
																							<EQL																																							
			21-Apr-2022	19.1	171	1.2	204	7.2		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
																							<EQL																																							
			08-Aug-2022	20.7	169.85	1	205	6.8		No Comments	<EQL	<EQL	21.2	[0.101]	<EQL	<EQL	<EQL	[0.901]	<EQL	<EQL	<EQL	[0.787]	[0.028]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.96]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL
																																				<EQL													<EQL													
			27-Oct-2022	20.1	NS	0.3	204	7.1		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.588443488	NS	NS	1.577472322	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
			27-Oct-2022	NS	169.64	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB123A	Point of Compliance Well	GAU	17-Jan-2022	20.1	171	0.6	203	7.5		No Comments	<EQL	<EQL	43	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.834]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.26]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.843]	<EQL	<EQL	<EQL	[1.48]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.843]	<EQL	<EQL	[0.0625]	<EQL	<EQL	<EQL	<EQL	[0.0625]	<EQL	<EQL	<EQL	NS	<EQL	<EQL
																																																						<EQL								
			21-Apr-2022	19.8	171.2	0.8	211	7.7		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
																							<EQL																																							
			08-Aug-2022	21.1	169.9	0.6	213	7.2		No Comments	<EQL	<EQL	61.4	<EQL	<EQL	<EQL	<EQL	[0.776]	<EQL	<EQL	<EQL	[1.24]	[0.0171]	<EQL	<EQL	<EQL	<EQL	<EQL	[6.98]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.879]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.879]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL
											<EQL	<EQL	61.1	<EQL	<EQL	<EQL	<EQL	[0.749]	<EQL	<EQL		[1.23]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[6.16]																				<EQL													
			27-Oct-2022	19.5	NS	0.6	205	6.7		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.615848243	NS	NS	1.340449364	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
			27-Oct-2022	NS	169.76	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB124AR	Point of Compliance Well	GAU	17-Jan-2022	18.3	170.84	0.4	205	6.5		No Comments	<EQL	<EQL	27.3	<EQL	<EQL	<EQL	<EQL	7.7	<EQL	<EQL	<EQL	[1.03]	[0.0247]	<EQL	<EQL	<EQL	<EQL	<EQL	[10.5]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.856]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.856]	<EQL	<EQL	[0.0816]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0816]	NS	<EQL	<EQL
																							[0.0218]																																							
			21-Apr-2022	19.5	171	0.9	208	6.4		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	0.0525	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
			08-Aug-2022	21.1	170.18	0.4	200	7		No Comments	<EQL	<EQL	29.8	<EQL	<EQL	<EQL	<EQL	[1.18]	<EQL	[0.611]	<EQL	[1.1]	[0.0446]	<EQL	<EQL	<EQL	<EQL	[5.89]	[4.76]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.869]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.869]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL
											<EQL	<EQL	29.7	<EQL	<EQL	<EQL	<EQL	[1.18]		[0.607]		[1.08]	[0.0354]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.53]																																	
			31-Oct-2022	20.5	NS	1	208	7.1		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	[0.0282]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.504042918	NS	NS	4.344721743	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
			31-Oct-2022	NS	170.7	NS	NS	NS		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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (F/H Areas): (C-14/2000 + Cs-137/200 +Co-60/100 +I-129/1 +Ra-228/5 +Sr-90/8 + Tc-99/900)*4
Sum of Betas (F/H Areas): (C-14+Cs-137+Co-60+Ni-63+I-129+Ra-228+Sr-90+Tc-99)
Sum of Alphas (F/H Areas): (Am-241 +Cm-242+Cm-243/244+Cm-245/246+Pu-238+Pu-239/240+Th-228+Th-230+Th-232+U-233/234+U-235+U-238)
Radium Total (F/H and MWMF Areas): Ra-226+Ra-228

Table B-3 2022 F-Area Seepline Surface Water Monitoring

			Field Data													Inorganics	
			SAMPLE COLLECTION DATE	PH	SPECIFIC CONDUCTANCE	WATER TEMPERATURE	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	TOTAL ALKALINITY (AS CACO3)	TURBIDITY	SAMPLING EVENT WATER ELEVATION	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	VOLUME PURGED	Constituent	FIELD CONDITIONS	ALUMINUM	ANTIMONY
			day-month-year	unitless	uS/cm	degC	mg/L	mg/L	NTU	ft	day-month-year	ft	gal	Unit		n/a	ug/L
Station	Well Use	Aquifer Zone												GWPS			6
FAS-091	FMB Seepline Surface Water Location	UAZ_UTRAU	08-Mar-2022	6.6	141	15.7	0	55	10.1	NS	NS	NS	0		No Comments	NS	NS
			22-Jun-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	0		D	NS	NS
			15-Sep-2022	6.8	215	19.2	0	42	74.3	NS	NS	NS	0		C	[2800]	<EQL
			14-Dec-2022	6.5	171	13.5	0	58	23.9	NS	NS	NS	NS		No Comments	NS	NS
FAS-092	FMB Seepline Surface Water Location	UAZ_UTRAU	08-Mar-2022	6.3	209	16.3	0	57	2.6	NS	NS	NS	0		No Comments	NS	NS
			22-Jun-2022	6.8	254	18.9	0	49	41.9	NS	NS	NS	0		C	NS	NS
			15-Sep-2022	6.4	213	18.5	0	39	36.1	NS	NS	NS	0		C	[1400]	<EQL
			14-Dec-2022	6.3	215	13.2	0	38	37.3	NS	NS	NS	NS		No Comments	NS	NS
FAS-093	FMB Seepline Surface Water Location	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		No Comments	NS	NS
FAS-093R	FMB Seepline Surface Water Location	UAZ_UTRAU	08-Mar-2022	7.2	185	16.6	0	58	67	NS	NS	NS	0		No Comments	NS	NS
			22-Jun-2022	7.6	387	20.2	0	66	19.4	NS	NS	NS	0		C	NS	NS
			15-Sep-2022	7.5	464	18.9	0	84	25.5	NS	NS	NS	0		C	[2070]	<EQL
			14-Dec-2022	7.3	339	11.2	0	129	103	NS	NS	NS	NS		No Comments	NS	NS
FAS-096	FMB Seepline Surface Water Location	UAZ_UTRAU	08-Mar-2022	6.2	241	15.2	0	83	137	NS	NS	NS	0		No Comments	NS	NS
			22-Jun-2022	9.1	264	21.5	0	121	259	NS	NS	NS	0		C	NS	NS
			15-Sep-2022	7	231	19.9	0	45	211	NS	NS	NS	0		C	156000	<EQL
			14-Dec-2022	7.2	191	11.9	0	91	108	NS	NS	NS	NS		No Comments	NS	NS

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (F/H Areas): (C-14/2000 + Cs-137/200 +Co-60/100 +I-129/1 +Ra-228/5 +Sr-90/8 + Tc-99/900)*4
Sum of Betas (F/H Areas): (C-14+Cs-137+Co-60+Ni-63+I-129+Ra-228+Sr-90+Tc-99)
Sum of Alphas (F/H Areas): (Am-241 +Cm-242+Cm-243/244+Cm-245/246+Pu-238+Pu-239/240+Th-228+Th-230+Th-232+U-233/234+U-235+U-238)
Radium Total (F/H and MWMF Areas): Ra-226+Ra-228

Table B-4. 2022 H-Area Seepline Piezometer and Surface Water Monitoring

Station	Well Use	Aquifer Zone	SAMPLE COLLECTION DATE	WATER TEMPERATURE	SAMPLING EVENT WATER ELEVATION	TURBIDITY	SPECIFIC CONDUCTANCE	PH	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC
			day-month-year	degC	ft	NTU	uS/cm	unitless	Unit		ug/L	ug/L
									GWPS		6	10
HAS-102	FMB Seepline Surface Water Location	UAZ_UTRAU	08-Mar-2022	16.2	NS	18.3	67	7		No Comments	NS	NS
			22-Jun-2022	NS	NS	NS	NS	NS		D	NS	NS
			15-Sep-2022	18.8	NS	6.3	68	6.6		No Comments	<EQL	<EQL
			14-Dec-2022	11.9	NS	10.1	65	6.5		No Comments	NS	NS
HAS-103	FMB Seepline Surface Water Location	UAZ_UTRAU	08-Mar-2022	16.6	NS	19.7	62	6.5		No Comments	NS	NS
			22-Jun-2022	NS	NS	NS	NS	NS		D	NS	NS
			15-Sep-2022	19.4	NS	11.1	81	6.4		No Comments	<EQL	<EQL
			14-Dec-2022	10.6	NS	42.8	67	6.7		No Comments	NS	NS
HAS-106	FMB Seepline Surface Water Location	UAZ_UTRAU	08-Mar-2022	17.2	NS	62.9	110	6.3		No Comments	NS	NS
			22-Jun-2022	NS	NS	NS	NS	NS		D	NS	NS
			15-Sep-2022	19.7	NS	52.5	133	6.4		No Comments	<EQL	<EQL
			14-Dec-2022	10.1	NS	71.8	119	6.6		No Comments	NS	NS
HAS-107	FMB Seepline Surface Water Location	UAZ_UTRAU	08-Mar-2022	18.2	NS	78.6	116	7.2		No Comments	NS	NS
			22-Jun-2022	NS	NS	NS	NS	NS		D	NS	NS
			15-Sep-2022	19.1	NS	127	114	6.4		No Comments	<EQL	<EQL
HAS-113	FMB Seepline Surface Water Location	UAZ_UTRAU	08-Mar-2022	15.2	NS	222	127	6.5		No Comments	NS	NS
			22-Jun-2022	NS	NS	NS	NS	NS		D	NS	NS
			15-Sep-2022	NS	NS	NS	NS	NS		D	NS	NS
FM-2	FMB Surface Water Location	UAZ_UTRAU	28-Feb-2022	13.5	NS	4.1	31	6.4		No Comments	NS	NS
			31-May-2022	22.2	NS	4.8	51	6.6		C	NS	NS
			29-Aug-2022	25.7	NS	6.3	57	6		No Comments	<EQL	<EQL
			01-Dec-2022	10.8	NS	12.3	53	6		No Comments	NS	NS
FM-2A	FMB Surface Water Location	UAZ_UTRAU	28-Feb-2022	12.9	NS	1.8	41	6.3		No Comments	NS	NS
			31-May-2022	21.4	NS	3.9	75	6.2		C	NS	NS
			29-Aug-2022	23.8	NS	11.8	208	6.2		No Comments	<EQL	<EQL
			01-Dec-2022	7.9	NS	29.4	56	5.6		No Comments	NS	NS
FM-2B	FMB Surface Water Location	UAZ_UTRAU	13-Jan-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			16-Feb-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			24-Feb-2022	NS	NS	NS	45	NS		No Comments	NS	NS
			28-Feb-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			03-Mar-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			15-Mar-2022	NS	NS	NS	51.2	NS		No Comments	NS	NS
			13-Apr-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			05-May-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			31-May-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			14-Jun-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Jun-2022	NS	NS	NS	69.36	NS		No Comments	NS	NS
			19-Jul-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			10-Aug-2022	NS	NS	NS	63.52	NS		No Comments	NS	NS
			16-Aug-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Aug-2022	NS	NS	NS	NS	NS		No Comments	<EQL	<EQL
											<EQL	<EQL
			14-Sep-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			20-Sep-2022	NS	NS	NS	53.84	NS		No Comments	NS	NS
			27-Oct-2022	13.5	NS	2.03	56.05	6.54		No Comments	NS	NS
			29-Nov-2022	10.7	NS	2.63	68.05	6.05		No Comments	NS	NS
			01-Dec-2022	8.9	NS	33	26	5.1		No Comments	NS	NS
				8.9		33	26	5.1				
			13-Dec-2022	10.7	NS	2.57	54.79	5.04		No Comments	NS	NS
FM-2BD	FMB Surface Water Location	UAZ_UTRAU	13-Jan-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			16-Feb-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			24-Feb-2022	NS	NS	NS	44.11	NS		No Comments	NS	NS
			28-Feb-2022	13.2	NS	4.2	48	6.6		No Comments	NS	NS
			03-Mar-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			15-Mar-2022	NS	NS	NS	47.78	NS		No Comments	NS	NS
			13-Apr-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			05-May-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			31-May-2022	21.2	NS	6.1	67	6.4		C	NS	NS
			14-Jun-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Jun-2022	NS	NS	NS	67.43	NS		No Comments	NS	NS
			19-Jul-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			10-Aug-2022	NS	NS	NS	54.59	NS		No Comments	NS	NS
			16-Aug-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Aug-2022	24.3	NS	17.7	61	6.9		No Comments	<EQL	<EQL
			14-Sep-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			20-Sep-2022	NS	NS	NS	61.94	NS		No Comments	NS	NS
			27-Oct-2022	13.8	NS	2.03	56.48	6.65		No Comments	NS	NS
			29-Nov-2022	11	NS	2.41	64.87	5.76		No Comments	NS	NS
			01-Dec-2022	8.5	NS	9.9	65	6.3		No Comments	NS	NS
			13-Dec-2022	10.6	NS	1.9	53.73	6.12		No Comments	NS	NS
FM-2D	FMB Surface Water Location	UAZ_UTRAU	28-Feb-2022	12.8	NS	2.8	48	6.3		No Comments	NS	NS
			31-May-2022	22.4	NS	3.7	71	6.4		C	NS	NS
			29-Aug-2022	23.9	NS	17.1	71	6.4		No Comments	<EQL	<EQL
			01-Dec-2022	9.3	NS	3.4	64	6.3		No Comments	NS	NS
FM-2U	FMB Surface Water Location	UAZ_UTRAU	28-Feb-2022	13.1	NS	7.1	81	6.9		No Comments	NS	NS
			31-May-2022	NS	NS	NS	NS	NS		D	NS	NS
			29-Aug-2022	NS	NS	NS	NS	NS		D	NS	NS
FM-3A	FMB Surface Water Location	UAZ_UTRAU	13-Jan-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			16-Feb-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			24-Feb-2022	NS	NS	NS	31.9	NS		No Comments	NS	NS
			28-Feb-2022	13.8	NS	2.8	32	6.1		No Comments	NS	NS
				13.8		2.8	32	6.1				
			03-Mar-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			15-Mar-2022	NS	NS	NS	31.64	NS		No Comments	NS	NS
			13-Apr-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			05-May-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			31-May-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			31-May-2022	19.7	NS	3.4	32	6.9		No Comments	NS	NS
				19.7		3.4	32	6.9				
			14-Jun-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Jun-2022	NS	NS	NS	31.86	NS		No Comments	NS	NS
			19-Jul-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			10-Aug-2022	NS	NS	NS	39.74	NS		No Comments	NS	NS
			16-Aug-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Aug-2022	21.5	NS	8.2	35	5.7		No Comments	<EQL	<EQL
				21.5		8.2	35	5.7			<EQL	<EQL
			14-Sep-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			20-Sep-2022	NS	NS	NS	31.93	NS		No Comments	NS	NS
			27-Oct-2022	15.9	NS	6.37	30.54	6.55		No Comments	NS	NS
			29-Nov-2022	15	NS	2.49	30.47	5.07		No Comments	NS	NS
			01-Dec-2022	12.3	NS	13.2	33	6.1		No Comments	NS	NS
				12.3		13.2	33	6.1				
			13-Dec-2022	13.4	NS	5.29	32.14	5.91		No Comments	NS	NS
FM-A7	FMB Surface Water Location	UAZ_UTRAU	13-Jan-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			16-Feb-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			24-Feb-2022	NS	NS	NS	72.11	NS		No Comments	NS	NS
			28-Feb-2022	11.6	NS	9.8	73	6.4		No Comments	NS	NS
			03-Mar-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			15-Mar-2022	NS	NS	NS	78.13	NS		No Comments	NS	NS
			13-Apr-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			05-May-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			31-May-2022	22.4	NS	14.8	73	6.9		No Comments	NS	NS
			14-Jun-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Jun-2022	NS	NS	NS	75.1	NS		No Comments	NS	NS
			19-Jul-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			10-Aug-2022	NS	NS	NS	95.01	NS		No Comments	NS	NS
			16-Aug-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Aug-2022	26	NS	12.5	115	7.3		No Comments	<EQL	<EQL
			14-Sep-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			20-Sep-2022	NS	NS	NS	68.2	NS		No Comments	NS	NS
			27-Oct-2022	14	NS	4.53	87.6	6.77		No Comments	NS	NS
			29-Nov-2022	10.5	NS	4.45	90.11	5.94		No Comments	NS	NS
			01-Dec-2022	9.6	NS	9.3	73	6.3		No Comments	NS	NS
			13-Dec-2022	11.2	NS	4.7	84.14	6.13		No Comments	NS	NS
FM-A7U	FMB Surface Water Location	UAZ_UTRAU	28-Feb-2022	16.6	NS	2.2	39	6		No Comments	NS	NS
			31-May-2022	22.5	NS	2.7	38	7.2		No Comments	NS	NS
			30-Aug-2022	21.5	NS	3	38	5.8		No Comments	<EQL	<EQL
			01-Dec-2022	9.9	NS	2	41	6.2		No Comments	NS	NS
FMC-002F	FMB Surface Water Location	UAZ_UTRAU	13-Jan-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			16-Feb-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			24-Feb-2022	NS	NS	NS	52.15	NS		No Comments	NS	NS
			28-Feb-2022	11.6	NS	6.6	53	6.5		No Comments	NS	NS
			03-Mar-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			15-Mar-2022	NS	NS	NS	65.27	NS		No Comments	NS	NS
			13-Apr-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			05-May-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			31-May-2022	22.1	NS	21	70	6.9		No Comments	NS	NS
			14-Jun-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Jun-2022	NS	NS	NS	71.78	NS		No Comments	NS	NS
			19-Jul-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			10-Aug-2022	NS	NS	NS	60.44	NS		No Comments	NS	NS
			16-Aug-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Aug-2022	26	NS	12.9	64	7.1		No Comments	<EQL	<EQL
											<EQL	<EQL
			14-Sep-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			27-Oct-2022	14	NS	3.1	58.77	6.52		No Comments	NS	NS
			29-Nov-2022	10.3	NS	4.48	67.57	6.36		No Comments	NS	NS
			01-Dec-2022	11.6	NS	13.8	67	6.4		No Comments	NS	NS
			13-Dec-2022	11.5	NS	4.23	60.47	6.07		No Comments	NS	NS
FMC-002H	FMB Surface Water Location	UAZ_UTRAU	13-Jan-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			16-Feb-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			24-Feb-2022	NS	NS	NS	44.3	NS		No Comments	NS	NS
			02-Mar-2022	9	NS	3.6	45	5.6		C	NS	NS
			03-Mar-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			15-Mar-2022	NS	NS	NS	49.25	NS		No Comments	NS	NS
			13-Apr-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			05-May-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			02-Jun-2022	23	NS	38.2	78	6		C	NS	NS
			14-Jun-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Jun-2022	NS	NS	NS	68.11	NS		No Comments	NS	NS
			19-Jul-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			10-Aug-2022	NS	NS	NS	54.37	NS		No Comments	NS	NS
			16-Aug-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			31-Aug-2022	23.4	NS	28.9	66	6.4		No Comments	<EQL	<EQL
			14-Sep-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			20-Sep-2022	NS	NS	NS	53.47	NS		No Comments	NS	NS
			27-Oct-2022	13.4	NS	2.27	56.7	6.57		No Comments	NS	NS
			29-Nov-2022	10.9	NS	2.2	67.64	6.14		No Comments	NS	NS
			01-Dec-2022	8.8	NS	3	69	7.2		No Comments	NS	NS
			13-Dec-2022	10.7	NS	1.68	54.75	5.96		No Comments	NS	NS
FM-H1	FMB Surface Water Location	UAZ_UTRAU	13-Jan-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			16-Feb-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			24-Feb-2022	NS	NS	NS	58.83	NS		No Comments	NS	NS
			28-Feb-2022	13.9	NS	8	98	6.1		No Comments	NS	NS
			03-Mar-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			15-Mar-2022	NS	NS	NS	79.6	NS		No Comments	NS	NS
			13-Apr-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			18-Apr-2022	NS	NS	4.29	NS	NS		No Comments	NS	NS
			05-May-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			31-May-2022	21.2	NS	5.9	65	7		No Comments	NS	NS
			14-Jun-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Jun-2022	NS	NS	NS	54.1	NS		No Comments	NS	NS
			19-Jul-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			10-Aug-2022	NS	NS	NS	94.32	NS		No Comments	NS	NS
			16-Aug-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			29-Aug-2022	24.5	NS	7.2	84	6.1		No Comments	<EQL	<EQL
			14-Sep-2022	NS	NS	NS	NS	NS		No Comments	NS	NS
			20-Sep-2022	NS	NS	NS	56.7	NS		No Comments	NS	NS
			27-Oct-2022	17.7	NS	6.39	57.92	6.86		No Comments	NS	NS
			29-Nov-2022	17.1	NS	3.45	67.88	5.37		No Comments	NS	NS
			01-Dec-2022	13.3	NS	10.5	53	6.4		No Comments	NS	NS
			13-Dec-2022	14	NS	3.04	59.67	5.82		No Comments	NS	NS
FM-H2	FMB Surface Water Location	UAZ_UTRAU	28-Feb-2022	12.6	NS	2.9	49	6.4		No Comments	NS	NS
			31-May-2022	21.9	NS	7.2	64	6.9		No Comments	NS	NS
			29-Aug-2022	24.8	NS	9.9	103	6.3		No Comments	<EQL	<EQL
			01-Dec-2022	12.3	NS	10	50	6.2		No Comments	NS	NS
HPZ 1A	Wetland Piezometer	UAZ_UTRAU	03-Mar-2022	14.2	201.64	119	106	5.2		No Comments	NS	NS
			01-Jun-2022	17.1	201.18	84.3	108	5.7		No Comments	NS	NS
			30-Aug-2022	19.7	201.55	149	118	5.6		No Comments	<EQL	<EQL
			07-Dec-2022	14.8	NS	25.6	108	6.7		No Comments	<EQL	NS
			07-Dec-2022	NS	201.18	NS	NS	NS		No Comments	NS	NS
HPZ 3A	Wetland Piezometer	UAZ_UTRAU	03-Mar-2022	12.3	202.13	1.1	55	5.2		No Comments	NS	NS
			31-May-2022	17.4	201.83	0.5	57	5		No Comments	NS	NS
			30-Aug-2022	19.6	201.83	1.6	55	5		No Comments	<EQL	<EQL
			07-Dec-2022	15.3	NS	3.7	61	5.1		No Comments	<EQL	NS
			07-Dec-2022	NS	202.23	NS	NS	NS		No Comments	NS	NS
HPZ 3B	Wetland Piezometer	UAZ_UTRAU	03-Mar-2022	12.4	201.8	6.1	63	5.4		No Comments	NS	NS
			31-May-2022	18.2	201.69	3.5	58	5.2		No Comments	NS	NS
			30-Aug-2022	21.4	201.68	8.9	46	5.3		No Comments	<EQL	<EQL
			07-Dec-2022	15.6	NS	7.1	68	5.3		No Comments	<EQL	NS
			07-Dec-2022	NS	202	NS	NS	NS		No Comments	NS	NS
HPZ 5A	Wetland Piezometer	UAZ_UTRAU	03-Mar-2022	14	212.03	1.1	49	4.4		No Comments	NS	NS
			31-May-2022	18.3	211.14	0.5	49	4.8		No Comments	NS	NS
			30-Aug-2022	20.8	212.16	2.4	60	5.5		No Comments	<EQL	<EQL
			08-Dec-2022	16.7	NS	4.5	50	4.8		No Comments	<EQL	NS
			08-Dec-2022	NS	212.03	NS	NS	NS		No Comments	NS	NS
HPZ 5B	Wetland Piezometer	UAZ_UTRAU	03-Mar-2022	12.9	212.07	217	218	6.3		No Comments	NS	NS
			31-May-2022	21.7	210.74	279	295	6.7		No Comments	NS	NS
			31-Aug-2022	NS	208.6	NS	NS	NS		D	NS	NS
			08-Dec-2022	16.6	NS	353	190	6.2		No Comments	<EQL	NS
			08-Dec-2022	NS	212.18	NS	NS	NS		No Comments	NS	NS
HPZ 6AR	Wetland Piezometer	UAZ_UTRAU	03-Mar-2022	16.8	204.75	5	271	6.7		No Comments	NS	NS
			31-May-2022	18.1	204.35	2.6	295	7		No Comments	NS	NS
			31-Aug-2022	20.3	204.41	2.1	274	7		No Comments	<EQL	<EQL
			08-Dec-2022	18.8	NS	4.5	291	7		No Comments	<EQL	NS
			08-Dec-2022	NS	204.38	NS	NS	NS		No Comments	NS	NS
HSP 60A	Wetland Piezometer	UAZ_UTRAU	03-Mar-2022	16.4	201.67	3.8	208	4.7		No Comments	NS	NS
			31-May-2022	18.3	200.85	4.7	181	4.9		No Comments	NS	NS
			31-Aug-2022	19.6	201.17	5.9	192	4.8		No Comments	[1.31]	<EQL
			08-Dec-2022	18.1	NS	4.9	161	4.9		No Comments	<EQL	NS
			08-Dec-2022	NS	201.33	NS	NS	NS		No Comments	NS	NS
HSP 60B	Wetland Piezometer	UAZ_UTRAU	03-Mar-2022	14.5	200.04	30	91	5.4		No Comments	NS	NS
			31-May-2022	18.3	199.34	29.7	87	5.6		No Comments	NS	NS
			31-Aug-2022	20	199.77	8.7	88	4.8		No Comments	<EQL	<EQL
			08-Dec-2022	17.4	NS	5.8	88	5.7		No Comments	<EQL	NS
			08-Dec-2022	NS	199.83	NS	NS	NS		No Comments	NS	NS
HSP 76A	Wetland Piezometer	UAZ_UTRAU	03-Mar-2022	14.9	196.34	2.8	275	7		No Comments	NS	NS
			31-May-2022	17.7	195.71	1.3	277	7.4		No Comments	NS	NS
			31-Aug-2022	20.6	196.14	2.9	279	7.5		No Comments	<EQL	<EQL
			08-Dec-2022	18	NS	3.1	280	7.4		No Comments	<EQL	NS
			08-Dec-2022	NS	196.22	NS	NS	NS		No Comments	NS	NS
HSP 76B	Wetland Piezometer	UAZ_UTRAU	03-Mar-2022	16.3	198.75	1.5	281	7.4		No Comments	NS	NS
			31-May-2022	17.9	198.28	1.2	277	7.1		No Comments	NS	NS
			31-Aug-2022	19.5	198.25	5.3	280	7.7		No Comments	<EQL	<EQL
			08-Dec-2022	18.1	NS	8.8	280	7.3		No Comments	<EQL	NS
			08-Dec-2022	NS	198.37	NS	NS	NS		No Comments	NS	NS

Inorganics	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	CYANIDE	LEAD	MERCURY	NICKEL	NITRATE-NITRITE AS NITROGEN	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
GWPS	2000	4	5	100	3	1300	200	15	2	390	10	50	94	2	2.6	4	6000

Organics	BENZENE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE
Unit	ug/L	ug/L	ug/L	ug/L	ug/L
GWPS	5	5	5	5	5200

Radionuclides	AMERICIUM-241	CARBON-14	COBALT-60	COMBINED RADIUM (226 AND 228)	CONVERTED URANIUM MASS	CURIUM-242	CURIUM-243/244	CURIUM-245/246	GROSS ALPHA	IODINE-129	NICKEL-63	NONVOLATILE BETA	PLUTONIUM-238	PLUTONIUM-239/240	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (F/H)	SUM OF BETA (F/H)	SUM OF BETA DOSE (F/H)	TECHNETIUM-99	THORIUM-228	THORIUM-230	THORIUM-232	TRITIUM	URANIUM	URANIUM-233/234	URANIUM-234	URANIUM-235	URANIUM-238
Unit	pCi/L	pCi/L	pCi/L	pCi/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/L	pCi/L	pCi/L	pCi/mL	ug/L	pCi/L	pCi/L	pCi/L	pCi/L
GWPS	15	50	50	5	30	15	15	15	15	1	60	50	15	15	5	5	8	15	50	4	900	15	15	15	20		15	15	15	15

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (F/H Areas): (C-14/2000 + Cs-137/200 +Co-60/100 +I-129/1 +Ra-228/5 +Sr-90/8 + Tc-99/900)*4

Sum of Betas (F/H Areas): (C-14+Cs-137+Co-60+Ni-63+I-129+Ra-228+Sr-90+Tc-99)

Sum of Alphas (F/H Areas): (Am-241 +Cm-242+Cm-243/244+Cm-245/246+Pu-238+Pu-239/240+Th-228+Th-230+Th-232+U-233/234+U-235+U-238)

Radium Total (F/H and MWMF Areas): Ra-226+Ra-228

Table B-5 3Q22 F-Area Annual Appendix IX Monitoring

			Field Data	Acids																Base/Neutrals																																	
			SAMPLE COLLECTION DATE	2,3,4,6-TETRACHLOROPHENOL	2,4,5-TRICHLOROPHENOL	2,4,6-TRICHLOROPHENOL	2,4-DICHLOROPHENOL	2,4-DIMETHYLPHENOL	2,4-DINITROPHENOL	2,6-DICHLOROPHENOL	2-CHLOROPHENOL	2-NITROPHENOL	4-NITROPHENOL	DINITRO-O-CRESOL	M/P-CRESOL	O-CRESOL (2-METHYLPHENOL)	P-CHLORO-M-CRESOL	PENTACHLOROPHENOL	PHENOL	1,2,4,5-TETRACHLOROBENZENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROBENZENE	1,3,5-TRINITROBENZENE	1,3-DICHLOROBENZENE	1,3-DINITROBENZENE	1,4-DICHLOROBENZENE	1,4-DIOXANE	1,4-NAPHTHOQUINONE	1-NAPHTHYLAMINE	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	2-ACETYLAMINOFLUORENE	2-CHLORONAPHTHALENE	2-METHYLANILINE (O-TOLUIDINE)	2-METHYLNAPHTHALENE	2-NAPHTHYLAMINE	2-NITROANILINE	2-PICOLINE	3,3-DICHLOROBENZIDINE	3,3'-DIMETHYLBENZIDINE	3-METHYLCHOLANTHRENE	4-AMINOBIPHENYL	4-BROMOPHENYL PHENYL ETHER	4-CHLOROANILINE	4-CHLOROPHENYL PHENYL ETHER	4-NITROQUINOLINE-1-OXIDE	5-NITRO-O-TOLUIDINE	7,12-DIMETHYLBENZ(A)ANTHRACENE	A,A-DIMETHYLPHENETHYLAMINE	ACENAPHTHENE	ACENAPHTHYLENE	ACETOPHENONE	ANILINE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5200	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 89D	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			07-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB 93D	Point of Compliance Well	UAZ_UTRAU	11-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 94C	Point of Compliance Well	LAZ_UTRAU	15-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 95CR	Point of Compliance Well	LAZ_UTRAU	11-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 95DR	Point of Compliance Well	UAZ_UTRAU	11-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 97A	Point of Compliance Well	GAU	15-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL

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			Field Data	Base/Neutrals																																																	
			SAMPLE COLLECTION DATE	ANTHRACENE	ARAMITE	BENZO(G,H,I)PERYLENE	BENZO[A]ANTHRACENE	BENZO[A]PYRENE	BENZO[B]FLUORANTHENE	BENZO[K]FLUORANTHENE	BENZYL ALCOHOL	BIS(2-CHLORO-1-METHYLETHYL)ETHER	BIS(2-CHLOROETHOXY)METHANE	BIS(2-CHLOROETHYL)ETHER	BIS(2-ETHYLHEXYL)PHTHALATE (DEHP)	BUTYL BENZYL PHTHALATE	CHLOROBENZILATE	CHRYSENE	DIALLATE	DIBENZ[AH]ANTHRACENE	DIBENZOFURAN	DIETHYL PHTHALATE	DIMETHOATE	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	DIPHENYLAMINE	DISULFOTON	ETHYL METHACRYLATE	ETHYL METHANESULFONATE	FAMPHUR	FLUORANTHENE	FLUORENE	HEXACHLOROBENZENE	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	HEXACHLOROPHENE	HEXACHLOROPROPENE	INDENO[1,2,3-CD]PYRENE	ISODRIN	ISOPHORONE	ISOSAFROLE	KEPONE	METHAPYRILENE	METHYL METHANESULFONATE	METHYL PARATHION	M-NITROANILINE	NAPHTHALENE	N-DIOCTYL PHTHALATE	NITROBENZENE	N-NITROSODIETHYLAMINE	N-NITROSODIMETHYLAMINE	N-NITROSODI-N-BUTYLAMINE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 89D	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.71]		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 89D	Point of Compliance Well	UAZ_UTRAU	07-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB 93D	Point of Compliance Well	UAZ_UTRAU	11-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 94C	Point of Compliance Well	LAZ_UTRAU	15-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 95CR	Point of Compliance Well	LAZ_UTRAU	11-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 95DR	Point of Compliance Well	UAZ_UTRAU	11-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.35]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 97A	Point of Compliance Well	GAU	15-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL

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			Field Data	Base/Neutrals																								Cyanide	Dioxins				Furans			Herbicides				Metals													
			SAMPLE COLLECTION DATE	N-NITROSODIPHENYLAMINE	N-NITROSODIPHENYLAMINE+DIPHENYLAMINE	N-NITROSODIPROPYLAMINE	N-NITROSOMORPHOLINE	N-NITROSO-N-METHYLETHYLAMINE	N-NITROSOPIPERIDINE	N-NITROSOPYRROLIDINE	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PARATHION	P-DIMETHYLAMINOAZOBENZENE	PENTACHLOROBENZENE	PENTACHLOROETHANE	PENTACHLORONITROBENZENE	PHENACETIN	PHENANTHRENE	PHORATE	P-NITROANILINE	P-PHENYLENEDIAMINE	PRONAMIDE	PYRENE	PYRIDINE	SAFROLE	SULFOTEPP	THIONAZIN	CYANIDE	2,3,7,8-TCDD	HEXACHLORODIBENZO-P-DIOXINS	PENTACHLORODIBENZO-P-DIOXINS	TETRACHLORODIBENZO-P-DIOXIN	HEXACHLORODIBENZO-P-FURANS	PENTACHLORODIBENZO-P-FURANS	TETRACHLORODIBENZO-P-FURANS	2,4,5-T	2,4,5-TP (SILVEX)	2,4-DICHLOROPHENOXYACETIC ACID (2,4-D)	DINOSEB	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	6	10	2000	4	5	100	3	1300	15	2	390	50	94	2
FSB 89D	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	71.5	[0.66]	2.95	<EQL	11	7.67	[1.39]	8.8	7.09	[3.26]	<EQL	<EQL
					<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[70.8]	[0.647]	[2.51]	<EQL	[10.1]	[7.47]	[1.34]	[8.34]	6.98	[2.75]	<EQL	<EQL
FSB 89D	Point of Compliance Well	UAZ_UTRAU	07-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
																													<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL																		
FSB 93D	Point of Compliance Well	UAZ_UTRAU	11-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	92.5	[0.875]	7.4	<EQL	[6.5]	10.3	[0.933]	2.4	6.61	[2.17]	<EQL	<EQL
																																								<EQL	<EQL	92.7	[0.995]	7.5	<EQL	[6.48]	10.4	[0.95]		6.67	[2.39]	<EQL	<EQL
FSB 94C	Point of Compliance Well	LAZ_UTRAU	15-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[516]	[3.75]	[3.71]	<EQL	[73.9]	[19.1]	[0.51]	[0.328]	[23.7]	[7.4]	<EQL	[0.488]
FSB 95CR	Point of Compliance Well	LAZ_UTRAU	11-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	239	4.98	3.59	<EQL	71.5	8.45	[1.41]	0.675	20.9	<EQL	<EQL	[0.297]
FSB 95DR	Point of Compliance Well	UAZ_UTRAU	11-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	39.7	[0.467]	[0.295]	<EQL	[1.65]	10.8	[3.81]	[0.196]	[4.2]	[3.21]	<EQL	<EQL
FSB 97A	Point of Compliance Well	GAU	15-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[35.6]	<EQL	<EQL	<EQL	<EQL	[0.786]	[2.5]	<EQL	[1.36]	<EQL	<EQL	<EQL

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			Field Data	Metals			PCBs							Pesticides																				Sulfide	Volatiles																		
			SAMPLE COLLECTION DATE	TIN	VANADIUM	ZINC	AROCLOR 1016	AROCLOR 1221	AROCLOR 1232	AROCLOR 1242	AROCLOR 1248	AROCLOR 1254	AROCLOR 1260	ALDRIN	ALPHA-BENZENE HEXACHLORIDE	ALPHA-CHLORDANE	BETA-BENZENE HEXACHLORIDE	DDD	DDE	DDT	DELTA-BENZENE HEXACHLORIDE	DIELDRIN	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-CHLORDANE	HEPTACHLOR	HEPTACHLOR EPOXIDE	LINDANE	METHOXYCHLOR	TOXAPHENE	SULFIDE	1,1,1,2-TETRACHLOROETHANE	1,1,1-TRICHLOROETHANE	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,3-TRICHLOROPROPANE	1,2-DIBROMO-3-CHLOROPROPANE	1,2-DIBROMOETHANE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROPROPANE	2-HEXANONE	ACETONE	ACETONITRILE (METHYL CYANIDE)	ACROLEIN	ACRYLONITRILE	ALLYL CHLORIDE	BENZENE	BROMODICHLOROMETHANE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		2.6	4	6000	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	<EQL
FSB 89D	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	NS	[5.62]	[35.4]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
					<EQL	[32.7]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 89D	Point of Compliance Well	UAZ_UTRAU	07-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FSB 93D	Point of Compliance Well	UAZ_UTRAU	11-Aug-2022	<EQL	<EQL	[22.3]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
					<EQL	[22.2]																																															
FSB 94C	Point of Compliance Well	LAZ_UTRAU	15-Aug-2022	NS	[10.5]	44.7	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.014]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.58]	<EQL	<EQL	[2.39]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 95CR	Point of Compliance Well	LAZ_UTRAU	11-Aug-2022	NS	[8.34]	74.7	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.62]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 95DR	Point of Compliance Well	UAZ_UTRAU	11-Aug-2022	NS	[5.28]	[12.2]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
FSB 97A	Point of Compliance Well	GAU	15-Aug-2022	NS	[5.93]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL

Table B-5 3Q22 F-Area Annual Appendix IX Monitoring

			Field Data	Volatiles																																	Radionuclides	
			SAMPLE COLLECTION DATE	BROMOFORM (TRIBROMOMETHANE)	BROMOMETHANE (METHYL BROMIDE)	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE (ETHYL CHLORIDE)	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CHLOROMETHANE (METHYL CHLORIDE)	CHLOROPRENE	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE (METHYLENE BROMIDE)	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	ETHYLBENZENE	IODOMETHANE (METHYL IODIDE)	ISOBUTANOL	METHACRYLONITRILE	METHYL ETHYL KETONE	METHYL ISOBUTYL KETONE	METHYL METHACRYLATE	PROPIONITRILE	STYRENE	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRANS-1,3-DICHLOROPROPENE	TRANS-1,4-DICHLORO-2-BUTENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES	CARBON-14	CESIUM-134
			day-month-year	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	ug/L	ug/L	ug/L	pCi/L	pCi/L
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	80	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	<EQL	<EQL	<EQL	<EQL	5	5200	<EQL	<EQL	50	<EQL
FSB 89D	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	72.4	<EQL
				<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[73.5]	<EQL
FSB 89D	Point of Compliance Well	UAZ_UTRAU	07-Sep-2022	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	NS
FSB 93D	Point of Compliance Well	UAZ_UTRAU	11-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	47.8	<EQL
FSB 94C	Point of Compliance Well	LAZ_UTRAU	15-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[5.94]	<EQL	<EQL	<EQL	[89.4]	<EQL
FSB 95CR	Point of Compliance Well	LAZ_UTRAU	11-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	6.76	<EQL	<EQL	<EQL	31	<EQL
FSB 95DR	Point of Compliance Well	UAZ_UTRAU	11-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	164	<EQL
FSB 97A	Point of Compliance Well	GAU	15-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[30.8]	<EQL

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (F/H Areas): (C-14/2000 + Cs-137/200 +Co-60/100 +I-129/1 +Ra-228/5 +Sr-90/8 + Tc-99/900)*4
Sum of Betas (F/H Areas): (C-14+Cs-137+Co-60+Ni-63+I-129+Ra-228+Sr-90+Tc-99)
Sum of Alphas (F/H Areas): (Am-241 +Cm-242+Cm-243/244+Cm-245/246+Pu-238+Pu-239/240+Th-228+Th-230+Th-232+U-233/234+U-235+U-238)
Radium Total (F/H and MWMF Areas): Ra-226+Ra-228

Table B-6. 3Q22 H-Area Annual Appendix IX and CRML

			Field Data	Acids																Base/Neutrals																																	
			SAMPLE COLLECTION DATE	2,3,4,6-TETRACHLOROPHENOL	2,4,5-TRICHLOROPHENOL	2,4,6-TRICHLOROPHENOL	2,4-DICHLOROPHENOL	2,4-DIMETHYLPHENOL	2,4-DINITROPHENOL	2,6-DICHLOROPHENOL	2-CHLOROPHENOL	2-NITROPHENOL	4-NITROPHENOL	DINITRO-O-CRESOL	M/P-CRESOL	O-CRESOL (2-METHYLPHENOL)	P-CHLORO-M-CRESOL	PENTACHLOROPHENOL	PHENOL	1,2,4,5-TETRACHLOROBENZENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROBENZENE	1,3,5-TRINITROBENZENE	1,3-DICHLOROBENZENE	1,3-DINITROBENZENE	1,4-DICHLOROBENZENE	1,4-DIOXANE	1,4-NAPHTHOQUINONE	1-NAPHTHYLAMINE	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	2-ACETYLAMINOFLUORENE	2-CHLORONAPHTHALENE	2-METHYLANILINE (O-TOLUIDINE)	2-METHYLNAPHTHALENE	2-NAPHTHYLAMINE	2-NITROANILINE	2-PICOLINE	3,3-DICHLOROBENZIDINE	3,3'-DIMETHYLBENZIDINE	3-METHYLCHOLANTHRENE	4-AMINOBIPHENYL	4-BROMOPHENYL PHENYL ETHER	4-CHLOROANILINE	4-CHLOROPHENYL PHENYL ETHER	4-NITROQUINOLINE-1-OXIDE	5-NITRO-O-TOLUIDINE	7,12-DIMETHYLBENZ(A)ANTHRACENE	A,A-DIMETHYLPHENETHYLAMINE	ACENAPHTHENE	ACENAPHTHYLENE	ACETOPHENONE	ANILINE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 66DR	Background Well	UAZ_UTRAU	28-Jul-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 83A	Background Well	GAU	29-Jul-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	38.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											3.1																										
HSB101D	Point of Compliance Well	UAZ_UTRAU	15-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.3]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.33]	<EQL	<EQL	<EQL
			18-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB102D	Point of Compliance Well	UAZ_UTRAU	16-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB105D	Point of Compliance Well	UAZ_UTRAU	15-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB108D	Point of Compliance Well	UAZ_UTRAU	16-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB110C	Point of Compliance Well	LAZ_UTRAU	16-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB113DR	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			07-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB114D	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			07-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB116CR	Point of Compliance Well	LAZ_UTRAU	18-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB119A	Point of Compliance Well	GAU	18-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table B-6. 3Q22 H-Area Annual Appendix IX and CRML

			Field Data	Base/Neutrals																																																	
			SAMPLE COLLECTION DATE	ANTHRACENE	ARAMITE	BENZO(G,H,I)PERYLENE	BENZO[A]ANTHRACENE	BENZO[A]PYRENE	BENZO[B]FLUORANTHENE	BENZO[K]FLUORANTHENE	BENZYL ALCOHOL	BIS(2-CHLORO-1-METHYLETHYL)ETHER	BIS(2-CHLOROETHOXY)METHANE	BIS(2-CHLOROETHYL)ETHER	BIS(2-ETHYLHEXYL)PHTHALATE (DEHP)	BUTYL BENZYL PHTHALATE	CHLOROBENZILATE	CHRYSENE	DIALLATE	DIBENZ[AH]ANTHRACENE	DIBENZOFURAN	DIETHYL PHTHALATE	DIMETHOATE	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	DIPHENYLAMINE	DISULFOTON	ETHYL METHACRYLATE	ETHYL METHANESULFONATE	FAMPHUR	FLUORANTHENE	FLUORENE	HEXACHLOROBENZENE	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	HEXACHLOROPHENE	HEXACHLOROPROPENE	INDENO[1,2,3-CD]PYRENE	ISODRIN	ISOPHORONE	ISOSAFROLE	KEPONE	METHAPYRILENE	METHYL METHANESULFONATE	METHYL PARATHION	M-NITROANILINE	NAPHTHALENE	N-DIOCTYL PHTHALATE	NITROBENZENE	N-NITROSODIETHYLAMINE	N-NITROSODIMETHYLAMINE	N-NITROSODI-N-BUTYLAMINE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 66DR	Background Well	UAZ_UTRAU	28-Jul-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 83A	Background Well	GAU	29-Jul-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					
HSB101D	Point of Compliance Well	UAZ_UTRAU	15-Aug-2022	[0.32]	<EQL	[0.32]	[0.4]	<EQL	[0.35]	[0.36]	<EQL	<EQL	<EQL	<EQL	[0.87]	[0.46]	<EQL	[0.39]	<EQL	[0.31]	<EQL	[0.37]	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	[0.38]	[0.33]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.35]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.3]	[0.8]	<EQL	<EQL	<EQL	<EQL
HSB101D	Point of Compliance Well	UAZ_UTRAU	18-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB101D	Point of Compliance Well	UAZ_UTRAU	29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB102D	Point of Compliance Well	UAZ_UTRAU	16-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB102D	Point of Compliance Well	UAZ_UTRAU	29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB105D	Point of Compliance Well	UAZ_UTRAU	15-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB108D	Point of Compliance Well	UAZ_UTRAU	16-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB108D	Point of Compliance Well	UAZ_UTRAU	29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB110C	Point of Compliance Well	LAZ_UTRAU	16-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.3]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB110C	Point of Compliance Well	LAZ_UTRAU	29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB113DR	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB113DR	Point of Compliance Well	UAZ_UTRAU	07-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB114D	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB114D	Point of Compliance Well	UAZ_UTRAU	07-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB116CR	Point of Compliance Well	LAZ_UTRAU	18-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB116CR	Point of Compliance Well	LAZ_UTRAU	29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB119A	Point of Compliance Well	GAU	18-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB119A	Point of Compliance Well	GAU	29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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			Field Data	Base/Neutrals																								Cyanide	Dioxins				Furans			Herbicides				Metals													
			SAMPLE COLLECTION DATE	N-NITROSODIPHENYLAMINE	N-NITROSODIPHENYLAMINE+DIPHENYLAMINE	N-NITROSODIPROPYLAMINE	N-NITROSOMORPHOLINE	N-NITROSO-N-METHYLETHYLAMINE	N-NITROSOPIPERIDINE	N-NITROSOPYRROLIDINE	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PARATHION	P-DIMETHYLAMINOAZOBENZENE	PENTACHLOROBENZENE	PENTACHLOROETHANE	PENTACHLORONITROBENZENE	PHENACETIN	PHENANTHRENE	PHORATE	P-NITROANILINE	P-PHENYLENEDIAMINE	PRONAMIDE	PYRENE	PYRIDINE	SAFROLE	SULFOTEPP	THIONAZIN	CYANIDE	2,3,7,8-TCDD	HEXACHLORODIBENZO-P-DIOXINS	PENTACHLORODIBENZO-P-DIOXINS	TETRACHLORODIBENZO-P-DIOXIN	HEXACHLORODIBENZO-P-FURANS	PENTACHLORODIBENZO-P-FURANS	TETRACHLORODIBENZO-P-FURANS	2,4,5-T	2,4,5-TP (SILVEX)	2,4-DICHLOROPHENOXYACETIC ACID (2,4-D)	DINOSEB	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	20	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	6	10	2000	4	5	100	3	1300	15	2	390	50	94	2
HSB 66DR	Background Well	UAZ_UTRAU	28-Jul-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
HSB 83A	Background Well	GAU	29-Jul-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[17.7]	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																								<EQL	<EQL	[17.7]	<EQL		<EQL	<EQL	<EQL	<EQL		<EQL	<EQL	<EQL	<EQL
HSB101D	Point of Compliance Well	UAZ_UTRAU	15-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.37]	<EQL	<EQL	<EQL	<EQL	[0.36]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[4.18]	<EQL	<EQL	<EQL	[1.37]	[1.88]	<EQL	[3.73]	<EQL	<EQL	<EQL	<EQL
HSB101D	Point of Compliance Well	UAZ_UTRAU	18-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[5.48]	<EQL	<EQL	<EQL	[4.21]	[2.34]	<EQL	4.74	[0.76]	<EQL	<EQL	<EQL
																																								<EQL	<EQL	[5.52]	<EQL	<EQL	<EQL	[4.29]	[2.47]	<EQL		[0.791]	<EQL	<EQL	<EQL
HSB101D	Point of Compliance Well	UAZ_UTRAU	29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB102D	Point of Compliance Well	UAZ_UTRAU	16-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	R	R	R	R	<EQL	<EQL	[13.2]	[0.256]	[0.148]	<EQL	[1.5]	[3.72]	[2.45]	18.8	[3.65]	<EQL	<EQL	<EQL
HSB102D	Point of Compliance Well	UAZ_UTRAU	29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB105D	Point of Compliance Well	UAZ_UTRAU	15-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[8.86]	[0.137]	<EQL	<EQL	[1.42]	[0.937]	<EQL	[0.765]	[0.745]	<EQL	<EQL	<EQL
HSB108D	Point of Compliance Well	UAZ_UTRAU	16-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	R	R	R	R	<EQL	<EQL	[6.24]	[0.133]	[0.196]	<EQL	[2.37]	[0.897]	<EQL	0.529	[2.05]	<EQL	<EQL	<EQL
					<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL																										
HSB108D	Point of Compliance Well	UAZ_UTRAU	29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB110C	Point of Compliance Well	LAZ_UTRAU	16-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[7.5]	[0.221]	[0.102]	<EQL	<EQL	9.11	[0.714]	<EQL	[2]	<EQL	<EQL	<EQL
HSB110C	Point of Compliance Well	LAZ_UTRAU	29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB113DR	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[6.72]	[0.158]	[0.463]	<EQL	[5.36]	[1.3]	[0.502]	[0.493]	[4.61]	<EQL	<EQL	[0.108]
																												<EQL																									
HSB113DR	Point of Compliance Well	UAZ_UTRAU	07-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB114D	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[13.9]	[0.169]	<EQL	<EQL	[32.1]	[4.06]	[0.825]	[0.843]	[2.84]	<EQL	<EQL	<EQL
HSB114D	Point of Compliance Well	UAZ_UTRAU	07-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB116CR	Point of Compliance Well	LAZ_UTRAU	18-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[4.36]	[0.205]	<EQL	<EQL	<EQL	[0.759]	<EQL	<EQL	[0.763]	<EQL	<EQL	<EQL
HSB116CR	Point of Compliance Well	LAZ_UTRAU	29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB119A	Point of Compliance Well	GAU	18-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[8.43]	[0.243]	[0.129]	<EQL	<EQL	[1.11]	<EQL	<EQL	[1.82]	<EQL	<EQL	<EQL
HSB119A	Point of Compliance Well	GAU	29-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table B-6. 3Q22 H-Area Annual Appendix IX and CRML

			Field Data	Metals			PCBs							Pesticides																				Sulfide	Volatiles																		
			SAMPLE COLLECTION DATE	TIN	VANADIUM	ZINC	AROCLOR 1016	AROCLOR 1221	AROCLOR 1232	AROCLOR 1242	AROCLOR 1248	AROCLOR 1254	AROCLOR 1260	ALDRIN	ALPHA-BENZENE HEXACHLORIDE	ALPHA-CHLORDANE	BETA-BENZENE HEXACHLORIDE	DDD	DDE	DDT	DELTA-BENZENE HEXACHLORIDE	DIELDRIN	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-CHLORDANE	HEPTACHLOR	HEPTACHLOR EPOXIDE	LINDANE	METHOXYCHLOR	TOXAPHENE	SULFIDE	1,1,1,2-TETRACHLOROETHANE	1,1,1-TRICHLOROETHANE	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,3-TRICHLOROPROPANE	1,2-DIBROMO-3-CHLOROPROPANE	1,2-DIBROMOETHANE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROPROPANE	2-HEXANONE	ACETONE	ACETONITRILE (METHYL CYANIDE)	ACROLEIN	ACRYLONITRILE	ALLYL CHLORIDE	BENZENE	BROMODICHLOROMETHANE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		2.6	4	6000	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	<EQL
HSB 66DR	Background Well	UAZ_UTRAU	28-Jul-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 83A	Background Well	GAU	29-Jul-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	[25.8]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0384]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	[24.7]	<EQL																																															
HSB101D	Point of Compliance Well	UAZ_UTRAU	15-Aug-2022	<EQL	[7.53]	[6.02]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB101D	Point of Compliance Well	UAZ_UTRAU	18-Aug-2022	<EQL	[6.48]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	[7.13]	[9.29]																																														
HSB101D	Point of Compliance Well	UAZ_UTRAU	29-Sep-2022	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	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB102D	Point of Compliance Well	UAZ_UTRAU	16-Aug-2022	<EQL	[13.8]	[15.1]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB102D	Point of Compliance Well	UAZ_UTRAU	29-Sep-2022	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	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB105D	Point of Compliance Well	UAZ_UTRAU	15-Aug-2022	<EQL	[8.73]	[4.41]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB108D	Point of Compliance Well	UAZ_UTRAU	16-Aug-2022	<EQL	[16.7]	[9.28]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB108D	Point of Compliance Well	UAZ_UTRAU	29-Sep-2022	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	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB110C	Point of Compliance Well	LAZ_UTRAU	16-Aug-2022	<EQL	[16.2]	[19.2]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB110C	Point of Compliance Well	LAZ_UTRAU	29-Sep-2022	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	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB113DR	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	<EQL	<EQL	[10.6]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB113DR	Point of Compliance Well	UAZ_UTRAU	07-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB114D	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	<EQL	<EQL	[18.1]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB114D	Point of Compliance Well	UAZ_UTRAU	07-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB116CR	Point of Compliance Well	LAZ_UTRAU	18-Aug-2022	<EQL	<EQL	[10.5]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB116CR	Point of Compliance Well	LAZ_UTRAU	29-Sep-2022	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	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB119A	Point of Compliance Well	GAU	18-Aug-2022	<EQL	<EQL	[14.1]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB119A	Point of Compliance Well	GAU	29-Sep-2022	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	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table B-6. 3Q22 H-Area Annual Appendix IX and CRML

			Field Data	Volatiles																																
			SAMPLE COLLECTION DATE	BROMOFORM (TRIBROMOMETHANE)	BROMOMETHANE (METHYL BROMIDE)	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE (ETHYL CHLORIDE)	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CHLOROMETHANE (METHYL CHLORIDE)	CHLOROPRENE	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE (METHYLENE BROMIDE)	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	ETHYLBENZENE	IODOMETHANE (METHYL IODIDE)	ISOBUTANOL	METHACRYLONITRILE	METHYL ETHYL KETONE	METHYL ISOBUTYL KETONE	METHYL METHACRYLATE	PROPIONITRILE	STYRENE	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRANS-1,3-DICHLOROPROPENE	TRANS-1,4-DICHLORO-2-BUTENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
			day-month-year	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	mg/L	ug/L	ug/L
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	<EQL	<EQL	<EQL	<EQL	5	5200	<EQL	<EQL
HSB 66DR	Background Well	UAZ_UTRAU	28-Jul-2022	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
HSB 83A	Background Well	GAU	29-Jul-2022	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
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB101D	Point of Compliance Well	UAZ_UTRAU	15-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB101D	Point of Compliance Well	UAZ_UTRAU	18-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB101D	Point of Compliance Well	UAZ_UTRAU	29-Sep-2022	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
HSB102D	Point of Compliance Well	UAZ_UTRAU	16-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB102D	Point of Compliance Well	UAZ_UTRAU	29-Sep-2022	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
HSB105D	Point of Compliance Well	UAZ_UTRAU	15-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB108D	Point of Compliance Well	UAZ_UTRAU	16-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.47]	<EQL	<EQL	<EQL
HSB108D	Point of Compliance Well	UAZ_UTRAU	29-Sep-2022	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
HSB110C	Point of Compliance Well	LAZ_UTRAU	16-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.86	<EQL	<EQL	<EQL
HSB110C	Point of Compliance Well	LAZ_UTRAU	29-Sep-2022	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
HSB113DR	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.44	<EQL	<EQL	<EQL
HSB113DR	Point of Compliance Well	UAZ_UTRAU	07-Sep-2022	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
HSB114D	Point of Compliance Well	UAZ_UTRAU	17-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB114D	Point of Compliance Well	UAZ_UTRAU	07-Sep-2022	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
HSB116CR	Point of Compliance Well	LAZ_UTRAU	18-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.74]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	8.97	<EQL	<EQL	<EQL
HSB116CR	Point of Compliance Well	LAZ_UTRAU	29-Sep-2022	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
HSB119A	Point of Compliance Well	GAU	18-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB119A	Point of Compliance Well	GAU	29-Sep-2022	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

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (F/H Areas): (C-14/2000 + Cs-137/200 +Co-60/100 +I-129/1 +Ra-228/5 +Sr-90/8 + Tc-99/900)*4
Sum of Betas (F/H Areas): (C-14+Cs-137+Co-60+Ni-63+I-129+Ra-228+Sr-90+Tc-99)
Sum of Alphas (F/H Areas): (Am-241 +Cm-242+Cm-243/244+Cm-245/246+Pu-238+Pu-239/240+Th-228+Th-230+Th-232+U-233/234+U-235+U-238)
Radium Total (F/H and MWMF Areas): Ra-226+Ra-228

Table B-7a. 2022 SWP UAZ Annual Compliance Monitoring

Column groups: Field Data; Metals; Radionuclides; Hydrocarbons; VOC

Metals (ug/L, GWPS): ANTIMONY 6; ARSENIC 10; BARIUM 2000; BERYLLIUM 4; CHROMIUM 100; COBALT 6; COPPER 1300; LEAD 15; MERCURY 2; NICKEL 390; SELENIUM 50; SILVER 94; THALLIUM 2; TIN 12000; VANADIUM 86; ZINC 6000

Radionuclides (GWPS): CARBON-14 pCi/L 50; COMBINED RADIUM (226 AND 228) pCi/L 5; GROSS ALPHA pCi/L 15; IODINE-129 pCi/L 1; NONVOLATILE BETA pCi/L 50; RADIUM, TOTAL ALPHA-EMITTING pCi/L 5; RADIUM-226 pCi/L 5; RADIUM-228 pCi/L 5; STRONTIUM-90 pCi/L 8; SUM OF ALPHAS (MWMF) pCi/L 15; SUM OF BETA (MWMF) pCi/L 50; SUM OF BETA DOSE (MWMF) mrem/yr 4; TECHNETIUM-99 pCi/L 900; TRITIUM pCi/mL 20; URANIUM-233/234 pCi/L 15; URANIUM-235 pCi/L 15; URANIUM-238 pCi/L 15

Hydrocarbons (ug/L): ETHANE; ETHYLENE

VOC (ug/L, GWPS): 1,1,1-TRICHLOROETHANE 200; 1,1-DICHLOROETHANE 2.7; 1,1-DICHLOROETHYLENE 7; 1,2,4-TRICHLOROBENZENE 70; 1,2-DICHLOROETHANE (EDC) 5; 1,2-DICHLOROETHYLENE 70; 1,2-DICHLOROPROPANE 5; 1,4-DIOXANE 6.1; BENZENE 5; CARBON DISULFIDE 810; CARBON TETRACHLORIDE 5; CHLOROBENZENE 100; CHLOROETHENE (VINYL CHLORIDE) 2; CHLOROFORM 80; CIS-1,2-DICHLOROETHYLENE 70; DICHLORODIFLUOROMETHANE 200; DICHLOROMETHANE (METHYLENE CHLORIDE) 5; TETRACHLOROETHYLENE (PCE) 5; TOLUENE 1000; TRANS-1,2-DICHLOROETHYLENE 100; TRICHLOROETHYLENE (TCE) 5; TRICHLOROFLUOROMETHANE 1100; VINYL ACETATE 410; XYLENES 10000

			SAMPLE COLLECTION DATE	PH	SPECIFIC CONDUCTANCE	WATER TEMPERATURE	TOTAL ALKALINITY (AS CACO3)	TURBIDITY	SAMPLING EVENT WATER ELEVATION	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	OXYGEN	OXIDATION/REDUCTION POTENTIAL	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC
			day-month-year	unitless	uS/cm	degC	mg/L	NTU	ft	day-month-year	ft	mg/L	mV	Unit		ug/L	ug/L
Station	Well Use	Aquifer Zone												GWPS		6	10
BGO 1D	Background Well	UAZ_UTRAU	31-Jan-2022	4.5	49	26.6	0	4.1	236	03-Jan-2022	236.1	4.43	297		No Comments	<EQL	<EQL
										04-Apr-2022	235.65						
										12-Jul-2022	235.4						
			25-Jul-2022	4.9	48	28.3	0	7	235.3	03-Jan-2022	236.1	2.01	241		No Comments	<EQL	<EQL
										04-Apr-2022	235.65					<EQL	<EQL
										12-Jul-2022	235.4						
BGO 2D	Background Well	UAZ_UTRAU	24-Jan-2022	4.3	28	21.8	0	0.8	233.49	03-Jan-2022	233.54	8.1	260		No Comments	<EQL	<EQL
										04-Apr-2022	233.56					<EQL	<EQL
										07-Jul-2022	233.3						
			09-Aug-2022	4.4	28	21.8	0	0.8	233	03-Jan-2022	233.54	3.88	276		No Comments	<EQL	<EQL
										04-Apr-2022	233.56						
										07-Jul-2022	233.3						
			26-Sep-2022	4.5	28	22.7	5	1.1	232.7	03-Jan-2022	233.54	NS	NS		No Comments	NS	NS
										04-Apr-2022	233.56						
										07-Jul-2022	233.3						
HSB 85C	Background Well	UAZ_UTRAU	28-Jan-2022	4.4	48	21.3	0	0.5	237.4	04-Jan-2022	236.7	4.9	428		No Comments	NS	NS
										04-Apr-2022	235.86						
										07-Jul-2022	235.59						
			04-Feb-2022	4.6	46	21.9	0	0.1	236.25	04-Jan-2022	236.7	2.88	196		No Comments	<EQL	<EQL
										04-Apr-2022	235.86						
										07-Jul-2022	235.59						
			19-Apr-2022	4.4	47	22.2	0	0.2	235.72	04-Jan-2022	236.7	NS	NS		No Comments	NS	NS
										04-Apr-2022	235.86						
										07-Jul-2022	235.59						
			25-Jul-2022	4.5	50	22.3	0	0.3	235.47	04-Jan-2022	236.7	7.11	342		No Comments	<EQL	<EQL
										04-Apr-2022	235.86						
										07-Jul-2022	235.59						
			26-Oct-2022	4.7	47	22	0	0.1	NS	04-Jan-2022	236.7	NS	NS		No Comments	NS	NS
										04-Apr-2022	235.86						
										07-Jul-2022	235.59						
			26-Oct-2022	NS	NS	NS	NS	NS	234.89	04-Jan-2022	236.7	NS	NS		No Comments	NS	NS
										04-Apr-2022	235.86						
										07-Jul-2022	235.59						
BGO 29D	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	03-Jan-2022	223.12	NS	NS		No Comments	NS	NS
										04-Apr-2022	223						
										07-Jul-2022	222.63						
BGO 45D	Plume Assessment Well	UAZ_UTRAU	26-Jan-2022	5.7	55	21.1	2	0.5	224.6	03-Jan-2022	224.7	3.98	241		No Comments	NS	NS
										04-Apr-2022	224.4						
										07-Jul-2022	224.1						
			06-Jul-2022	4.6	56	20.5	3	0.7	224.14	03-Jan-2022	224.7	NS	NS		No Comments	NS	NS
										04-Apr-2022	224.4						
										07-Jul-2022	224.1						
BGO 46D	Plume Assessment Well	UAZ_UTRAU	25-Jan-2022	5.1	31	20.5	0	0.5	222.5	03-Jan-2022	222.12	4.77	152		No Comments	NS	NS
										04-Apr-2022	222.32						
										07-Jul-2022	222.22						
			14-Jul-2022	4.6	32	21.3	0	0.6	221.48	03-Jan-2022	222.12	5.38	283		No Comments	<EQL	<EQL
										04-Apr-2022	222.32						
										07-Jul-2022	222.22						
BGO 47D	Plume Assessment Well	UAZ_UTRAU	06-Jul-2022	5.6	46	21.3	2	0.8	222.6	03-Jan-2022	223.05	7.75	162		No Comments	NS	NS
										04-Apr-2022	223.1						
										07-Jul-2022	223.4						
BGO 48D	Plume Assessment Well	UAZ_UTRAU	26-Jan-2022	4.9	58	20.4	0	0.2	223	03-Jan-2022	222.9	4.32	216		No Comments	NS	NS
										04-Apr-2022	223.3						
										07-Jul-2022	223.1						
			11-Jul-2022	4.4	58	21.6	0	0.1	222.37	03-Jan-2022	222.9	2.01	306		No Comments	NS	NS
										04-Apr-2022	223.3						
										07-Jul-2022	223.1						
BGO 50D	Plume Assessment Well	UAZ_UTRAU	25-Jan-2022	6	56	20.5	17	0.8	222.44	03-Jan-2022	222	4.45	91		No Comments	NS	NS
										04-Apr-2022	222.3						
										07-Jul-2022	222.1						
			14-Jul-2022	5.9	55	27	14	4.4	221.4	03-Jan-2022	222	2.5	130		No Comments	NS	NS
										04-Apr-2022	222.3						
										07-Jul-2022	222.1						
BSW 1D1	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	04-Jan-2022	219.33	NS	NS		No Comments	NS	NS
										04-Apr-2022	219.2						
										07-Jul-2022	218.71						
BSW 1D2	Plume Assessment Well	UAZ_UTRAU	27-Jan-2022	4.8	38	18.3	0	1	219.52	NS	NS	3.27	279		No Comments	NS	NS
			19-Jul-2022	4.8	32	23.8	0	3.7	220.78	NS	NS	2.37	201		No Comments	<EQL	<EQL
BSW 1D3	Plume Assessment Well	UAZ_UTRAU	27-Jan-2022	4.5	32	17.9	0	1.8	219	NS	NS	1.53	321		No Comments	NS	NS
			15-Jul-2022	4.9	31	20.6	0	2.2	218.62	NS	NS	3.53	325		No Comments	NS	NS
BSW 2D1	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	04-Jan-2022	220.74	NS	NS		No Comments	NS	NS
										04-Apr-2022	220.09						
										07-Jul-2022	219.34						
BSW 2D2	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		No Comments	NS	NS
BSW 2D3	Plume Assessment Well	UAZ_UTRAU	28-Jan-2022	5.2	46	15.4	1	5.2	220.09	NS	NS	3.78	304		No Comments	NS	NS
			19-Jul-2022	4.9	57	23.1	0	3.8	220.02	NS	NS	2.81	313		No Comments	<EQL	<EQL
																<EQL	<EQL
BSW 3D1	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	03-Jan-2022	221.24	NS	NS		No Comments	NS	NS
										04-Apr-2022	221.52						
										07-Jul-2022	218.29						
BSW 3D2	Plume Assessment Well	UAZ_UTRAU	28-Jan-2022	4.6	57	17.5	0	4	221.42	NS	NS	4.9	316		No Comments	NS	NS
			19-Jul-2022	4.5	58	24.1	0	2.7	219.15	NS	NS	3.86	244		No Comments	<EQL	<EQL
BSW 4D1	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	03-Jan-2022	221.26	NS	NS		No Comments	NS	NS
										04-Apr-2022	221.44						
										07-Jul-2022	221.44						
BSW 4D2	Plume Assessment Well	UAZ_UTRAU	28-Jan-2022	4.9	47	16.8	0	0.5	221.18	NS	NS	2.7	240		No Comments	NS	NS
			19-Jul-2022	4.8	49	21.3	0	4.9	221.39	NS	NS	NS	NS		No Comments	<EQL	<EQL
BSW 4D3	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		No Comments	NS	NS
BSW 5D1	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	03-Jan-2022	218.14	NS	NS		No Comments	NS	NS
										04-Apr-2022	218.32						
										07-Jul-2022	216.79						
BSW 5D2	Plume Assessment Well	UAZ_UTRAU	28-Jan-2022	4.9	38	17.7	0	1	217.54	NS	NS	3.53	345		No Comments	NS	NS
			15-Jul-2022	4.7	40	20.4	0	0.9	220.23	NS	NS	8.09	315		No Comments	NS	NS
BSW 5D3	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		No Comments	NS	NS
BSW 6D1	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		No Comments	NS	NS
BSW 6D2	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	03-Jan-2022	213.32	NS	NS		No Comments	NS	NS
										07-Jul-2022	212.74						
BSW 6D3	Plume Assessment Well	UAZ_UTRAU	27-Jan-2022	4.6	37	18.3	0	0.9	212.25	NS	NS	3.8	324		No Comments	NS	NS
			20-Jul-2022	4.9	36	20.7	0	3.9	212.35	NS	NS	1.88	252		No Comments	<EQL	<EQL
BSW 7C4	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		No Comments	NS	NS
BSW 7D1	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	03-Jan-2022	215.63	NS	NS		No Comments	NS	NS
										04-Apr-2022	215.75						
										07-Jul-2022	215.09						
BSW 7D2	Plume Assessment Well	UAZ_UTRAU	28-Jan-2022	5.1	30	12.2	2	17.1	215.51	NS	NS	1.88	268		No Comments	NS	NS
			19-Jul-2022	4.8	35	21.8	0	18.4	214.85	NS	NS	NS	NS		No Comments	NS	NS
BSW 8D1	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	03-Jan-2022	218.8	NS	NS		No Comments	NS	NS
										04-Apr-2022	218.89						
										07-Jul-2022	218.48						
BSW 8D2	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		No Comments	NS	NS
BSW 8D3	Plume Assessment Well	UAZ_UTRAU	28-Jan-2022	4.9	36	15.7	0	3.1	218.89	NS	NS	6.85	317		No Comments	NS	NS
			20-Jul-2022	4.8	42	20.1	0	2	216.83	NS	NS	7.69	283		No Comments	<EQL	<EQL
FSS 1D	Plume Assessment Well	UAZ_UTRAU	15-Jul-2022	6	87	22.5	37	9.9	220.3	04-Jan-2022	220.9	1.5	100		No Comments	NS	NS
										04-Apr-2022	220.91						
										07-Jul-2022	220.37						
FSS 2D	Plume Assessment Well	UAZ_UTRAU	27-Jan-2022	5.1	58	23.4	7	8	220.6	04-Jan-2022	220	4	244		No Comments	NS	NS
										04-Apr-2022	220.38						
										07-Jul-2022	219.78						
			15-Jul-2022	4.5	56	23.2	0	8	219.75	04-Jan-2022	220	2	192		No Comments	NS	NS
										04-Apr-2022	220.38						
										07-Jul-2022	219.78						
FSS 3D	Plume Assessment Well	UAZ_UTRAU	27-Jan-2022	4.9	48	23.5	0	1.7	218.7	04-Jan-2022	216.9	3.5	192		No Comments	NS	NS
										04-Apr-2022	218.48						
										07-Jul-2022	217.97						
			15-Jul-2022	4.5	52	24	0	2.3	217.9	04-Jan-2022	216.9	7.5	263		No Comments	NS	NS
										04-Apr-2022	218.48						
										07-Jul-2022	217.97						
FSS 4D	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	04-Jan-2022	217.1	NS	NS		No Comments	NS	NS
										04-Apr-2022	216.71						
										07-Jul-2022	216.19						
HSB142D	Plume Assessment Well	UAZ_UTRAU	28-Jan-2022	4.8	39	13.9	0	4.7	198.6	04-Jan-2022	200.18	5.01	197		No Comments	NS	NS
										05-Apr-2022	196.97						
										07-Jul-2022	195.01						
			15-Jul-2022	4.6	47	20	0	4.6	195.59	04-Jan-2022	200.18	3.76	153		No Comments	NS	NS
										05-Apr-2022	196.97						
										07-Jul-2022	195.01						
HSB143D	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	04-Jan-2022	211.07	NS	NS		No Comments	NS	NS
										05-Apr-2022	210.84						
										07-Jul-2022	210.15						
HSB151DR	Plume Assessment Well	UAZ_UTRAU	28-Jan-2022	5.1	27	18.1	0	0.2	207.46	04-Jan-2022	207.74	4.22	205		No Comments	NS	NS
										05-Apr-2022	206.73						
										07-Jul-2022	207.88						
			15-Jul-2022	4.6	25	20.2	0	0.4	206.34	04-Jan-2022	207.74	5.9	208		No Comments	NS	NS
										05-Apr-2022	206.73						
										07-Jul-2022	207.88						
SWP 3D	Plume Assessment Well	UAZ_UTRAU	31-Jan-2022	4.7	45	20.7	0	0.1	221.17	04-Jan-2022	220.85	4.68	262		No Comments	NS	NS
										05-Apr-2022	221.03						
										07-Jul-2022	220.43						
			21-Jul-2022	4.7	44	20.8	0	0.3	220.2	04-Jan-2022	220.85	2.7	287		No Comments	<EQL	<EQL
										05-Apr-2022	221.03						
										07-Jul-2022	220.43						
SWP004MD	Plume Assessment Well	UAZ_UTRAU	31-Jan-2022	5	30	20.6	0	0.2	216.81	04-Jan-2022	216.66	4.95	272		No Comments	NS	NS
										05-Apr-2022	216.62						
										07-Jul-2022	216.01						
			21-Jul-2022	5	29	20.9	1	0.3	215.83	04-Jan-2022	216.66	2.01	272		No Comments	<EQL	<EQL
										05-Apr-2022	216.62						
										07-Jul-2022	216.01						
SWP005D	Plume Assessment Well	UAZ_UTRAU	28-Jan-2022	4.9	44	19.7	0	5.8	216.58	04-Jan-2022	216.4	3.76	327		No Comments	NS	NS
										05-Apr-2022	216.31						
										07-Jul-2022	215.88						
			15-Jul-2022	4.7	55	22	4	3.2	215.71	04-Jan-2022	216.4	3.89	242		No Comments	NS	NS
										05-Apr-2022	216.31						
										07-Jul-2022	215.88						
SWP006D	Plume Assessment Well	UAZ_UTRAU	31-Jan-2022	4.7	21	20.4	0	3.5	214.62	04-Jan-2022	214.59	3.73	312		X, 2	NS	NS
										05-Apr-2022	214.57						
										07-Jul-2022	214.04						
			15-Jul-2022	4.5	25	21.9	0	36.4	213.95	04-Jan-2022	214.59	8.38	324		X, 2	NS	NS
										05-Apr-2022	214.57						
										07-Jul-2022	214.04						
BGO 27D	Point of Compliance Well	UAZ_UTRAU	24-Jan-2022	4.7	35	20.3	0	0.5	224.88	03-Jan-2022	224.72	6.45	316		No Comments	<EQL	<EQL
										04-Apr-2022	224.48						
										07-Jul-2022	224.18						
			20-Jul-2022	4.4	35	21	0	0.5	224.11	03-Jan-2022	224.72	4.07	270		No Comments	<EQL	<EQL
										04-Apr-2022	224.48						
										07-Jul-2022	224.18						
BGO 28D	Point of Compliance Well	UAZ_UTRAU	24-Jan-2022	5	40	20.9	3	6.5	223.4	03-Jan-2022	222.99	9	245		No Comments	<EQL	<EQL
										04-Apr-2022	222.95						
										07-Jul-2022	222.5						
			08-Aug-2022	5.7	47	21.5	8	0.6	222.2	03-Jan-2022	222.99	4.9	200		No Comments	<EQL	<EQL
										04-Apr-2022	222.95						
										07-Jul-2022	222.5						
			26-Sep-2022	5.7	44	20.5	10	0.9	222.1	03-Jan-2022	222.99	NS	NS		No Comments	NS	NS
										04-Apr-2022	222.95						
										07-Jul-2022	222.5						
BGO 30D	Point of Compliance Well	UAZ_UTRAU	24-Jan-2022	5.2	66	20.8	0	1.3	223.03	03-Jan-2022	222.76	4.44	94		No Comments	<EQL	<EQL
										04-Apr-2022	222.72						
										07-Jul-2022	222.22						
			09-Aug-2022	5.4	82	21.6	3	3.2	221.93	03-Jan-2022	222.76	2.01	126		No Comments	<EQL	<EQL
										04-Apr-2022	222.72						
										07-Jul-2022	222.22						
			26-Sep-2022	5.6	92	20.9	12	1.4	221.6	03-Jan-2022	222.76	NS	NS		No Comments	NS	NS
										04-Apr-2022	222.72						
										07-Jul-2022	222.22						
BGO 31D	Point of Compliance Well	UAZ_UTRAU	24-Jan-2022	4.8	31	21.6	0	2.5	223.85	06-Jan-2022	223.75	6.29	179		No Comments	<EQL	<EQL
										04-Apr-2022	223.53						
										07-Jul-2022	223						
			15-Jul-2022	5	30	21.5	0	3.5	222.92	06-Jan-2022	223.75	5.71	303		No Comments	<EQL	<EQL
										04-Apr-2022	223.53						
										07-Jul-2022	223						
BGO 32D	Point of Compliance Well	UAZ_UTRAU	21-Jan-2022	4.5	63	21.1	0	1.6	224.12	06-Jan-2022	224.36	5.7	317		No Comments	<EQL	<EQL
										04-Apr-2022	224						
										07-Jul-2022	223.63						
			09-Aug-2022	4.5	66	21.1	0	1	223.4	06-Jan-2022	224.36	2.91	281		No Comments	<EQL	<EQL
										04-Apr-2022	224						
										07-Jul-2022	223.63						
			26-Sep-2022	4.2	66	21.6	5	0.5	223.04	06-Jan-2022	224.36	NS	NS		No Comments	NS	NS
										04-Apr-2022	224						
										07-Jul-2022	223.63						
BGO 33D	Point of Compliance Well	UAZ_UTRAU	21-Jan-2022	4.9	38	20.7	0	1.2	226.61	06-Jan-2022	226.95	7.06	312		No Comments	<EQL	<EQL
										04-Apr-2022	226.5						
										07-Jul-2022	226.3						
			15-Jul-2022	4.7	38	21	0	1.4	226.17	06-Jan-2022	226.95	5.34	261		No Comments	<EQL	<EQL
										04-Apr-2022	226.5						
										07-Jul-2022	226.3						

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-7b. 2022 SWP LAZ Annual Compliance Monitoring

Field Data

Station	Well Use	Aquifer Zone	SAMPLE COLLECTION DATE	PH	SPECIFIC CONDUCTANCE	WATER TEMPERATURE	TOTAL ALKALINITY (AS CACO3)	TURBIDITY	SAMPLING EVENT WATER ELEVATION	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	OXYGEN	OXIDATION/REDUCTION POTENTIAL	Constituent	FIELD CONDITIONS
			day-month-year	unitless	uS/cm	degC	mg/L	NTU	ft	day-month-year	ft	mg/L	mV	Unit	
														GWPS	
HSB 85B	Background Well	LAZ_UTRAU	28-Jan-2022	10.1	153	20.1	42	0.7	231.6	04-Jan-2022	231.2	5.08	173		No Comments
										04-Apr-2022	230.6				
										07-Jul-2022	230.22				
			04-Feb-2022	10.3	140	20.4	47	0.1	230.59	04-Jan-2022	231.2	3.33	28		No Comments
										04-Apr-2022	230.6				
										07-Jul-2022	230.22				
			19-Apr-2022	10.4	147	20.5	35	0.2	230.47	04-Jan-2022	231.2	NS	NS		No Comments
										04-Apr-2022	230.6				
										07-Jul-2022	230.22				
			02-Aug-2022	10.2	152	21.2	37	0.6	230.07	04-Jan-2022	231.2	7.15	96		No Comments
										04-Apr-2022	230.6				
										07-Jul-2022	230.22				

Metals

Station	SAMPLE COLLECTION DATE	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC
		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
		6	10	2000	4	100	6	1300	15	2	390	50	94	2	12000	86	6000
HSB 85B	28-Jan-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04-Feb-2022	<EQL	<EQL	[15.9]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.98]	[21]	<EQL
	19-Apr-2022	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS
	02-Aug-2022	<EQL	<EQL	[17.7]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[25.8]	<EQL
		<EQL	<EQL	[17.7]	<EQL	<EQL	<EQL	<EQL	<EQL		<EQL	<EQL	<EQL	<EQL	<EQL	[24.7]	<EQL

Radionuclides

Station	SAMPLE COLLECTION DATE	CARBON-14	COMBINED RADIUM (226 AND 228)	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM, TOTAL ALPHA-EMITTING	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (MWMF)	SUM OF BETA (MWMF)	SUM OF BETA DOSE (MWMF)	TECHNETIUM-99	TRITIUM	URANIUM-233/234	URANIUM-235	URANIUM-238
		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/mL	pCi/L	pCi/L	pCi/L
		50	5	15	1	50	5	5	5	8	15	50	4	900	20	15	15	15
HSB 85B	28-Jan-2022	NS	[1.38]	NS	<EQL	NS	<EQL	[1.38]	<EQL	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS
								<EQL										
	04-Feb-2022	<EQL	NS	<EQL	NS	<EQL	NS	NS	NS	<EQL	[0.0364]	<EQL	<EQL	<EQL	3.04	[0.0364]	<EQL	<EQL
	19-Apr-2022	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	3.2	NS	NS	NS
	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.27	<EQL	<EQL	<EQL
		<EQL																
		<EQL																
		<EQL																

Hydrocarbons / **VOC**

Station	SAMPLE COLLECTION DATE	ETHANE	ETHYLENE	1,1,1-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,4-DIOXANE	BENZENE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CIS-1,2-DICHLOROETHYLENE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
		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
				200	2.7	7	70	5	70	5	6.1	5	810	5	100	2	80	70	200	5	5	1000	100	5	1100	410	10000
HSB 85B	28-Jan-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
											<EQL																
											<EQL																
	04-Feb-2022	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
	19-Apr-2022	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
	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
		<EQL	<EQL				<EQL		<EQL		<EQL																
											<EQL																

Explanation

[ ]	J
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Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-7c. 2022 SWP GAU Annual Compliance Monitoring

			Field Data												
			SAMPLE COLLECTION DATE	PH	SPECIFIC CONDUCTANCE	WATER TEMPERATURE	TOTAL ALKALINITY (AS CACO3)	TURBIDITY	SAMPLING EVENT WATER ELEVATION	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	OXYGEN	OXIDATION/REDUCTION POTENTIAL	Constituent	FIELD CONDITIONS
			day-month-year	unitless	uS/cm	degC	mg/L	NTU	ft	day-month-year	ft	mg/L	mV	Unit	
Station	Well Use	Aquifer Zone												GWPS	
HSB 85A	Background Well	GAU	28-Jan-2022	7	189	20	87	0.8	168.3	04-Jan-2022	167.1	1.78	239		No Comments
										04-Apr-2022	168.27				
										07-Jul-2022	167.72				
			04-Feb-2022	7.1	189	20.1	91	0.3	168.15	04-Jan-2022	167.1	2.92	87		No Comments
										04-Apr-2022	168.27				
										07-Jul-2022	167.72				
			19-Apr-2022	6.8	189	20.6	69	0.2	168.46	04-Jan-2022	167.1	NS	NS		No Comments
										04-Apr-2022	168.27				
										07-Jul-2022	167.72				
			02-Aug-2022	7	188	20.6	81	0.3	167.58	04-Jan-2022	167.1	3.22	241		No Comments
										04-Apr-2022	168.27				
										07-Jul-2022	167.72				
BGO 29A	Plume Assessment Well	GAU	24-Jan-2022	6.7	119	19.9	48	0.5	159.09	03-Jan-2022	159.1	4.3	91		No Comments
										04-Apr-2022	159.07				
										07-Jul-2022	158.6				
			12-Jul-2022	6.5	120	21.5	23	0.9	158.7	03-Jan-2022	159.1	2.37	185		No Comments
										04-Apr-2022	159.07				
										07-Jul-2022	158.6				
BGO 45A	Plume Assessment Well	GAU	26-Jan-2022	6.8	180	19.8	90	0.3	159.83	03-Jan-2022	159.8	3.13	226		No Comments
										04-Apr-2022	159.6				
										07-Jul-2022	159.3				
			06-Jul-2022	7.7	187	22.2	77	0.8	159.4	03-Jan-2022	159.8	2.86	147		No Comments
										04-Apr-2022	159.6				
										07-Jul-2022	159.3				
BGO 47A	Plume Assessment Well	GAU	14-Jul-2022	11.3	782	21.1	603	0.5	161.13	03-Jan-2022	161.63	5.67	56		No Comments
										04-Apr-2022	161.5				
										07-Jul-2022	161.4				
BGO 50A	Plume Assessment Well	GAU	26-Jan-2022	12.2	1170	18.9	136	1.5	160.59	03-Jan-2022	160.74	27	46		No Comments
										04-Apr-2022	160.49				
										07-Jul-2022	160.29				
			11-Jul-2022	12.6	1016	23.6	239	1.3	159.59	03-Jan-2022	160.74	3.82	-8		No Comments
										04-Apr-2022	160.49				
										07-Jul-2022	160.29				

		Metals															
Station	SAMPLE COLLECTION DATE	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC
		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
		6	10	2000	4	100	6	1300	15	2	390	50	94	2	12000	86	6000
HSB 85A	28-Jan-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04-Feb-2022	<EQL	<EQL	25.5	<EQL	<EQL	<EQL	[2.86]	<EQL	<EQL	[0.683]	<EQL	<EQL	<EQL	<EQL	[5.7]	<EQL
		<EQL	<EQL	25.3	<EQL	<EQL	<EQL	[2.85]	<EQL		[0.683]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
	19-Apr-2022	NS	NS	NS	NS	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS
									<EQL	<EQL							
	02-Aug-2022	<EQL	<EQL	25.3	<EQL	<EQL	<EQL	[1.84]	<EQL	[0.031]	[0.916]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 29A	24-Jan-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12-Jul-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 45A	26-Jan-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	06-Jul-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 47A	14-Jul-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 50A	26-Jan-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11-Jul-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

		Radionuclides																
Station	SAMPLE COLLECTION DATE	CARBON-14	COMBINED RADIUM (226 AND 228)	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM, TOTAL ALPHA-EMITTING	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (MWMF)	SUM OF BETA (MWMF)	SUM OF BETA DOSE (MWMF)	TECHNETIUM-99	TRITIUM	URANIUM-233/234	URANIUM-235	URANIUM-238
		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/mL	pCi/L	pCi/L	pCi/L
		50	5	15	1	50	5	5	5	8	15	50	4	900	20	15	15	15
HSB 85A	28-Jan-2022	NS	[7.6]	NS	<EQL	NS	<EQL	<EQL	[7.6]	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS
	04-Feb-2022	<EQL	NS	<EQL	NS	<EQL	NS	NS	NS	<EQL	[0.358]	<EQL	<EQL	<EQL	<EQL	[0.159]	<EQL	[0.199]
														<EQL	<EQL			
	19-Apr-2022	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS
	02-Aug-2022	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 29A	24-Jan-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12-Jul-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	214	NS	NS	NS
BGO 45A	26-Jan-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	57.4	NS	NS	NS
	06-Jul-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	55	NS	NS	NS
BGO 47A	14-Jul-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	134	NS	NS	NS
BGO 50A	26-Jan-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	14.7	NS	NS	NS
															14.4			
	11-Jul-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	15.7	NS	NS	NS

		Hydrocarbons		VOC										
Station	SAMPLE COLLECTION DATE	ETHANE	ETHYLENE	1,1,1-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,4-DIOXANE	BENZENE	CARBON DISULFIDE	CARBON TETRACHLORIDE
		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
				200	2.7	7	70	5	70	5	6.1	5	810	5
HSB 85A	28-Jan-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
											<EQL			
											<EQL			
	04-Feb-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	19-Apr-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
							<EQL		<EQL		<EQL			
											<EQL			
BGO 29A	24-Jan-2022	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	13.1	<EQL	55.7	<EQL	<EQL	<EQL
									13.1		[46.2]			
BGO 45A	26-Jan-2022	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	06-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.44	<EQL	3.7	<EQL	<EQL	<EQL
									2.44		<EQL			
BGO 47A	14-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.86	<EQL	3.7	<EQL	<EQL	<EQL
									3.86		<EQL			
BGO 50A	26-Jan-2022	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.62]	<EQL	3.42	<EQL	<EQL	<EQL
									<EQL		<EQL			

		VOC												
Station	SAMPLE COLLECTION DATE	CHLOROBENZENE	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CIS-1,2-DICHLOROETHYLENE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
		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
		100	2	80	70	200	5	5	1000	100	5	1100	410	10000
HSB 85A	28-Jan-2022	<EQL	<EQL	<EQL	<EQL	<EQL	[0.75]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
	04-Feb-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	19-Apr-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 29A	24-Jan-2022	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	10.8	NS	NS	NS
	12-Jul-2022	<EQL	<EQL	<EQL	13.1	<EQL	<EQL	<EQL	<EQL	<EQL	9.43	<EQL	<EQL	<EQL
BGO 45A	26-Jan-2022	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	5.17	NS	NS	NS
	06-Jul-2022	<EQL	<EQL	<EQL	2.44	<EQL	<EQL	<EQL	<EQL	<EQL	6.5	<EQL	<EQL	<EQL
BGO 47A	14-Jul-2022	<EQL	<EQL	<EQL	3.86	<EQL	<EQL	<EQL	<EQL	<EQL	[0.76]	<EQL	<EQL	<EQL
BGO 50A	26-Jan-2022	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	2.32	NS	NS	NS
	11-Jul-2022	<EQL	<EQL	<EQL	[0.62]	<EQL	[3.41]	<EQL	<EQL	<EQL	3.07	<EQL	<EQL	<EQL

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-8a. 2022 SEP UAZ Annual Compliance Monitoring

			Field Data												Metals																Radionuclides																	Hydrocarbons		VOC																							
			SAMPLE COLLECTION DATE	WATER TEMPERATURE	SAMPLING EVENT WATER ELEVATION	PH	SPECIFIC CONDUCTANCE	TURBIDITY	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	OXYGEN	OXIDATION/REDUCTION POTENTIAL	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	CARBON-14	COMBINED RADIUM (226 AND 228)	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM, TOTAL ALPHA-EMITTING	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (MWMF)	SUM OF BETA (MWMF)	SUM OF BETA DOSE (MWMF)	TECHNETIUM-99	TRITIUM	URANIUM-233/234	URANIUM-235	URANIUM-238	ETHANE	ETHYLENE	1,1,1-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,4-DIOXANE	BENZENE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CIS-1,2-DICHLOROETHYLENE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
			day-month-year	degC	ft	unitless	uS/cm	NTU	day-month-year	ft	mg/L	mV	Unit		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	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/mL	pCi/L	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	ug/L	ug/L	ug/L	ug/L	ug/L
Station	Well Use	Aquifer Zone											GWPS		6	10	2000	4	100	6	1300	15	2	390	50	94	2	12000	86	6000	50	5	15	1	50	5	5	5	8	15	50	4	900	20	15	15	15			200	2.7	7	70	5	70	5	6.1	5	810	5	100	2	80	70	200	5	5	1000	100	5	1100	410	10000
BGO 1D	Background Well	UAZ_UTRAU	31-Jan-2022	26.6	236	4.5	49	4.1	03-Jan-2022	236.1	4.43	297		No Comments	<EQL	<EQL	[7.89]	<EQL	[15.1]	[3.67]	[2.77]	[1.56]	<EQL	[3.87]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.78]	<EQL	[0.746]	[3.98]	<EQL	<EQL	<EQL	[0.746]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	5.33	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.65]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	235.65																					<EQL																										<EQL																
									12-Jul-2022	235.4																																																															
			25-Jul-2022	28.3	235.3	4.9	48	7	03-Jan-2022	236.1	2.01	241		No Comments	<EQL	<EQL	[8.72]	<EQL	[17.8]	[4]	[2.53]	[1.26]	<EQL	[3.22]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.09]	<EQL	<EQL	<EQL	<EQL	[1.09]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5.54	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	235.65					<EQL	<EQL	[8.2]	<EQL	[14.9]	[3.84]	[2.43]	[1.25]		[3.13]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL							[0.97]											<EQL	<EQL				<EQL		<EQL		<EQL																
									12-Jul-2022	235.4																																														<EQL																
BGO 2D	Background Well	UAZ_UTRAU	24-Jan-2022	21.8	233.49	4.3	28	0.8	03-Jan-2022	233.54	8.1	260		No Comments	<EQL	<EQL	[14.1]	[0.149]	<EQL	[1.05]	<EQL	[0.585]	<EQL	[0.974]	<EQL	<EQL	<EQL	<EQL	[13.4]	[9.35]	<EQL	[1.47]	[3.33]	<EQL	<EQL	<EQL	[1.47]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	4.1	[0.0662]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.77	<EQL	<EQL	<EQL	<EQL	<EQL	[0.39]	<EQL	<EQL
									04-Apr-2022	233.56					<EQL	<EQL	[13.5]	[0.145]	<EQL	[1.01]	<EQL	[0.574]		[0.95]	<EQL	<EQL	<EQL	<EQL	[13.1]	[8.35]				<EQL		<EQL	[0.899]		<EQL						<EQL	<EQL	<EQL	<EQL	<EQL								<EQL																
									07-Jul-2022	233.3																																																														
			09-Aug-2022	21.8	233	4.4	28	0.8	03-Jan-2022	233.54	3.88	276		No Comments	<EQL	<EQL	[14.7]	[0.164]	<EQL	[3.88]	<EQL	[0.673]	<EQL	[1.41]	<EQL	<EQL	<EQL	<EQL	[9.07]	<EQL	<EQL	3.2	<EQL	<EQL	<EQL	[1.06]	3.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.48	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.4	<EQL	<EQL	<EQL	<EQL	<EQL	[0.37]	<EQL	<EQL
									04-Apr-2022	233.56																																						<EQL	<EQL				<EQL		<EQL		<EQL																
									07-Jul-2022	233.3																																														<EQL																
			26-Sep-2022	22.7	232.7	4.5	28	1.1	03-Jan-2022	233.54	NS	NS		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	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
									04-Apr-2022	233.56																																																														
									07-Jul-2022	233.3																																																														
HSB 85C	Background Well	UAZ_UTRAU	28-Jan-2022	21.3	237.4	4.4	48	0.5	04-Jan-2022	236.7	4.9	428		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[3.15]	NS	<EQL	NS	<EQL	[3.15]	<EQL	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	235.86																																														<EQL																
									07-Jul-2022	235.59																																														<EQL																

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-8b. 2022 LAZ SEP Annual Compliance Monitoring

Station	Well Use	Aquifer Zone	Field Data: SAMPLE COLLECTION DATE day-month-year	WATER TEMPERATURE degC	SAMPLING EVENT WATER ELEVATION ft	PH unitless	SPECIFIC CONDUCTANCE uS/cm	TURBIDITY NTU	SYNCHRONOUS MEASUREMENT DATE day-month-year	SYNCHRONOUS WATER ELEVATION ft	OXYGEN mg/L	OXIDATION/REDUCTION POTENTIAL mV	Constituent Unit GWPS	FIELD CONDITIONS	Metals: ANTIMONY ug/L 6	ARSENIC ug/L 10	BARIUM ug/L 2000	BERYLLIUM ug/L 4	CHROMIUM ug/L 100	COBALT ug/L 6	COPPER ug/L 1300	LEAD ug/L 15	MERCURY ug/L 2	NICKEL ug/L 390	SELENIUM ug/L 50	SILVER ug/L 94	THALLIUM ug/L 2	TIN ug/L 12000	VANADIUM ug/L 86	ZINC ug/L 6000	Radionuclides: CARBON-14 pCi/L 50	COMBINED RADIUM (226 AND 228) pCi/L 5	GROSS ALPHA pCi/L 15	IODINE-129 pCi/L 1	NONVOLATILE BETA pCi/L 50	RADIUM, TOTAL ALPHA-EMITTING pCi/L 5	RADIUM-226 pCi/L 5	RADIUM-228 pCi/L 5	STRONTIUM-90 pCi/L 8	SUM OF ALPHAS (MWMF) pCi/L 15	SUM OF BETA (MWMF) pCi/L 50	SUM OF BETA DOSE (MWMF) mrem/yr 4	TECHNETIUM-99 pCi/L 900	TRITIUM pCi/mL 20	URANIUM-233/234 pCi/L 15	URANIUM-235 pCi/L 15	URANIUM-238 pCi/L 15	Hydrocarbons: ETHANE ug/L	ETHYLENE ug/L	VOC: 1,1,1-TRICHLOROETHANE ug/L 200	1,1-DICHLOROETHANE ug/L 2.7	1,1-DICHLOROETHYLENE ug/L 7	1,2,4-TRICHLOROBENZENE ug/L 70	1,2-DICHLOROETHANE (EDC) ug/L 5	1,2-DICHLOROETHYLENE ug/L 70	1,2-DICHLOROPROPANE ug/L 5	1,4-DIOXANE ug/L 6.1	BENZENE ug/L 5	CARBON DISULFIDE ug/L 810	CARBON TETRACHLORIDE ug/L 5	CHLOROBENZENE ug/L 100	CHLOROETHENE (VINYL CHLORIDE) ug/L 2	CHLOROFORM ug/L 80	CIS-1,2-DICHLOROETHYLENE ug/L 70	DICHLORODIFLUOROMETHANE ug/L 200	DICHLOROMETHANE (METHYLENE CHLORIDE) ug/L 5	TETRACHLOROETHYLENE (PCE) ug/L 5	TOLUENE ug/L 1000	TRANS-1,2-DICHLOROETHYLENE ug/L 100	TRICHLOROETHYLENE (TCE) ug/L 5	TRICHLOROFLUOROMETHANE ug/L 1100	VINYL ACETATE ug/L 410	XYLENES ug/L 10000
HSB 85B	Background Well	LAZ_UTRAU	28-Jan-2022	20.1	231.6	10.1	153	0.7	04-Jan-2022	231.2	5.08	173		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[1.38]	NS	<EQL	NS	<EQL	[1.38]	<EQL	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	230.6																											<EQL																				<EQL																
									07-Jul-2022	230.22																																																<EQL																
			04-Feb-2022	20.4	230.59	10.3	140	0.1	04-Jan-2022	231.2	3.33	28		No Comments	<EQL	<EQL	[15.9]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.98]	[21]	<EQL	<EQL	NS	<EQL	NS	<EQL	NS	NS	NS	<EQL	[0.0364]	<EQL	<EQL	<EQL	3.04	[0.0364]	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
									04-Apr-2022	230.6																																																															
									07-Jul-2022	230.22																																																															
			19-Apr-2022	20.5	230.47	10.4	147	0.2	04-Jan-2022	231.2	NS	NS		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	3.2	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
									04-Apr-2022	230.6																																																															
									07-Jul-2022	230.22																																																															
			02-Aug-2022	21.2	230.07	10.2	152	0.6	04-Jan-2022	231.2	7.15	96		No Comments	<EQL	<EQL	[17.7]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[25.8]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.27	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	230.6					<EQL	<EQL	[17.7]	<EQL	<EQL	<EQL	<EQL	<EQL		<EQL	<EQL	<EQL	<EQL	<EQL	[24.7]	<EQL	<EQL																	<EQL	<EQL				<EQL		<EQL		<EQL																
									07-Jul-2022	230.22																					<EQL																										<EQL																
																															<EQL																																										
BGO 20B	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	NS	06-Jan-2022	224.89	NS	NS		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	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
									04-Apr-2022	224.6																																																															
									07-Jul-2022	224.39																																																															
BGO 20C	Plume Assessment Well	LAZ_UTRAU	12-Jul-2022	22.1	224.4	5.5	28	1	06-Jan-2022	226.18	2.71	230		No Comments	<EQL	<EQL	[6.07]	[0.151]	[13.9]	<EQL	[1.16]	<EQL	<EQL	[0.536]	<EQL	<EQL	<EQL	<EQL	[12.7]	<EQL	<EQL	[1.01]	<EQL	<EQL	<EQL	<EQL	[1.01]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	65.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	225.92																																													<EQL		<EQL																
									07-Jul-2022	225.6																																																														
BGO 49C	Plume Assessment Well	LAZ_UTRAU	14-Jul-2022	20.3	224.25	9.1	86	1.5	03-Jan-2022	224.84	8.43	190		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	290	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	27.5	<EQL	15	<EQL	<EQL	[0.63]	<EQL	<EQL	1.89	27.5	2.4	<EQL	3.36	<EQL	<EQL	42.8	<EQL	<EQL	<EQL
									04-Apr-2022	225.8																																													27.5		<EQL																
									07-Jul-2022	225.7																																																															
BGO 51B	Plume Assessment Well	LAZ_UTRAU	03-Feb-2022	20.3	227.4	10	165	1.5	04-Jan-2022	227.5	4.9	59		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	[0.78]	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
									04-Apr-2022	227.6																																																															
									07-Jul-2022	227.5																																																															
			12-Jul-2022	21.4	227	9.6	173	1.4	04-Jan-2022	227.5	5.47	169		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	227.6																																													<EQL		<EQL																
									07-Jul-2022	227.5																																																															
BGO 51C	Plume Assessment Well	LAZ_UTRAU	03-Feb-2022	20.2	228	7.5	26	0.6	04-Jan-2022	228.2	5.3	158		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	2.04	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
									04-Apr-2022	228.3																																																														
									07-Jul-2022	228.1																																																															

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-8c. 2022 SEP GAU Annual Compliance Monitoring

			Field Data												Metals																Radionuclides																	Hydrocarbons		VOC																							
			SAMPLE COLLECTION DATE	WATER TEMPERATURE	SAMPLING EVENT WATER ELEVATION	PH	SPECIFIC CONDUCTANCE	TURBIDITY	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	OXYGEN	OXIDATION/REDUCTION POTENTIAL	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	CARBON-14	COMBINED RADIUM (226 AND 228)	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM, TOTAL ALPHA-EMITTING	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (MWMF)	SUM OF BETA (MWMF)	SUM OF BETA DOSE (MWMF)	TECHNETIUM-99	TRITIUM	URANIUM-233/234	URANIUM-235	URANIUM-238	ETHANE	ETHYLENE	1,1,1-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,4-DIOXANE	BENZENE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CIS-1,2-DICHLOROETHYLENE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
			day-month-year	degC	ft	unitless	uS/cm	NTU	day-month-year	ft	mg/L	mV	Unit		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	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/mL	pCi/L	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	ug/L	ug/L	ug/L	ug/L
Station	Well Use	Aquifer Zone											GWPS		6	10	2000	4	100	6	1300	15	2	390	50	94	2	12000	86	6000	50	5	15	1	50	5	5	5	8	15	50	4	900	20	15	15	15			200	2.7	7	70	5	70	5	6.1	5	810	5	100	2	80	70	200	5	5	1000	100	5	1100	410	10000
HSB 85A	Background Well	GAU	28-Jan-2022	20	168.3	7	189	0.8	04-Jan-2022	167.1	1.78	239		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[7.6]	NS	<EQL	NS	<EQL	<EQL	[7.6]	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.75]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	168.27																																															<EQL																
									07-Jul-2022	167.72																																															<EQL																
			04-Feb-2022	20.1	168.15	7.1	189	0.3	04-Jan-2022	167.1	2.92	87		No Comments	<EQL	<EQL	25.5	<EQL	<EQL	<EQL	[2.86]	<EQL	<EQL	[0.683]	<EQL	<EQL	<EQL	<EQL	[5.7]	<EQL	<EQL	NS	<EQL	NS	<EQL	NS	NS	NS	<EQL	[0.358]	<EQL	<EQL	<EQL	<EQL	[0.159]	<EQL	[0.199]	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
									04-Apr-2022	168.27					<EQL	<EQL	25.3	<EQL	<EQL	<EQL	[2.85]	<EQL		[0.683]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL													<EQL	<EQL																													
									07-Jul-2022	167.72																																																															
			19-Apr-2022	20.6	168.46	6.8	189	0.2	04-Jan-2022	167.1	NS	NS		No Comments	NS	NS	NS	NS	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	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
									04-Apr-2022	168.27												<EQL	<EQL																																																			
									07-Jul-2022	167.72																																																																
			02-Aug-2022	20.6	167.58	7	188	0.3	04-Jan-2022	167.1	3.22	241		No Comments	<EQL	<EQL	25.3	<EQL	<EQL	<EQL	[1.84]	<EQL	[0.031]	[0.916]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	168.27																																										<EQL		<EQL		<EQL																
									07-Jul-2022	167.72																																															<EQL																
BGO 20A	Plume Assessment Well	GAU	12-Jul-2022	20.8	161.78	8.9	197	2.3	06-Jan-2022	162.2	3.01	68		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	162.02																																												<EQL		<EQL																
									07-Jul-2022	161.6																																																																
BGO 20AA	Plume Assessment Well	GAU	12-Jul-2022	22.1	160.42	7.5	174	1	06-Jan-2022	160.8	1.07	-109		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	160.75																																												<EQL		<EQL																
									07-Jul-2022	160.33																																																															
BGO 49A	Plume Assessment Well	GAU	06-Jul-2022	19.6	166.3	11.9	3122	1.7	03-Jan-2022	164.3	8.07	-18		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	54.4	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.6	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.6	<EQL	<EQL	[0.86]	<EQL	<EQL	5.64	<EQL	<EQL	<EQL
									04-Apr-2022	164.48																																												4.6		<EQL																
									07-Jul-2022	164.58																																																																
BGO 51A	Plume Assessment Well	GAU	03-Feb-2022	19.6	165.1	9.5	664	31.6	04-Jan-2022	165.3	5.1	64		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	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
									04-Apr-2022	165.2																																									<EQL	<EQL																								
									07-Jul-2022	165.1																																																																
			12-Jul-2022	22.3	164.8	10.8	144	36.5	04-Jan-2022	165.3	4.72	72		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	165.2																																												<EQL		<EQL																
									07-Jul-2022	165.1																																																																	
BGO 51AA	Plume Assessment Well	GAU	03-Feb-2022	20.6	167.1	7	131	0.5	04-Jan-2022	167.4	4.4	50		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	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
									04-Apr-2022	167.3																																																																
									07-Jul-2022	167.4																																																																
			12-Jul-2022	21.5	164.7	6.8	131	0.8	04-Jan-2022	167.4	1.99	-7		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	167.3																																												<EQL		<EQL																
									07-Jul-2022	167.4																																																																
BGO 52A	Plume Assessment Well	GAU	14-Jul-2022	21.3	162.62	7.3	195	4.6	04-Jan-2022	163.1	3.94	45		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	163.02																																												<EQL		<EQL																
									07-Jul-2022	162.9																																																																	
BGO 52AA	Plume Assessment Well	GAU	14-Jul-2022	21.4	160.36	7.3	140	0.9	04-Jan-2022	162.3	2.92	-6		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	162.34																																												<EQL		<EQL																
									07-Jul-2022	162.2																																															<EQL																
BGO 39A	Point of Compliance Well	GAU	21-Jan-2022	19.8	166.66	7	180	0.3	06-Jan-2022	166.76	2.63	163		No Comments	<EQL	<EQL	61.9	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.846]	<EQL	<EQL	<EQL	<EQL	[15.5]	<EQL	<EQL	[1.37]	<EQL	<EQL	<EQL	<EQL	[1.37]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	166.66																																															<EQL																
									07-Jul-2022	166.24																																																																	
			03-Aug-2022	21.8	165.85	6.8	191	0.3	06-Jan-2022	166.76	1.8	83		No Comments	<EQL	<EQL	62.7	<EQL	<EQL	<EQL	[0.916]	<EQL	<EQL	[0.954]	<EQL	<EQL	<EQL	<EQL	[10.3]	<EQL	<EQL	[0.952]	<EQL	<EQL	13.6	<EQL	[0.952]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	166.66																																										<EQL		<EQL		<EQL																
									07-Jul-2022	166.24																																															<EQL																

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-9a. 2022 NEP UAZ Annual Compliance Monitoring

			Field Data												Metals																Radionuclides																	Hydrocarbons		VOC																							
			SAMPLE COLLECTION DATE	WATER TEMPERATURE	SAMPLING EVENT WATER ELEVATION	PH	TURBIDITY	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	SPECIFIC CONDUCTANCE	OXIDATION/REDUCTION POTENTIAL	OXYGEN	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	CARBON-14	COMBINED RADIUM (226 AND 228)	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM, TOTAL ALPHA-EMITTING	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (MWMF)	SUM OF BETA (MWMF)	SUM OF BETA DOSE (MWMF)	TECHNETIUM-99	TRITIUM	URANIUM-233/234	URANIUM-235	URANIUM-238	ETHANE	ETHYLENE	1,1,1-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,4-DIOXANE	BENZENE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CIS-1,2-DICHLOROETHYLENE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
			day-month-year	degC	ft	unitless	NTU	day-month-year	ft	uS/cm	mV	mg/L	Unit		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	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/mL	pCi/L	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	ug/L	ug/L	ug/L	ug/L
Station	Well Use	Aquifer Zone											GWPS		6	10	2000	4	100	6	1300	15	2	390	50	94	2	12000	86	6000	50	5	15	1	50	5	5	5	8	15	50	4	900	20	15	15	15			200	2.7	7	70	5	70	5	6.1	5	810	5	100	2	80	70	200	5	5	1000	100	5	1100	410	10000
BGO 1D	Background Well	UAZ_UTRAU	31-Jan-2022	26.6	236	4.5	4.1	03-Jan-2022	236.1	49	297	4.43		No Comments	<EQL	<EQL	[7.89]	<EQL	[15.1]	[3.67]	[2.77]	[1.56]	<EQL	[3.87]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.78]	<EQL	[0.746]	[3.98]	<EQL	<EQL	<EQL	[0.746]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	5.33	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.65]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	235.65																						<EQL																										<EQL																
								12-Jul-2022	235.4																																																																	
			25-Jul-2022	28.3	235.3	4.9	7	03-Jan-2022	236.1	48	241	2.01		No Comments	<EQL	<EQL	[8.72]	<EQL	[17.8]	[4]	[2.53]	[1.26]	<EQL	[3.22]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.09]	<EQL	<EQL	<EQL	<EQL	[1.09]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5.54	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	235.65						<EQL	<EQL	[8.2]	<EQL	[14.9]	[3.84]	[2.43]	[1.25]		[3.13]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL							[0.97]											<EQL	<EQL				<EQL		<EQL		<EQL																
								12-Jul-2022	235.4																																																<EQL																
BGO 2D	Background Well	UAZ_UTRAU	24-Jan-2022	21.8	233.49	4.3	0.8	03-Jan-2022	233.54	28	260	8.1		No Comments	<EQL	<EQL	[14.1]	[0.149]	<EQL	[1.05]	<EQL	[0.585]	<EQL	[0.974]	<EQL	<EQL	<EQL	<EQL	[13.4]	[9.35]	<EQL	[1.47]	[3.33]	<EQL	<EQL	<EQL	[1.47]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	4.1	[0.0662]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.77	<EQL	<EQL	<EQL	<EQL	<EQL	[0.39]	<EQL	<EQL
								04-Apr-2022	233.56						<EQL	<EQL	[13.5]	[0.145]	<EQL	[1.01]	<EQL	[0.574]		[0.95]	<EQL	<EQL	<EQL	<EQL	[13.1]	[8.35]				<EQL		<EQL	[0.899]		<EQL						<EQL	<EQL	<EQL	<EQL	<EQL								<EQL																
								07-Jul-2022	233.3																																																																	
			09-Aug-2022	21.8	233	4.4	0.8	03-Jan-2022	233.54	28	276	3.88		No Comments	<EQL	<EQL	[14.7]	[0.164]	<EQL	[3.88]	<EQL	[0.673]	<EQL	[1.41]	<EQL	<EQL	<EQL	<EQL	[9.07]	<EQL	<EQL	3.2	<EQL	<EQL	<EQL	[1.06]	3.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.48	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.4	<EQL	<EQL	<EQL	<EQL	<EQL	[0.37]	<EQL	<EQL
								04-Apr-2022	233.56																																							<EQL	<EQL				<EQL		<EQL		<EQL																
								07-Jul-2022	233.3																																																<EQL																
			26-Sep-2022	22.7	232.7	4.5	1.1	03-Jan-2022	233.54	28	NS	NS		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	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
								04-Apr-2022	233.56																																																																
								07-Jul-2022	233.3																																																																
HSB 85C	Background Well	UAZ_UTRAU	28-Jan-2022	21.3	237.4	4.4	0.5	04-Jan-2022	236.7	48	428	4.9		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[3.15]	NS	<EQL	NS	<EQL	[3.15]	<EQL	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	235.86																																																<EQL																
								07-Jul-2022	235.59																																																<EQL																
			04-Feb-2022	21.9	236.25	4.6	0.1	04-Jan-2022	236.7	46	196	2.88		No Comments	<EQL	<EQL	[11.2]	[0.129]	[10.6]	<EQL	[1.49]	[0.975]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	[5.46]	NS	[6.56]	NS	NS	NS	<EQL	[0.0516]	<EQL	<EQL	<EQL	4.9	[0.0516]	<EQL	<EQL	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
								04-Apr-2022	235.86																																																																
								07-Jul-2022	235.59																																																																
			19-Apr-2022	22.2	235.72	4.4	0.2	04-Jan-2022	236.7	47	NS	NS		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	[5.08]	NS	[5]	NS	NS	NS	NS	NS	NS	NS	NS	4.86	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
								04-Apr-2022	235.86																																																																		
								07-Jul-2022	235.59																																																																
			25-Jul-2022	22.3	235.47	4.5	0.3	04-Jan-2022	236.7	50	342	7.11		No Comments	<EQL	<EQL	[11.6]	[0.115]	<EQL	<EQL	[1.04]	[0.933]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[3.12]	[6.86]	<EQL	[8.09]	[2.72]	[1.78]	[1.34]	<EQL	[0.23]	<EQL	<EQL	<EQL	4.78	[0.152]	<EQL	[0.0785]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	235.86																																											<EQL		<EQL		<EQL																
								07-Jul-2022	235.59																																																<EQL																
			26-Oct-2022	22	NS	4.7	0.1	04-Jan-2022	236.7	47	NS	NS		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.661099501	NS	4.251682184	NS	NS	NS	NS	NS	NS	NS	NS	5.05	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
								04-Apr-2022	235.86																																																																
								07-Jul-2022	235.59																																																																
			26-Oct-2022	NS	234.89	NS	NS	04-Jan-2022	236.7	NS	NS	NS		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	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
								04-Apr-2022	235.86																																																																
								07-Jul-2022	235.59																																																																
BGO 20D	Plume Assessment Well	UAZ_UTRAU	12-Jul-2022	22	230.49	5.4	1.3	06-Jan-2022	231.19	67	204	1.97		No Comments	<EQL	<EQL	[19.4]	<EQL	[11.1]	<EQL	38.9	[2.66]	<EQL	[1.02]	<EQL	<EQL	<EQL	<EQL	[7.55]	[37.6]	[17.6]	[0.997]	<EQL	<EQL	<EQL	<EQL	[0.997]	NS	<EQL	<EQL	[17.6]	[0.0352]	<EQL	3.94	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.24	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	230.73																																												<EQL		<EQL																
								07-Jul-2022	230.56																																																																
BGO 21D	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	06-Jan-2022	232.06	NS	NS	NS		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	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
								04-Apr-2022	231.56																																																																
								07-Jul-2022	231.37																																																																
BGO 22DX	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	06-Jan-2022	232.67	NS	NS	NS		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	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
								04-Apr-2022	232.2																																																																
								07-Jul-2022	231.99																																																																	
BGO 23D	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	06-Jan-2022	233.6	NS	NS	NS		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	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
								04-Apr-2022	233.15																																																																
								07-Jul-2022	232.97																																																																	
BGO 24D	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	06-Jan-2022	234.82	NS	NS	NS		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	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
								04-Apr-2022	234.18																																																																
								07-Jul-2022	234.05																																																																	
BGO 44D	Plume Assessment Well	UAZ_UTRAU	11-Jul-2022	23	227.9	4.3	1.5	03-Jan-2022	228.33	65	210	2.18		No Comments	<EQL	<EQL	71.6	<EQL	[21.8]	<EQL	[1.81]	[0.758]	<EQL	[1.17]	<EQL	<EQL	<EQL	<EQL	[8.82]	<EQL	[23]	3.44	[7.9]	<EQL	[7.41]	[1.69]	3.44	NS	<EQL	<EQL	[23]	[0.046]	<EQL	15.3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.69]	[3.32]	<EQL	<EQL	<EQL	[0.36]	1.9	<EQL	<EQL
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								07-Jul-2022	228.6																																																																
BGO 51D	Plume Assessment Well	UAZ_UTRAU	03-Feb-2022	20.1	233.4	6.3	1.6	04-Jan-2022	232.7	36	163	4.6		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	3.49	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
								04-Apr-2022	233.1																																																																
								07-Jul-2022	232.9																																																																	
			12-Jul-2022	23.1	232.51	5.5	4.9	04-Jan-2022	232.7	34	232	4.94		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	3.31	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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								07-Jul-2022	232.9																																																																
BGO 52D	Plume Assessment Well	UAZ_UTRAU	14-Jul-2022	NS	220.36	NS	NS	04-Jan-2022	230.95	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	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
								04-Apr-2022	230.9																																																																
								07-Jul-2022	230.69																																																																	
BGX 1D	Plume Assessment Well	UAZ_UTRAU	03-Feb-2022	21.8	226.7	4.9	9.1	04-Jan-2022	226.6	45	104	9.89		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	1050	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.46	NS	NS	[0.61]	NS	NS	NS
								04-Apr-2022	226.43																																																																
								07-Jul-2022	226.2																																																																	
			18-Jul-2022	23.6	226.2	5	4.9	04-Jan-2022	226.6	52	276	6.21		No Comments	<EQL	<EQL	[10.9]	[0.239]	<EQL	16.9	7.52	[0.776]	<EQL	[2.53]	<EQL	<EQL	<EQL	<EQL	<EQL	[29.1]	<EQL	[0.778]	<EQL	<EQL	<EQL	<EQL	[0.778]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	865	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	27.9	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.78	<EQL	1.07	<EQL	<EQL	[0.72]	[0.71]	<EQL	<EQL
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								07-Jul-2022	226.2																																																<EQL																
BGX 9D	Plume Assessment Well	UAZ_UTRAU	12-Jul-2022	20.4	224.68	4.8	2.5	04-Jan-2022	225	26	229	3.74		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	27	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
								04-Apr-2022	224.76																																																																
								07-Jul-2022	224.68																																																																	
BGX 10D	Plume Assessment Well	UAZ_UTRAU	14-Jul-2022	22	223.57	5.7	11.8	04-Jan-2022	224	32	226	7.07		No Comments	<EQL	<EQL	[11]	<EQL	<EQL	<EQL	94.1	20.3	<EQL	[1.92]	<EQL	<EQL	<EQL	<EQL	[5.05]	106	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	[0.0675]	<EQL	<EQL	<EQL	3.89	<EQL	<EQL	[0.0675]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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								07-Jul-2022	222.57																																																																
BGX 11D	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	04-Jan-2022	232	NS	NS	NS		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	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
								04-Apr-2022	231.64																																																																
								07-Jul-2022	231.44																																																																	
BGX 12D	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	04-Jan-2022	233.9	NS	NS	NS		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	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
								04-Apr-2022	233.74																																																																
								07-Jul-2022	233.38																																																																	
BGO 3DR	Point of Compliance Well	UAZ_UTRAU	24-Jan-2022	21.8	230.34	4.3	0.3	03-Jan-2022	230.4	39	267	10.74		No Comments	<EQL	<EQL	[18.3]	[0.214]	<EQL	<EQL	[5.39]	[2.55]	[0.0212]	[1.83]	<EQL	<EQL	<EQL	<EQL	<EQL	[5.83]	248	[2.03]	[2.15]	<EQL	<EQL	[4.81]	[2.03]	NS	<EQL	[0.136]	248	0.496	<EQL	92.5	[0.136]	<EQL	<EQL	<EQL	<EQL	<EQL	3.49	1.54	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.65]	<EQL	<EQL	<EQL	<EQL	2.45	[0.65]	<EQL	<EQL
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								07-Jul-2022	230.1																																																<EQL																
			12-Jul-2022	21.5	230.04	4	0.3	03-Jan-2022	230.4	39	288	3.75		No Comments	<EQL	<EQL	[17.4]	[0.209]	[16.1]	<EQL	8.02	[4.47]	[0.0234]	[1.13]	<EQL	<EQL	<EQL	<EQL	<EQL	[11.5]	208	2.62	[3.5]	<EQL	<EQL	[0.9]	2.62	NS	<EQL	[0.174]	208	0.416	<EQL	84.3	[0.174]	<EQL	<EQL	<EQL	<EQL	<EQL	2.71	1.15	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[3.44]	[0.39]	<EQL	<EQL
								04-Apr-2022	230.25																												2.19											<EQL	<EQL						<EQL		<EQL																
								07-Jul-2022	230.1																																																																	
BGO 4D	Point of Compliance Well	UAZ_UTRAU	24-Jan-2022	21.6	228.19	4.8	0.7	03-Jan-2022	228.23	37	256	7.38		No Comments	<EQL	<EQL	[4.71]	<EQL	[12.3]	11.8	[2.73]	[1.97]	[0.0548]	[1.92]	<EQL	<EQL	<EQL	<EQL	[7.78]	[9.49]	<EQL	[0.86]	<EQL	<EQL	[4.57]	<EQL	[0.86]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	422	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.36]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.49	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	227.98						<EQL	<EQL	[4.24]	<EQL	[11.5]	11.1	[2.53]	[1.82]		[1.88]	<EQL	<EQL	<EQL	<EQL	[6.62]	[8.91]																											<EQL																
								07-Jul-2022	227.83																																																																
			11-Jul-2022	23.4	227.76	4.7	1	03-Jan-2022	228.23	34	266	2.07		No Comments	<EQL	<EQL	[4.21]	<EQL	[17.3]	[5.79]	[2.72]	[2.21]	[0.0393]	[1.45]	<EQL	<EQL	<EQL	<EQL	[8.5]	[6.73]	<EQL	1.57	<EQL	<EQL	<EQL	<EQL	1.57	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	267	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.47]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.61]	<EQL	<EQL	<EQL	<EQL	[1.36]	[0.79]	<EQL	<EQL
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								07-Jul-2022	227.83																																																<EQL																
BGO 5D	Point of Compliance Well	UAZ_UTRAU	24-Jan-2022	21.4	227.85	5.8	5.7	03-Jan-2022	227.62	32	244	3.81		No Comments	<EQL	<EQL	24.7	[0.115]	<EQL	[1.15]	[4.32]	5.64	[0.0541]	[1.66]	<EQL	<EQL	<EQL	<EQL	[6.35]	<EQL	[17.2]	3.96	[2.54]	<EQL	<EQL	<EQL	3.96	NS	<EQL	<EQL	[17.2]	[0.0344]	<EQL	3260	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.55	<EQL	<EQL	<EQL	1.15	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.15	2.36	<EQL	[0.53]	<EQL	<EQL	9.35	1.12	<EQL	<EQL
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								07-Jul-2022	227.34																																																																
			11-Jul-2022	22.3	227.3	4.8	2.5	03-Jan-2022	227.62	39	302	4.63		No Comments	<EQL	<EQL	22.7	[0.103]	[19.9]	[1.29]	[2.25]	[2.22]	[0.0373]	[1.66]	<EQL	<EQL	<EQL	<EQL	[11.4]	<EQL	<EQL	[2.97]	[5.47]	<EQL	<EQL	[1.57]	[1.85]	[1.12]	<EQL	<EQL	<EQL	<EQL	<EQL	3130	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.11	<EQL	<EQL	<EQL	1.43	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.43	[2.31]	<EQL	[0.76]	<EQL	<EQL	[11.4]	[1.17]	<EQL	<EQL
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								07-Jul-2022	227.34																																																<EQL																
BGO 6D	Point of Compliance Well	UAZ_UTRAU	27-Jan-2022	19.8	229.17	4.8	3.5	03-Jan-2022	229.2	33	199	5.3		No Comments	<EQL	<EQL	25	<EQL	<EQL	<EQL	[1.36]	<EQL	<EQL	[0.634]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.41]	[2.37]	<EQL	<EQL	<EQL	[1.41]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	56.9	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.02	1.64	<EQL	<EQL	[0.69]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.69]	2.13	<EQL	5.04	<EQL	<EQL	10.5	[0.71]	<EQL	<EQL
								20-Apr-2022	228.76																																																<EQL																
								07-Jul-2022	228.8																																																																
			14-Sep-2022	21.5	228.2	5.7	2.2	03-Jan-2022	229.2	36	208	5.2		No Comments	<EQL	<EQL	22.6	<EQL	<EQL	<EQL	[1.22]	<EQL	<EQL	[0.729]	<EQL	<EQL	<EQL	<EQL	[7.92]	[10]	<EQL	[1.671]	<EQL	<EQL	[3.92]	<EQL	[0.531]	[1.14]	<EQL	<EQL	<EQL	<EQL	<EQL	76.4	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.81	1.49	<EQL	<EQL	[0.42]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.42]	2.5	<EQL	4.19	<EQL	<EQL	8.86	[0.47]	<EQL	<EQL
								20-Apr-2022	228.76																																							<EQL	<EQL				<EQL		<EQL		<EQL																
								07-Jul-2022	228.8																																																<EQL																
BGO 7D	Point of Compliance Well	UAZ_UTRAU	01-Feb-2022	17.4	229.2	5.4	5.1	03-Jan-2022	229.23	36	154	7.66		No Comments	<EQL	<EQL	[3.51]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	94	<EQL	[2.81]	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	94	0.188	<EQL	5.88	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.47]	<EQL	1.71	<EQL	2.37	<EQL	<EQL	7.05	[0.47]	<EQL	<EQL
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								07-Jul-2022	228.7																																																																
			13-Sep-2022	21.2	228.5	3.8	0.1	03-Jan-2022	229.23	34	165	6.33		No Comments	<EQL	<EQL	[2.66]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[5.01]	<EQL	<EQL	[2.68]	2.87	<EQL	<EQL	<EQL	[1.65]	[1.03]	<EQL	<EQL	<EQL	<EQL	<EQL	6.93	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.84]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.39]	[1.32]	1.99	<EQL	<EQL	4.55	[0.58]	<EQL	<EQL
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								07-Jul-2022	228.7																								<EQL		<EQL																						<EQL																
																																	<EQL		<EQL																						<EQL																
BGO 8D	Point of Compliance Well	UAZ_UTRAU	20-Jan-2022	21.5	228.81	5.2	0.5	03-Jan-2022	228.64	50	265	1.86		No Comments	<EQL	<EQL	21.5	<EQL	<EQL	[1.35]	[1.3]	<EQL	[0.171]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[4.93]	2420	[1.65]	<EQL	<EQL	<EQL	<EQL	[1.65]	NS	<EQL	[0.107]	2420	4.84	<EQL	107	<EQL	<EQL	[0.107]	<EQL	<EQL	[0.72]	16	11.6	<EQL	<EQL	[0.34]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.34]	7.03	<EQL	1.26	<EQL	<EQL	4.58	8.5	<EQL	<EQL
								04-Apr-2022	228.4																																																<EQL																
								07-Jul-2022	228.2																																																																	
			18-Jul-2022	21.4	228.17	5.2	0.5	03-Jan-2022	228.64	52	218	4.01		No Comments	<EQL	<EQL	22.1	<EQL	<EQL	<EQL	[1.48]	<EQL	0.575	<EQL	<EQL	<EQL	<EQL	<EQL	[16.2]	<EQL	[3430]	[2.28]	[4.68]	<EQL	[5.21]	<EQL	[2.28]	NS	<EQL	<EQL	[3430]	[6.86]	<EQL	[123]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.93]	[23.6]	[16.1]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.38]	<EQL	[9.34]	<EQL	[1.43]	<EQL	<EQL	[5]	[9.21]	<EQL	<EQL
								04-Apr-2022	228.4														[0.594]																				<EQL												<EQL		<EQL																
								07-Jul-2022	228.2																																																																	
BGO 9D	Point of Compliance Well	UAZ_UTRAU	20-Jan-2022	24.1	226.51	4.8	0.7	03-Jan-2022	226.3	40	239	6.29		No Comments	<EQL	<EQL	[10.6]	<EQL	<EQL	<EQL	[1.86]	<EQL	<EQL	[1.48]	<EQL	<EQL	<EQL	<EQL	[19.7]	[5.79]	2130	3.54	[3.57]	<EQL	<EQL	[2.13]	3.54	NS	<EQL	[0.0643]	2130	4.26	<EQL	5.22	[0.0643]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.79]	<EQL	<EQL	<EQL	<EQL	<EQL	3.09	<EQL	<EQL
								04-Apr-2022	226.07														<EQL																																		<EQL																
								07-Jul-2022	225.8																																																																	
			18-Jul-2022	23.4	225.83	4.7	0.9	03-Jan-2022	226.3	41	254	4.78		No Comments	<EQL	<EQL	[18.1]	<EQL	[16.3]	<EQL	[4.47]	[1.24]	[0.041]	[1.21]	<EQL	<EQL	<EQL	<EQL	[17.9]	[12.5]	2140	3.78	[5.46]	<EQL	<EQL	[4.35]	3.78	NS	<EQL	<EQL	2140	4.28	<EQL	5.4	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.56]	<EQL	[0.36]	<EQL	<EQL	<EQL	2.31	<EQL	<EQL
								04-Apr-2022	226.07																																												<EQL		<EQL																
								07-Jul-2022	225.8																																																																	
BGO 10DR	Point of Compliance Well	UAZ_UTRAU	20-Jan-2022	19.3	229.4	5.4	1	03-Jan-2022	229.32	67	134	3.43		No Comments	<EQL	<EQL	25.9	[0.147]	<EQL	<EQL	[4.54]	[4.24]	<EQL	[3.22]	<EQL	<EQL	<EQL	<EQL	[17.6]	[17.7]	1020	2.33	[3.21]	<EQL	<EQL	<EQL	2.33	NS	<EQL	<EQL	1020	2.04	<EQL	56.7	<EQL	<EQL	<EQL	<EQL	<EQL	[0.61]	1.05	[0.5]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.47	<EQL	<EQL	<EQL	<EQL	<EQL	1.02	<EQL	<EQL
								04-Apr-2022	228.99																																																<EQL																
								07-Jul-2022	228.7																																																																	
			20-Jul-2022	20	228.68	5.3	2.5	03-Jan-2022	229.32	60	232	4.35		No Comments	<EQL	<EQL	25.3	[0.117]	<EQL	<EQL	[4.06]	[2.46]	<EQL	[3.17]	<EQL	<EQL	<EQL	<EQL	<EQL	[16.2]	1320	[3.3]	[3.17]	<EQL	<EQL	[2.75]	2.26	[1.04]	<EQL	[0.065]	1320	2.64	<EQL	188	<EQL	<EQL	[0.065]	<EQL	<EQL	[0.54]	1.31	[0.56]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.43	<EQL	<EQL	<EQL	<EQL	<EQL	[0.97]	<EQL	<EQL
								04-Apr-2022	228.99																													<EQL															<EQL		<EQL		<EQL																
								07-Jul-2022	228.7																																											<EQL				<EQL																
																																																									<EQL																

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-9b. 2022 NEP LAZ Annual Compliance Monitoring

			Field Data												Metals																Radionuclides																	Hydrocarbons		VOC																							
			SAMPLE COLLECTION DATE	WATER TEMPERATURE	SAMPLING EVENT WATER ELEVATION	PH	TURBIDITY	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	SPECIFIC CONDUCTANCE	OXIDATION/REDUCTION POTENTIAL	OXYGEN	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	CARBON-14	COMBINED RADIUM (226 AND 228)	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM, TOTAL ALPHA-EMITTING	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (MWMF)	SUM OF BETA (MWMF)	SUM OF BETA DOSE (MWMF)	TECHNETIUM-99	TRITIUM	URANIUM-233/234	URANIUM-235	URANIUM-238	ETHANE	ETHYLENE	1,1,1-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,4-DIOXANE	BENZENE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CIS-1,2-DICHLOROETHYLENE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
			day-month-year	degC	ft	unitless	NTU	day-month-year	ft	uS/cm	mV	mg/L	Unit		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	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/mL	pCi/L	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	ug/L	ug/L	ug/L	ug/L
Station	Well Use	Aquifer Zone											GWPS		6	10	2000	4	100	6	1300	15	2	390	50	94	2	12000	86	6000	50	5	15	1	50	5	5	5	8	15	50	4	900	20	15	15	15			200	2.7	7	70	5	70	5	6.1	5	810	5	100	2	80	70	200	5	5	1000	100	5	1100	410	10000
HSB 85B	Background Well	LAZ_UTRAU	28-Jan-2022	20.1	231.6	10.1	0.7	04-Jan-2022 04-Apr-2022 07-Jul-2022	231.2 230.6 230.22	153	173	5.08		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[1.38]	NS	<EQL	NS	<EQL	[1.38] <EQL	<EQL	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			04-Feb-2022	20.4	230.59	10.3	0.1	04-Jan-2022 04-Apr-2022 07-Jul-2022	231.2 230.6 230.22	140	28	3.33		No Comments	<EQL	<EQL	[15.9]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.98]	[21]	<EQL	<EQL	NS	<EQL	NS	<EQL	NS	NS	NS	<EQL	[0.0364]	<EQL	<EQL	<EQL	3.04	[0.0364]	<EQL	<EQL	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
			19-Apr-2022	20.5	230.47	10.4	0.2	04-Jan-2022 04-Apr-2022 07-Jul-2022	231.2 230.6 230.22	147	NS	NS		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	3.2	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
			02-Aug-2022	21.2	230.07	10.2	0.6	04-Jan-2022 04-Apr-2022 07-Jul-2022	231.2 230.6 230.22	152	96	7.15		No Comments	<EQL <EQL	<EQL <EQL	[17.7] [17.7]	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	[25.8] [24.7]	<EQL <EQL	<EQL <EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.27	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	3.1 <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 10B	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	03-Jan-2022 04-Apr-2022 07-Jul-2022	217.16 216.67 216.3	NS	NS	NS		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	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
BGO 20B	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	06-Jan-2022 04-Apr-2022 07-Jul-2022	224.89 224.6 224.39	NS	NS	NS		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	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
BGO 20C	Plume Assessment Well	LAZ_UTRAU	12-Jul-2022	22.1	224.4	5.5	1	06-Jan-2022 04-Apr-2022 07-Jul-2022	226.18 225.92 225.6	28	230	2.71		No Comments	<EQL	<EQL	[6.07]	[0.151]	[13.9]	<EQL	[1.16]	<EQL	<EQL	[0.536]	<EQL	<EQL	<EQL	<EQL	[12.7]	<EQL	<EQL	[1.01]	<EQL	<EQL	<EQL	<EQL	[1.01]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	65.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	3 <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 44B	Plume Assessment Well	LAZ_UTRAU	06-Jul-2022	24.2	218.2	9.8	7.5	03-Jan-2022 04-Apr-2022 07-Jul-2022	218.4 218.5 218.3	498	32	1.94		X	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	22.5	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.44]	<EQL	[0.59]	<EQL	<EQL	<EQL
BGO 44C	Plume Assessment Well	LAZ_UTRAU	11-Jul-2022	22.5	217.4	5.8	11.4	03-Jan-2022 04-Apr-2022 07-Jul-2022	218.05 218.3 218.1	119	157	2.12		No Comments	<EQL	<EQL	37.4	<EQL	[15]	<EQL	14.2	13.4	<EQL	8.01	<EQL	<EQL	<EQL	<EQL	<EQL	[37.9]	[25]	[0.736]	<EQL	<EQL	<EQL	<EQL	[0.736]	NS	<EQL	<EQL	[25]	[0.05]	<EQL	93.8	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.57]	<EQL	<EQL	<EQL	[0.47] <EQL	<EQL	3 <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.47]	<EQL	[3.49]	[0.64]	<EQL	<EQL	2.84	[0.51]	<EQL	<EQL
BGO 51B	Plume Assessment Well	LAZ_UTRAU	03-Feb-2022	20.3	227.4	10	1.5	04-Jan-2022 04-Apr-2022 07-Jul-2022	227.5 227.6 227.5	165	59	4.9		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	[0.78]	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
			12-Jul-2022	21.4	227	9.6	1.4	04-Jan-2022 04-Apr-2022 07-Jul-2022	227.5 227.6 227.5	173	169	5.47		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	3 <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 51C	Plume Assessment Well	LAZ_UTRAU	03-Feb-2022	20.2	228	7.5	0.6	04-Jan-2022 04-Apr-2022 07-Jul-2022	228.2 228.3 228.1	26	158	5.3		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	NS	2.04	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
			12-Jul-2022	21.5	227.7	4.9	0.9	04-Jan-2022 04-Apr-2022 07-Jul-2022	228.2 228.3 228.1	24	255	5.97		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	2.09	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	3 <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 52B	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	04-Jan-2022 04-Apr-2022 07-Jul-2022	224.8 225.3 224.89	NS	NS	NS		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	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
BGO 52C	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	04-Jan-2022 04-Apr-2022 07-Jul-2022	226.6 226.45 226.13	NS	NS	NS		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	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
BGX 1C	Plume Assessment Well	LAZ_UTRAU	26-Jan-2022	21.8	212.6	7.2	1.2	04-Jan-2022 04-Apr-2022 07-Jul-2022	212.5 212.25 211.98	68	247	25		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	76.8	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	[0.6]	NS	NS	NS
			14-Jul-2022	23.2	211.9	7.1	1.2	04-Jan-2022 04-Apr-2022 07-Jul-2022	212.5 212.25 211.98	78	250	8.42		No Comments	<EQL	<EQL	[18]	<EQL	<EQL	<EQL	<EQL	[0.968]	<EQL	[1.15]	<EQL	<EQL	<EQL	<EQL	[5.35]	[7.77]	<EQL	[0.856]	<EQL	<EQL	<EQL	<EQL	[0.856]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	78.8 77.9	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.34]	<EQL	<EQL	<EQL
BGX 2B	Plume Assessment Well	LAZ_UTRAU	11-Jul-2022	21.2	208.72	6.9	4	04-Jan-2022 04-Apr-2022 07-Jul-2022	209.4 209.02 210.67	226	174	6.27		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	4.19	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	3 <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[3.07]	<EQL	<EQL	<EQL	1.39	<EQL	<EQL	<EQL
BGX 2D	Plume Assessment Well	LAZ_UTRAU	14-Sep-2022	21.3	211.34	5.8	0.8	04-Jan-2022 04-Apr-2022 10-Aug-2022	212 212 210.41	33	206	5.1		No Comments	<EQL	<EQL	[5.69]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[4.44]	[12] <EQL	[0.573]	<EQL	<EQL	<EQL	<EQL	[0.573]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	250	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	4.8	3.28	<EQL	<EQL	7.15 7.15	<EQL	3.1 <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.11	7.15	6.06	<EQL	8.6	<EQL	<EQL	37.6	1.58	<EQL	<EQL
BGX 3D	Plume Assessment Well	LAZ_UTRAU	14-Jul-2022	20.6	211.11	5.1	2.6	04-Jan-2022 04-Apr-2022 07-Jul-2022	211.5 211.52 211.26	34	264	3.38		No Comments	<EQL	<EQL	[18.3]	[0.198]	<EQL	<EQL	14.3	8.44	<EQL	[0.878]	<EQL	<EQL	<EQL	<EQL	<EQL	[19]	<EQL	[1.42]	<EQL	<EQL	<EQL	<EQL	[1.42]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	13.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGX 4C	Plume Assessment Well	LAZ_UTRAU	14-Jul-2022	20.6	210.35	5.7	1.6	04-Jan-2022 04-Apr-2022 07-Jul-2022	210.9 210.8 210.51	41	253	5.26		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	184	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.72]	<EQL	<EQL	<EQL
BGX 4D	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	04-Jan-2022 04-Apr-2022 07-Jul-2022	211.9 211.85 211.56	NS	NS	NS		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	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
BGX 5D	Plume Assessment Well	LAZ_UTRAU	14-Jul-2022	21	205	5.4	3.4	04-Jan-2022 04-Apr-2022 07-Jul-2022	205.7 205.35 205.08	40	226	6.17		No Comments	<EQL	<EQL	[14.7]	[0.115]	<EQL	[1.38]	[3.73]	21.9	<EQL	[2.61]	<EQL	<EQL	<EQL	<EQL	[10.1]	[17.9]	<EQL	[1.21]	[3.95]	<EQL	<EQL	<EQL	[1.21]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	36.5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGX 6D	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		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	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
BGX 7D	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	04-Jan-2022 04-Apr-2022 07-Jul-2022	202.8 202.43 202.12	NS	NS	NS		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	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
BGX 12C	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	04-Jan-2022 04-Apr-2022 07-Jul-2022	232 230.76 230.38	NS	NS	NS		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	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
BGX006DR	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	04-Jan-2022 04-Apr-2022 07-Jul-2022	204.55 204.21 205.96	NS	NS	NS		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	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
BGX013D	Plume Assessment Well	LAZ_UTRAU	27-Jan-2022	20	204.12	4.8	0.4	04-Jan-2022 04-Apr-2022 07-Jul-2022	204.17 203.96 203.73	37	245	6.28		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	437	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.68	NS	NS	7.18	NS	NS	NS
			14-Jul-2022	22.7	203.66	5	0.3	04-Jan-2022 04-Apr-2022 07-Jul-2022	204.17 203.96 203.73	38	258	6.06		No Comments	<EQL	<EQL	[9.31]	[0.194]	<EQL	<EQL	[0.925]	<EQL	<EQL	[0.961]	<EQL	<EQL	<EQL	<EQL	<EQL	[6.07]	<EQL	[1.26]	<EQL	<EQL	<EQL	<EQL	[1.26]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	429	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.89	<EQL	<EQL	<EQL	[0.97] [0.97]	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.97]	1.58	<EQL	1.36	<EQL	<EQL	5.95	7.17	<EQL	<EQL
HMD 1D	Plume Assessment Well	LAZ_UTRAU	27-Jan-2022	20.1	206.04	5.6	3.4	04-Jan-2022 04-Apr-2022 07-Jul-2022	206.1 205.79 205.49	67	242	6.1		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	26.1	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
			20-Jul-2022	24.9	205.48	5.7	13.5	04-Jan-2022 04-Apr-2022 07-Jul-2022	206.1 205.79 205.49	70	143	5.22		No Comments	<EQL <EQL	<EQL <EQL	[6.68] [6.6]	<EQL <EQL	[16.6] [14.5]	<EQL <EQL	17.5 17.4	16.5 16.2	<EQL	[1.28] [1.26]	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	[29.8] [27.2]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	86.8	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HMD 2D	Plume Assessment Well	LAZ_UTRAU	27-Jan-2022	20.7	197.69	5.2	5.4	04-Jan-2022 04-Apr-2022 07-Jul-2022	197.7 197.51 197.44	52	156	5.8		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	NS	1.13	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
			15-Jul-2022	26.9	197.35	5	6.7	04-Jan-2022 04-Apr-2022 07-Jul-2022	197.7 197.51 197.44	53	191	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	NS	[0.702]	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.4]	<EQL	<EQL
HMD 3D	Plume Assessment Well	LAZ_UTRAU	28-Jan-2022	19.3	196.38	4.8	3	04-Jan-2022 04-Apr-2022 07-Jul-2022	196.4 196.9 197.06	53	249	5.22		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	150	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	[0.41]	NS	NS	NS
			21-Jul-2022	22.9	196.52	4.9	2.3	04-Jan-2022 04-Apr-2022 07-Jul-2022	196.4 196.9 197.06	53	218	6.1		No Comments	<EQL	<EQL	[5.82]	[0.103]	[11.2]	<EQL	14.1	[4.45]	<EQL	[2.4]	<EQL	<EQL	<EQL	<EQL	[15.6]	[17.6]	<EQL	2.28	<EQL	<EQL	<EQL	<EQL	2.28	NS	<EQL	<EQL	<EQL	<EQL	<EQL	268	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.79]	<EQL	<EQL
HMD 4B	Plume Assessment Well	LAZ_UTRAU	15-Jul-2022	20.6	194.4	5.8	0.4	04-Jan-2022 04-Apr-2022 07-Jul-2022	193.94 194.7 194.62	52	210	8.86		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	13.7	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.54]	<EQL	<EQL	<EQL
HMD 4D	Plume Assessment Well	LAZ_UTRAU	28-Jan-2022	18.8	196.92	5.7	3	04-Jan-2022 04-Apr-2022 07-Jul-2022	197 197.38 197.28	38	226	4.7		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	64.7	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
			21-Jul-2022	24	197.08	5.4	8.4	04-Jan-2022 04-Apr-2022 07-Jul-2022	197 197.38 197.28	41	146	4.6		No Comments	<EQL	<EQL	[18.7]	<EQL	<EQL	<EQL	92.6	22.5	<EQL	[3.68]	<EQL	<EQL	<EQL	<EQL	[14.8]	141	47.4	[1.32]	<EQL	<EQL	<EQL	<EQL	[1.32]	NS	<EQL	<EQL	47.4	0.095	<EQL	60.5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.52]	<EQL	<EQL
NEP 1D	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	05-Apr-2022 07-Jul-2022	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	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
NEP 2D	Plume Assessment Well	LAZ_UTRAU	28-Jan-2022	18.7	195.44	5.1	0.4	04-Jan-2022 05-Apr-2022 07-Jul-2022	196.76 195.63 195.56	17	181	6.03		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	[0.907]	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
			15-Jul-2022	21.9	195.37	5.1	0.6	04-Jan-2022 05-Apr-2022 07-Jul-2022	196.76 195.63 195.56	18	182	6.03		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	[0.931]	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	5.5 <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
NEP 3D	Plume Assessment Well	LAZ_UTRAU	28-Jan-2022	17.9	195.52	5.3	0.1	04-Jan-2022 05-Apr-2022 07-Jul-2022	195.61 195.27 195.14	30	167	7.77		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	182	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.32	NS	NS	7.3	NS	NS	NS
			21-Jul-2022	20.7	193.48	5	0.8	04-Jan-2022 05-Apr-2022 07-Jul-2022	195.61 195.27 195.14	28	240	5.5		No Comments	<EQL	<EQL	[6.23]	[0.116]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	185	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.84]	[0.75]	<EQL	<EQL	1.33 [1.33]	<EQL	4.9 <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.49]	1.33	[0.76]	<EQL	1.72	<EQL	<EQL	9.96	1.13	<EQL	<EQL
NEP 4D	Plume Assessment Well	LAZ_UTRAU	31-Jan-2022	21.6	191.86	4.9	6.3	04-Jan-2022 05-Apr-2022 07-Jul-2022	191.89 191.72 191.58	29	279	3.68		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	122	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[0.53]	NS	NS	2.46	NS	NS	NS
			21-Jul-2022	20.8	191.62	4.7	5.8	04-Jan-2022 05-Apr-2022 07-Jul-2022	191.89 191.72 191.58	26	240	5.3		No Comments	<EQL	<EQL	[9.11]	[0.12]	<EQL	[1.38]	[1.51]	<EQL	<EQL	[1.76]	<EQL	<EQL	<EQL	<EQL	[6.51]	[7.74]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	126	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.43] <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.43]	1.03	<EQL	[0.6]	<EQL	<EQL	2.95	3.18	<EQL	<EQL
BGO 3C	Point of Compliance Well	LAZ_UTRAU	24-Jan-2022	21.6	223.23	6.2	0.4	03-Jan-2022 04-Apr-2022 07-Jul-2022	223.34 223.05 222.7	21	123	10.85		No Comments	<EQL	<EQL	[5.94]	[0.183]	[19.1]	<EQL	[4.64]	13.8	<EQL	[1.16]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.41]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	14.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.51]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			12-Jul-2022	22.3	222.72	4.9	0.2	03-Jan-2022 04-Apr-2022 07-Jul-2022	223.34 223.05 222.7	22	253	4.17		No Comments	<EQL	<EQL	[6.27]	[0.116]	<EQL	<EQL	[1.56]	[1.43]	<EQL	[0.859]	<EQL	<EQL	<EQL	<EQL	[21.8]	[5.43]	<EQL	[0.595]	<EQL	<EQL	<EQL	<EQL	[0.595]	NS	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	12.8 12.7	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 5C	Point of Compliance Well	LAZ_UTRAU	24-Jan-2022	21.6	212.2	6.3	0.8	03-Jan-2022 04-Apr-2022 07-Jul-2022	212.3 211.96 211.6	38	188	4.15		No Comments	<EQL	<EQL	[5.06]	[0.246]	<EQL	<EQL	[0.778]	<EQL	<EQL <EQL	[1.76]	<EQL	<EQL	<EQL	<EQL	<EQL	[12.1]	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	294	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.36]	<EQL	2.96	<EQL	<EQL	<EQL
			12-Jul-2022	22.7	211.65	6.3	1.8	03-Jan-2022 04-Apr-2022 07-Jul-2022	212.3 211.96 211.6	33	215	2.87		No Comments	<EQL	<EQL	[5.21]	[0.246]	[20]	<EQL	<EQL	<EQL	<EQL	[1.3]	<EQL	<EQL	<EQL	<EQL	<EQL	[13.7]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	290	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.9]	<EQL	<EQL	<EQL
BGO 6B	Point of Compliance Well	LAZ_UTRAU	24-Jan-2022	20.7	215.32	7.2	0.3	03-Jan-2022 04-Apr-2022 07-Jul-2022	215.87 215.49 215.2	134	105	4.02		No Comments	<EQL	<EQL	57.3	<EQL	[11.7]	<EQL	[0.668]	<EQL	<EQL	[0.566]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.19]	<EQL	<EQL	<EQL	<EQL	[2.19]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	31.5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.55]	<EQL	<EQL	<EQL	[0.41]	<EQL	<EQL	<EQL
			14-Jul-2022	21.7	214.54	7.8	0.2	03-Jan-2022 04-Apr-2022 07-Jul-2022	215.87 215.49 215.2	141	134	4.06		No Comments	<EQL	<EQL	46.7	<EQL	<EQL	<EQL	[5.9]	[1.46]	<EQL	[0.85]	<EQL	<EQL	<EQL	<EQL	[14.9]	[23.8]	<EQL <EQL	[1.33]	<EQL	<EQL	<EQL	<EQL	[1.33]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	28.7	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 6C	Point of Compliance Well	LAZ_UTRAU	24-Jan-2022	21.6	217.48	7.3	1.5	03-Jan-2022 04-Apr-2022 07-Jul-2022	217.46 217.26 218	106	125	2.43		No Comments	<EQL	<EQL	[8.15]	<EQL	<EQL	<EQL	[0.745]	<EQL	<EQL	[0.618]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[13.7]	[0.797]	<EQL	<EQL	<EQL	<EQL	[0.797]	NS	<EQL	<EQL	[13.7]	[0.0274]	<EQL	225	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.53]	[0.36]	<EQL	<EQL	2.15	<EQL	<EQL	<EQL
			14-Jul-2022	21.4	216.74	6.6	0.4	03-Jan-2022 04-Apr-2022 07-Jul-2022	217.46 217.26 218	79	148	2.53		No Comments	<EQL	<EQL	[10.3]	<EQL	<EQL	<EQL	[1]	<EQL	<EQL	[0.735]	<EQL	<EQL	<EQL	<EQL	[14.9]	<EQL	[20.2]	[0.911]	<EQL <EQL	<EQL	<EQL <EQL	<EQL	[0.911]	NS	<EQL	<EQL	[20.2]	[0.0404]	<EQL <EQL	234	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.72]	<EQL	<EQL	3.57	<EQL	<EQL	<EQL
BGO 8C	Point of Compliance Well	LAZ_UTRAU	20-Jan-2022	20.5	220.55	6.1	0.9	03-Jan-2022 04-Apr-2022 07-Jul-2022	220.73 220.45 220	53	182	6.18		No Comments	<EQL <EQL	<EQL <EQL	[3.78] [3.62]	[0.105] <EQL	<EQL <EQL	<EQL <EQL	11.5 11.3	[1.75] [1.64]	<EQL <EQL	[0.608] [0.581]	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	[11.8] [11.7]	101	[0.954]	<EQL	<EQL R	<EQL	<EQL <EQL	[0.954] <EQL	NS	<EQL <EQL	<EQL	101	0.202	<EQL	61.1 60.1	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.69]	<EQL	<EQL	<EQL
			10-Aug-2022	22.3	220.1	6.2	0.6	03-Jan-2022 04-Apr-2022 07-Jul-2022	220.73 220.45 220	65	191	3.89		No Comments	<EQL	<EQL	[4.26]	<EQL	<EQL	<EQL	[5.83]	<EQL	<EQL	[0.74]	<EQL	<EQL	<EQL	<EQL	[19.6]	[8.8]	<EQL	[1.04]	<EQL	<EQL	<EQL	<EQL	[1.04]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	56.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.47]	<EQL	<EQL	<EQL
			26-Sep-2022	20.8	219.3	5.9	1.4	03-Jan-2022 04-Apr-2022 07-Jul-2022	220.73 220.45 220	53	NS	NS		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	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
BGO 10C	Point of Compliance Well	LAZ_UTRAU	20-Jan-2022	20.4	217.89	10.1	0.4	03-Jan-2022 04-Apr-2022 07-Jul-2022	218.09 217.68 217.29	138	45	2.92		X, 2	<EQL	<EQL	[15.9]	<EQL	<EQL	<EQL	15.7	10.3	<EQL	[1.01]	<EQL	<EQL	<EQL	<EQL	<EQL	[21.5]	<EQL	[1.03]	<EQL	<EQL	<EQL	<EQL	[1.03]	NS	<EQL	[0.317]	<EQL	<EQL	<EQL	24.6	[0.178]	<EQL	[0.139]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			21-Jul-2022	20.7	217.24	8.6	8.3	03-Jan-2022 04-Apr-2022 07-Jul-2022	218.09 217.68 217.29	134	294	6.17		X	<EQL	<EQL	[17.6]	<EQL	<EQL	<EQL	[2.9]	<EQL	<EQL	[1.31]	<EQL	<EQL	<EQL	<EQL	[8.63]	[7.94]	<EQL	[0.797]	<EQL	<EQL	<EQL	<EQL	[0.797]	NS	<EQL	[0.589]	<EQL	<EQL	<EQL	8.56	[0.262]	[0.0824]	[0.245]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-9c. 2022 NEP GAU Annual Compliance Monitoring

			Field Data												Metals																Radionuclides																	Hydrocarbons		VOC																							
			SAMPLE COLLECTION DATE	WATER TEMPERATURE	SAMPLING EVENT WATER ELEVATION	PH	TURBIDITY	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	SPECIFIC CONDUCTANCE	OXIDATION/REDUCTION POTENTIAL	OXYGEN	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	CARBON-14	COMBINED RADIUM (226 AND 228)	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM, TOTAL ALPHA-EMITTING	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (MWMF)	SUM OF BETA (MWMF)	SUM OF BETA DOSE (MWMF)	TECHNETIUM-99	TRITIUM	URANIUM-233/234	URANIUM-235	URANIUM-238	ETHANE	ETHYLENE	1,1,1-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,4-DIOXANE	BENZENE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CIS-1,2-DICHLOROETHYLENE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
			day-month-year	degC	ft	unitless	NTU	day-month-year	ft	uS/cm	mV	mg/L	Unit		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	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/mL	pCi/L	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	ug/L	ug/L	ug/L	ug/L
Station	Well Use	Aquifer Zone											GWPS		6	10	2000	4	100	6	1300	15	2	390	50	94	2	12000	86	6000	50	5	15	1	50	5	5	5	8	15	50	4	900	20	15	15	15			200	2.7	7	70	5	70	5	6.1	5	810	5	100	2	80	70	200	5	5	1000	100	5	1100	410	10000
HSB 85A	Background Well	GAU	28-Jan-2022	20	168.3	7	0.8	04-Jan-2022	167.1	189	239	1.78		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[7.6]	NS	<EQL	NS	<EQL	<EQL	[7.6]	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.75]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	168.27																																																<EQL																
								07-Jul-2022	167.72																																																<EQL																
			04-Feb-2022	20.1	168.15	7.1	0.3	04-Jan-2022	167.1	189	87	2.92		No Comments	<EQL	<EQL	25.5	<EQL	<EQL	<EQL	[2.86]	<EQL	<EQL	[0.683]	<EQL	<EQL	<EQL	<EQL	[5.7]	<EQL	<EQL	NS	<EQL	NS	<EQL	NS	NS	NS	<EQL	[0.358]	<EQL	<EQL	<EQL	<EQL	[0.159]	<EQL	[0.199]	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
								04-Apr-2022	168.27						<EQL	<EQL	25.3	<EQL	<EQL	<EQL	[2.85]	<EQL		[0.683]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL													<EQL	<EQL																													
								07-Jul-2022	167.72																																																														
			19-Apr-2022	20.6	168.46	6.8	0.2	04-Jan-2022	167.1	189	NS	NS		No Comments	NS	NS	NS	NS	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	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
								04-Apr-2022	168.27													<EQL	<EQL																																																		
								07-Jul-2022	167.72																																																														
			02-Aug-2022	20.6	167.58	7	0.3	04-Jan-2022	167.1	188	241	3.22		No Comments	<EQL	<EQL	25.3	<EQL	<EQL	<EQL	[1.84]	<EQL	[0.031]	[0.916]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	168.27																																												<EQL		<EQL		<EQL																
								07-Jul-2022	167.72																																																<EQL																
BGO 9AA	Plume Assessment Well	GAU	06-Jul-2022	26.1	156.4	10.9	1.9	03-Jan-2022	157.3	2819	-30	1.08		X, 2	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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.6]	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	157.2																																														<EQL		<EQL																
								07-Jul-2022	152.7																																																														
BGO 10AA	Plume Assessment Well	GAU	06-Jul-2022	20.3	156.91	7.6	0.5	03-Jan-2022	157.37	174	164	2.76		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	157.26																																														<EQL		<EQL																
								07-Jul-2022	156.8																																																														
BGO 20A	Plume Assessment Well	GAU	12-Jul-2022	20.8	161.78	8.9	2.3	06-Jan-2022	162.2	197	68	3.01		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	162.02																																														<EQL		<EQL																
								07-Jul-2022	161.6																																																														
BGO 20AA	Plume Assessment Well	GAU	12-Jul-2022	22.1	160.42	7.5	1	06-Jan-2022	160.8	174	-109	1.07		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	160.75																																														<EQL		<EQL																
								07-Jul-2022	160.33																																																														
BGO 44A	Plume Assessment Well	GAU	06-Jul-2022	20.9	158.07	7.1	3.6	03-Jan-2022	158.15	176	215	2.73		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	158.2																																														<EQL		<EQL																
								07-Jul-2022	158.1																																																													
BGO 44AA	Plume Assessment Well	GAU	06-Jul-2022	21.5	157.97	10.9	1.4	03-Jan-2022	159.3	259	17	1.76		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	16.8	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.79]	<EQL	[0.62]	<EQL	<EQL	<EQL
								04-Apr-2022	158.3																																				16.2				<EQL	<EQL						<EQL		<EQL																
								07-Jul-2022	158.1																																																														
BGO 51A	Plume Assessment Well	GAU	03-Feb-2022	19.6	165.1	9.5	31.6	04-Jan-2022	165.3	664	64	5.1		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	<EQL	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
								04-Apr-2022	165.2																																								<EQL	<EQL																								
								07-Jul-2022	165.1																																																														
			12-Jul-2022	22.3	164.8	10.8	36.5	04-Jan-2022	165.3	144	72	4.72		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	165.2																																														<EQL		<EQL																
								07-Jul-2022	165.1																																																														
BGO 51AA	Plume Assessment Well	GAU	03-Feb-2022	20.6	167.1	7	0.5	04-Jan-2022	167.4	131	50	4.4		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	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
								04-Apr-2022	167.3																																																														
								07-Jul-2022	167.4																																																														
			12-Jul-2022	21.5	164.7	6.8	0.8	04-Jan-2022	167.4	131	-7	1.99		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	167.3																																														<EQL		<EQL																
								07-Jul-2022	167.4																																																														
BGO 52A	Plume Assessment Well	GAU	14-Jul-2022	21.3	162.62	7.3	4.6	04-Jan-2022	163.1	195	45	3.94		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	163.02																																														<EQL		<EQL																
								07-Jul-2022	162.9																																																														
BGO 52AA	Plume Assessment Well	GAU	14-Jul-2022	21.4	160.36	7.3	0.9	04-Jan-2022	162.3	140	-6	2.92		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	162.34																																														<EQL		<EQL																
								07-Jul-2022	162.2																																																<EQL																
BGX 1A	Plume Assessment Well	GAU	26-Jan-2022	19.1	158.72	7.4	0.7	04-Jan-2022	158.72	149	180	32		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	358	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.81	NS	NS	8.31	NS	NS	NS
								04-Apr-2022	158.45																																																															
								25-Jul-2022	157.92																																																														
			25-Jul-2022	22	157.92	7.4	0.3	04-Jan-2022	158.72	211	237	4.58		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	356	NS	NS	NS	<EQL	<EQL	<EQL	1.7	1.04	<EQL	<EQL	1.46	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.46	<EQL	<EQL	1.93	<EQL	<EQL	8.54	<EQL	<EQL	<EQL
								04-Apr-2022	158.45																																														[1.46]		<EQL																
								25-Jul-2022	157.92																																																															
BGX 4A	Plume Assessment Well	GAU	26-Sep-2022	22.2	154.3	7.1	6	04-Jan-2022	156	310	NS	NS		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	156.02																																								<EQL	<EQL						<EQL		<EQL																
								07-Jul-2022	155.62																																																															
BGO 3A	Point of Compliance Well	GAU	24-Jan-2022	21.6	162.3	6.5	0.9	03-Jan-2022	162.42	131	185	7.88		No Comments	<EQL	<EQL	42.9	<EQL	[15.6]	<EQL	[4.98]	5.49	<EQL	[3.19]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.94]	<EQL	[1.39]	[3.34]	<EQL	<EQL	<EQL	[1.39]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	4.75	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	162.4																																				<EQL																<EQL																
								07-Jul-2022	162																																																														
			11-Aug-2022	21.3	161.7	6.5	0.8	03-Jan-2022	162.42	129	187	2.8		No Comments	<EQL	<EQL	27.2	<EQL	<EQL	<EQL	[0.826]	<EQL	<EQL	[1.03]	<EQL	<EQL	<EQL	<EQL	[12.7]	<EQL	<EQL	0.706	<EQL	<EQL	<EQL	<EQL	0.706	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.711]	<EQL	<EQL	<EQL	25	25	1	1	1	10	1	2	1	50	1	5	1	1	1	1	1	1	5	1	1	1	1	1	5	3
								04-Apr-2022	162.4																													0.542	<EQL										25	25				1		2		10																
								07-Jul-2022	162																																																<EQL																
BGO 6A	Point of Compliance Well	GAU	24-Jan-2022	20.4	159.05	6.5	0.2	03-Jan-2022	159.18	266	78	1.09		No Comments	<EQL	<EQL	39.1	<EQL	<EQL	<EQL	[0.972]	<EQL	<EQL	[1.01]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.938]	<EQL	<EQL	[7.02]	<EQL	[0.938]	NS	<EQL	[0.0592]	<EQL	<EQL	<EQL	<EQL	[0.0592]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	158.97																																																<EQL																
								07-Jul-2022	158.4																																																															
			14-Jul-2022	20.9	158.6	7	0.1	03-Jan-2022	159.18	289	67	0.84		No Comments	<EQL	<EQL	44.3	<EQL	<EQL	<EQL	[1.17]	<EQL	<EQL	[1.35]	<EQL	<EQL	<EQL	<EQL	[13.5]	[4.22]	<EQL	[1.43]	<EQL	<EQL	<EQL	<EQL	[1.43]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	158.97																						<EQL			<EQL			<EQL											<EQL	<EQL						<EQL		<EQL																
								07-Jul-2022	158.4																																																<EQL																
BGO 8AR	Point of Compliance Well	GAU	20-Jan-2022	20.2	158.98	7.2	1.7	03-Jan-2022	158.9	265	240	1.71		No Comments	<EQL	<EQL	[8.04]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.714]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.77]	<EQL	<EQL	<EQL	<EQL	[0.77]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	158.55																																																<EQL																
								07-Jul-2022	158.5																																																															
			10-Aug-2022	21.1	158.2	7.2	1	03-Jan-2022	158.9	88	217	2.8		No Comments	<EQL	<EQL	[10.7]	<EQL	<EQL	<EQL	[0.953]	<EQL	<EQL	[1.52]	<EQL	<EQL	<EQL	<EQL	[6.24]	<EQL	<EQL	[1.12]	<EQL	<EQL	<EQL	<EQL	[1.12]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	158.55																											<EQL												<EQL	<EQL				<EQL		<EQL		<EQL																
								07-Jul-2022	158.5																																												<EQL				<EQL																
																																																							<EQL																
			26-Sep-2022	20.3	157.8	7.2	1.7	03-Jan-2022	158.9	270	NS	NS		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	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
								04-Apr-2022	158.55																																																															
								07-Jul-2022	158.5																																																															
BGO 10AR	Point of Compliance Well	GAU	20-Jan-2022	19.8	157.94	7.4	0.4	03-Jan-2022	158.02	215	90	2.56		No Comments	<EQL	<EQL	31.7	<EQL	<EQL	<EQL	[0.618]	<EQL	<EQL	[0.815]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[4.2]	<EQL	<EQL	NS	<EQL	[0.402]	<EQL	<EQL	<EQL	<EQL	[0.279]	<EQL	[0.123]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	157.9																																																<EQL																
								07-Jul-2022	157.4																																																															
			20-Jul-2022	20	157.6	7.6	0.4	03-Jan-2022	158.02	221	237	4.52		No Comments	<EQL	<EQL	51.2	<EQL	<EQL	<EQL	[1.21]	[1.07]	<EQL	[1.62]	<EQL	<EQL	<EQL	<EQL	[7.05]	[39.6]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	[0.206]	<EQL	<EQL	<EQL	<EQL	[0.206]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
								04-Apr-2022	157.9																																														<EQL		<EQL																
								07-Jul-2022	157.4																																																														

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-10a. 2022 NWP UAZ Annual Compliance Monitoring

			Field Data												Metals																Radionuclides																	Hydrocarbons		VOC																							
			SAMPLE COLLECTION DATE	WATER TEMPERATURE	PH	TURBIDITY	SPECIFIC CONDUCTANCE	SAMPLING EVENT WATER ELEVATION	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	OXIDATION/REDUCTION POTENTIAL	OXYGEN	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	CARBON-14	COMBINED RADIUM (226 AND 228)	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM, TOTAL ALPHA-EMITTING	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (MWMF)	SUM OF BETA (MWMF)	SUM OF BETA DOSE (MWMF)	TECHNETIUM-99	TRITIUM	URANIUM-233/234	URANIUM-235	URANIUM-238	ETHANE	ETHYLENE	1,1,1-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,4-DIOXANE	BENZENE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CIS-1,2-DICHLOROETHYLENE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
			day-month-year	degC	unitless	NTU	uS/cm	ft	day-month-year	ft	mV	mg/L	Unit		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	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/mL	pCi/L	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	ug/L	ug/L	ug/L	ug/L
Station	Well Use	Aquifer Zone											GWPS		6	10	2000	4	100	6	1300	15	2	390	50	94	2	12000	86	6000	50	5	15	1	50	5	5	5	8	15	50	4	900	20	15	15	15			200	2.7	7	70	5	70	5	6.1	5	810	5	100	2	80	70	200	5	5	1000	100	5	1100	410	10000
BGO 1D	Background Well	UAZ_UTRAU	31-Jan-2022	26.6	4.5	4.1	49	236	03-Jan-2022	236.1	297	4.43		No Comments	<EQL	<EQL	[7.89]	<EQL	[15.1]	[3.67]	[2.77]	[1.56]	<EQL	[3.87]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.78]	<EQL	[0.746]	[3.98]	<EQL	<EQL	<EQL	[0.746]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	5.33	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.65]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	235.65																					<EQL																										<EQL																
									12-Jul-2022	235.4																																																																
			25-Jul-2022	28.3	4.9	7	48	235.3	03-Jan-2022	236.1	241	2.01		No Comments	<EQL	<EQL	[8.72]	<EQL	[17.8]	[4]	[2.53]	[1.26]	<EQL	[3.22]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.09]	<EQL	<EQL	<EQL	<EQL	[1.09]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5.54	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	235.65					<EQL	<EQL	[8.2]	<EQL	[14.9]	[3.84]	[2.43]	[1.25]		[3.13]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL							[0.97]											<EQL	<EQL				<EQL		<EQL		<EQL																
									12-Jul-2022	235.4																																															<EQL																
BGO 2D	Background Well	UAZ_UTRAU	24-Jan-2022	21.8	4.3	0.8	28	233.49	03-Jan-2022	233.54	260	8.1		No Comments	<EQL	<EQL	[14.1]	[0.149]	<EQL	[1.05]	<EQL	[0.585]	<EQL	[0.974]	<EQL	<EQL	<EQL	<EQL	[13.4]	[9.35]	<EQL	[1.47]	[3.33]	<EQL	<EQL	<EQL	[1.47]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	4.1	[0.0662]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.77	<EQL	<EQL	<EQL	<EQL	<EQL	[0.39]	<EQL	<EQL
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									07-Jul-2022	233.3																																																																
			09-Aug-2022	21.8	4.4	0.8	28	233	03-Jan-2022	233.54	276	3.88		No Comments	<EQL	<EQL	[14.7]	[0.164]	<EQL	[3.88]	<EQL	[0.673]	<EQL	[1.41]	<EQL	<EQL	<EQL	<EQL	[9.07]	<EQL	<EQL	3.2	<EQL	<EQL	<EQL	[1.06]	3.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.48	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.4	<EQL	<EQL	<EQL	<EQL	<EQL	[0.37]	<EQL	<EQL
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									07-Jul-2022	233.3																																															<EQL																
			26-Sep-2022	22.7	4.5	1.1	28	232.7	03-Jan-2022	233.54	NS	NS		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	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
									04-Apr-2022	233.56																																																																
									07-Jul-2022	233.3																																																																	
HSB 85C	Background Well	UAZ_UTRAU	28-Jan-2022	21.3	4.4	0.5	48	237.4	04-Jan-2022	236.7	428	4.9		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[3.15]	NS	<EQL	NS	<EQL	[3.15]	<EQL	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	235.86																																															<EQL																
									07-Jul-2022	235.59																																															<EQL																
			04-Feb-2022	21.9	4.6	0.1	46	236.25	04-Jan-2022	236.7	196	2.88		No Comments	<EQL	<EQL	[11.2]	[0.129]	[10.6]	<EQL	[1.49]	[0.975]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	[5.46]	NS	[6.56]	NS	NS	NS	<EQL	[0.0516]	<EQL	<EQL	<EQL	4.9	[0.0516]	<EQL	<EQL	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
									04-Apr-2022	235.86																																																																		
									07-Jul-2022	235.59																																																																	
			19-Apr-2022	22.2	4.4	0.2	47	235.72	04-Jan-2022	236.7	NS	NS		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	[5.08]	NS	[5]	NS	NS	NS	NS	NS	NS	NS	NS	4.86	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
									04-Apr-2022	235.86																																																																	
									07-Jul-2022	235.59																																																																	
			25-Jul-2022	22.3	4.5	0.3	50	235.47	04-Jan-2022	236.7	342	7.11		No Comments	<EQL	<EQL	[11.6]	[0.115]	<EQL	<EQL	[1.04]	[0.933]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[3.12]	[6.86]	<EQL	[8.09]	[2.72]	[1.78]	[1.34]	<EQL	[0.23]	<EQL	<EQL	<EQL	4.78	[0.152]	<EQL	[0.0785]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	235.86																																											<EQL		<EQL		<EQL																
									07-Jul-2022	235.59																																															<EQL																
			26-Oct-2022	22	4.7	0.1	47	NS	04-Jan-2022	236.7	NS	NS		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.661099501	NS	4.251682184	NS	NS	NS	NS	NS	NS	NS	NS	5.05	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
									04-Apr-2022	235.86																																																																	
									07-Jul-2022	235.59																																																																		
			26-Oct-2022	NS	NS	NS	NS	234.89	04-Jan-2022	236.7	NS	NS		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	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
									04-Apr-2022	235.86																																																																	
									07-Jul-2022	235.59																																																																		
BGO 16D	Plume Assessment Well	UAZ_UTRAU	18-Jul-2022	23.1	5.3	38.1	35	227.99	03-Jan-2022	228.58	224	3.9		X	<EQL	<EQL	54.8	[0.389]	<EQL	<EQL	13	[2.17]	<EQL	[4.48]	<EQL	<EQL	<EQL	<EQL	[10.5]	[33.5]	[15.5]	[1.44]	<EQL	<EQL	[7.33]	<EQL	[1.44]	NS	<EQL	<EQL	[15.5]	[0.031]	12.5	312	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.95	[0.39]	<EQL	<EQL	35.1	<EQL	11	<EQL	<EQL	<EQL	<EQL	<EQL	[0.49]	35.1	18.2	<EQL	7.2	<EQL	<EQL	35.3	29.7	<EQL	<EQL
									04-Apr-2022	228.23																																		311											35.1		<EQL																
									07-Jul-2022	228.09																																																																	
BGO 17DR	Plume Assessment Well	UAZ_UTRAU	12-Jul-2022	20.6	4.8	0.9	31	228.3	03-Jan-2022	229	275	2.66		No Comments	<EQL	<EQL	[2.97]	<EQL	<EQL	<EQL	[5.87]	[1.14]	2.98	[0.612]	<EQL	<EQL	<EQL	<EQL	[5.2]	[17.4]	[20.6]	[1.61]	<EQL	R	<EQL	<EQL	[1.61]	NS	<EQL	<EQL	[20.6]	[0.0412]	<EQL	32.8	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.71]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.34]	[0.71]	14.9	<EQL	2.05	<EQL	<EQL	7.41	2.64	<EQL	<EQL
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									07-Jul-2022	228.5																																																																	
BGO 18D	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	06-Jan-2022	229.79	NS	NS		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	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
									04-Apr-2022	228.74																																																																	
									07-Jul-2022	229.1																																																																		
BGO 19DR	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	06-Jan-2022	229.8	NS	NS		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	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
									04-Apr-2022	229.29																																																																	
									07-Jul-2022	229.15																																																																		
BGO 40D	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	03-Jan-2022	219.8	NS	NS		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	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
									04-Apr-2022	220.4																																																																	
									07-Jul-2022	219.7																																																																		
BGO 43D	Plume Assessment Well	UAZ_UTRAU	12-Jul-2022	20.8	5.9	0.7	112	227.96	03-Jan-2022	229.7	223	3.72		No Comments	<EQL	<EQL	23.6	<EQL	<EQL	<EQL	[5.12]	16.9	<EQL	[0.695]	<EQL	<EQL	<EQL	<EQL	<EQL	[6.11]	<EQL	3.31	15.5	<EQL	[9.16]	8.19	3.31	NS	<EQL	<EQL	<EQL	<EQL	<EQL	[0.995]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	230.3																																						<EQL	<EQL						<EQL		<EQL																
									07-Jul-2022	229.5																																																																	
BGO 53D	Plume Assessment Well	UAZ_UTRAU	15-Jul-2022	NS	NS	NS	NS	227.56	04-Jan-2022	228	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	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
									04-Apr-2022	227.86																																																																	
									07-Jul-2022	227.67																																																																		
FAB 2	Plume Assessment Well	UAZ_UTRAU	21-Jul-2022	20.3	5.6	0.9	331	229.24	03-Jan-2022	229.97	207	5.06		No Comments	<EQL	<EQL	44.2	[0.124]	<EQL	<EQL	[2.35]	<EQL	[0.19]	6.22	[3.57]	<EQL	<EQL	<EQL	[9.64]	[27.9]	<EQL	[1.58]	[3.32]	R	[5.05]	<EQL	[1.58]	NS	<EQL	[0.158]	<EQL	<EQL	<EQL	[1.17]	[0.158]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	229.83																																													<EQL		<EQL																
									07-Jul-2022	229.33																																																																		
FCB002DR	Plume Assessment Well	UAZ_UTRAU	21-Jul-2022	23.8	4.7	1.4	30	227.62	04-Jan-2022	228.02	258	8.93		No Comments	<EQL	<EQL	[4.85]	<EQL	<EQL	<EQL	43.7	[0.897]	<EQL	[2.07]	<EQL	<EQL	<EQL	<EQL	[13.3]	[8.64]	<EQL	[2.37]	<EQL	<EQL	[4.65]	<EQL	[2.37]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	1.61	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	228.1																					<EQL																								<EQL		<EQL																
									07-Jul-2022	227.74																																																																	
NWP 3D	Plume Assessment Well	UAZ_UTRAU	NS	NS	NS	NS	NS	NS	04-Jan-2022	229.81	NS	NS		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	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
									05-Apr-2022	228.49																																																																	
									07-Jul-2022	228.03																																																																		
NWP101D	Plume Assessment Well	UAZ_UTRAU	28-Jan-2022	19	4.1	0.6	369	229.53	04-Jan-2022	229.56	246	5.16		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	[1.02]	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
									05-Apr-2022	229.53																																																																	
									07-Jul-2022	229																																																																	
			15-Jul-2022	22.1	4.2	1.5	366	228.92	04-Jan-2022	229.56	377	6.38		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	1.33	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									05-Apr-2022	229.53																																													<EQL		<EQL																
									07-Jul-2022	229																																																																	
BGO 10DR	Point of Compliance Well	UAZ_UTRAU	20-Jan-2022	19.3	5.4	1	67	229.4	03-Jan-2022	229.32	134	3.43		No Comments	<EQL	<EQL	25.9	[0.147]	<EQL	<EQL	[4.54]	[4.24]	<EQL	[3.22]	<EQL	<EQL	<EQL	<EQL	[17.6]	[17.7]	1020	2.33	[3.21]	<EQL	<EQL	<EQL	2.33	NS	<EQL	<EQL	1020	2.04	<EQL	56.7	<EQL	<EQL	<EQL	<EQL	<EQL	[0.61]	1.05	[0.5]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.47	<EQL	<EQL	<EQL	<EQL	<EQL	1.02	<EQL	<EQL
									04-Apr-2022	228.99																																															<EQL																
									07-Jul-2022	228.7																																																																		
			20-Jul-2022	20	5.3	2.5	60	228.68	03-Jan-2022	229.32	232	4.35		No Comments	<EQL	<EQL	25.3	[0.117]	<EQL	<EQL	[4.06]	[2.46]	<EQL	[3.17]	<EQL	<EQL	<EQL	<EQL	<EQL	[16.2]	1320	[3.3]	[3.17]	<EQL	<EQL	[2.75]	2.26	[1.04]	<EQL	[0.065]	1320	2.64	<EQL	188	<EQL	<EQL	[0.065]	<EQL	<EQL	[0.54]	1.31	[0.56]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.43	<EQL	<EQL	<EQL	<EQL	<EQL	[0.97]	<EQL	<EQL
									04-Apr-2022	228.99																												<EQL															<EQL		<EQL		<EQL																
									07-Jul-2022	228.7																																											<EQL				<EQL																
																																																									<EQL																
BGO 11DR	Point of Compliance Well	UAZ_UTRAU	20-Jan-2022	21.3	4.7	0.2	47	229.4	03-Jan-2022	229.26	145	4.93		No Comments	<EQL	<EQL	[4.25]	<EQL	<EQL	<EQL	[2.3]	[3.34]	[0.025]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[4.47]	71.3	3.43	[4.02]	<EQL	[5.37]	[1.86]	3.43	NS	<EQL	[0.126]	71.3	0.143	<EQL	29.7	[0.0685]	<EQL	[0.057]	<EQL	<EQL	<EQL	14.1	[0.47]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.36]	<EQL	<EQL	1	[0.83]	<EQL	<EQL
									04-Apr-2022	228.98																																															<EQL																
									07-Jul-2022	228.7																																																																	
			25-Jul-2022	20.7	4.9	0.6	48	228.5	03-Jan-2022	229.26	218	4.4		No Comments	<EQL	<EQL	[8.37]	[0.115]	<EQL	<EQL	[2.62]	[3.07]	[0.0328]	[0.551]	<EQL	<EQL	<EQL	<EQL	<EQL	[6.93]	60.4	4.06	[6.95]	<EQL	[5.97]	[2.57]	4.06	NS	<EQL	[0.0857]	60.4	0.121	<EQL	24.7	[0.0857]	<EQL	<EQL	<EQL	<EQL	<EQL	12.5	[0.47]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.57	<EQL	[0.4]	<EQL	<EQL	[0.47]	<EQL	<EQL	<EQL
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									07-Jul-2022	228.7																																																																	
BGO 12DR	Point of Compliance Well	UAZ_UTRAU	01-Feb-2022	18.6	6.3	0.7	148	230.16	03-Jan-2022	230.28	96	6.07		No Comments	<EQL	<EQL	21.7	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.822]	<EQL	<EQL	<EQL	<EQL	<EQL	[5.14]	[13.2]	[0.899]	[2.19]	<EQL	[4.67]	<EQL	[0.899]	NS	<EQL	<EQL	[13.2]	[0.0264]	<EQL	5.78	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5.41	[0.66]	<EQL	<EQL
									04-Apr-2022	229.8																																															<EQL																
									07-Jul-2022	229.5																																																																		
			14-Sep-2022	19.7	4.8	1.9	40	229.1	03-Jan-2022	230.28	153	4.8		No Comments	<EQL	<EQL	[5.79]	<EQL	<EQL	<EQL	[0.984]	[0.572]	<EQL	[0.565]	<EQL	<EQL	<EQL	<EQL	[6.34]	[16.4]	141	[2.09]	<EQL	<EQL	<EQL	[1.64]	[1.07]	[1.02]	<EQL	<EQL	141	0.282	<EQL	23.7	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.95	[0.95]	<EQL	<EQL	[0.41]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.41]	7.6	<EQL	[0.55]	<EQL	<EQL	36.7	2.57	<EQL	<EQL
									04-Apr-2022	229.8																																											<EQL		<EQL		<EQL																
									07-Jul-2022	229.5																																															<EQL																
BGO 13DR	Point of Compliance Well	UAZ_UTRAU	20-Jan-2022	19.3	7.3	1	137	229.68	03-Jan-2022	229.7	216	5.38		No Comments	<EQL	<EQL	47.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.89]	<EQL	<EQL	<EQL	<EQL	[17.5]	[5.46]	<EQL	1.67	<EQL	<EQL	<EQL	<EQL	1.67	NS	<EQL	<EQL	<EQL	<EQL	<EQL	1.56	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.38]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	229.25																																															<EQL																
									07-Jul-2022	229																																																																	
			20-Jul-2022	20.5	9.6	1.3	73	228.99	03-Jan-2022	229.7	239	3.85		No Comments	<EQL	<EQL	48.5	<EQL	<EQL	<EQL	[0.65]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[14]	[11.2]	<EQL	[0.874]	<EQL	<EQL	<EQL	<EQL	[0.874]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	1.98	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.44]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	229.25													<EQL																																<EQL		<EQL																
									07-Jul-2022	229																																																																	
BGO 14DR	Point of Compliance Well	UAZ_UTRAU	20-Jan-2022	20.7	4.7	0.8	29	228.04	03-Jan-2022	228.09	277	8.83		No Comments	<EQL	<EQL	[2.91]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.43]	<EQL	<EQL	<EQL	<EQL	[25.3]	<EQL	<EQL	[1.94]	<EQL	<EQL	[4.52]	<EQL	[1.94]	NS	<EQL	[0.0661]	<EQL	<EQL	<EQL	3.88	<EQL	<EQL	[0.0661]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.44	<EQL	[0.99]	<EQL	<EQL	[0.35]	[0.56]	<EQL	<EQL
									04-Apr-2022	228.3																																															<EQL																
									07-Jul-2022	228																																																																		
			21-Jul-2022	21.5	4.2	0.4	32	227.57	03-Jan-2022	228.09	277	3.44		No Comments	<EQL	<EQL	[3.24]	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	5.9	<EQL	<EQL	<EQL	<EQL	[19]	<EQL	<EQL	[3.36]	[4.06]	<EQL	<EQL	<EQL	2.21	[1.15]	<EQL	<EQL	<EQL	<EQL	<EQL	12.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.24	<EQL	[0.63]	<EQL	<EQL	<EQL	[0.48]	<EQL	<EQL
									04-Apr-2022	228.3																																						<EQL	<EQL				<EQL		<EQL		<EQL																
									07-Jul-2022	228																																															<EQL																
BGO 15D	Point of Compliance Well	UAZ_UTRAU	24-Jan-2022	19.8	4.9	0.8	31	228.7	03-Jan-2022	228.35	404	7		No Comments	<EQL	<EQL	[8.95]	[0.16]	[10.8]	<EQL	<EQL	<EQL	0.91	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	121	[2.17]	[3.96]	<EQL	[4.18]	<EQL	[2.17]	NS	<EQL	<EQL	121	0.242	[8.26]	76400	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	40.6	4.21	<EQL	<EQL	22.9	<EQL	37	<EQL	<EQL	<EQL	<EQL	<EQL	[0.45]	22.9	12.2	[2.46]	3.23	<EQL	<EQL	83.9	4.16	<EQL	<EQL
									04-Apr-2022	227.98																																															[32.2]																
									07-Jul-2022	227.8																																																																	
			02-Aug-2022	19.9	5.2	0.6	31	227.1	03-Jan-2022	228.35	310	4.9		No Comments	<EQL	<EQL	[10]	[0.196]	<EQL	<EQL	<EQL	<EQL	1.3	[0.656]	<EQL	<EQL	<EQL	<EQL	[13.1]	<EQL	88.4	[1.87]	[5.28]	<EQL	<EQL	[1.78]	[1.87]	<EQL	<EQL	<EQL	88.4	0.177	<EQL	37100	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	33.7	3.58	<EQL	<EQL	26.9	<EQL	21	<EQL	<EQL	<EQL	<EQL	<EQL	[0.6]	26.9	7.07	[0.94]	4.6	<EQL	<EQL	60.9	1.71	<EQL	<EQL
									04-Apr-2022	227.98																																											<EQL		26.9		11.3																
									07-Jul-2022	227.8																																															<EQL																
BGO 26D	Point of Compliance Well	UAZ_UTRAU	21-Jan-2022	21.4	4.7	0.6	41	226.41	03-Jan-2022	226.5	293	5.82		No Comments	<EQL	<EQL	[11.4]	[0.452]	<EQL	[1.46]	[0.651]	<EQL	<EQL	[1.15]	<EQL	<EQL	<EQL	<EQL	<EQL	[5.06]	<EQL	2.79	[5.72]	<EQL	[4.29]	<EQL	2.79	NS	<EQL	<EQL	<EQL	<EQL	<EQL	[0.973]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.5]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	226.14																																															<EQL																
									07-Jul-2022	225.9																																																																	
			20-Jul-2022	23.3	4.5	0.2	44	225.8	03-Jan-2022	226.5	321	2.9		No Comments	<EQL	<EQL	[17.5]	[0.332]	<EQL	[2.51]	[1.97]	<EQL	<EQL	[1.22]	<EQL	<EQL	<EQL	<EQL	[16.5]	[14.7]	<EQL	3.39	[10.4]	<EQL	[4.81]	[5.94]	3.39	NS	<EQL	<EQL	<EQL	<EQL	<EQL	1.36	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	226.14																																		[0.991]											<EQL		<EQL																
									07-Jul-2022	225.9																																																																	

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-10b. 2022 NWP LAZ Annual Compliance Monitoring

			Field Data												Metals																Radionuclides																	Hydrocarbons		VOC																							
			SAMPLE COLLECTION DATE	WATER TEMPERATURE	PH	TURBIDITY	SPECIFIC CONDUCTANCE	SAMPLING EVENT WATER ELEVATION	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	OXIDATION/REDUCTION POTENTIAL	OXYGEN	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	CARBON-14	COMBINED RADIUM (226 AND 228)	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM, TOTAL ALPHA-EMITTING	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (MWMF)	SUM OF BETA (MWMF)	SUM OF BETA DOSE (MWMF)	TECHNETIUM-99	TRITIUM	URANIUM-233/234	URANIUM-235	URANIUM-238	ETHANE	ETHYLENE	1,1,1-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,4-DIOXANE	BENZENE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CIS-1,2-DICHLOROETHYLENE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
			day-month-year	degC	unitless	NTU	uS/cm	ft	day-month-year	ft	mV	mg/L	Unit		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	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/mL	pCi/L	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	ug/L	ug/L	ug/L	ug/L
Station	Well Use	Aquifer Zone											GWPS		6	10	2000	4	100	6	1300	15	2	390	50	94	2	12000	86	6000	50	5	15	1	50	5	5	5	8	15	50	4	900	20	15	15	15			200	2.7	7	70	5	70	5	6.1	5	810	5	100	2	80	70	200	5	5	1000	100	5	1100	410	10000
HSB 85B	Background Well	LAZ_UTRAU	28-Jan-2022	20.1	10.1	0.7	153	231.6	04-Jan-2022	231.2	173	5.08		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[1.38]	NS	<EQL	NS	<EQL	[1.38]	<EQL	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	230.6																											<EQL																				<EQL																
									07-Jul-2022	230.22																																															<EQL																
			04-Feb-2022	20.4	10.3	0.1	140	230.59	04-Jan-2022	231.2	28	3.33		No Comments	<EQL	<EQL	[15.9]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.98]	[21]	<EQL	<EQL	NS	<EQL	NS	<EQL	NS	NS	NS	<EQL	[0.0364]	<EQL	<EQL	<EQL	3.04	[0.0364]	<EQL	<EQL	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
									04-Apr-2022	230.6																																																															
									07-Jul-2022	230.22																																																															
			19-Apr-2022	20.5	10.4	0.2	147	230.47	04-Jan-2022	231.2	NS	NS		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	3.2	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
									04-Apr-2022	230.6																																																															
									07-Jul-2022	230.22																																																															
			02-Aug-2022	21.2	10.2	0.6	152	230.07	04-Jan-2022	231.2	96	7.15		No Comments	<EQL	<EQL	[17.7]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[25.8]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.27	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	230.6					<EQL	<EQL	[17.7]	<EQL	<EQL	<EQL	<EQL	<EQL		<EQL	<EQL	<EQL	<EQL	<EQL	[24.7]	<EQL	<EQL																	<EQL	<EQL				<EQL		<EQL		<EQL																
									07-Jul-2022	230.22																					<EQL																										<EQL																
																															<EQL																																										
BGO 10B	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	NS	03-Jan-2022	217.16	NS	NS		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	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
									04-Apr-2022	216.67																																																																
									07-Jul-2022	216.3																																																															
BGO 16B	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	NS	03-Jan-2022	216.72	NS	NS		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	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
									04-Apr-2022	216.4																																																																
									07-Jul-2022	216.1																																																															
BGO 42C	Plume Assessment Well	LAZ_UTRAU	26-Jan-2022	19.8	7.2	0.2	29	220.98	03-Jan-2022	221.1	235	3.29		No Comments	<EQL	<EQL	[7.63]	[0.379]	<EQL	<EQL	[1.61]	<EQL	<EQL	[1.33]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	3.19	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.37	<EQL	<EQL	<EQL
									04-Apr-2022	220.7																																															<EQL																
									07-Jul-2022	220.6																																																															
			14-Jul-2022	27.6	5.1	0.3	31	220.2	03-Jan-2022	221.1	200	5.2		No Comments	<EQL	<EQL	[7.93]	[0.338]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.813]	<EQL	<EQL	<EQL	<EQL	[10.3]	<EQL	<EQL	[0.925]	<EQL	<EQL	<EQL	<EQL	[0.925]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	2.63	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.13	<EQL	<EQL	<EQL
									04-Apr-2022	220.7																																													<EQL		<EQL																
									07-Jul-2022	220.6																																																															
BGO 43CR	Plume Assessment Well	LAZ_UTRAU	12-Jul-2022	20.2	5	0.2	98	217.32	03-Jan-2022	218.31	277	2.86		No Comments	<EQL	<EQL	[15.4]	<EQL	<EQL	<EQL	[0.907]	[0.787]	[0.0515]	[0.516]	<EQL	<EQL	<EQL	<EQL	[9.07]	<EQL	<EQL	4.32	24.3	<EQL	14.6	9.21	4.32	NS	<EQL	<EQL	<EQL	<EQL	<EQL	[1.09]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	218.6																																													<EQL		<EQL																
									07-Jul-2022	218																																																															
BGO 53B	Plume Assessment Well	LAZ_UTRAU	NS	NS	NS	NS	NS	NS	04-Jan-2022	219.7	NS	NS		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	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
									04-Apr-2022	219.39																																																															
									07-Jul-2022	218.85																																																															
BGO 53C	Plume Assessment Well	LAZ_UTRAU	14-Jul-2022	21.1	7	0.6	152	220.4	04-Jan-2022	221	228	7.86		No Comments	<EQL	<EQL	[12]	<EQL	[12.4]	<EQL	<EQL	<EQL	<EQL	[2.16]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.959]	<EQL	<EQL	<EQL	<EQL	[0.959]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	597	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.17	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.17	2.82	<EQL	3.2	<EQL	<EQL	29.3	[0.76]	<EQL	<EQL
									04-Apr-2022	220.82					<EQL	<EQL	[11.9]	<EQL	<EQL	<EQL	<EQL	<EQL		[2.14]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL																									4.17		<EQL																
									07-Jul-2022	220.45																																																															
FAB 2MC	Plume Assessment Well	LAZ_UTRAU	21-Jul-2022	23.4	6.3	1	70	216.44	03-Jan-2022	217.51	173	9.46		No Comments	<EQL	<EQL	[6.22]	<EQL	[11.6]	[2.46]	[2.56]	<EQL	<EQL	[1.97]	<EQL	<EQL	<EQL	<EQL	<EQL	[5.01]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	[0.064]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.064]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.53	<EQL	<EQL	<EQL
									04-Apr-2022	216.9																																													<EQL		<EQL																
									07-Jul-2022	216.85																																																															
FCB002CRR	Plume Assessment Well	LAZ_UTRAU	21-Jul-2022	21.2	7.9	0.5	165	217.9	04-Jan-2022	218.71	131	8.75		No Comments	<EQL	<EQL	[14.4]	<EQL	<EQL	<EQL	[0.794]	<EQL	<EQL	[0.867]	<EQL	<EQL	<EQL	<EQL	[11.8]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	12.9	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.84	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.84	<EQL	<EQL	[0.51]	<EQL	<EQL	26.5	<EQL	<EQL	<EQL
									04-Apr-2022	218.43																																													[1.84]		<EQL																
									07-Jul-2022	218.09																																																															
NWP 1B	Plume Assessment Well	LAZ_UTRAU	15-Jul-2022	20.8	6.9	0.7	162	212.66	04-Jan-2022	213.44	136	5.82		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.07	<EQL	<EQL	<EQL
									05-Apr-2022	213.26																																													<EQL		<EQL																
									07-Jul-2022	212.87																																																															
NWP 1D	Plume Assessment Well	LAZ_UTRAU	25-Jul-2022	19.8	4.9	0.3	33	212.75	04-Jan-2022	213.15	285	7.71		No Comments	<EQL	<EQL	[5.78]	<EQL	<EQL	<EQL	12.5	[4.51]	<EQL	[1]	<EQL	<EQL	<EQL	<EQL	<EQL	[18.7]	<EQL	[0.882]	<EQL	<EQL	<EQL	<EQL	[0.882]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	189	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.25	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.25	<EQL	<EQL	[0.83]	<EQL	<EQL	7.95	[0.41]	<EQL	<EQL
									05-Apr-2022	213.22																					<EQL																								[1.25]		<EQL																
									07-Jul-2022	212.82																																																															
NWP 2D	Plume Assessment Well	LAZ_UTRAU	25-Jul-2022	21	6.1	1	117	201.65	04-Jan-2022	202.17	178	7.18		No Comments	<EQL	<EQL	[9.64]	<EQL	<EQL	<EQL	[1.73]	<EQL	<EQL	[1]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.52]	<EQL	[0.625]	<EQL	<EQL	<EQL	<EQL	[0.625]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	[0.971]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.99]	<EQL	<EQL	<EQL
									05-Apr-2022	201.98																																													<EQL		<EQL																
									07-Jul-2022	201.72																																																															
NWP 3C	Plume Assessment Well	LAZ_UTRAU	25-Jul-2022	20.8	7.3	0.3	138	217.99	04-Jan-2022	220.03	100	6.28		No Comments	<EQL	<EQL	[16.6]	<EQL	<EQL	<EQL	[2.56]	[1.48]	<EQL	[0.794]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	7.02	[0.0553]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.47	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.47	<EQL	<EQL	<EQL	<EQL	<EQL	35.8	<EQL	<EQL	<EQL
									05-Apr-2022	218.69																													<EQL						<EQL	<EQL	<EQL								2.47		<EQL																
									07-Jul-2022	218.22																																																															
NWP202C	Plume Assessment Well	LAZ_UTRAU	28-Jan-2022	19	6.3	0.5	96	216.69	04-Jan-2022	216.75	192	4.77		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	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	1.38	NS	NS	NS
									05-Apr-2022	216.62																																																															
									07-Jul-2022	216.19																																																															
			15-Jul-2022	22.3	6.8	0.9	100	215.85	04-Jan-2022	216.75	31	6.14		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.24	<EQL	<EQL	<EQL
									05-Apr-2022	216.62																																													<EQL		<EQL																
									07-Jul-2022	216.19																																																															
BGO 10C	Point of Compliance Well	LAZ_UTRAU	20-Jan-2022	20.4	10.1	0.4	138	217.89	03-Jan-2022	218.09	45	2.92		X, 2	<EQL	<EQL	[15.9]	<EQL	<EQL	<EQL	15.7	10.3	<EQL	[1.01]	<EQL	<EQL	<EQL	<EQL	<EQL	[21.5]	<EQL	[1.03]	<EQL	<EQL	<EQL	<EQL	[1.03]	NS	<EQL	[0.317]	<EQL	<EQL	<EQL	24.6	[0.178]	<EQL	[0.139]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	217.68																																															<EQL																
									07-Jul-2022	217.29																																																															
			21-Jul-2022	20.7	8.6	8.3	134	217.24	03-Jan-2022	218.09	294	6.17		X	<EQL	<EQL	[17.6]	<EQL	<EQL	<EQL	[2.9]	<EQL	<EQL	[1.31]	<EQL	<EQL	<EQL	<EQL	[8.63]	[7.94]	<EQL	[0.797]	<EQL	<EQL	<EQL	<EQL	[0.797]	NS	<EQL	[0.589]	<EQL	<EQL	<EQL	8.56	[0.262]	[0.0824]	[0.245]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	217.68																																													<EQL		<EQL																
									07-Jul-2022	217.29																																																															
BGO 12CX	Point of Compliance Well	LAZ_UTRAU	24-Jan-2022	22.2	9	7.9	204	218.41	03-Jan-2022	218.4	142	2.86		No Comments	<EQL	<EQL	67.3	<EQL	<EQL	<EQL	[1.02]	<EQL	<EQL	[1.89]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.456]	<EQL	<EQL	[4.1]	<EQL	[0.456]	NS	<EQL	[0.0792]	<EQL	<EQL	<EQL	7.17	<EQL	<EQL	[0.0792]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.84	<EQL	<EQL	<EQL
									04-Apr-2022	217.9																																															<EQL																
									07-Jul-2022	217.5																																																															
			03-Aug-2022	22.8	7.9	1.1	232	217.4	03-Jan-2022	218.4	133	5.19		No Comments	<EQL	<EQL	68.7	<EQL	<EQL	<EQL	[0.976]	<EQL	<EQL	[1.41]	<EQL	<EQL	<EQL	<EQL	[8.56]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0921]	<EQL	<EQL	<EQL	3.36	<EQL	<EQL	[0.0921]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.73	<EQL	<EQL	<EQL
									04-Apr-2022	217.9																																						<EQL	<EQL				<EQL		<EQL		<EQL																
									07-Jul-2022	217.5																																															<EQL																
BGO 14CR	Point of Compliance Well	LAZ_UTRAU	20-Jan-2022	20.6	5.9	0.7	35	220.86	03-Jan-2022	220.8	220	4.81		No Comments	<EQL	<EQL	[9.18]	[0.269]	<EQL	16.9	<EQL	<EQL	<EQL	[2.21]	<EQL	<EQL	<EQL	<EQL	[23.5]	[4.38]	[18.1]	2.8	<EQL	<EQL	<EQL	<EQL	2.8	NS	<EQL	<EQL	[18.1]	[0.0362]	<EQL	568	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.79]	[0.5]	<EQL	<EQL	5.13	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5.13	3.11	<EQL	3.16	<EQL	<EQL	26.8	[0.82]	<EQL	<EQL
									04-Apr-2022	221																																		566													<EQL																
									07-Jul-2022	220.6																																																															
			25-Jul-2022	21.4	5	0.5	35	220.03	03-Jan-2022	220.8	171	4.25		No Comments	<EQL	<EQL	[10.8]	[0.257]	<EQL	[5.43]	<EQL	<EQL	<EQL	[1.29]	<EQL	<EQL	<EQL	<EQL	[9.65]	[5.31]	[14.2]	[1.04]	<EQL	<EQL	<EQL	<EQL	[1.04]	<EQL	<EQL	<EQL	[14.2]	[0.0284]	<EQL	531	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.69]	[0.44]	<EQL	<EQL	4.16	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.16	2.18	<EQL	2.63	<EQL	<EQL	23.4	<EQL	<EQL	<EQL
									04-Apr-2022	221																																	<EQL	528									<EQL		4.16		<EQL																
									07-Jul-2022	220.6																																															<EQL																

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-10c. 2022 NWP GAU Annual Compliance Monitoring

			Field Data												Metals																Radionuclides																	Hydrocarbons		VOC																							
			SAMPLE COLLECTION DATE	WATER TEMPERATURE	PH	TURBIDITY	SPECIFIC CONDUCTANCE	SAMPLING EVENT WATER ELEVATION	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	OXIDATION/REDUCTION POTENTIAL	OXYGEN	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	CARBON-14	COMBINED RADIUM (226 AND 228)	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM, TOTAL ALPHA-EMITTING	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (MWMF)	SUM OF BETA (MWMF)	SUM OF BETA DOSE (MWMF)	TECHNETIUM-99	TRITIUM	URANIUM-233/234	URANIUM-235	URANIUM-238	ETHANE	ETHYLENE	1,1,1-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,4-DIOXANE	BENZENE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CIS-1,2-DICHLOROETHYLENE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
			day-month-year	degC	unitless	NTU	uS/cm	ft	day-month-year	ft	mV	mg/L	Unit		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	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/mL	pCi/L	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	ug/L	ug/L	ug/L	ug/L
Station	Well Use	Aquifer Zone											GWPS		6	10	2000	4	100	6	1300	15	2	390	50	94	2	12000	86	6000	50	5	15	1	50	5	5	5	8	15	50	4	900	20	15	15	15			200	2.7	7	70	5	70	5	6.1	5	810	5	100	2	80	70	200	5	5	1000	100	5	1100	410	10000
HSB 85A	Background Well	GAU	28-Jan-2022	20	7	0.8	189	168.3	04-Jan-2022	167.1	239	1.78		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	[7.6]	NS	<EQL	NS	<EQL	<EQL	[7.6]	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.75]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	168.27																																																<EQL																
									07-Jul-2022	167.72																																																<EQL																
			04-Feb-2022	20.1	7.1	0.3	189	168.15	04-Jan-2022	167.1	87	2.92		No Comments	<EQL	<EQL	25.5	<EQL	<EQL	<EQL	[2.86]	<EQL	<EQL	[0.683]	<EQL	<EQL	<EQL	<EQL	[5.7]	<EQL	<EQL	NS	<EQL	NS	<EQL	NS	NS	NS	<EQL	[0.358]	<EQL	<EQL	<EQL	<EQL	[0.159]	<EQL	[0.199]	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
									04-Apr-2022	168.27					<EQL	<EQL	25.3	<EQL	<EQL	<EQL	[2.85]	<EQL		[0.683]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL													<EQL	<EQL																												
									07-Jul-2022	167.72																																																																
			19-Apr-2022	20.6	6.8	0.2	189	168.46	04-Jan-2022	167.1	NS	NS		No Comments	NS	NS	NS	NS	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	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
									04-Apr-2022	168.27												<EQL	<EQL																																																	
									07-Jul-2022	167.72																																																																
			02-Aug-2022	20.6	7	0.3	188	167.58	04-Jan-2022	167.1	241	3.22		No Comments	<EQL	<EQL	25.3	<EQL	<EQL	<EQL	[1.84]	<EQL	[0.031]	[0.916]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	168.27																																											<EQL		<EQL		<EQL																
									07-Jul-2022	167.72																																																<EQL																
BGO 10AA	Plume Assessment Well	GAU	06-Jul-2022	20.3	7.6	0.5	174	156.91	03-Jan-2022	157.37	164	2.76		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	157.26																																													<EQL		<EQL																
									07-Jul-2022	156.8																																																																
BGO 16AR	Plume Assessment Well	GAU	06-Jul-2022	20.5	6.6	0.5	167	159.95	03-Jan-2022	160.84	81	8.57		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	6.44	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.75]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.75]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.97]	<EQL	<EQL	<EQL
									04-Apr-2022	160.33																																													[0.75]		<EQL																
									07-Jul-2022	159.9																																																															
BGO 18A	Plume Assessment Well	GAU	14-Jul-2022	21.3	6.8	0.3	187	160.4	03-Jan-2022	160.72	136	1.3		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	NS	<EQL	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	160.65																																													<EQL		<EQL																
									07-Jul-2022	160.2																																																															
BGO 25A	Plume Assessment Well	GAU	06-Jul-2022	19.5	7.1	0.8	226	159.4	03-Jan-2022	160.03	124	4.2		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	[0.765]	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	160.01																																													<EQL		<EQL																
									07-Jul-2022	159.17																																																															
BGO 41A	Plume Assessment Well	GAU	26-Jan-2022	20.1	11.6	0.3	2574	193.63	03-Jan-2022	191.8	54	2.94		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	41.8	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	16.6	NS	NS	NS
								|04-Apr-2022|192.4|																																																																
									07-Jul-2022	191.9																																																																
			06-Jul-2022	19.6	10.5	2.4	2809	191.3	03-Jan-2022	191.8	-46	4.3		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	NS	43.4	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.35	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.35	<EQL	<EQL	<EQL	<EQL	<EQL	18.2	<EQL	<EQL	<EQL
									04-Apr-2022	192.4																																													2.35		<EQL																
									07-Jul-2022	191.9																																																															
BGO 43A	Plume Assessment Well	GAU	06-Jul-2022	19.4	10.9	2.2	751	155.87	03-Jan-2022	156.27	38	4.8		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	NS	[0.873]	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	156.47																																													<EQL		<EQL																
									07-Jul-2022	156.07																																																															
BGO 43AA	Plume Assessment Well	GAU	06-Jul-2022	19.5	8.9	4.9	191	155	03-Jan-2022	155.7	111	4.9		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	[0.877]	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.77	<EQL	<EQL	<EQL
									04-Apr-2022	155.8																																													<EQL		<EQL																
									07-Jul-2022	155.4																																																															
BGO 53A	Plume Assessment Well	GAU	14-Jul-2022	21.6	6.8	0.8	139	157.8	04-Jan-2022	158.4	185	3.36		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	158.38																																													<EQL		<EQL																
									07-Jul-2022	157.96																																																															
BGO 53AA	Plume Assessment Well	GAU	14-Jul-2022	24.2	6.8	0.3	134	157.26	04-Jan-2022	157.88	47	3.11		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	157.9																																													<EQL		<EQL																
									07-Jul-2022	157.41																																																															
NWP302A	Plume Assessment Well	GAU	28-Jan-2022	18.9	6.2	0.2	158	155.12	04-Jan-2022	155.12	182	4.9		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	NS	NS	NS	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS
									05-Apr-2022	154.84																																																																
									07-Jul-2022	154.61																																																															
			15-Jul-2022	21.7	7.1	0.9	158	154.56	04-Jan-2022	155.12	122	3.92		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									05-Apr-2022	154.84																																													<EQL		<EQL																
									07-Jul-2022	154.61																																																														
NWP303A	Plume Assessment Well	GAU	15-Jul-2022	22.7	7.2	0.2	209	152.51	04-Jan-2022	152.9	138	1.13		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	NS	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.79	<EQL	<EQL	<EQL
									05-Apr-2022	152.82																																													<EQL		<EQL																
									07-Jul-2022	152.44																																																															
BGO 10AR	Point of Compliance Well	GAU	20-Jan-2022	19.8	7.4	0.4	215	157.94	03-Jan-2022	158.02	90	2.56		No Comments	<EQL	<EQL	31.7	<EQL	<EQL	<EQL	[0.618]	<EQL	<EQL	[0.815]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[4.2]	<EQL	<EQL	NS	<EQL	[0.402]	<EQL	<EQL	<EQL	<EQL	[0.279]	<EQL	[0.123]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	157.9																																															<EQL																
									07-Jul-2022	157.4																																																															
			20-Jul-2022	20	7.6	0.4	221	157.6	03-Jan-2022	158.02	237	4.52		No Comments	<EQL	<EQL	51.2	<EQL	<EQL	<EQL	[1.21]	[1.07]	<EQL	[1.62]	<EQL	<EQL	<EQL	<EQL	[7.05]	[39.6]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	[0.206]	<EQL	<EQL	<EQL	<EQL	[0.206]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	157.9																																													<EQL		<EQL																
									07-Jul-2022	157.4																																																															
BGO 12AX	Point of Compliance Well	GAU	24-Jan-2022	21.7	6.9	0.5	187	157.1	03-Jan-2022	157	130	3.98		No Comments	<EQL	<EQL	20.7	<EQL	<EQL	<EQL	[1.04]	<EQL	<EQL	[0.782]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.796]	<EQL	<EQL	[5.52]	<EQL	[0.796]	NS	<EQL	[0.0721]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0721]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.51]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	156.89																																															<EQL																
									07-Jul-2022	156.4																																																															
			20-Jul-2022	22.5	7	0.5	190	156.5	03-Jan-2022	157	186	1.87		No Comments	<EQL	<EQL	22.9	<EQL	<EQL	<EQL	[1.4]	[1.21]	<EQL	[1.27]	<EQL	<EQL	<EQL	<EQL	[10.2]	[6.09]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	[0.0723]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0723]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	156.89																								<EQL																								<EQL		<EQL																
									07-Jul-2022	156.4																																																															
BGO 14AR	Point of Compliance Well	GAU	20-Jan-2022	20.7	9.4	0.9	235	157.8	03-Jan-2022	157.94	158	5.73		No Comments	<EQL	<EQL	73.7	[0.12]	<EQL	<EQL	<EQL	<EQL	<EQL	[1.12]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.11	<EQL	<EQL	<EQL	<EQL	3.11	NS	<EQL	<EQL	<EQL	<EQL	<EQL	14.9	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	157.8																																	<EQL														<EQL																
									07-Jul-2022	157.4																																																															
			25-Jul-2022	20.9	8.6	0.4	175	157.32	03-Jan-2022	157.94	156	5.28		No Comments	<EQL	<EQL	128	[0.268]	<EQL	[1.44]	[0.715]	<EQL	<EQL	[1.31]	<EQL	<EQL	[0.112]	<EQL	[6.55]	<EQL	<EQL	[1.14]	<EQL	<EQL	<EQL	<EQL	[1.14]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	8.36	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
									04-Apr-2022	157.8																												<EQL																			<EQL		<EQL		<EQL																
									07-Jul-2022	157.4																																																<EQL																
BGO 26A	Point of Compliance Well	GAU	20-Jan-2022	20.5	8.2	0.2	161	157.33	03-Jan-2022	157.4	38	2.77		No Comments	<EQL	<EQL	33.9	<EQL	<EQL	<EQL	[0.602]	<EQL	<EQL	[0.699]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	[0.898]	<EQL	<EQL	<EQL	<EQL	[0.898]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	7.39	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.41]	<EQL	<EQL	<EQL
									04-Apr-2022	157.27																																															<EQL																
									07-Jul-2022	156.89																																																															
			04-Feb-2022	20	7.9	0.2	143	157.3	03-Jan-2022	157.4	87	4.91		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	<EQL	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
									04-Apr-2022	157.27																																																																
									07-Jul-2022	156.89																																																															
			03-Aug-2022	20.4	9.3	0.6	174	156.65	03-Jan-2022	157.4	106	3.61		No Comments	<EQL	<EQL	37.7	<EQL	<EQL	<EQL	25.2	[4.58]	<EQL	[1.21]	<EQL	<EQL	<EQL	<EQL	[10.3]	[30.6]	<EQL	2.13	<EQL	<EQL	<EQL	<EQL	2.13	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	9.17	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.41]	<EQL	<EQL	<EQL
									04-Apr-2022	157.27																																											<EQL		<EQL		<EQL																
									07-Jul-2022	156.89																																																<EQL																

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-11. 2022 SWP Surface Water and Seepline Sampling

			Field Data											Metals																Radionuclides																			VOC																							
			SAMPLE COLLECTION DATE	PH	SPECIFIC CONDUCTANCE	WATER TEMPERATURE	TOTAL ALKALINITY (AS CACO3)	TURBIDITY	SAMPLING EVENT WATER ELEVATION	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	CARBON-14	COMBINED RADIUM (226 AND 228)	CONVERTED URANIUM MASS	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM, TOTAL ALPHA-EMITTING	RADIUM-226	RADIUM-228	STRONTIUM-90	SUM OF ALPHAS (MWMF)	SUM OF BETA (MWMF)	SUM OF BETA DOSE (MWMF)	TECHNETIUM-99	TRITIUM	URANIUM	URANIUM-233/234	URANIUM-235	URANIUM-238	1,1,1-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,4-DIOXANE	BENZENE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CIS-1,2-DICHLOROETHYLENE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
			day-month-year	unitless	uS/cm	degC	mg/L	NTU	ft	day-month-year	ft	Unit		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	pCi/L	pCi/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/mL	ug/L	pCi/L	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	ug/L	ug/L
Station	Well Use	Aquifer Zone										GWPS		6	10	2000	4	100	6	1300	15	2	390	50	94	2	12000	86	6000	50	5	30	15	1	50	5	5	5	8	15	50	4	900	20		15	15	15	200	2.7	7	70	5	70	5	6.1	5	810	5	100	2	80	70	200	5	5	1000	100	5	1100	410	10000
ED-01	FMB Surface Water Location	UAZ_UTRAU	01-Mar-2022	6.1	34	16.2	3	2.7	NS	NS	NS		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	NS	569	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
			02-Jun-2022	5.8	32	21	6	3.2	NS	NS	NS		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	NS	518	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
			31-Aug-2022	5.7	33	22.2	7	22.3	NS	NS	NS		No Comments	<EQL	<EQL	[8.8]	<EQL	<EQL	[1.35]	[1.45]	[0.849]	<EQL	[0.829]	<EQL	<EQL	<EQL	<EQL	[12.8]	[18.9]	29	[1.73]	NS	<EQL	<EQL	<EQL	<EQL	[1.73]	NS	<EQL	<EQL	29	0.058	[4.76]	448	NS	<EQL	<EQL	<EQL	<EQL	[0.59]	<EQL	<EQL	<EQL	24.4	<EQL	59.2	<EQL	<EQL	<EQL	<EQL	<EQL	[0.37]	24.4	<EQL	<EQL	1.18	<EQL	<EQL	2.78	<EQL	<EQL	<EQL
																																																						24.4		54																
			01-Dec-2022	6.2	34	14.5	12	3.3	NS	NS	NS		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	NS	486	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
FHP-001A	FMB Surface Water Location	UAZ_UTRAU	02-Mar-2022	5.8	30	14	4	1.4	NS	NS	NS		C	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	1150	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
			31-May-2022	5.1	39	26.2	NS	14.2	NS	NS	NS		C	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	997	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
			31-Aug-2022	5.9	37	26.4	7	4.4	NS	NS	NS		No Comments	<EQL	<EQL	72.4	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[9.79]	[4.7]	270	[1.31]	NS	<EQL	<EQL	<EQL	[2.38]	[1.31]	NS	<EQL	<EQL	270	0.54	<EQL	932	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.37	<EQL	4	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.37	<EQL	<EQL	<EQL	<EQL	<EQL	1.65	<EQL	<EQL	<EQL
																																																						[1.37]		<EQL																
			01-Dec-2022	6.4	37	10.8	3	1.8	NS	NS	NS		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	NS	1180	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
FM-2	FMB Surface Water Location	UAZ_UTRAU	28-Feb-2022	6.4	31	13.5	7	4.1	NS	NS	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	<EQL	<EQL	NS	[0.712]	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
			31-May-2022	6.6	51	22.2	24	4.8	NS	NS	NS		C	NS	NS	NS	NS	NS	[2.51]	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	<EQL	[7.37]	NS	NS	NS	NS	NS	<EQL	<EQL	NS	[0.961]	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
			29-Aug-2022	6	57	25.7	15	6.3	NS	NS	NS		No Comments	<EQL	<EQL	30.8	<EQL	<EQL	[2.06]	[1.01]	<EQL	<EQL	[0.724]	<EQL	<EQL	<EQL	<EQL	<EQL	[8.08]	<EQL	[1.19]	NS	<EQL	<EQL	<EQL	<EQL	[1.19]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.06]	NS	<EQL	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	<EQL	NS	NS	<EQL	<EQL	NS	NS	<EQL	<EQL	NS	NS
			01-Dec-2022	6	53	10.8	9	12.3	NS	NS	NS		No Comments	NS	NS	NS	NS	NS	NS	NS	NS	[0.0231]	NS	NS	NS	NS	NS	<EQL	NS	NS	NS	NS	[1.95]	<EQL	15.3	NS	NS	NS	NS	NS	NS	NS	NS	[1.41]	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
FM-2B	FMB Surface Water Location	UAZ_UTRAU	13-Jan-2022	NS	NS	NS	NS	NS	NS	NS	NS		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	NS	11.7	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
			16-Feb-2022	NS	NS	NS	NS	NS	NS	NS	NS		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	NS	14.4	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	NS	NS	NS
			24-Feb-2022	NS	45	NS	NS	NS	NS	NS	NS		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	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
			28-Feb-2022	NS	NS	NS	NS	NS	NS	NS	NS		No Comments	NS	NS	NS	NS	NS	<EQL	NS	NS	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<EQL	R	[5.56]	NS	NS	NS	NS	NS	R	R	NS	16.2	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
																																												16.3																												
			03-Mar-2022	NS	NS	NS	NS	NS	NS	NS	NS		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	NS	17	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
			15-Mar-2022	NS	51.2	NS	NS	NS	NS	NS	NS		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	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
			13-Apr-2022	NS	NS	NS	NS	NS	NS	NS	NS		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	NS	11.2	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
			05-May-2022	NS	NS	NS	NS	NS	NS	NS	NS		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	NS	12.7	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

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-12. 2022 NWP/NEP Surface Water Sampling

			Field Data										Metals																Radionuclides																				VOC																						
			SAMPLE COLLECTION DATE	WATER TEMPERATURE	PH	TURBIDITY	SPECIFIC CONDUCTANCE	SAMPLING EVENT WATER ELEVATION	SYNCHRONOUS MEASUREMENT DATE	SYNCHRONOUS WATER ELEVATION	Constituent	FIELD CONDITIONS	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM	TIN	VANADIUM	ZINC	CARBON-14	COMBINED RADIUM (226 AND 228)	CONVERTED URANIUM MASS	GROSS ALPHA	IODINE-129	NONVOLATILE BETA	RADIUM, TOTAL ALPHA-EMITTING	RADIUM-226	RADIUM-228	STRONTIUM-89/90	STRONTIUM-90	SUM OF ALPHAS (MWMF)	SUM OF BETA (MWMF)	SUM OF BETA DOSE (MWMF)	TECHNETIUM-99	TRITIUM	URANIUM	URANIUM-233/234	URANIUM-235	URANIUM-238	1,1,1-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROETHYLENE	1,2-DICHLOROPROPANE	1,4-DIOXANE	BENZENE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CIS-1,2-DICHLOROETHYLENE	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES
			day-month-year	degC	unitless	NTU	uS/cm	ft	day-month-year	ft	Unit		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	pCi/L	pCi/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mrem/yr	pCi/L	pCi/mL	mg/L	pCi/L	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	ug/L
Station	Well Use	Aquifer Zone									GWPS		6	10	2000	4	100	6	1300	15	2	390	50	94	2	12000	86	6000	50	5	30	15	1	50	5	5	5	8	8	15	50	4	900	20		15	15	15	200	2.7	7	70	5	70	5	6.1	5	810	5	2	80	70	200	5	5	1000	100	5	1100	410	10000
CBS-010	UTR Surface Water Location	LAZ_UTRAU	01-Mar-2022	11.3	6.5	6.2	50	NS	NS	NS		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	NS	NS	11.5	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
			02-Jun-2022	20.8	6.5	7.1	69	NS	NS	NS		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	NS	NS	15.2	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
			31-Aug-2022	21.6	6.5	5.9	60	NS	NS	NS		No Comments	10	<EQL	[17.5]	<EQL	<EQL	<EQL	[1.9]	<EQL	<EQL	[0.576]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.14]	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	NS	NS	<EQL	[0.258]	<EQL	<EQL	<EQL	31.8	NS	[0.166]	<EQL	[0.0915]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																													<EQL																									<EQL		<EQL															
			01-Dec-2022	9.1	7.2	11.9	54	NS	NS	NS		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	NS	NS	7.82	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
CBS-020	UTR Surface Water Location	LAZ_UTRAU	01-Mar-2022	12.3	7.2	8.4	45	NS	NS	NS		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	NS	NS	9.22	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
			02-Jun-2022	21.3	7.2	9.8	55	NS	NS	NS		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	NS	NS	11.6	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
			31-Aug-2022	21.5	7	7.7	53	NS	NS	NS		No Comments	<EQL	<EQL	[14.6]	<EQL	<EQL	<EQL	[1.49]	<EQL	<EQL	[0.641]	<EQL	<EQL	<EQL	<EQL	<EQL	[8.37]	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	24.5	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																						<EQL		<EQL															
			01-Dec-2022	9	7.3	8.1	55	NS	NS	NS		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	NS	NS	8.13	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
CBS-030	UTR Surface Water Location	LAZ_UTRAU	01-Mar-2022	9	6	7	45	NS	NS	NS		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	NS	NS	10	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
			02-Jun-2022	21.2	6.7	10.9	57	NS	NS	NS		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	NS	NS	15.6	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
			31-Aug-2022	21.6	6.8	7	54	NS	NS	NS		No Comments	<EQL	<EQL	[14.5]	<EQL	<EQL	<EQL	[1.34]	<EQL	<EQL	[0.603]	<EQL	<EQL	<EQL	<EQL	[13.8]	[6.86]	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	23.8	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																						<EQL		<EQL															
			01-Dec-2022	9.4	7.4	6.3	52	NS	NS	NS		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	NS	NS	13.3	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
CBS-BF1	UTR Surface Water Location	LAZ_UTRAU	01-Mar-2022	9.2	6	8.1	31	NS	NS	NS		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	NS	NS	93.5	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
			02-Jun-2022	21.3	6.9	72.7	49	NS	NS	NS		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	NS	NS	118	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
																																											115																											
			31-Aug-2022	23.1	6.8	13.9	46	NS	NS	NS		No Comments	<EQL	<EQL	[11.6]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[10.3]	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	68.8	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																						<EQL		<EQL															
			01-Dec-2022	10	7.3	10.9	27	NS	NS	NS		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	NS	NS	56.2	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-090	UTR Surface Water Location	LAZ_UTRAU	01-Mar-2022	11.8	6.2	3.1	25	NS	NS	NS		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	NS	NS	<EQL	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
			31-May-2022	21.2	6.2	7.7	22	NS	NS	NS		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	NS	NS	<EQL	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
			01-Sep-2022	NS	NS	NS	NS	NS	NS	NS		No Comments	<EQL	<EQL	[11.9]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.867]	<EQL	<EQL	<EQL	<EQL	<EQL	[7.82]	<EQL	2.92	NS	[4.11]	<EQL	<EQL	[2.81]	2.92	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
													<EQL	<EQL	[11.8]	<EQL	<EQL	<EQL	<EQL	<EQL		[0.809]	<EQL	<EQL	<EQL	<EQL	<EQL	[4.97]											<EQL				<EQL	<EQL		<EQL	<EQL	<EQL						<EQL		<EQL															
																																																									<EQL															
			01-Sep-2022	22.9	6.4	5.7	22	NS	NS	NS		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	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
			06-Dec-2022	13.6	5.5	9.8	25	NS	NS	NS		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	NS	NS	0.435	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-120	UTR Surface Water Location	LAZ_UTRAU	01-Mar-2022	15.8	6.4	7.8	27	NS	NS	NS		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	NS	NS	50.2	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
			31-May-2022	21.4	6.5	15.6	25	NS	NS	NS		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	NS	NS	54.5	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
			01-Sep-2022	NS	NS	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	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
			06-Dec-2022	13.4	5.9	12.5	28	NS	NS	NS		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	NS	NS	41.9	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-130	UTR Surface Water Location	LAZ_UTRAU	01-Mar-2022	11.3	6.4	5.6	29	NS	NS	NS		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	NS	NS	3.72	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
			31-May-2022	22.3	6.7	12.4	53	NS	NS	NS		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	NS	NS	17.9	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
			01-Sep-2022	23.4	6	5	23	NS	NS	NS		No Comments	<EQL	<EQL	[12]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.836]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	[3.3]	<EQL	<EQL	<EQL	<EQL	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																						<EQL		<EQL															
			06-Dec-2022	13.2	6.3	45.8	36	NS	NS	NS		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	NS	NS	7.85	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-133	UTR Surface Water Location	LAZ_UTRAU	NS	NS	NS	NS	NS	NS	NS	NS		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	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-140	UTR Surface Water Location	LAZ_UTRAU	01-Mar-2022	11.9	5.9	3.2	24	NS	NS	NS		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	NS	NS	<EQL	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
			31-May-2022	22.4	6.3	6.9	22	NS	NS	NS		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	NS	NS	<EQL	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
			01-Sep-2022	23.6	6.6	13.6	54	NS	NS	NS		No Comments	<EQL	<EQL	[13.1]	<EQL	<EQL	<EQL	[1.24]	<EQL	<EQL	[0.583]	<EQL	<EQL	<EQL	<EQL	[5.82]	[7.42]	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	28.9	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																						<EQL		<EQL															
			06-Dec-2022	13.9	6.6	18.8	40	NS	NS	NS		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	NS	NS	10.5	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-155	UTR Surface Water Location	LAZ_UTRAU	01-Mar-2022	11.3	5.8	7.4	75	NS	NS	NS		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	NS	NS	7.18	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
			31-May-2022	19.6	5.8	13.3	87	NS	NS	NS		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	NS	NS	8.46	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
			01-Sep-2022	23.6	5.7	9.3	95	NS	NS	NS		C	<EQL	<EQL	22.7	[0.656]	<EQL	[3.15]	<EQL	<EQL	[0.0495]	[3.55]	<EQL	<EQL	<EQL	<EQL	[13.4]	[16.5]	<EQL	2.53	NS	[2.93]	<EQL	16.4	[2.8]	2.53	NS	NS	<EQL	<EQL	<EQL	<EQL	23.8	8.37	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.54	<EQL	<EQL	<EQL
																					[0.0438]																																	<EQL		<EQL															
			06-Dec-2022	14.5	5.7	18.8	83	NS	NS	NS		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	NS	NS	7.93	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-BF1	UTR Surface Water Location	LAZ_UTRAU	01-Mar-2022	10	6.1	21.3	112	NS	NS	NS		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	NS	NS	49.7	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
			31-May-2022	20.1	6.1	9.6	102	NS	NS	NS		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	NS	NS	53.3	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
			01-Sep-2022	22.3	6.6	10.9	27	NS	NS	NS		No Comments	<EQL	<EQL	[14.2]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.516]	<EQL	<EQL	<EQL	<EQL	<EQL	[8.99]	<EQL	[1.26]	NS	<EQL	<EQL	<EQL	<EQL	[1.26]	NS	NS	<EQL	<EQL	<EQL	<EQL	<EQL	51.6	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																						<EQL		<EQL															
			06-Dec-2022	13.6	6.1	19.4	28	NS	NS	NS		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	NS	NS	43.7	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

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS
RNS	RNS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4

Sum of Beta (MWMF): (C-14 + I-129)

Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)

total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-13. 2022 SWP Annual Appendix IX and CRML Sampling

			Field Data	Acids																Base/Neutrals																																	
			SAMPLE COLLECTION DATE	2,3,4,6-TETRACHLOROPHENOL	2,4,5-TRICHLOROPHENOL	2,4,6-TRICHLOROPHENOL	2,4-DICHLOROPHENOL	2,4-DIMETHYLPHENOL	2,4-DINITROPHENOL	2,6-DICHLOROPHENOL	2-CHLOROPHENOL	2-NITROPHENOL	4-NITROPHENOL	DINITRO-O-CRESOL	M/P-CRESOL	O-CRESOL (2-METHYLPHENOL)	P-CHLORO-M-CRESOL	PENTACHLOROPHENOL	PHENOL	1,2,4,5-TETRACHLOROBENZENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROBENZENE	1,3,5-TRINITROBENZENE	1,3-DICHLOROBENZENE	1,3-DINITROBENZENE	1,4-DICHLOROBENZENE	1,4-DIOXANE	1,4-NAPHTHOQUINONE	1-NAPHTHYLAMINE	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	2-ACETYLAMINOFLUORENE	2-CHLORONAPHTHALENE	2-METHYLANILINE (O-TOLUIDINE)	2-METHYLNAPHTHALENE	2-NAPHTHYLAMINE	2-NITROANILINE	2-PICOLINE	3,3-DICHLOROBENZIDINE	3,3'-DIMETHYLBENZIDINE	3-METHYLCHOLANTHRENE	4-AMINOBIPHENYL	4-BROMOPHENYL PHENYL ETHER	4-CHLOROANILINE	4-CHLOROPHENYL PHENYL ETHER	4-NITROQUINOLINE-1-OXIDE	5-NITRO-O-TOLUIDINE	7,12-DIMETHYLBENZ(A)ANTHRACENE	A,A-DIMETHYLPHENETHYLAMINE	ACENAPHTHENE	ACENAPHTHYLENE	ACETOPHENONE	ANILINE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	70	<EQL	<EQL	<EQL	<EQL	<EQL	6.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
			26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	38.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											3.1																										
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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																											<EQL																										
BGO 27C	Point of Compliance Well	LAZ_UTRAU	08-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	75	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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																											85.7																										
			26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 28D	Point of Compliance Well	UAZ_UTRAU	08-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	7	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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			26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 30C	Point of Compliance Well	LAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	320	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	151																										
																											276																										
			26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 30D	Point of Compliance Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	140	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	78.6																										
																											135																										
			26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 32D	Point of Compliance Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
			26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 33C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	R	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[21.8]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	[41.7]																										
																											45																										

Table B-13. 2022 SWP Annual Appendix IX and CRML Sampling

			Field Data	Base/Neutrals																																													
			SAMPLE COLLECTION DATE	ANTHRACENE	ARAMITE	BENZO(G,H,I)PERYLENE	BENZO[A]ANTHRACENE	BENZO[A]PYRENE	BENZO[B]FLUORANTHENE	BENZO[K]FLUORANTHENE	BENZYL ALCOHOL	BIS(2-CHLORO-1-METHYLETHYL)ETHER	BIS(2-CHLOROETHOXY)METHANE	BIS(2-CHLOROETHYL)ETHER	BIS(2-ETHYLHEXYL)PHTHALATE (DEHP)	BUTYL BENZYL PHTHALATE	CHLOROBENZILATE	CHRYSENE	DIALLATE	DIBENZ[AH]ANTHRACENE	DIBENZOFURAN	DIETHYL PHTHALATE	DIMETHOATE	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	DIPHENYLAMINE	DISULFOTON	ETHYL METHACRYLATE	ETHYL METHANESULFONATE	FAMPHUR	FLUORANTHENE	FLUORENE	HEXACHLOROBENZENE	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	HEXACHLOROPHENE	HEXACHLOROPROPENE	INDENO[1,2,3-CD]PYRENE	ISODRIN	ISOPHORONE	ISOSAFROLE	KEPONE	METHAPYRILENE	METHYL METHANESULFONATE	METHYL PARATHION	M-NITROANILINE	NAPHTHALENE	N-DIOCTYL PHTHALATE	NITROBENZENE	N-NITROSODIETHYLAMINE	N-NITROSODIMETHYLAMINE	N-NITROSODI-N-BUTYLAMINE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					
BGO 27C	Point of Compliance Well	LAZ_UTRAU	08-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.5]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					
BGO 27C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 28D	Point of Compliance Well	UAZ_UTRAU	08-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					
BGO 28D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 30C	Point of Compliance Well	LAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					
BGO 30C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 30D	Point of Compliance Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																1.03					
BGO 30D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 32D	Point of Compliance Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																1.35					
BGO 32D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 33C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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Table B-13. 2022 SWP Annual Appendix IX and CRML Sampling

			Field Data	Base/Neutrals																								Cyanide	Dioxins				Furans			Herbicides				Metals													
			SAMPLE COLLECTION DATE	N-NITROSODIPHENYLAMINE	N-NITROSODIPHENYLAMINE+DIPHENYLAMINE	N-NITROSODIPROPYLAMINE	N-NITROSOMORPHOLINE	N-NITROSO-N-METHYLETHYLAMINE	N-NITROSOPIPERIDINE	N-NITROSOPYRROLIDINE	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PARATHION	P-DIMETHYLAMINOAZOBENZENE	PENTACHLOROBENZENE	PENTACHLOROETHANE	PENTACHLORONITROBENZENE	PHENACETIN	PHENANTHRENE	PHORATE	P-NITROANILINE	P-PHENYLENEDIAMINE	PRONAMIDE	PYRENE	PYRIDINE	SAFROLE	SULFOTEPP	THIONAZIN	CYANIDE	2,3,7,8-TCDD	HEXACHLORODIBENZO-P-DIOXINS	PENTACHLORODIBENZO-P-DIOXINS	TETRACHLORODIBENZO-P-DIOXIN	HEXACHLORODIBENZO-P-FURANS	PENTACHLORODIBENZO-P-FURANS	TETRACHLORODIBENZO-P-FURANS	2,4,5-T	2,4,5-TP (SILVEX)	2,4-DICHLOROPHENOXYACETIC ACID (2,4-D)	DINOSEB	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	6	10	2000	4	<EQL	100	6	1300	15	2	390	50	94	2
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[8.2]	<EQL	NS	[14.9]	[3.84]	[2.43]	[1.26]	<EQL	[3.13]	<EQL	<EQL	<EQL
																																								<EQL	<EQL	[8.72]	<EQL		[17.8]	[4]	[2.53]	[1.25]		[3.22]	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[14.7]	[0.164]	NS	<EQL	[3.88]	<EQL	[0.673]	<EQL	[1.41]	<EQL	<EQL	<EQL
																													<EQL																								
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	25.3	<EQL	NS	<EQL	<EQL	[1.84]	<EQL	[0.031]	[0.916]	<EQL	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[17.7]	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[11.6]	[0.115]	NS	<EQL	<EQL	[1.04]	[0.933]	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 27C	Point of Compliance Well	LAZ_UTRAU	08-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[3.3]	[0.194]	NS	<EQL	<EQL	<EQL	<EQL	<EQL	[0.845]	<EQL	<EQL	<EQL
BGO 27C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 28D	Point of Compliance Well	UAZ_UTRAU	08-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	20.8	<EQL	NS	<EQL	<EQL	6.73	<EQL	[0.0218]	[0.957]	<EQL	<EQL	<EQL
																																																	[0.0252]				
BGO 28D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 30C	Point of Compliance Well	LAZ_UTRAU	09-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[6.39]	[0.129]	NS	<EQL	<EQL	[0.624]	<EQL	[0.0201]	[0.995]	<EQL	<EQL	<EQL
BGO 30C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 30D	Point of Compliance Well	UAZ_UTRAU	09-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[18.2]	<EQL	NS	<EQL	[5.01]	[2.6]	[0.743]	[0.0385]	[1.78]	<EQL	<EQL	<EQL
BGO 30D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 32D	Point of Compliance Well	UAZ_UTRAU	09-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	202	<EQL	NS	<EQL	[3.93]	[0.85]	[1.94]	[0.0941]	[0.95]	<EQL	<EQL	<EQL
BGO 32D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 33C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[10.7]	[0.195]	NS	<EQL	<EQL	<EQL	<EQL	NS	[1.27]	<EQL	<EQL	<EQL
																													<EQL																								

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			Field Data	Metals			PCBs							Pesticides																				Sulfide	Volatiles																		
			SAMPLE COLLECTION DATE	TIN	VANADIUM	ZINC	AROCLOR 1016	AROCLOR 1221	AROCLOR 1232	AROCLOR 1242	AROCLOR 1248	AROCLOR 1254	AROCLOR 1260	ALDRIN	ALPHA-BENZENE HEXACHLORIDE	ALPHA-CHLORDANE	BETA-BENZENE HEXACHLORIDE	DDD	DDE	DDT	DELTA-BENZENE HEXACHLORIDE	DIELDRIN	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-CHLORDANE	HEPTACHLOR	HEPTACHLOR EPOXIDE	LINDANE	METHOXYCHLOR	TOXAPHENE	SULFIDE	1,1,1,2-TETRACHLOROETHANE	1,1,1-TRICHLOROETHANE	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,3-TRICHLOROPROPANE	1,2-DIBROMO-3-CHLOROPROPANE	1,2-DIBROMOETHANE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROPROPANE	2-HEXANONE	ACETONE	ACETONITRILE (METHYL CYANIDE)	ACROLEIN	ACRYLONITRILE	ALLYL CHLORIDE	BENZENE	BROMODICHLOROMETHANE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		12000	86	6000	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	200	<EQL	<EQL	2.7	7	<EQL	<EQL	<EQL	5	5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	<EQL	<EQL																																															
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	[9.07]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0101]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	[25.8]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0384]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	[24.7]	<EQL																																															
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 27C	Point of Compliance Well	LAZ_UTRAU	08-Aug-2022	<EQL	[8.52]	[5.92]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 27C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 28D	Point of Compliance Well	UAZ_UTRAU	08-Aug-2022	<EQL	[14.8]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.58]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 28D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 30C	Point of Compliance Well	LAZ_UTRAU	09-Aug-2022	<EQL	[20.4]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.45	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 30C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 30D	Point of Compliance Well	UAZ_UTRAU	09-Aug-2022	<EQL	[19.4]	[15.1]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.62	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 30D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 32D	Point of Compliance Well	UAZ_UTRAU	09-Aug-2022	<EQL	[12.2]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.94]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 32D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 33C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	[6.03]	[4.86]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	0.037	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.72]	[0.46]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.54]	<EQL

Table B-13. 2022 SWP Annual Appendix IX and CRML Sampling

			Field Data	Volatiles																																	Radionuclides																
			SAMPLE COLLECTION DATE	BROMOFORM (TRIBROMOMETHANE)	BROMOMETHANE (METHYL BROMIDE)	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE (ETHYL CHLORIDE)	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CHLOROMETHANE (METHYL CHLORIDE)	CHLOROPRENE	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE (METHYLENE BROMIDE)	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	ETHYLBENZENE	IODOMETHANE (METHYL IODIDE)	ISOBUTANOL	METHACRYLONITRILE	METHYL ETHYL KETONE	METHYL ISOBUTYL KETONE	METHYL METHACRYLATE	PROPIONITRILE	STYRENE	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRANS-1,3-DICHLOROPROPENE	TRANS-1,4-DICHLORO-2-BUTENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES	AMERICIUM-241	CESIUM-134	CESIUM-137	COBALT-60	COMBINED RADIUM (226 AND 228)	CURIUM-242	CURIUM-242	CURIUM-243/244	CURIUM-245/246	EUROPIUM-154	EUROPIUM-155	IODINE-129	NEPTUNIUM-237	NICKEL-63	PLUTONIUM-238	PLUTONIUM-239/240	RADIUM-226
			day-month-year	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	ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Station	Well Use	Aquifer Zone		<EQL	<EQL	810	5	100	<EQL	2	80	<EQL	<EQL	<EQL	<EQL	<EQL	200	5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	1000	100	<EQL	<EQL	5	1100	410	10000	<EQL	<EQL	<EQL	<EQL	5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1	<EQL	<EQL	<EQL	<EQL	5
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.09]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.97]
																																																<EQL				[1.09]
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.4	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.37]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.2
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[3.12]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.78]
BGO 27C	Point of Compliance Well	LAZ_UTRAU	08-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.48]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.56]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.42]	<EQL	<EQL	<EQL	<EQL	19.9	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.656]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.656]
																																																					<EQL
BGO 27C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 28D	Point of Compliance Well	UAZ_UTRAU	08-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.04	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.87]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.47]	<EQL	<EQL	<EQL	<EQL	19	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[3.22]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.84
BGO 28D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 30C	Point of Compliance Well	LAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.13	<EQL	<EQL	<EQL	<EQL	<EQL	[3.96]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.99	<EQL	<EQL	<EQL	<EQL	[31.6]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.59]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.59]
BGO 30C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 30D	Point of Compliance Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.55	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.1]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.4]	<EQL	<EQL	<EQL	<EQL	[3.78]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.54	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3	<EQL	<EQL	<EQL	<EQL	2.54
																																																3.7					
BGO 30D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 32D	Point of Compliance Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.17	<EQL	<EQL	<EQL	<EQL	[33.9]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	8.79	<EQL	<EQL	<EQL	[0.0602]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5.2
BGO 32D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 33C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	<EQL	<EQL	[0.38]	<EQL	<EQL	<EQL	3.58	<EQL	<EQL	<EQL	<EQL	<EQL	3.77	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.93	<EQL	<EQL	<EQL	<EQL	79.8	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.86	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.06	<EQL	<EQL	<EQL	<EQL	[1.31]
																																																[0.958]					1.86

Table B-13. 2022 SWP Annual Appendix IX and CRML Sampling

			Field Data	Radionuclides									
			SAMPLE COLLECTION DATE	RADIUM-228	SODIUM-22	STRONTIUM-89/90	STRONTIUM-90	TECHNETIUM-99	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-235	URANIUM-238
			day-month-year	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Station	Well Use	Aquifer Zone		5	<EQL	8	8	50	<EQL	<EQL	<EQL	15	15
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	NS	<EQL	<EQL	[0.163]	[0.106]	<EQL	<EQL	<EQL
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	[1.34]	<EQL	NS	<EQL	<EQL	<EQL	[0.238]	<EQL	<EQL	[0.0785]
BGO 27C	Point of Compliance Well	LAZ_UTRAU	08-Aug-2022	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 27C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 28D	Point of Compliance Well	UAZ_UTRAU	08-Aug-2022	[1.38]	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 28D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 30C	Point of Compliance Well	LAZ_UTRAU	09-Aug-2022	<EQL	<EQL	NS	<EQL	<EQL	<EQL	[0.124]	<EQL	<EQL	<EQL
BGO 30C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 30D	Point of Compliance Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0857]
BGO 30D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 32D	Point of Compliance Well	UAZ_UTRAU	09-Aug-2022	3.59	<EQL	NS	<EQL	<EQL	[0.229]	<EQL	<EQL	<EQL	[0.133]
BGO 32D	Point of Compliance Well	UAZ_UTRAU	26-Sep-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 33C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-14. 3Q22 SEP Annual Appendix IX and CRML Sampling

			Field Data	Acids																Base/Neutrals																																	
			SAMPLE COLLECTION DATE	2,3,4,6-TETRACHLOROPHENOL	2,4,5-TRICHLOROPHENOL	2,4,6-TRICHLOROPHENOL	2,4-DICHLOROPHENOL	2,4-DIMETHYLPHENOL	2,4-DINITROPHENOL	2,6-DICHLOROPHENOL	2-CHLOROPHENOL	2-NITROPHENOL	4-NITROPHENOL	DINITRO-O-CRESOL	M/P-CRESOL	O-CRESOL (2-METHYLPHENOL)	P-CHLORO-M-CRESOL	PENTACHLOROPHENOL	PHENOL	1,2,4,5-TETRACHLOROBENZENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROBENZENE	1,3,5-TRINITROBENZENE	1,3-DICHLOROBENZENE	1,3-DINITROBENZENE	1,4-DICHLOROBENZENE	1,4-DIOXANE	1,4-NAPHTHOQUINONE	1-NAPHTHYLAMINE	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	2-ACETYLAMINOFLUORENE	2-CHLORONAPHTHALENE	2-METHYLANILINE (O-TOLUIDINE)	2-METHYLNAPHTHALENE	2-NAPHTHYLAMINE	2-NITROANILINE	2-PICOLINE	3,3-DICHLOROBENZIDINE	3,3'-DIMETHYLBENZIDINE	3-METHYLCHOLANTHRENE	4-AMINOBIPHENYL	4-BROMOPHENYL PHENYL ETHER	4-CHLOROANILINE	4-CHLOROPHENYL PHENYL ETHER	4-NITROQUINOLINE-1-OXIDE	5-NITRO-O-TOLUIDINE	7,12-DIMETHYLBENZ(A)ANTHRACENE	A,A-DIMETHYLPHENETHYLAMINE	ACENAPHTHENE	ACENAPHTHYLENE	ACETOPHENONE	ANILINE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	70	<EQL	<EQL	<EQL	<EQL	<EQL	6.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
			26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	38.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											3.1																										
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
BGO 35C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	R	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[43.4]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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BGO 35D	Point of Compliance Well	UAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
BGO 37C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	R	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[11.5]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	[21.2]																										
																											27																										
BGO 39A	Point of Compliance Well	GAU	03-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										

Table B-14. 3Q22 SEP Annual Appendix IX and CRML Sampling

			Field Data	Base/Neutrals																																																	
			SAMPLE COLLECTION DATE	ANTHRACENE	ARAMITE	BENZO(G,H,I)PERYLENE	BENZO[A]ANTHRACENE	BENZO[A]PYRENE	BENZO[B]FLUORANTHENE	BENZO[K]FLUORANTHENE	BENZYL ALCOHOL	BIS(2-CHLORO-1-METHYLETHYL)ETHER	BIS(2-CHLOROETHOXY)METHANE	BIS(2-CHLOROETHYL)ETHER	BIS(2-ETHYLHEXYL)PHTHALATE (DEHP)	BUTYL BENZYL PHTHALATE	CHLOROBENZILATE	CHRYSENE	DIALLATE	DIBENZ[AH]ANTHRACENE	DIBENZOFURAN	DIETHYL PHTHALATE	DIMETHOATE	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	DIPHENYLAMINE	DISULFOTON	ETHYL METHACRYLATE	ETHYL METHANESULFONATE	FAMPHUR	FLUORANTHENE	FLUORENE	HEXACHLOROBENZENE	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	HEXACHLOROPHENE	HEXACHLOROPROPENE	INDENO[1,2,3-CD]PYRENE	ISODRIN	ISOPHORONE	ISOSAFROLE	KEPONE	METHAPYRILENE	METHYL METHANESULFONATE	METHYL PARATHION	M-NITROANILINE	NAPHTHALENE	N-DIOCTYL PHTHALATE	NITROBENZENE	N-NITROSODIETHYLAMINE	N-NITROSODIMETHYLAMINE	N-NITROSODI-N-BUTYLAMINE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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BGO 35C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					
BGO 35D	Point of Compliance Well	UAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.22	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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BGO 37C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					
BGO 39A	Point of Compliance Well	GAU	03-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																																<EQL					

Table B-14. 3Q22 SEP Annual Appendix IX and CRML Sampling

			Field Data	Base/Neutrals																								Cyanide	Dioxins				Furans			Herbicides				Metals													
			SAMPLE COLLECTION DATE	N-NITROSODIPHENYLAMINE	N-NITROSODIPHENYLAMINE+DIPHENYLAMINE	N-NITROSODIPROPYLAMINE	N-NITROSOMORPHOLINE	N-NITROSO-N-METHYLETHYLAMINE	N-NITROSOPIPERIDINE	N-NITROSOPYRROLIDINE	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PARATHION	P-DIMETHYLAMINOAZOBENZENE	PENTACHLOROBENZENE	PENTACHLOROETHANE	PENTACHLORONITROBENZENE	PHENACETIN	PHENANTHRENE	PHORATE	P-NITROANILINE	P-PHENYLENEDIAMINE	PRONAMIDE	PYRENE	PYRIDINE	SAFROLE	SULFOTEPP	THIONAZIN	CYANIDE	2,3,7,8-TCDD	HEXACHLORODIBENZO-P-DIOXINS	PENTACHLORODIBENZO-P-DIOXINS	TETRACHLORODIBENZO-P-DIOXIN	HEXACHLORODIBENZO-P-FURANS	PENTACHLORODIBENZO-P-FURANS	TETRACHLORODIBENZO-P-FURANS	2,4,5-T	2,4,5-TP (SILVEX)	2,4-DICHLOROPHENOXYACETIC ACID (2,4-D)	DINOSEB	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	6	10	2000	4	<EQL	100	6	1300	15	2	390	50	94	2
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[8.2]	<EQL	NS	[14.9]	[3.84]	[2.43]	[1.26]	<EQL	[3.13]	<EQL	<EQL	<EQL
																																								<EQL	<EQL	[8.72]	<EQL		[17.8]	[4]	[2.53]	[1.25]		[3.22]	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[14.7]	[0.164]	NS	<EQL	[3.88]	<EQL	[0.673]	<EQL	[1.41]	<EQL	<EQL	<EQL
																												<EQL																									
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	25.3	<EQL	NS	<EQL	<EQL	[1.84]	<EQL	[0.031]	[0.916]	<EQL	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[17.7]	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[11.6]	[0.115]	NS	<EQL	<EQL	[1.04]	[0.933]	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 35C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[19.2]	<EQL	NS	<EQL	<EQL	[2.66]	[2.01]	NS	[0.882]	<EQL	<EQL	<EQL
BGO 35D	Point of Compliance Well	UAZ_UTRAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[15.4]	[0.183]	NS	<EQL	<EQL	16.3	[1.58]	<EQL	[1.37]	<EQL	<EQL	<EQL
BGO 37C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[8.8]	<EQL	NS	<EQL	<EQL	[2.54]	<EQL	NS	[0.812]	<EQL	<EQL	<EQL
BGO 39A	Point of Compliance Well	GAU	03-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	62.7	<EQL	NS	<EQL	<EQL	[0.916]	<EQL	<EQL	[0.954]	<EQL	<EQL	<EQL

Table B-14. 3Q22 SEP Annual Appendix IX and CRML Sampling

			Field Data	Metals			PCBs							Pesticides																				Sulfide	Volatiles																		
			SAMPLE COLLECTION DATE	TIN	VANADIUM	ZINC	AROCLOR 1016	AROCLOR 1221	AROCLOR 1232	AROCLOR 1242	AROCLOR 1248	AROCLOR 1254	AROCLOR 1260	ALDRIN	ALPHA-BENZENE HEXACHLORIDE	ALPHA-CHLORDANE	BETA-BENZENE HEXACHLORIDE	DDD	DDE	DDT	DELTA-BENZENE HEXACHLORIDE	DIELDRIN	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-CHLORDANE	HEPTACHLOR	HEPTACHLOR EPOXIDE	LINDANE	METHOXYCHLOR	TOXAPHENE	SULFIDE	1,1,1,2-TETRACHLOROETHANE	1,1,1-TRICHLOROETHANE	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,3-TRICHLOROPROPANE	1,2-DIBROMO-3-CHLOROPROPANE	1,2-DIBROMOETHANE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROPROPANE	2-HEXANONE	ACETONE	ACETONITRILE (METHYL CYANIDE)	ACROLEIN	ACRYLONITRILE	ALLYL CHLORIDE	BENZENE	BROMODICHLOROMETHANE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		12000	86	6000	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	200	<EQL	<EQL	2.7	7	<EQL	<EQL	<EQL	5	5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	<EQL	<EQL																																															
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	[9.07]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0101]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	[25.8]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0384]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	[24.7]	<EQL																																															
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 35C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	[8.88]	[21.7]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.55	1.33	<EQL	<EQL	<EQL	<EQL	[0.58]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 35D	Point of Compliance Well	UAZ_UTRAU	02-Aug-2022	<EQL	[12.7]	[14.3]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0129]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 37C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	[5.02]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.11	1.84	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 39A	Point of Compliance Well	GAU	03-Aug-2022	<EQL	[10.3]	<EQL	<EQL	<EQL	<EQL	<EQL	0.378	0.257	0.119	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL

Table B-14. 3Q22 SEP Annual Appendix IX and CRML Sampling

			Field Data	Volatiles																																	Radionuclides																
			SAMPLE COLLECTION DATE	BROMOFORM (TRIBROMOMETHANE)	BROMOMETHANE (METHYL BROMIDE)	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE (ETHYL CHLORIDE)	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CHLOROMETHANE (METHYL CHLORIDE)	CHLOROPRENE	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE (METHYLENE BROMIDE)	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	ETHYLBENZENE	IODOMETHANE (METHYL IODIDE)	ISOBUTANOL	METHACRYLONITRILE	METHYL ETHYL KETONE	METHYL ISOBUTYL KETONE	METHYL METHACRYLATE	PROPIONITRILE	STYRENE	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRANS-1,3-DICHLOROPROPENE	TRANS-1,4-DICHLORO-2-BUTENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES	AMERICIUM-241	CESIUM-134	CESIUM-137	COBALT-60	COMBINED RADIUM (226 AND 228)	CURIUM-242	CURIUM-243/244	CURIUM-245/246	EUROPIUM-154	EUROPIUM-155	IODINE-129	NEPTUNIUM-237	NICKEL-63	PLUTONIUM-238	PLUTONIUM-239/240	RADIUM-226	RADIUM-228
			day-month-year	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	pCi/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Station	Well Use	Aquifer Zone		<EQL	<EQL	810	5	<EQL	<EQL	2	80	<EQL	<EQL	<EQL	<EQL	<EQL	200	5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	1000	100	<EQL	<EQL	5	1100	410	10000	<EQL	<EQL	<EQL	<EQL	5	<EQL	<EQL	<EQL	<EQL	<EQL	1	<EQL	<EQL	<EQL	<EQL	5	5
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.09]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.97]	<EQL
																																																<EQL				[1.09]	
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.4	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.37]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.2	<EQL
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[3.12]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.78]	[1.34]
BGO 35C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	<EQL	<EQL	1.53	<EQL	<EQL	<EQL	15.3	<EQL	<EQL	<EQL	<EQL	<EQL	3.82	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5.86	<EQL	[0.47]	<EQL	<EQL	326	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.895]	<EQL	<EQL	[0.0814]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.895]	<EQL
BGO 35D	Point of Compliance Well	UAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.02]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.995]	[0.87]
																																					<EQL					<EQL	<EQL	<EQL				<EQL		<EQL	<EQL	[1.15]	<EQL
BGO 37C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	<EQL	<EQL	[0.35]	<EQL	<EQL	<EQL	4.6	<EQL	<EQL	<EQL	<EQL	<EQL	[0.88]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.12	<EQL	<EQL	<EQL	<EQL	43.3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.81]	<EQL	<EQL	<EQL	<EQL	<EQL	5.67	<EQL	<EQL	<EQL	<EQL	[1.81]	<EQL
BGO 39A	Point of Compliance Well	GAU	03-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.952]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.952]	<EQL

Table B-14. 3Q22 SEP Annual Appendix IX and CRML Sampling

			Field Data	Radionuclides								
			SAMPLE COLLECTION DATE	SODIUM-22	STRONTIUM-89/90	STRONTIUM-90	TECHNETIUM-99	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-235	URANIUM-238
			day-month-year	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Station	Well Use	Aquifer Zone		<EQL	8	8	50	<EQL	<EQL	<EQL	15	15
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	NS	<EQL	<EQL	[0.163]	[0.106]	<EQL	<EQL	<EQL
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	NS	<EQL	<EQL	<EQL	[0.238]	<EQL	<EQL	[0.0785]
BGO 35C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	NS	<EQL	[7.55]	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 35D	Point of Compliance Well	UAZ_UTRAU	02-Aug-2022	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
						<EQL		<EQL	[0.195]	<EQL	<EQL	<EQL
BGO 37C	Point of Compliance Well	LAZ_UTRAU	26-Jul-2022	<EQL	NS	<EQL	[4.97]	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 39A	Point of Compliance Well	GAU	03-Aug-2022	<EQL	NS	<EQL	<EQL	[0.125]	[0.103]	<EQL	<EQL	<EQL

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
☐	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-15 3Q22 NEP Annual Appendix IX and CRML

			Field Data	Acids																Base/Neutrals																																	
Station	Well Use	Aquifer Zone	SAMPLE COLLECTION DATE	2,3,4,6-TETRACHLOROPHENOL	2,4,5-TRICHLOROPHENOL	2,4,6-TRICHLOROPHENOL	2,4-DICHLOROPHENOL	2,4-DIMETHYLPHENOL	2,4-DINITROPHENOL	2,6-DICHLOROPHENOL	2-CHLOROPHENOL	2-NITROPHENOL	4-NITROPHENOL	DINITRO-O-CRESOL	M/P-CRESOL	O-CRESOL (2-METHYLPHENOL)	P-CHLORO-M-CRESOL	PENTACHLOROPHENOL	PHENOL	1,2,4,5-TETRACHLOROBENZENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROBENZENE	1,3,5-TRINITROBENZENE	1,3-DICHLOROBENZENE	1,3-DINITROBENZENE	1,4-DICHLOROBENZENE	1,4-DIOXANE	1,4-NAPHTHOQUINONE	1-NAPHTHYLAMINE	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	2-ACETYLAMINOFLUORENE	2-CHLORONAPHTHALENE	2-METHYLANILINE (O-TOLUIDINE)	2-METHYLNAPHTHALENE	2-NAPHTHYLAMINE	2-NITROANILINE	2-PICOLINE	3,3'-DICHLOROBENZIDINE	3,3'-DIMETHYLBENZIDINE	3-METHYLCHOLANTHRENE	4-AMINOBIPHENYL	4-BROMOPHENYL PHENYL ETHER	4-CHLOROANILINE	4-CHLOROPHENYL PHENYL ETHER	4-NITROQUINOLINE-1-OXIDE	5-NITRO-O-TOLUIDINE	7,12-DIMETHYLBENZ(A)ANTHRACENE	A,A-DIMETHYLPHENETHYLAMINE	ACENAPHTHENE	ACENAPHTHYLENE	ACETOPHENONE	ANILINE
			day-month-year	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	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
				<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	70	<EQL	<EQL	<EQL	<EQL	<EQL	6.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
			26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL 3.1	<EQL	<EQL	<EQL	38.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 3A	Point of Compliance Well	GAU	11-Aug-2022	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL <EQL <EQL	<EQL <EQL <EQL <EQL	<EQL <EQL	<EQL <EQL <EQL <EQL	<EQL <EQL	<EQL <EQL <EQL <EQL	<EQL <EQL <EQL <EQL <EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL
BGO 4D	Point of Compliance Well	UAZ_UTRAU	11-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 5C	Point of Compliance Well	LAZ_UTRAU	12-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 5D	Point of Compliance Well	UAZ_UTRAU	11-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 6D	Point of Compliance Well	UAZ_UTRAU	14-Sep-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 7D	Point of Compliance Well	UAZ_UTRAU	13-Sep-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 8AR	Point of Compliance Well	GAU	10-Aug-2022	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	R <EQL	<EQL <EQL	<EQL <EQL <EQL	R <EQL <EQL	<EQL <EQL	R <EQL <EQL	<EQL <EQL	R <EQL <EQL	<EQL <EQL <EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL
			26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 8C	Point of Compliance Well	LAZ_UTRAU	10-Aug-2022	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	R <EQL	<EQL <EQL	<EQL <EQL <EQL	R <EQL <EQL	<EQL <EQL	R <EQL <EQL	<EQL <EQL	R <EQL <EQL	<EQL <EQL <EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL
			26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table B-15 3Q22 NEP Annual Appendix IX and CRML

			Field Data	Base/Neutrals																																																	
Station	Well Use	Aquifer Zone	SAMPLE COLLECTION DATE	ANTHRACENE	ARAMITE	BENZO(G,H,I)PERYLENE	BENZO[A]ANTHRACENE	BENZO[A]PYRENE	BENZO[B]FLUORANTHENE	BENZO[K]FLUORANTHENE	BENZYL ALCOHOL	BIS(2-CHLORO-1-METHYLETHYL)ETHER	BIS(2-CHLOROETHOXY)METHANE	BIS(2-CHLOROETHYL)ETHER	BIS(2-ETHYLHEXYL)PHTHALATE (DEHP)	BUTYL BENZYL PHTHALATE	CHLOROBENZILATE	CHRYSENE	DIALLATE	DIBENZ[AH]ANTHRACENE	DIBENZOFURAN	DIETHYL PHTHALATE	DIMETHOATE	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	DIPHENYLAMINE	DISULFOTON	ETHYL METHACRYLATE	ETHYL METHANESULFONATE	FAMPHUR	FLUORANTHENE	FLUORENE	HEXACHLOROBENZENE	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	HEXACHLOROPHENE	HEXACHLOROPROPENE	INDENO[1,2,3-CD]PYRENE	ISODRIN	ISOPHORONE	ISOSAFROLE	KEPONE	METHAPYRILENE	METHYL METHANESULFONATE	METHYL PARATHION	M-NITROANILINE	NAPHTHALENE	N-DIOCTYL PHTHALATE	NITROBENZENE	N-NITROSODIETHYLAMINE	N-NITROSODIMETHYLAMINE	N-NITROSODI-N-BUTYLAMINE
			day-month-year	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	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
				<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 3A	Point of Compliance Well	GAU	11-Aug-2022	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	NS	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL <EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL
BGO 4D	Point of Compliance Well	UAZ_UTRAU	11-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 5C	Point of Compliance Well	LAZ_UTRAU	12-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 5D	Point of Compliance Well	UAZ_UTRAU	11-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 6D	Point of Compliance Well	UAZ_UTRAU	14-Sep-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 7D	Point of Compliance Well	UAZ_UTRAU	13-Sep-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 8AR	Point of Compliance Well	GAU	10-Aug-2022	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	NS	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL
BGO 8AR	Point of Compliance Well	GAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 8C	Point of Compliance Well	LAZ_UTRAU	10-Aug-2022	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	NS	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL
BGO 8C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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			Field Data	Base/Neutrals																				Cyanide	Dioxins				Furans			Herbicides				Metals													
Station	Well Use	Aquifer Zone	SAMPLE COLLECTION DATE	N-NITROSODIPHENYLAMINE	N-NITROSODIPHENYLAMINE+DIPHENYLAMINE	N-NITROSODIPROPYLAMINE	N-NITROSOMORPHOLINE	N-NITROSO-N-METHYLETHYLAMINE	N-NITROSOPIPERIDINE	N-NITROSOPYRROLIDINE	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PARATHION	P-DIMETHYLAMINOAZOBENZENE	PENTACHLOROBENZENE	PENTACHLOROETHANE	PENTACHLORONITROBENZENE	PHENACETIN	PHENANTHRENE	PHORATE	P-NITROANILINE	P-PHENYLENEDIAMINE	PRONAMIDE	PYRENE	PYRIDINE	SAFROLE	SULFOTEPP	THIONAZIN	CYANIDE	2,3,7,8-TCDD	HEXACHLORODIBENZO-P-DIOXINS	PENTACHLORODIBENZO-P-DIOXINS	TETRACHLORODIBENZO-P-DIOXIN	HEXACHLORODIBENZO-P-FURANS	PENTACHLORODIBENZO-P-FURANS	TETRACHLORODIBENZO-P-FURANS	2,4,5-T	2,4,5-TP (SILVEX)	2,4-DICHLOROPHENOXYACETIC ACID (2,4-D)	DINOSEB	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM
			day-month-year	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	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
				<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	6	10	2000	4	<EQL	100	6	1300	15	2	390	50	94	2
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	[8.2] [8.72]	<EQL <EQL	NS	[14.9] [17.8]	[3.84] [4]	[2.43] [2.53]	[1.26] [1.25]	<EQL	[3.13] [3.22]	<EQL <EQL	<EQL <EQL	<EQL <EQL
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[14.7]	[0.164]	NS	<EQL	[3.88]	<EQL	[0.673]	<EQL	[1.41]	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	25.3	<EQL	NS	<EQL	<EQL	[1.84]	<EQL	[0.031]	[0.916]	<EQL	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	[17.7] [17.7]	<EQL <EQL	NS	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[11.6]	[0.115]	NS	<EQL	<EQL	[1.04]	[0.933]	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 3A	Point of Compliance Well	GAU	11-Aug-2022	NS	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	27.2 27.6	<EQL <EQL	NS	<EQL <EQL	<EQL <EQL	[0.826] [0.833]	<EQL <EQL	<EQL <EQL <EQL	[1.03] [0.996]	<EQL <EQL	<EQL <EQL	<EQL <EQL
BGO 4D	Point of Compliance Well	UAZ_UTRAU	11-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[4.21]	<EQL	NS	[17.3]	[5.79]	[2.72]	[2.21]	[0.0393]	[1.45]	<EQL	<EQL	<EQL
BGO 5C	Point of Compliance Well	LAZ_UTRAU	12-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[5.21]	[0.246]	NS	[20]	<EQL	<EQL	<EQL	<EQL	[1.3]	<EQL	<EQL	<EQL
BGO 5D	Point of Compliance Well	UAZ_UTRAU	11-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	22.1 22.7	<EQL [0.103]	NS	[19.9] [19.3]	[1.1] [1.29]	[2.14] [2.25]	[2.22] [2.21]	[0.0373] [0.0276]	[1.66] [1.63]	<EQL <EQL	<EQL <EQL	<EQL <EQL
BGO 6D	Point of Compliance Well	UAZ_UTRAU	14-Sep-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	22.6	<EQL	NS	<EQL	<EQL	[1.22]	<EQL	<EQL	[0.729]	<EQL	<EQL	<EQL
BGO 7D	Point of Compliance Well	UAZ_UTRAU	13-Sep-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.66]	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL
BGO 8AR	Point of Compliance Well	GAU	10-Aug-2022	NS	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	R <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[10.7]	<EQL	NS	<EQL	<EQL	[0.953]	<EQL	<EQL	[1.52]	<EQL	<EQL	<EQL
BGO 8AR	Point of Compliance Well	GAU	26-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 8C	Point of Compliance Well	LAZ_UTRAU	10-Aug-2022	NS	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	R <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[4.26]	<EQL	NS	<EQL	<EQL	[5.83]	<EQL	<EQL	[0.74]	<EQL	<EQL	<EQL
BGO 8C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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			Field Data	Metals			PCBs							Pesticides																				Sulfide	Volatiles																		
Station	Well Use	Aquifer Zone	SAMPLE COLLECTION DATE	TIN	VANADIUM	ZINC	AROCLOR 1016	AROCLOR 1221	AROCLOR 1232	AROCLOR 1242	AROCLOR 1248	AROCLOR 1254	AROCLOR 1260	ALDRIN	ALPHA-BENZENE HEXACHLORIDE	ALPHA-CHLORDANE	BETA-BENZENE HEXACHLORIDE	DDD	DDE	DDT	DELTA-BENZENE HEXACHLORIDE	DIELDRIN	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-CHLORDANE	HEPTACHLOR	HEPTACHLOR EPOXIDE	LINDANE	METHOXYCHLOR	TOXAPHENE	SULFIDE	1,1,1,2-TETRACHLOROETHANE	1,1,1-TRICHLOROETHANE	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,3-TRICHLOROPROPANE	1,2-DIBROMO-3-CHLOROPROPANE	1,2-DIBROMOETHANE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROPROPANE	2-HEXANONE	ACETONE	ACETONITRILE (METHYL CYANIDE)	ACROLEIN	ACRYLONITRILE	ALLYL CHLORIDE	BENZENE	BROMODICHLOROMETHANE
			day-month-year	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	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
				12000	86	6000	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	200	<EQL	<EQL	2.7	7	<EQL	<EQL	<EQL	5	5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	[9.07]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0101]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL <EQL	[25.8] [24.7]	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	[0.0384]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 3A	Point of Compliance Well	GAU	11-Aug-2022	<EQL <EQL	[12.7] [10.9]	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL
BGO 4D	Point of Compliance Well	UAZ_UTRAU	11-Jul-2022	<EQL	[8.5]	[6.73]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.47]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 5C	Point of Compliance Well	LAZ_UTRAU	12-Jul-2022	<EQL	<EQL	[13.7]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 5D	Point of Compliance Well	UAZ_UTRAU	11-Jul-2022	<EQL <EQL	[11.4] [9.67]	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.11	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 6D	Point of Compliance Well	UAZ_UTRAU	14-Sep-2022	<EQL	[7.92]	[10]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.81	1.49	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 7D	Point of Compliance Well	UAZ_UTRAU	13-Sep-2022	<EQL	[5.01]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.84]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 8AR	Point of Compliance Well	GAU	10-Aug-2022	<EQL	[6.24]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	R	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 8AR	Point of Compliance Well	GAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 8C	Point of Compliance Well	LAZ_UTRAU	10-Aug-2022	<EQL	[19.6]	[8.8]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	R	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 8C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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			Field Data	Volatiles																																	Radionuclides																
Station	Well Use	Aquifer Zone	SAMPLE COLLECTION DATE	BROMOFORM (TRIBROMOMETHANE)	BROMOMETHANE (METHYL BROMIDE)	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE (ETHYL CHLORIDE)	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CHLOROMETHANE (METHYL CHLORIDE)	CHLOROPRENE	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE (METHYLENE BROMIDE)	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	ETHYLBENZENE	IODOMETHANE (METHYL IODIDE)	ISOBUTANOL	METHACRYLONITRILE	METHYL ETHYL KETONE	METHYL ISOBUTYL KETONE	METHYL METHACRYLATE	PROPIONITRILE	STYRENE	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRANS-1,3-DICHLOROPROPENE	TRANS-1,4-DICHLORO-2-BUTENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES	AMERICIUM-241	CESIUM-134	CESIUM-137	COBALT-60	CURIUM-242	CURIUM-243/244	CURIUM-245/246	EUROPIUM-154	EUROPIUM-155	IODINE-129	NEPTUNIUM-237	NICKEL-63	PLUTONIUM-238	PLUTONIUM-239/240	RADIUM-226	RADIUM-228	SODIUM-22
			day-month-year	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	ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
				<EQL	<EQL	810	5	100	<EQL	2	80	<EQL	<EQL	<EQL	350	<EQL	200	5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	1000	100	<EQL	<EQL	5	1100	410	10000	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1	<EQL	<EQL	<EQL	<EQL	5	5	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	[0.97] [1.09]	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.4	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.37]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.2	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.78]	[1.34]	<EQL
BGO 3A	Point of Compliance Well	GAU	11-Aug-2022	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	[0.542] [0.706] <EQL	<EQL <EQL <EQL	<EQL <EQL
BGO 4D	Point of Compliance Well	UAZ_UTRAU	11-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.61]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.36]	[0.79]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[20]	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	[1.42] 1.57	<EQL <EQL	<EQL
BGO 5C	Point of Compliance Well	LAZ_UTRAU	12-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.9]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.65]	<EQL	<EQL	<EQL	<EQL <EQL	<EQL
BGO 5D	Point of Compliance Well	UAZ_UTRAU	11-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.31]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.76]	<EQL	<EQL	<EQL	<EQL	[11.4]	[1.17]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL [5.03]	<EQL <EQL	<EQL <EQL	[1.85]	[1.12]	<EQL
BGO 6D	Point of Compliance Well	UAZ_UTRAU	14-Sep-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.19	<EQL	<EQL	<EQL	<EQL	8.86	[0.47]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.531]	[1.14]	<EQL
BGO 7D	Point of Compliance Well	UAZ_UTRAU	13-Sep-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.39]	[1.32]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.99	<EQL	<EQL	<EQL	<EQL	4.55	[0.58]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL	[1.65]	[1.03]	<EQL
BGO 8AR	Point of Compliance Well	GAU	10-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.12]	<EQL	<EQL
BGO 8AR	Point of Compliance Well	GAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 8C	Point of Compliance Well	LAZ_UTRAU	10-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.47]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL <EQL	<EQL	<EQL	[1.04]	<EQL	<EQL
BGO 8C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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			Field Data	Radionuclides								
Station	Well Use	Aquifer Zone	SAMPLE COLLECTION DATE	STRONTIUM-89/90	STRONTIUM-90	TECHNETIUM-99	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-235	URANIUM-238	COMBINED RADIUM (226 AND 228)
			day-month-year	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
				8	8	50	<EQL	<EQL	<EQL	15	15	5
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.09]
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.2
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	NS	<EQL	<EQL	[0.163]	[0.106]	<EQL	<EQL	<EQL	<EQL
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	[0.238]	<EQL	<EQL	[0.0785]	[3.12]
BGO 3A	Point of Compliance Well	GAU	11-Aug-2022	NS	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL [0.219]	<EQL <EQL	<EQL <EQL	<EQL <EQL	0.706 0.53
BGO 4D	Point of Compliance Well	UAZ_UTRAU	11-Jul-2022	NS	<EQL	<EQL	<EQL	[0.113]	<EQL	<EQL	<EQL	1.57
BGO 5C	Point of Compliance Well	LAZ_UTRAU	12-Jul-2022	NS	<EQL	<EQL <EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 5D	Point of Compliance Well	UAZ_UTRAU	11-Jul-2022	NS	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	[2.97]
BGO 6D	Point of Compliance Well	UAZ_UTRAU	14-Sep-2022	NS	<EQL	<EQL	<EQL	[0.123]	<EQL	<EQL	<EQL	[1.671]
BGO 7D	Point of Compliance Well	UAZ_UTRAU	13-Sep-2022	NS	<EQL <EQL	<EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	<EQL <EQL	[2.68]
BGO 8AR	Point of Compliance Well	GAU	10-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.12]
BGO 8AR	Point of Compliance Well	GAU	26-Sep-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS
BGO 8C	Point of Compliance Well	LAZ_UTRAU	10-Aug-2022	NS	<EQL	<EQL	<EQL	[0.221]	<EQL	<EQL	<EQL	[1.04]
BGO 8C	Point of Compliance Well	LAZ_UTRAU	26-Sep-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

Table B-16. 3Q22 NWP Appendix IX and CRML Sampling

			Field Data	Acids																Base/Neutrals																																	
			SAMPLE COLLECTION DATE	2,3,4,6-TETRACHLOROPHENOL	2,4,5-TRICHLOROPHENOL	2,4,6-TRICHLOROPHENOL	2,4-DICHLOROPHENOL	2,4-DIMETHYLPHENOL	2,4-DINITROPHENOL	2,6-DICHLOROPHENOL	2-CHLOROPHENOL	2-NITROPHENOL	4-NITROPHENOL	DINITRO-O-CRESOL	M/P-CRESOL	O-CRESOL (2-METHYLPHENOL)	P-CHLORO-M-CRESOL	PENTACHLOROPHENOL	PHENOL	1,2,4,5-TETRACHLOROBENZENE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROBENZENE	1,3,5-TRINITROBENZENE	1,3-DICHLOROBENZENE	1,3-DINITROBENZENE	1,4-DICHLOROBENZENE	1,4-DIOXANE	1,4-NAPHTHOQUINONE	1-NAPHTHYLAMINE	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	2-ACETYLAMINOFLUORENE	2-CHLORONAPHTHALENE	2-METHYLANILINE (O-TOLUIDINE)	2-METHYLNAPHTHALENE	2-NAPHTHYLAMINE	2-NITROANILINE	2-PICOLINE	3,3-DICHLOROBENZIDINE	3,3'-DIMETHYLBENZIDINE	3-METHYLCHOLANTHRENE	4-AMINOBIPHENYL	4-BROMOPHENYL PHENYL ETHER	4-CHLOROANILINE	4-CHLOROPHENYL PHENYL ETHER	4-NITROQUINOLINE-1-OXIDE	5-NITRO-O-TOLUIDINE	7,12-DIMETHYLBENZ(A)ANTHRACENE	A,A-DIMETHYLPHENETHYLAMINE	ACENAPHTHENE	ACENAPHTHYLENE	ACETOPHENONE	ANILINE
			day-month-year	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	mg/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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	70	<EQL	<EQL	<EQL	<EQL	<EQL	6.1	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
			26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	38.2	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											3.1																										
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
BGO 10DR	Point of Compliance Well	UAZ_UTRAU	20-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
BGO 12CX	Point of Compliance Well	LAZ_UTRAU	03-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
BGO 12DR	Point of Compliance Well	UAZ_UTRAU	14-Sep-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
BGO 14AR	Point of Compliance Well	GAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	R	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
BGO 14CR	Point of Compliance Well	LAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	R	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
BGO 14DR	Point of Compliance Well	UAZ_UTRAU	21-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										
BGO 15D	Point of Compliance Well	UAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	11.3	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											21																										
BGO 26A	Point of Compliance Well	GAU	03-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																					<EQL	<EQL		<EQL		<EQL	<EQL																										
																											<EQL																										

Table B-16. 3Q22 NWP Appendix IX and CRML Sampling

			Field Data	Base/Neutrals																																																	
			SAMPLE COLLECTION DATE	ANTHRACENE	ARAMITE	BENZO(G,H,I)PERYLENE	BENZO[A]ANTHRACENE	BENZO[A]PYRENE	BENZO[B]FLUORANTHENE	BENZO[K]FLUORANTHENE	BENZYL ALCOHOL	BIS(2-CHLORO-1-METHYLETHYL)ETHER	BIS(2-CHLOROETHOXY)METHANE	BIS(2-CHLOROETHYL)ETHER	BIS(2-ETHYLHEXYL)PHTHALATE (DEHP)	BUTYL BENZYL PHTHALATE	CHLOROBENZILATE	CHRYSENE	DIALLATE	DIBENZ[AH]ANTHRACENE	DIBENZOFURAN	DIETHYL PHTHALATE	DIMETHOATE	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	DIPHENYLAMINE	DISULFOTON	ETHYL METHACRYLATE	ETHYL METHANESULFONATE	FAMPHUR	FLUORANTHENE	FLUORENE	HEXACHLOROBENZENE	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	HEXACHLOROPHENE	HEXACHLOROPROPENE	INDENO[1,2,3-CD]PYRENE	ISODRIN	ISOPHORONE	ISOSAFROLE	KEPONE	METHAPYRILENE	METHYL METHANESULFONATE	METHYL PARATHION	M-NITROANILINE	NAPHTHALENE	N-DIOCTYL PHTHALATE	NITROBENZENE	N-NITROSODIETHYLAMINE	N-NITROSODIMETHYLAMINE	N-NITROSODI-N-BUTYLAMINE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																															<EQL					
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																															<EQL					
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																															<EQL					
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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BGO 10DR	Point of Compliance Well	UAZ_UTRAU	20-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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BGO 12CX	Point of Compliance Well	LAZ_UTRAU	03-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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BGO 12DR	Point of Compliance Well	UAZ_UTRAU	14-Sep-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																															<EQL					
BGO 14AR	Point of Compliance Well	GAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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BGO 14CR	Point of Compliance Well	LAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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BGO 15D	Point of Compliance Well	UAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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BGO 26A	Point of Compliance Well	GAU	03-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
																																															<EQL					

Table B-16. 3Q22 NWP Appendix IX and CRML Sampling

			Field Data	Base/Neutrals																								Cyanide	Dioxins				Furans			Herbicides				Metals													
			SAMPLE COLLECTION DATE	N-NITROSODIPHENYLAMINE	N-NITROSODIPHENYLAMINE+DIPHENYLAMINE	N-NITROSODIPROPYLAMINE	N-NITROSOMORPHOLINE	N-NITROSO-N-METHYLETHYLAMINE	N-NITROSOPIPERIDINE	N-NITROSOPYRROLIDINE	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PARATHION	P-DIMETHYLAMINOAZOBENZENE	PENTACHLOROBENZENE	PENTACHLOROETHANE	PENTACHLORONITROBENZENE	PHENACETIN	PHENANTHRENE	PHORATE	P-NITROANILINE	P-PHENYLENEDIAMINE	PRONAMIDE	PYRENE	PYRIDINE	SAFROLE	SULFOTEPP	THIONAZIN	CYANIDE	2,3,7,8-TCDD	HEXACHLORODIBENZO-P-DIOXINS	PENTACHLORODIBENZO-P-DIOXINS	TETRACHLORODIBENZO-P-DIOXIN	HEXACHLORODIBENZO-P-FURANS	PENTACHLORODIBENZO-P-FURANS	TETRACHLORODIBENZO-P-FURANS	2,4,5-T	2,4,5-TP (SILVEX)	2,4-DICHLOROPHENOXYACETIC ACID (2,4-D)	DINOSEB	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM
			day-month-year	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	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
Station	Well Use	Aquifer Zone		<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	6	10	2000	4	<EQL	100	6	1300	15	2	390	50	94	2
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[8.2]	<EQL	NS	[14.9]	[3.84]	[2.43]	[1.26]	<EQL	[3.13]	<EQL	<EQL	<EQL
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BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[14.7]	[0.164]	NS	<EQL	[3.88]	<EQL	[0.673]	<EQL	[1.41]	<EQL	<EQL	<EQL
																									<EQL																								
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	<EQL	<EQL	<EQL	<EQL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	25.3	<EQL	NS	<EQL	<EQL	[1.84]	<EQL	[0.031]	[0.916]	<EQL	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[17.7]	<EQL	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
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HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[11.6]	[0.115]	NS	<EQL	<EQL	[1.04]	[0.933]	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 10DR	Point of Compliance Well	UAZ_UTRAU	20-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	25.3	[0.117]	NS	<EQL	<EQL	[4.06]	[2.46]	<EQL	[3.17]	<EQL	<EQL	<EQL
					<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL																									
BGO 12CX	Point of Compliance Well	LAZ_UTRAU	03-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	68.7	<EQL	NS	<EQL	<EQL	[0.976]	<EQL	<EQL	[1.41]	<EQL	<EQL	<EQL
BGO 12DR	Point of Compliance Well	UAZ_UTRAU	14-Sep-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[5.79]	<EQL	NS	<EQL	<EQL	[0.984]	[0.572]	<EQL	[0.565]	<EQL	<EQL	<EQL
BGO 14AR	Point of Compliance Well	GAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	128	[0.268]	NS	<EQL	[1.44]	[0.715]	<EQL	<EQL	[1.31]	<EQL	<EQL	[0.112]
BGO 14CR	Point of Compliance Well	LAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[10.8]	[0.257]	NS	<EQL	[5.43]	<EQL	<EQL	<EQL	[1.29]	<EQL	<EQL	<EQL
BGO 14DR	Point of Compliance Well	UAZ_UTRAU	21-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[3.24]	<EQL	NS	<EQL	<EQL	[0.609]	<EQL	<EQL	5.9	<EQL	<EQL	<EQL
BGO 15D	Point of Compliance Well	UAZ_UTRAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[10]	[0.196]	NS	<EQL	<EQL	<EQL	<EQL	1.3	[0.656]	<EQL	<EQL	<EQL
BGO 26A	Point of Compliance Well	GAU	03-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	37.7	<EQL	NS	<EQL	<EQL	25.2	[4.58]	<EQL	[1.21]	<EQL	<EQL	<EQL

Table B-16. 3Q22 NWP Appendix IX and CRML Sampling

			Field Data	Metals			PCBs							Pesticides																				Sulfide	Volatiles																		
			SAMPLE COLLECTION DATE	TIN	VANADIUM	ZINC	AROCLOR 1016	AROCLOR 1221	AROCLOR 1232	AROCLOR 1242	AROCLOR 1248	AROCLOR 1254	AROCLOR 1260	ALDRIN	ALPHA-BENZENE HEXACHLORIDE	ALPHA-CHLORDANE	BETA-BENZENE HEXACHLORIDE	DDD	DDE	DDT	DELTA-BENZENE HEXACHLORIDE	DIELDRIN	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-CHLORDANE	HEPTACHLOR	HEPTACHLOR EPOXIDE	LINDANE	METHOXYCHLOR	TOXAPHENE	SULFIDE	1,1,1,2-TETRACHLOROETHANE	1,1,1-TRICHLOROETHANE	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	1,2,3-TRICHLOROPROPANE	1,2-DIBROMO-3-CHLOROPROPANE	1,2-DIBROMOETHANE	1,2-DICHLOROETHANE (EDC)	1,2-DICHLOROPROPANE	2-HEXANONE	ACETONE	ACETONITRILE (METHYL CYANIDE)	ACROLEIN	ACRYLONITRILE	ALLYL CHLORIDE	BENZENE	BROMODICHLOROMETHANE
			day-month-year	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	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
Station	Well Use	Aquifer Zone		12000	86	6000	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	200	<EQL	<EQL	2.7	7	<EQL	<EQL	<EQL	5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	<EQL	<EQL																																															
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	[9.07]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0101]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	[25.8]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0384]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
				<EQL	[24.7]	<EQL																																														
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 10DR	Point of Compliance Well	UAZ_UTRAU	20-Jul-2022	<EQL	<EQL	[16.2]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.54]	<EQL	<EQL	1.31	[0.56]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 12CX	Point of Compliance Well	LAZ_UTRAU	03-Aug-2022	<EQL	[8.56]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 12DR	Point of Compliance Well	UAZ_UTRAU	14-Sep-2022	<EQL	[6.34]	[16.4]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.95	[0.95]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 14AR	Point of Compliance Well	GAU	25-Jul-2022	<EQL	[6.55]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 14CR	Point of Compliance Well	LAZ_UTRAU	25-Jul-2022	<EQL	[9.65]	[5.31]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.69]	[0.44]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 14DR	Point of Compliance Well	UAZ_UTRAU	21-Jul-2022	<EQL	[19]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 15D	Point of Compliance Well	UAZ_UTRAU	02-Aug-2022	<EQL	[13.1]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	33.7	3.58	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 26A	Point of Compliance Well	GAU	03-Aug-2022	<EQL	[10.3]	[30.6]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL

Table B-16. 3Q22 NWP Appendix IX and CRML Sampling

			Field Data	Volatiles																														Radionuclides																
			SAMPLE COLLECTION DATE	BROMOFORM (TRIBROMOMETHANE)	BROMOMETHANE (METHYL BROMIDE)	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE (ETHYL CHLORIDE)	CHLOROETHENE (VINYL CHLORIDE)	CHLOROFORM	CHLOROMETHANE (METHYL CHLORIDE)	CHLOROPRENE	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE (METHYLENE BROMIDE)	DICHLORODIFLUOROMETHANE	DICHLOROMETHANE (METHYLENE CHLORIDE)	ETHYLBENZENE	IODOMETHANE (METHYL IODIDE)	ISOBUTANOL	METHACRYLONITRILE	METHYL ETHYL KETONE	METHYL ISOBUTYL KETONE	METHYL METHACRYLATE	PROPIONITRILE	STYRENE	TETRACHLOROETHYLENE (PCE)	TOLUENE	TRANS-1,2-DICHLOROETHYLENE	TRANS-1,3-DICHLOROPROPENE	TRANS-1,4-DICHLORO-2-BUTENE	TRICHLOROETHYLENE (TCE)	TRICHLOROFLUOROMETHANE	VINYL ACETATE	XYLENES	AMERICIUM-241	CESIUM-134	CESIUM-137	COBALT-60	CURIUM-242	CURIUM-243/244	CURIUM-245/246	EUROPIUM-154	EUROPIUM-155	IODINE-129	NEPTUNIUM-237	NICKEL-63	PLUTONIUM-238	PLUTONIUM-239/240	RADIUM-226	RADIUM-228	SODIUM-22
			day-month-year	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	ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Station	Well Use	Aquifer Zone		<EQL	<EQL	810	5	<EQL	<EQL	2	80	<EQL	<EQL	<EQL	<EQL	<EQL	200	5	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	5	1000	100	<EQL	<EQL	5	1100	410	10000	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1	<EQL	<EQL	<EQL	<EQL	5	5	<EQL
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.97]	<EQL	<EQL
																																													<EQL				[1.09]		
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.4	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.37]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.2	<EQL	<EQL
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]	<EQL	<EQL
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.78]	[1.34]	<EQL
BGO 10DR	Point of Compliance Well	UAZ_UTRAU	20-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.43	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.97]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[4.62]	<EQL	<EQL	2.26	[1.04]	<EQL
																																																	<EQL	
BGO 12CX	Point of Compliance Well	LAZ_UTRAU	03-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	1.73	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL
BGO 12DR	Point of Compliance Well	UAZ_UTRAU	14-Sep-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	7.6	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.55]	<EQL	<EQL	<EQL	<EQL	36.7	2.57	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.07]	[1.02]	<EQL
																																														<EQL					
BGO 14AR	Point of Compliance Well	GAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.14]	<EQL	<EQL
																																													<EQL					<EQL	
BGO 14CR	Point of Compliance Well	LAZ_UTRAU	25-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.18	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.63	<EQL	<EQL	<EQL	<EQL	23.4	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.04]	<EQL	<EQL
BGO 14DR	Point of Compliance Well	UAZ_UTRAU	21-Jul-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.24	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.63]	<EQL	<EQL	<EQL	<EQL	<EQL	[0.48]	<EQL	<EQL	[0.0645]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[6.6]	<EQL	<EQL	2.21	[1.15]	<EQL
BGO 15D	Point of Compliance Well	UAZ_UTRAU	02-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.6]	<EQL	<EQL	<EQL	<EQL	<EQL	7.07	[0.94]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	4.6	<EQL	<EQL	<EQL	<EQL	60.9	1.71	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.0805]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.87]	<EQL	<EQL
BGO 26A	Point of Compliance Well	GAU	03-Aug-2022	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.41]	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	2.13	<EQL	<EQL

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			Field Data	Radionuclides								
			SAMPLE COLLECTION DATE	STRONTIUM-89/90	STRONTIUM-90	TECHNETIUM-99	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-235	URANIUM-238	COMBINED RADIUM (226 AND 228)
			day-month-year	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Station	Well Use	Aquifer Zone		8	8	50	<EQL	<EQL	<EQL	15	15	5
BGO 1D	Background Well	UAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.09]
BGO 2D	Background Well	UAZ_UTRAU	09-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	3.2
BGO 2D	Background Well	UAZ_UTRAU	26-Sep-2022	NS	NS	NS	NS	NS	NS	NS	NS	NS
HSB 85A	Background Well	GAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.609]
HSB 85B	Background Well	LAZ_UTRAU	02-Aug-2022	NS	<EQL	<EQL	[0.163]	[0.106]	<EQL	<EQL	<EQL	<EQL
HSB 85C	Background Well	UAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	[0.238]	<EQL	<EQL	[0.0785]	[3.12]
BGO 10DR	Point of Compliance Well	UAZ_UTRAU	20-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[0.065]	[3.3]
BGO 12CX	Point of Compliance Well	LAZ_UTRAU	03-Aug-2022	NS	<EQL	<EQL	<EQL	[0.577]	<EQL	<EQL	[0.0921]	<EQL
BGO 12DR	Point of Compliance Well	UAZ_UTRAU	14-Sep-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[2.09]
BGO 14AR	Point of Compliance Well	GAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.14]
BGO 14CR	Point of Compliance Well	LAZ_UTRAU	25-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[1.04]
						<EQL						
BGO 14DR	Point of Compliance Well	UAZ_UTRAU	21-Jul-2022	NS	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	<EQL	[3.36]
BGO 15D	Point of Compliance Well	UAZ_UTRAU	02-Aug-2022	NS	<EQL	<EQL	<EQL	[0.104]	<EQL	<EQL	<EQL	[1.87]
BGO 26A	Point of Compliance Well	GAU	03-Aug-2022	NS	<EQL	<EQL	<EQL	[0.145]	<EQL	<EQL	<EQL	2.13

Explanation

[ ]	J
<EQL	<EQL
🟥	Greater Than GWPS.
R	Result Rejected
	Less than GWPS

ABBREVIATIONS

UAZ UTRA	Upper Aquifer Zone of the Upper Three Runs Aquifer
LAZ UTRA	Lower Aquifer Zone of the Upper Three Runs Aquifer
ug/L	micrograms per liter
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
<EQL	less than estimated quantitation limit
NDD	not decision data
REJ	rejected
NS	not sampled
RNS	requested to be sampled but did not. see comments as to why not.
POC	point of compliance
GWPS	groundwater protection standard
D	well is dry-no sample of field data 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
P	Sample collection could not be completed because of inaccessibility or mechanical failure
T	Samples were collected, but turbidity exceeded 15 NTUs
X	Well went dry during purging, samples collected after well recovered measurements obtained
2	Sampled After Recovery

Sum of Beta Dose (MWMF): (C-14/2000 + I-129/1 + Sr-90/8)*4
Sum of Beta (MWMF): (C-14 + I-129)
Sum of Alphas (MWMF): (U-233/234 +U-235 +U-238)
total 1,2-dichloroethylene (MWMF): (cis-1,2-dichloroethylene + trans-1,2-dichloroethylene)

APPENDIX C

MIXED WASTE MANAGEMENT FACILITY

ANALYTICAL DATA

FIRST QUARTER 2022 – FOURTH QUARTER 2022

AND

HISTORICAL DATA

Note: Analytical data are presented on CD ROM.

APPENDIX D

F-AREA, H-AREA, AND MIXED WASTE MANAGEMENT FACILITY HYDROGRAPHS

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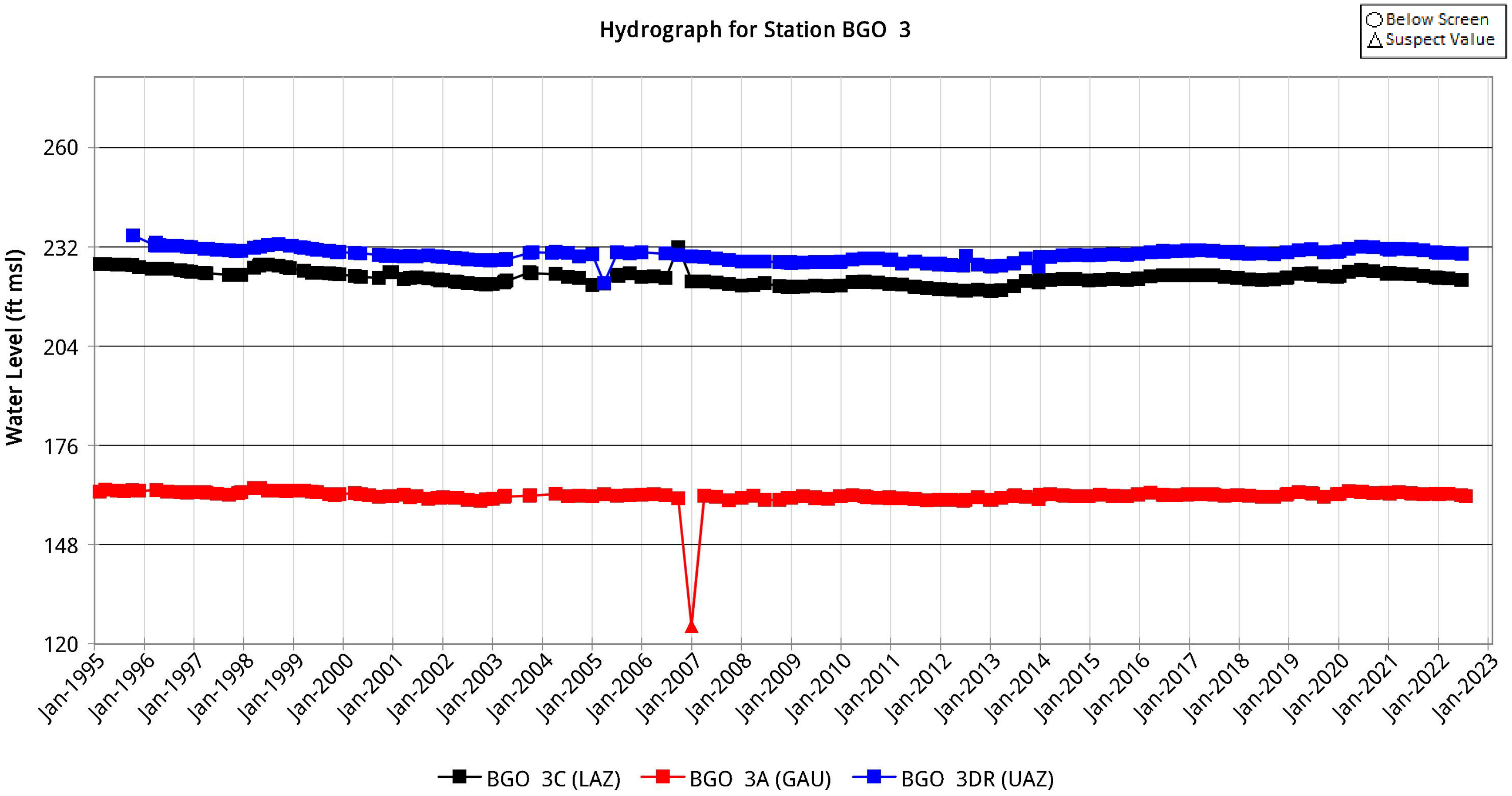
Hydrograph for Station BGO 3
○ Below Screen
△ Suspect Value
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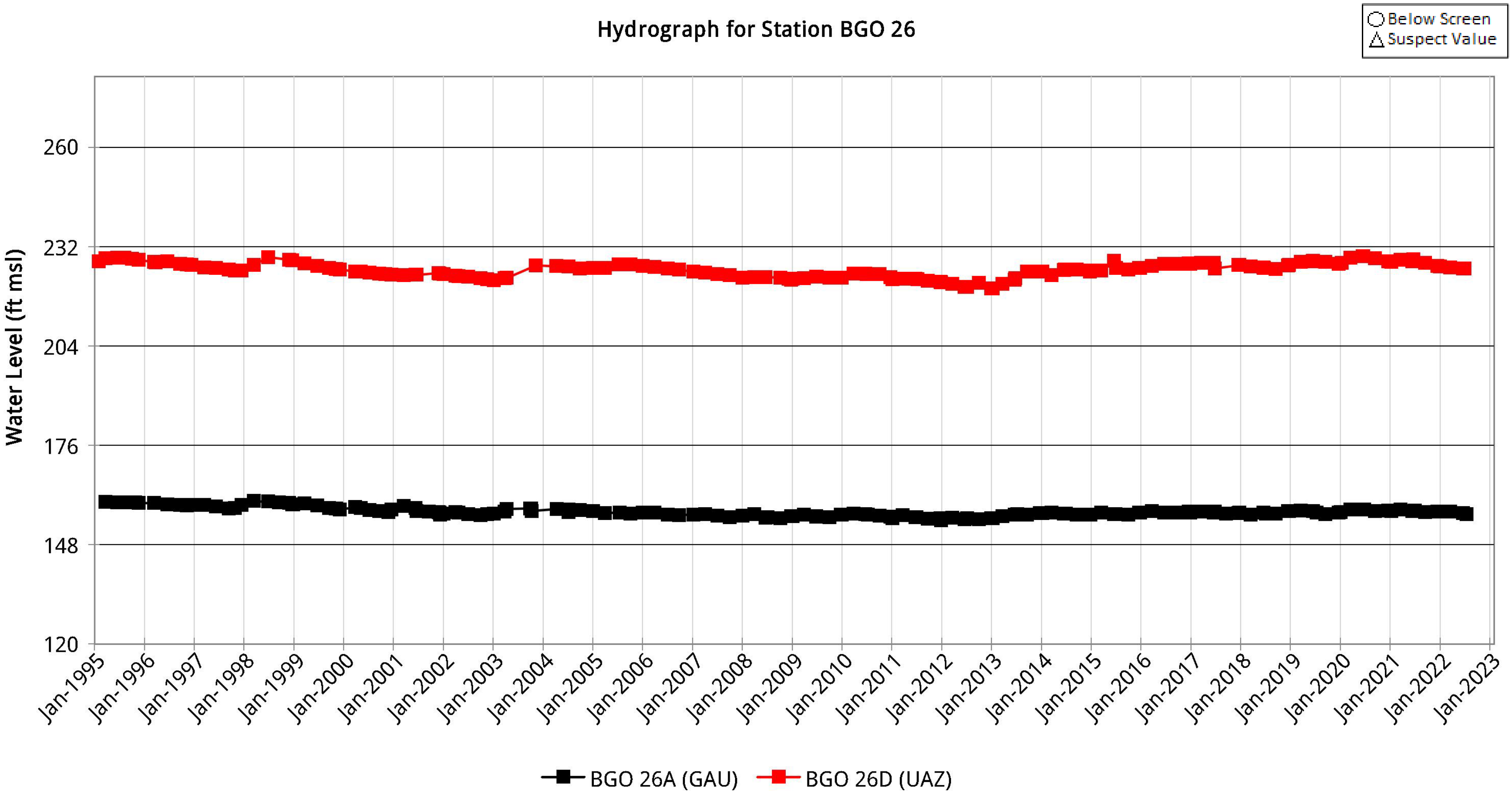
BGO 3C (LAZ)
BGO 3A (GAU)
BGO 3DR (UAZ)


Hydrograph for Station BGO 26
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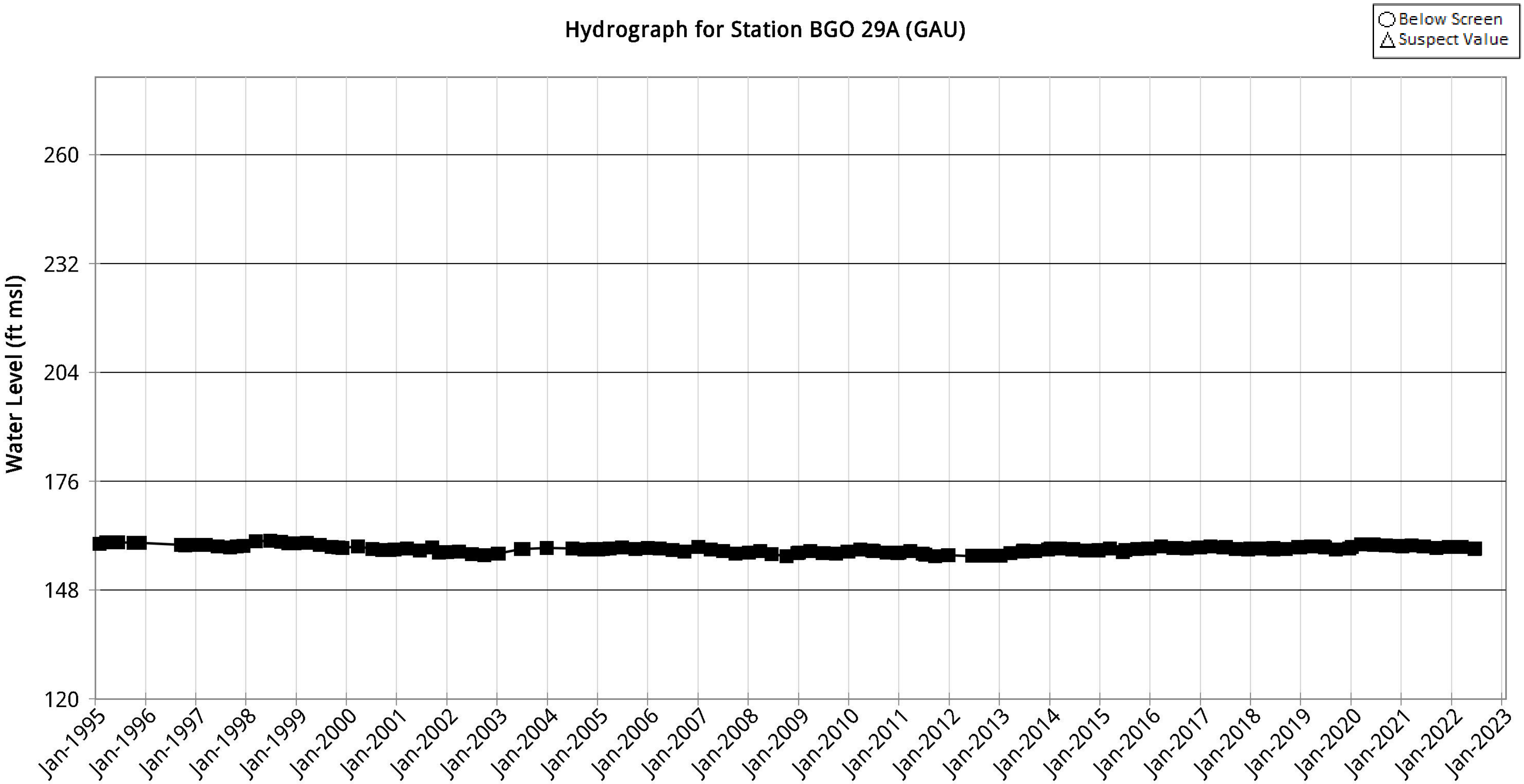
BGO 26D (UAZ)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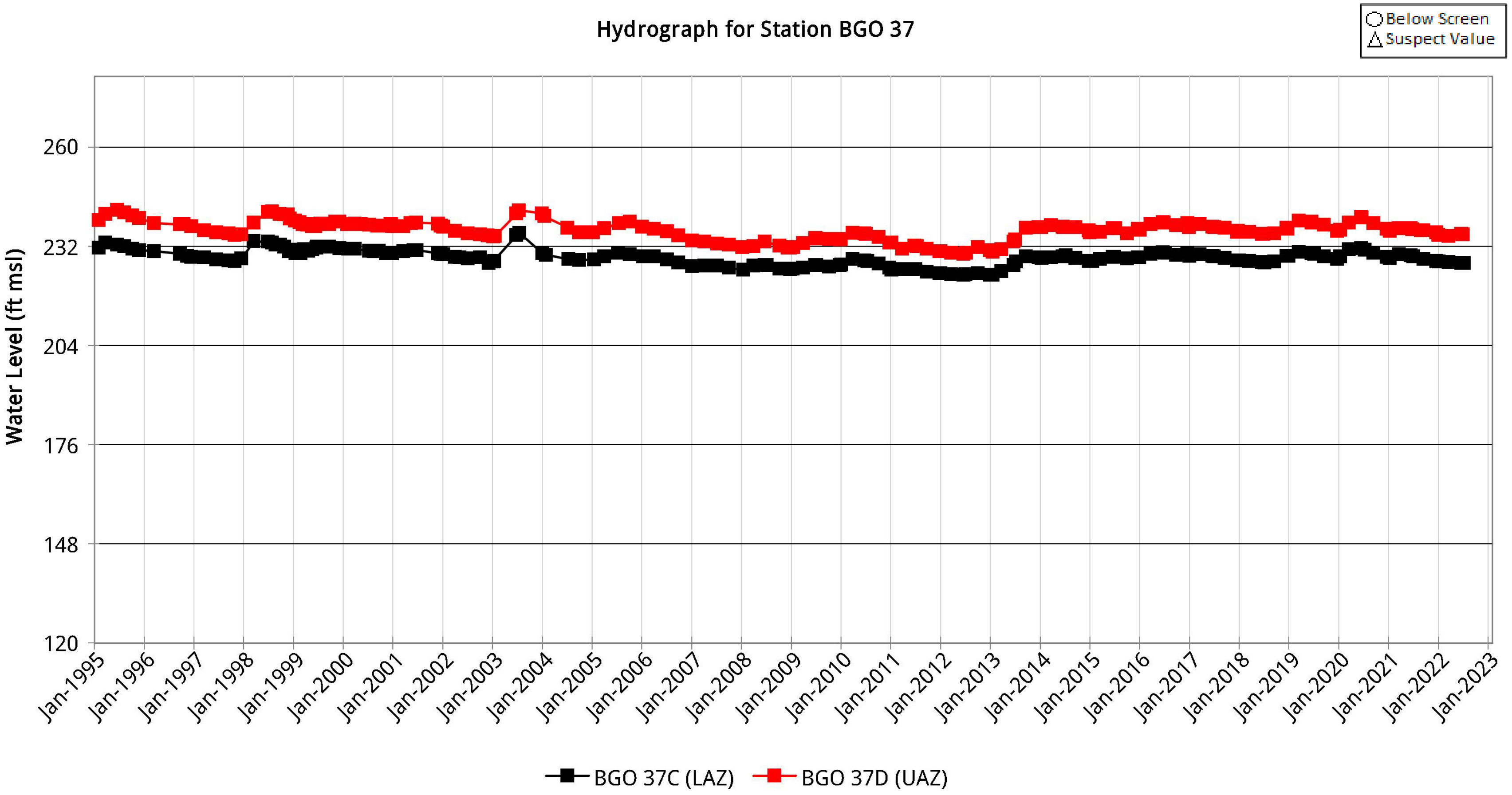
Hydrograph for Station BGO 37
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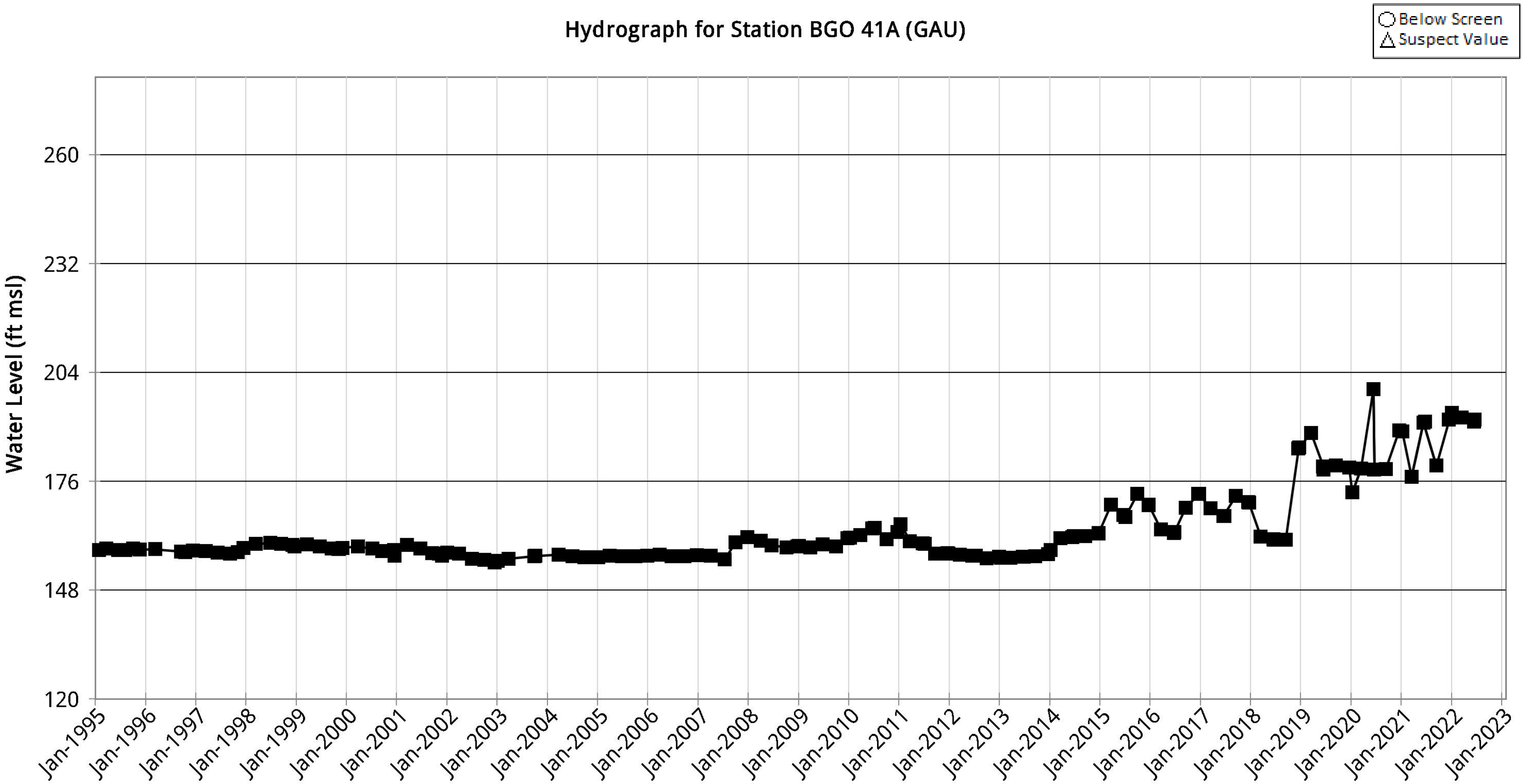
BGO 37C (LAZ)
BGO 37D (UAZ)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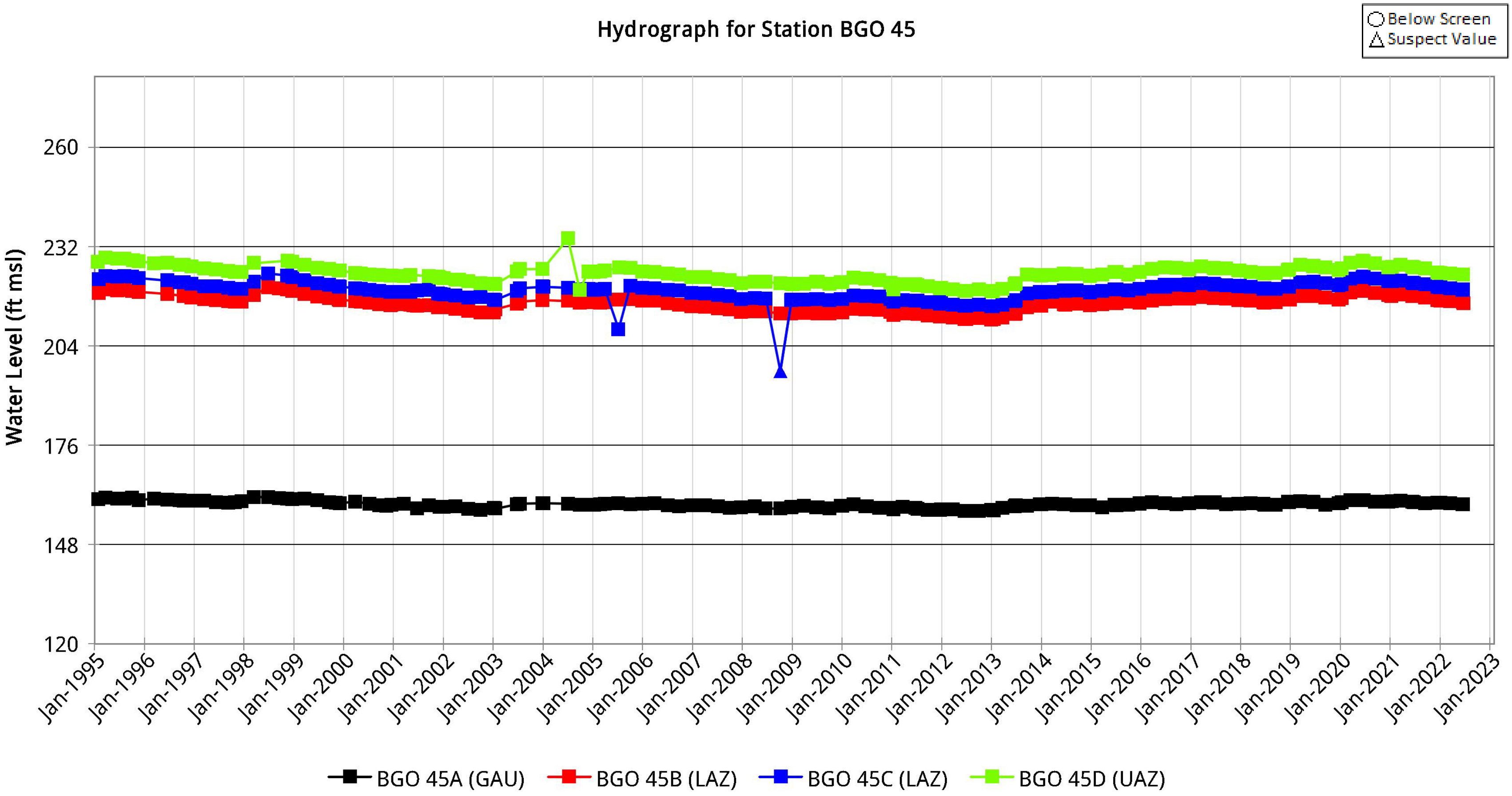
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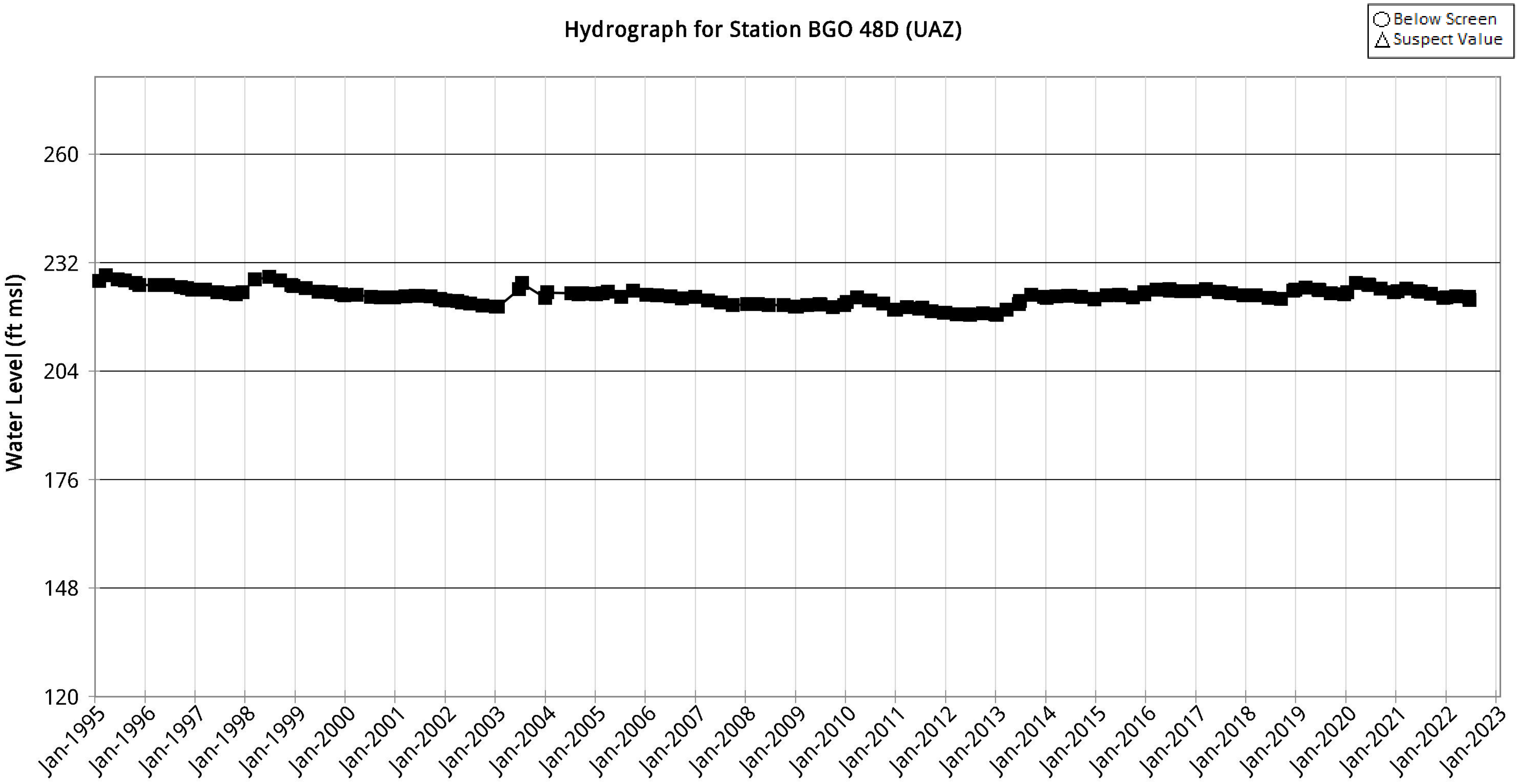
BGO 45A (GAU)
BGO 45B (LAZ)
BGO 45C (LAZ)
BGO 45D (UAZ)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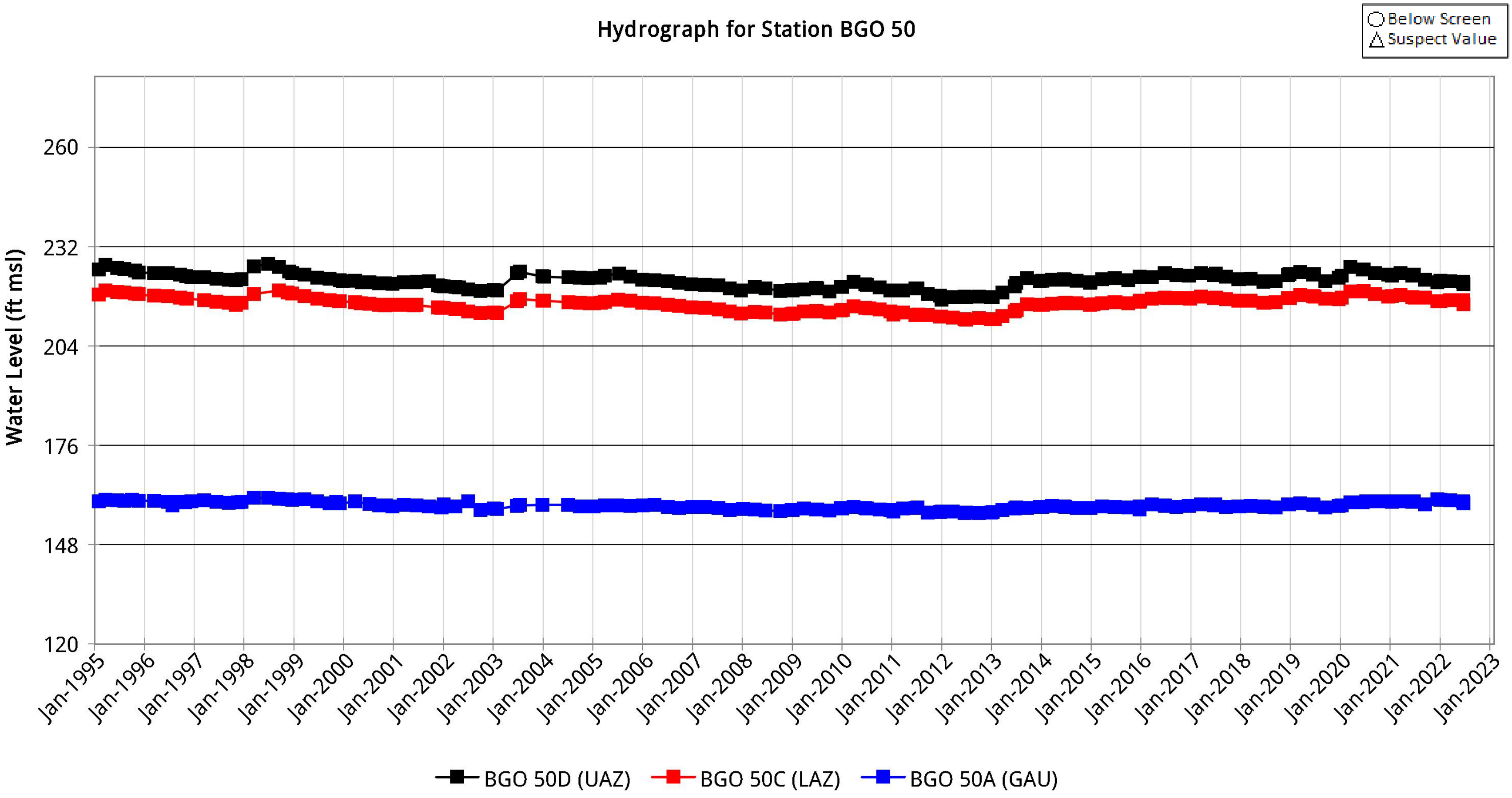
Hydrograph for Station BGO 50
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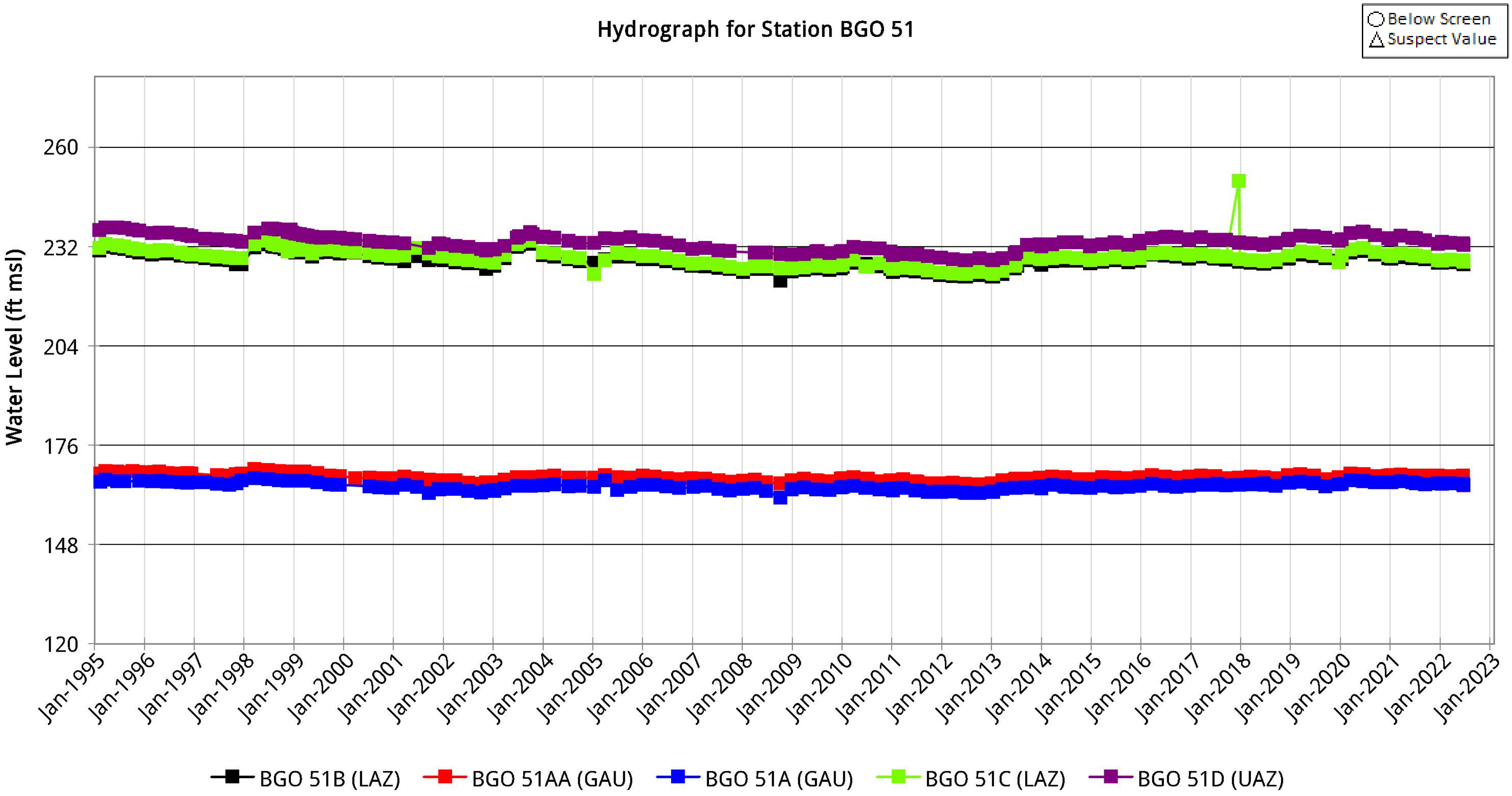
BGO 50D (UAZ)
BGO 50C (LAZ)
BGO 50A (GAU)


Hydrograph for Station BGO 51
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BGO 51B (LAZ)
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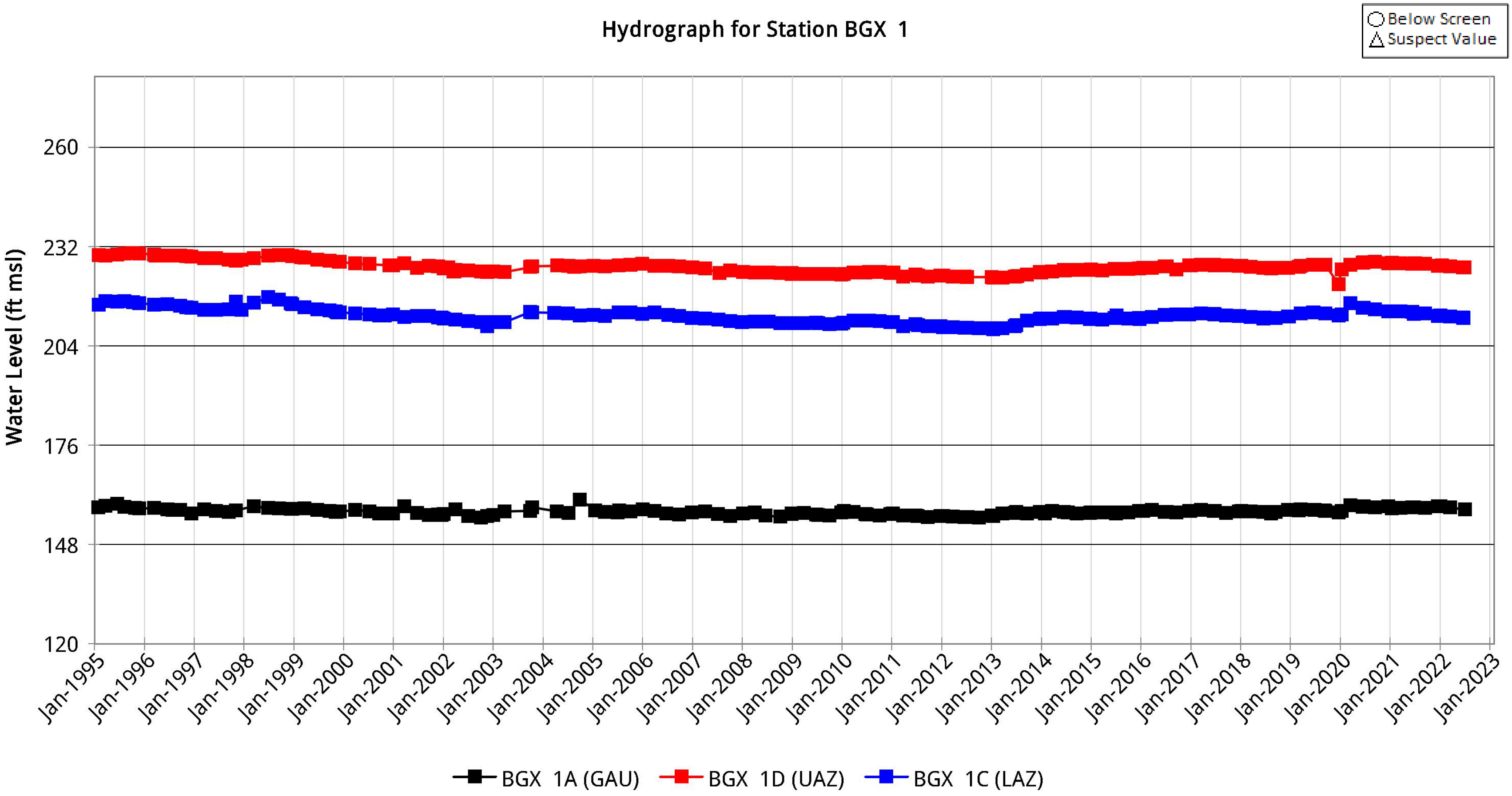
BGO 51D (UAZ)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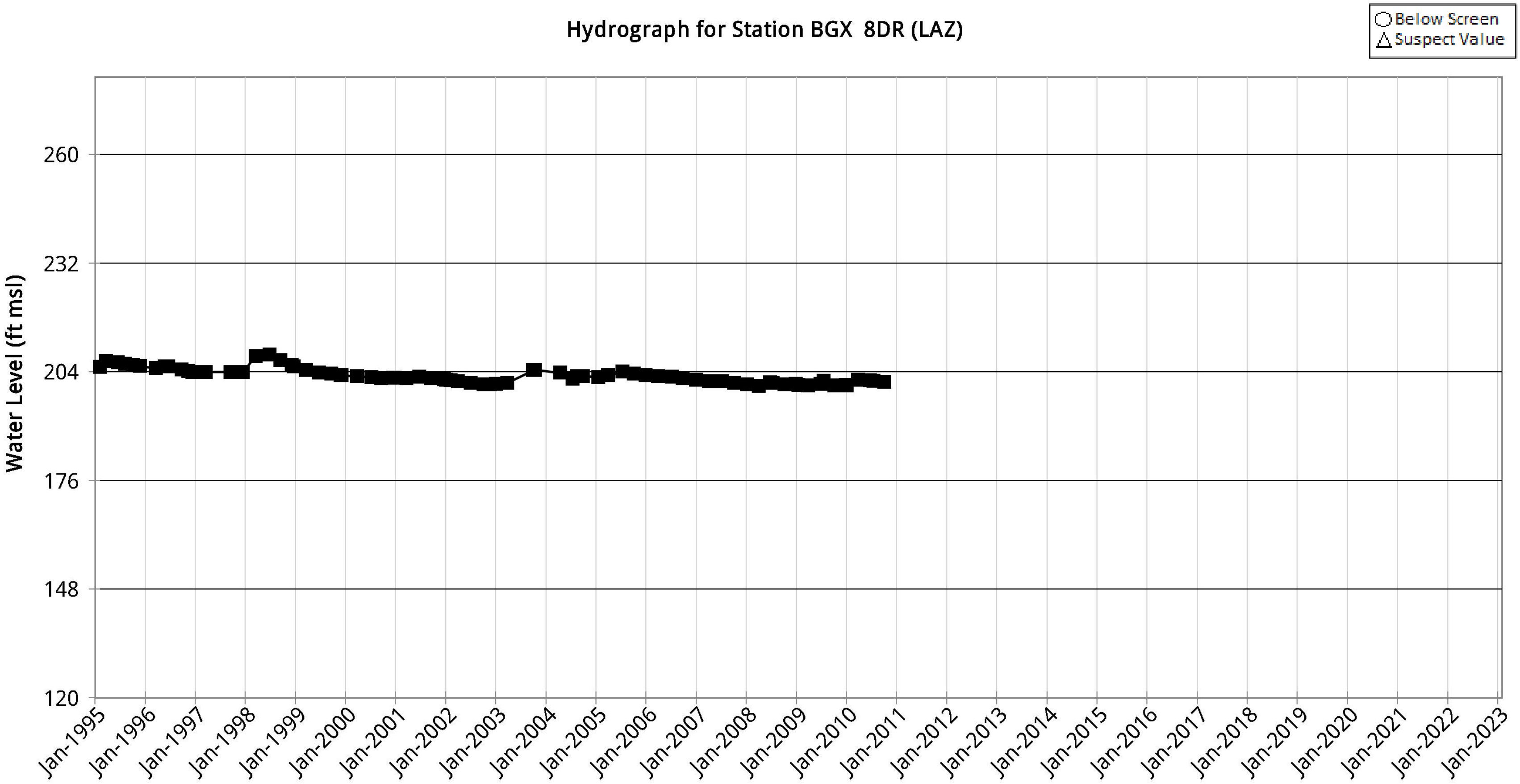
BGX 1A (GAU)
BGX 1D (UAZ)
BGX 1C (LAZ)


Hydrograph for Station BGX 8DR (LAZ)
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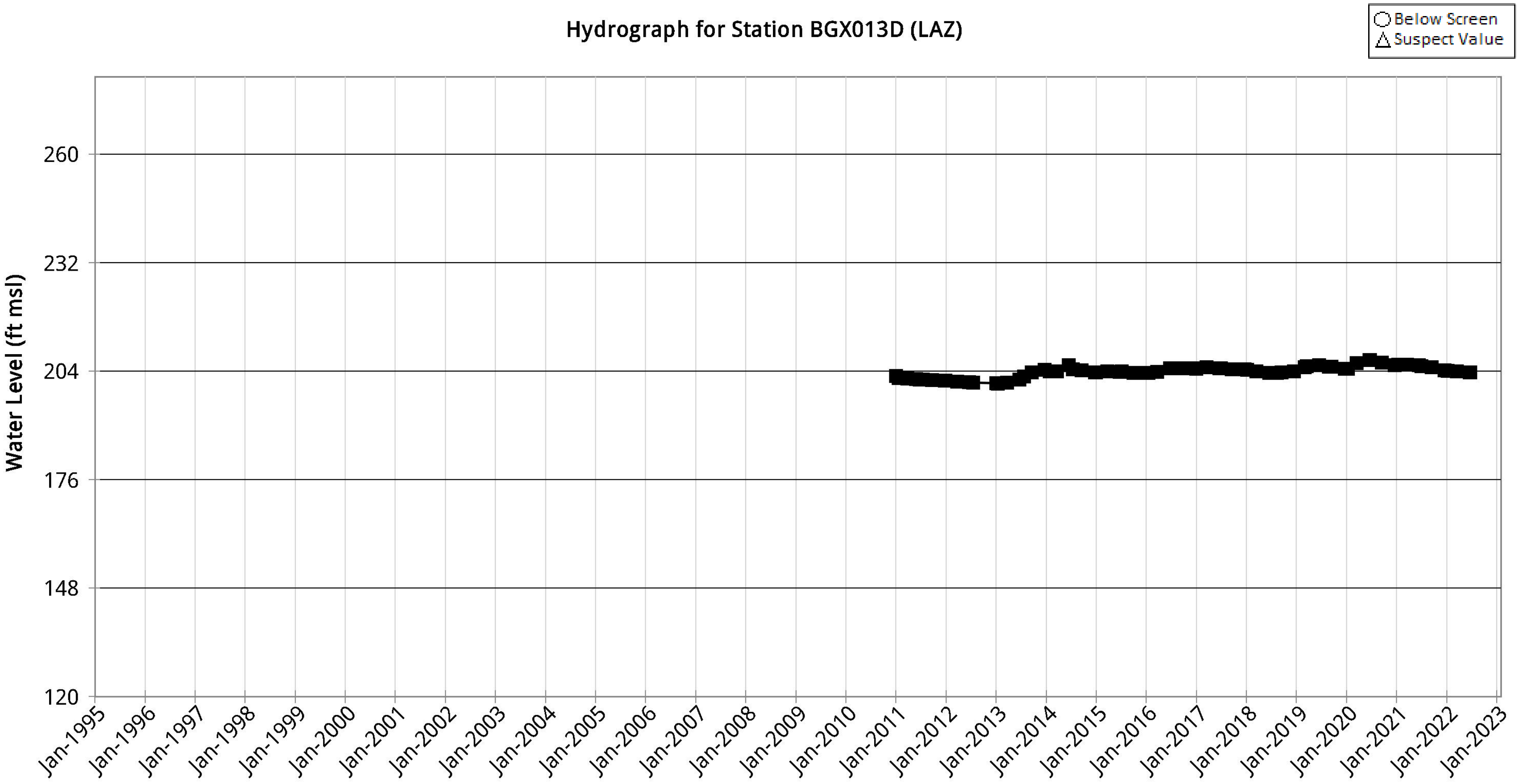
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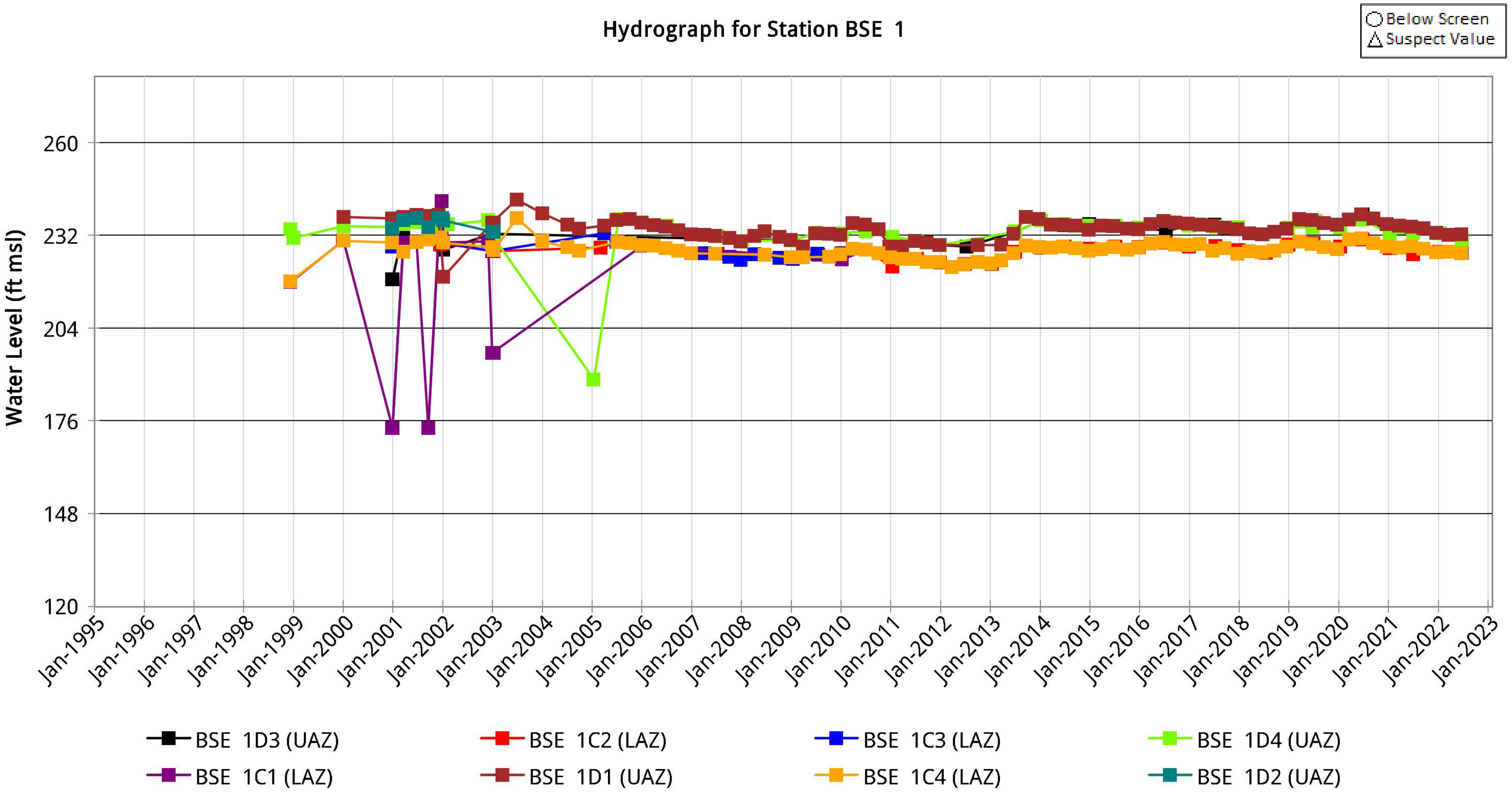
Hydrograph for Station BSE 1
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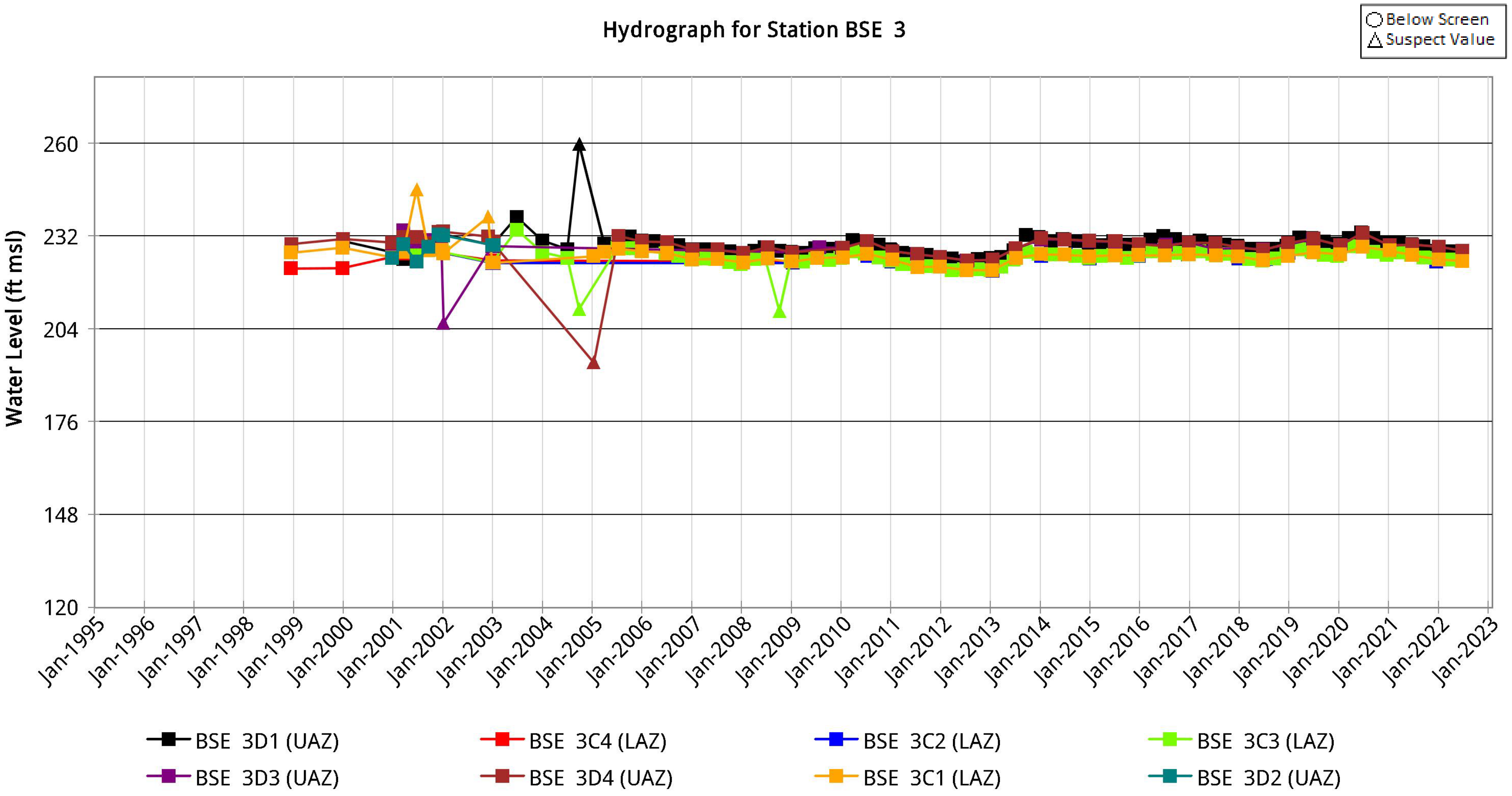
BSE 1D3 (UAZ)
BSE 1C2 (LAZ)
BSE 1C3 (LAZ)
BSE 1D4 (UAZ)
BSE 1C1 (LAZ)
BSE 1D1 (UAZ)
BSE 1C4 (LAZ)
BSE 1D2 (UAZ)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BSE 3D1 (UAZ)
BSE 3C4 (LAZ)
BSE 3C2 (LAZ)
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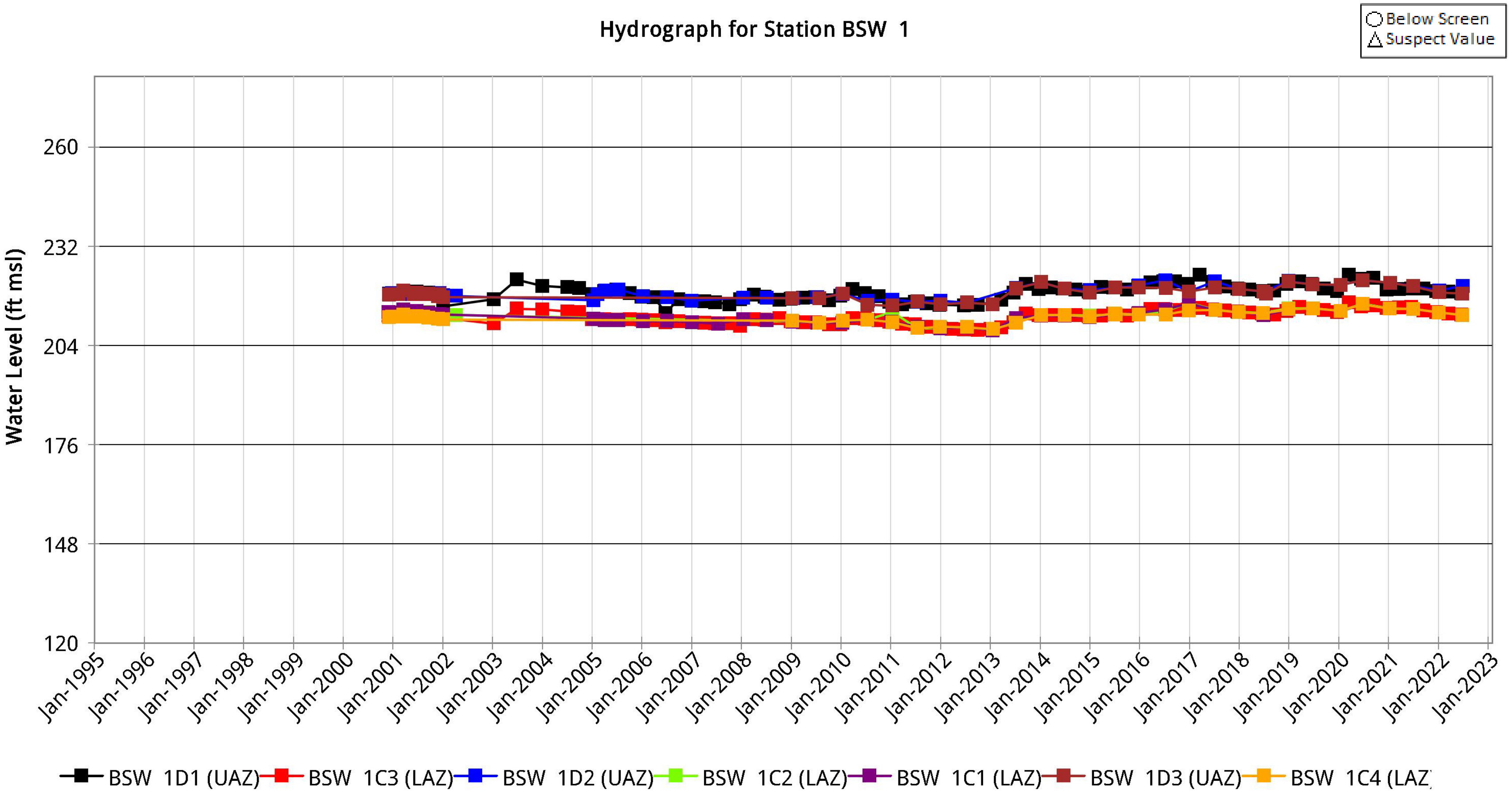
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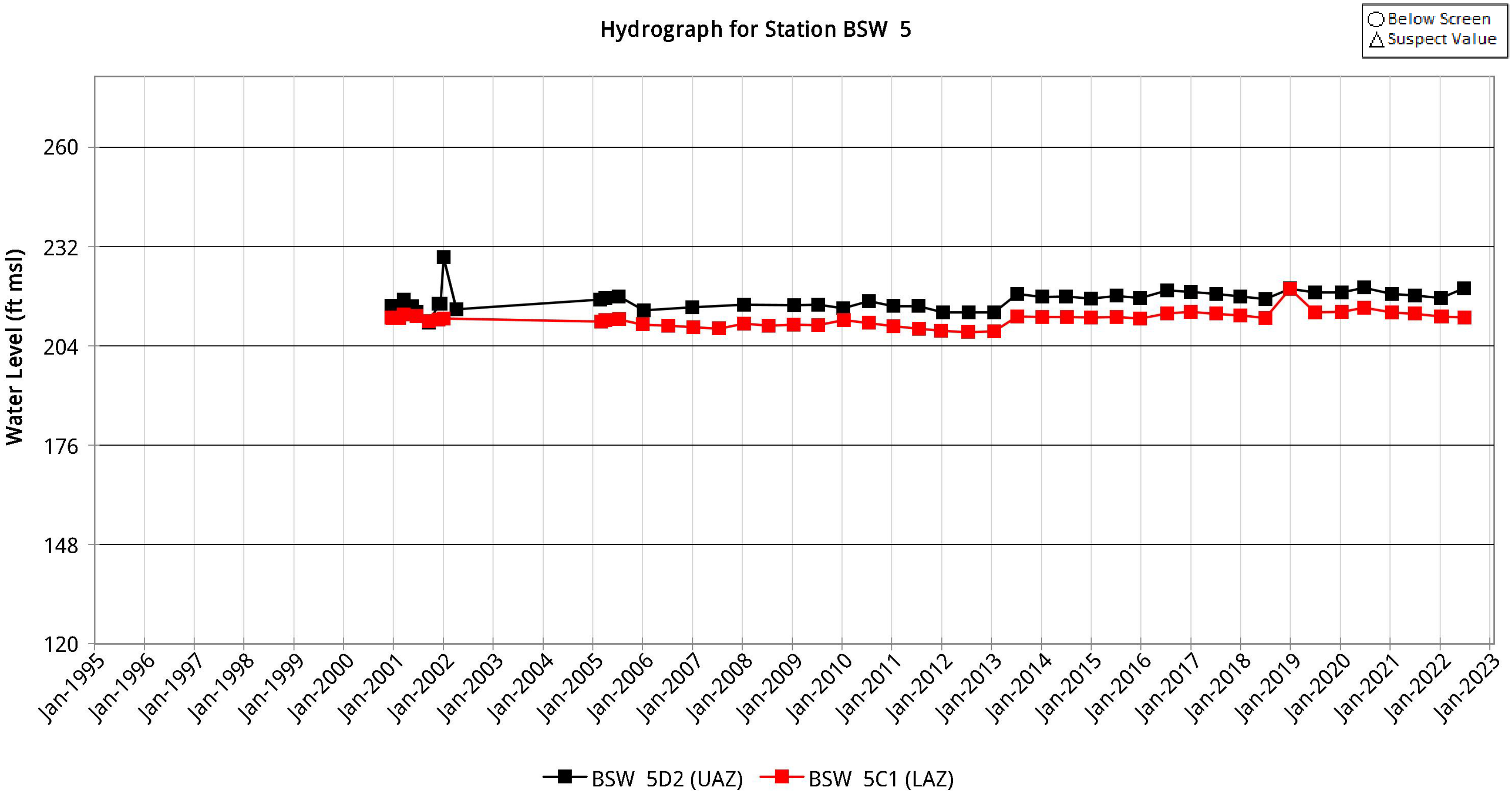
BSW 1D1 (UAZ)
BSW 1C3 (LAZ)
BSW 1D2 (UAZ)
BSW 1C2 (LAZ)
BSW 1C1 (LAZ)
BSW 1D3 (UAZ)
BSW 1C4 (LAZ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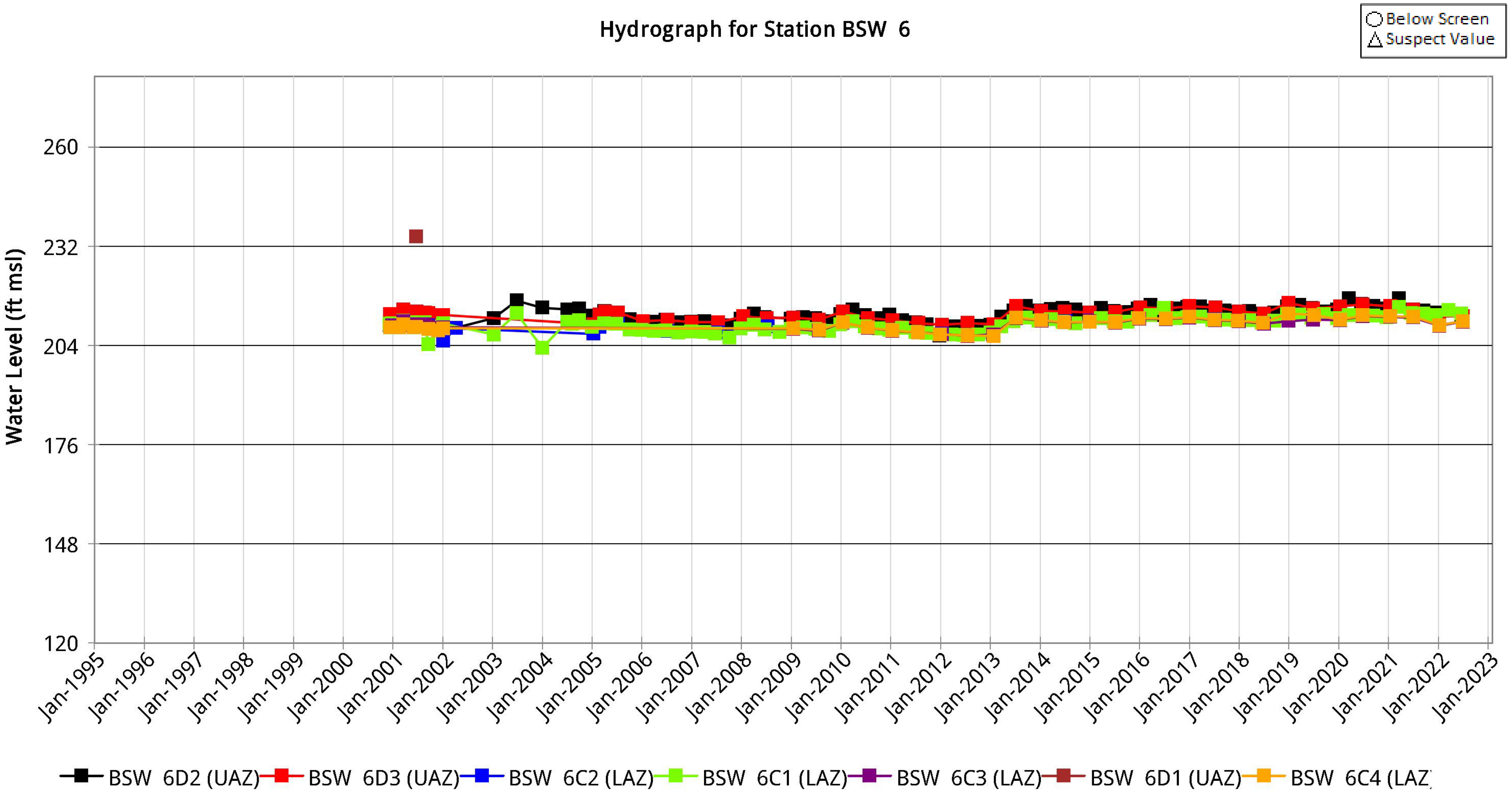
BSW 5D2 (UAZ)
BSW 5C1 (LAZ)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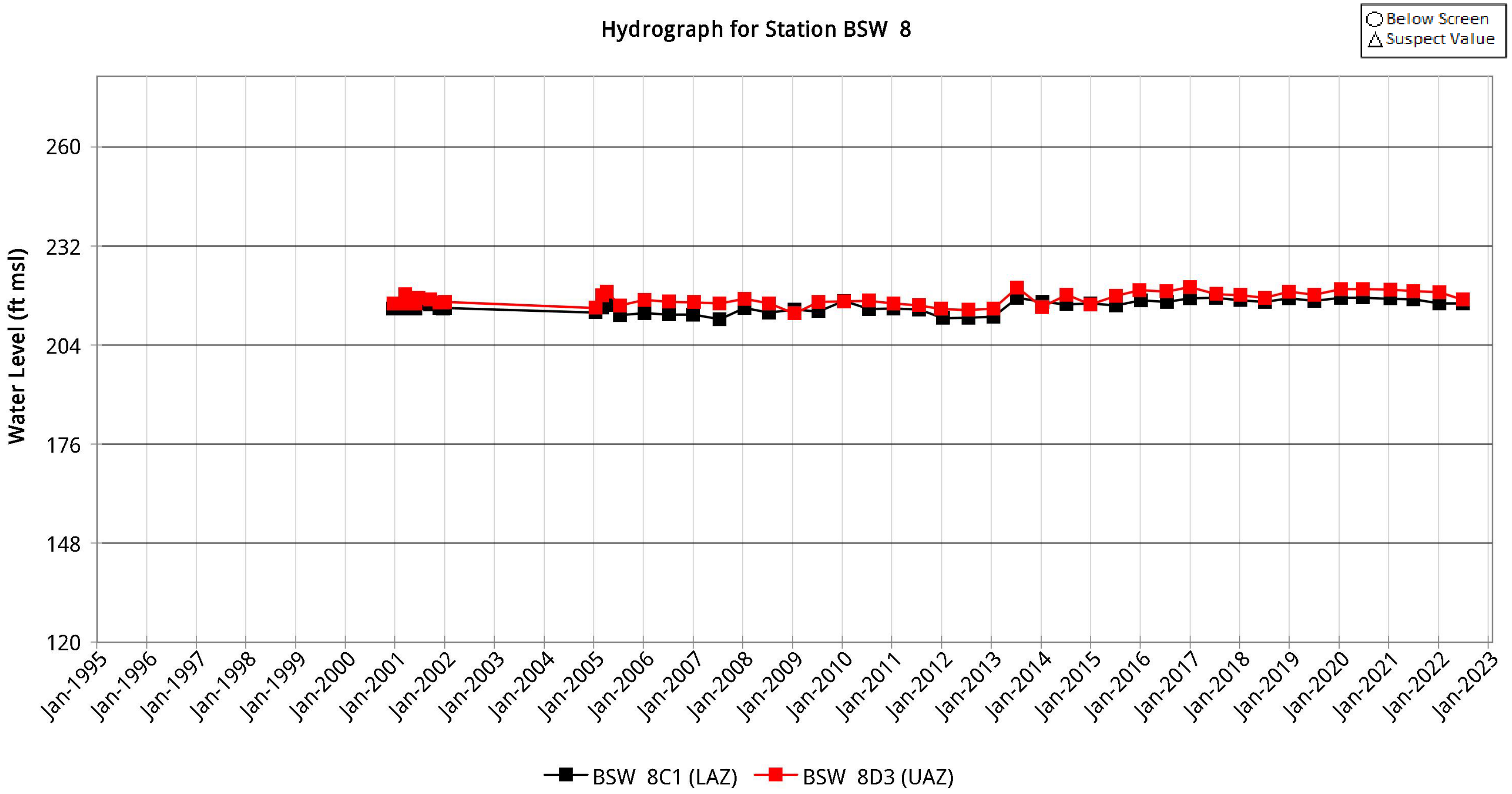
BSW 6D2 (UAZ)
BSW 6D3 (UAZ)
BSW 6C2 (LAZ)
BSW 6C1 (LAZ)
BSW 6C3 (LAZ)
BSW 6D1 (UAZ)
BSW 6C4 (LAZ


Hydrograph for Station BSW 8
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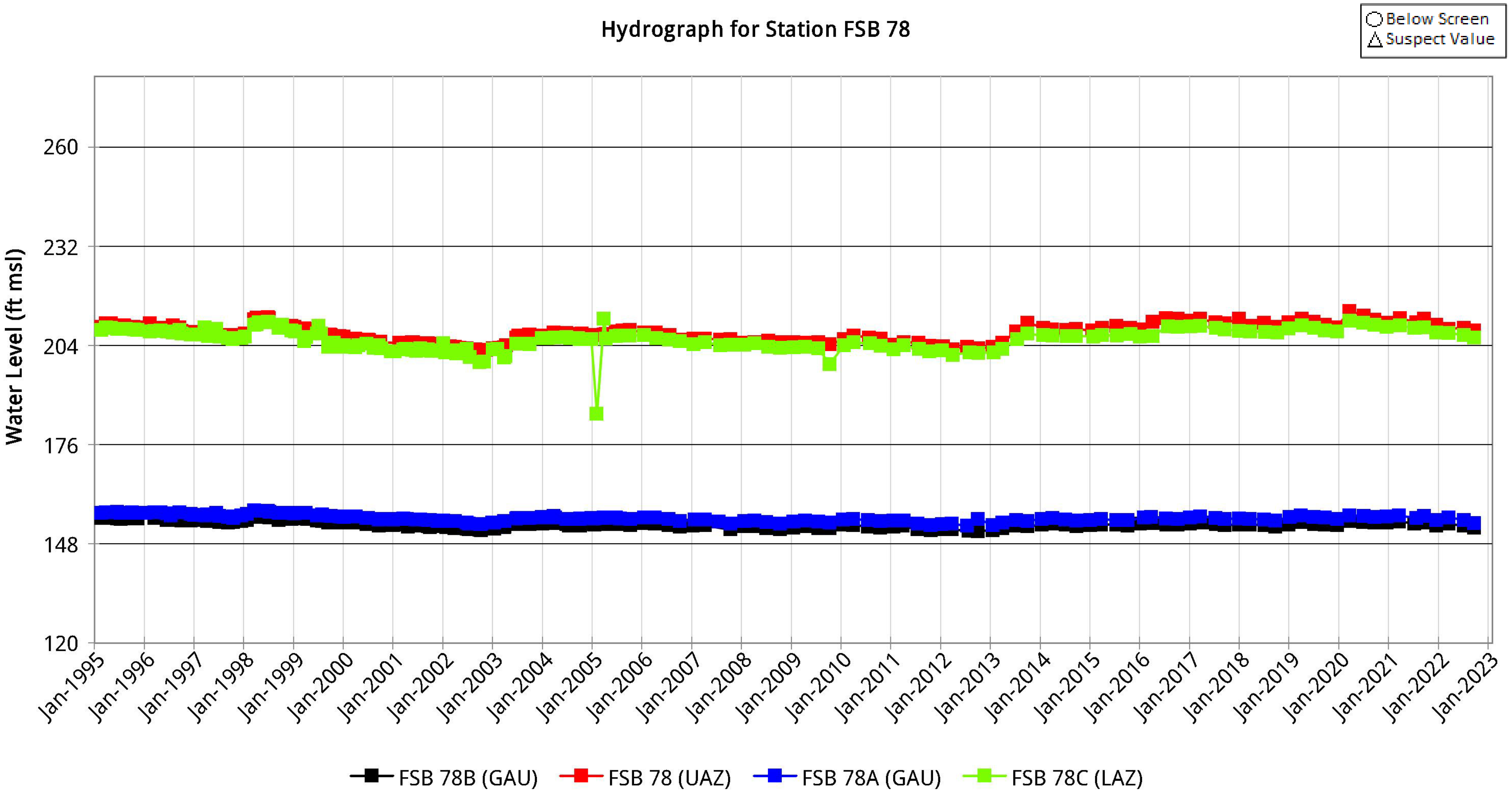
BSW 8C1 (LAZ)
BSW 8D3 (UAZ)


Hydrograph for Station FSB 78
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FSB 78B (GAU)
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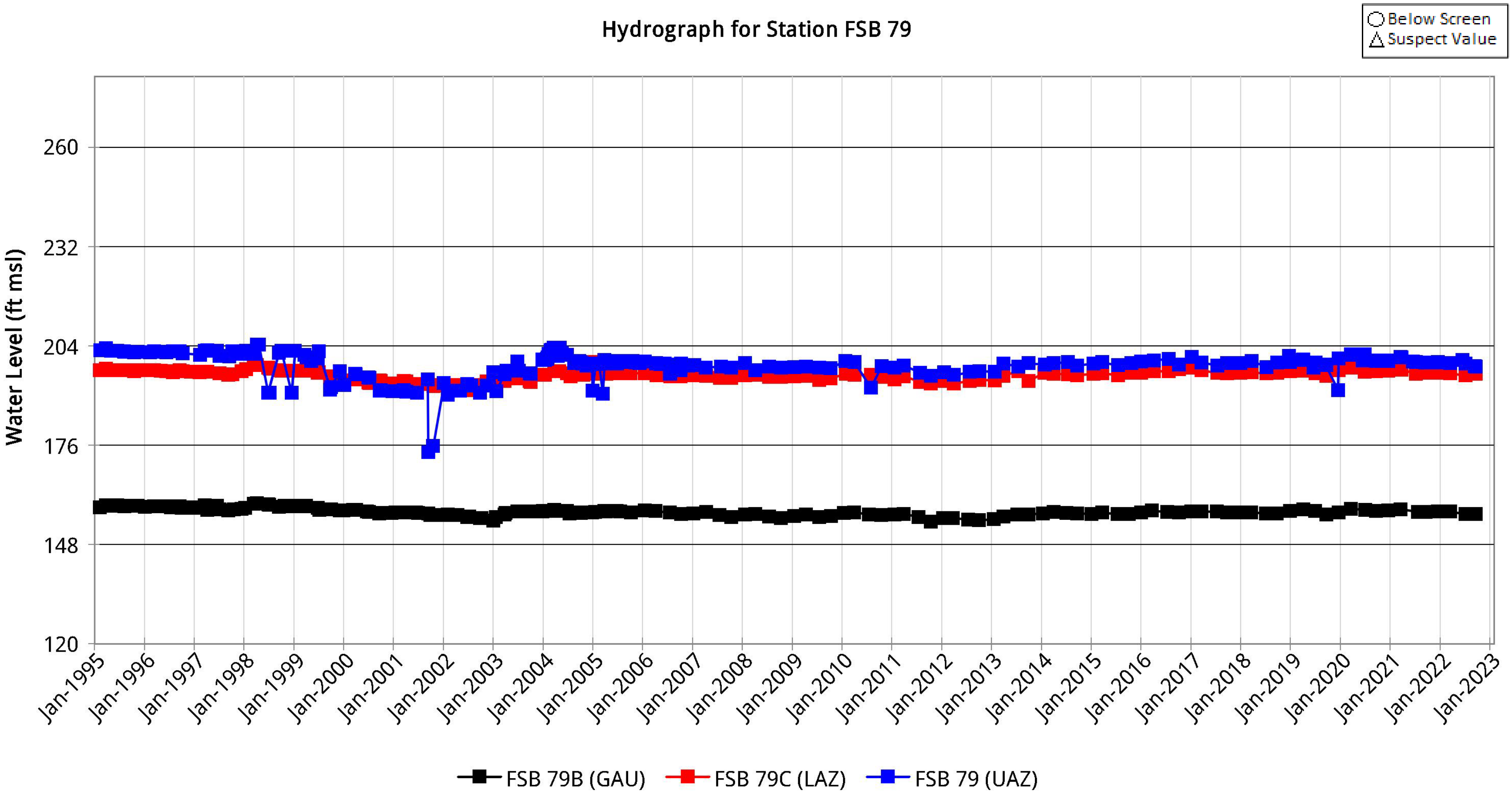
FSB 78C (LAZ)


Hydrograph for Station FSB 79
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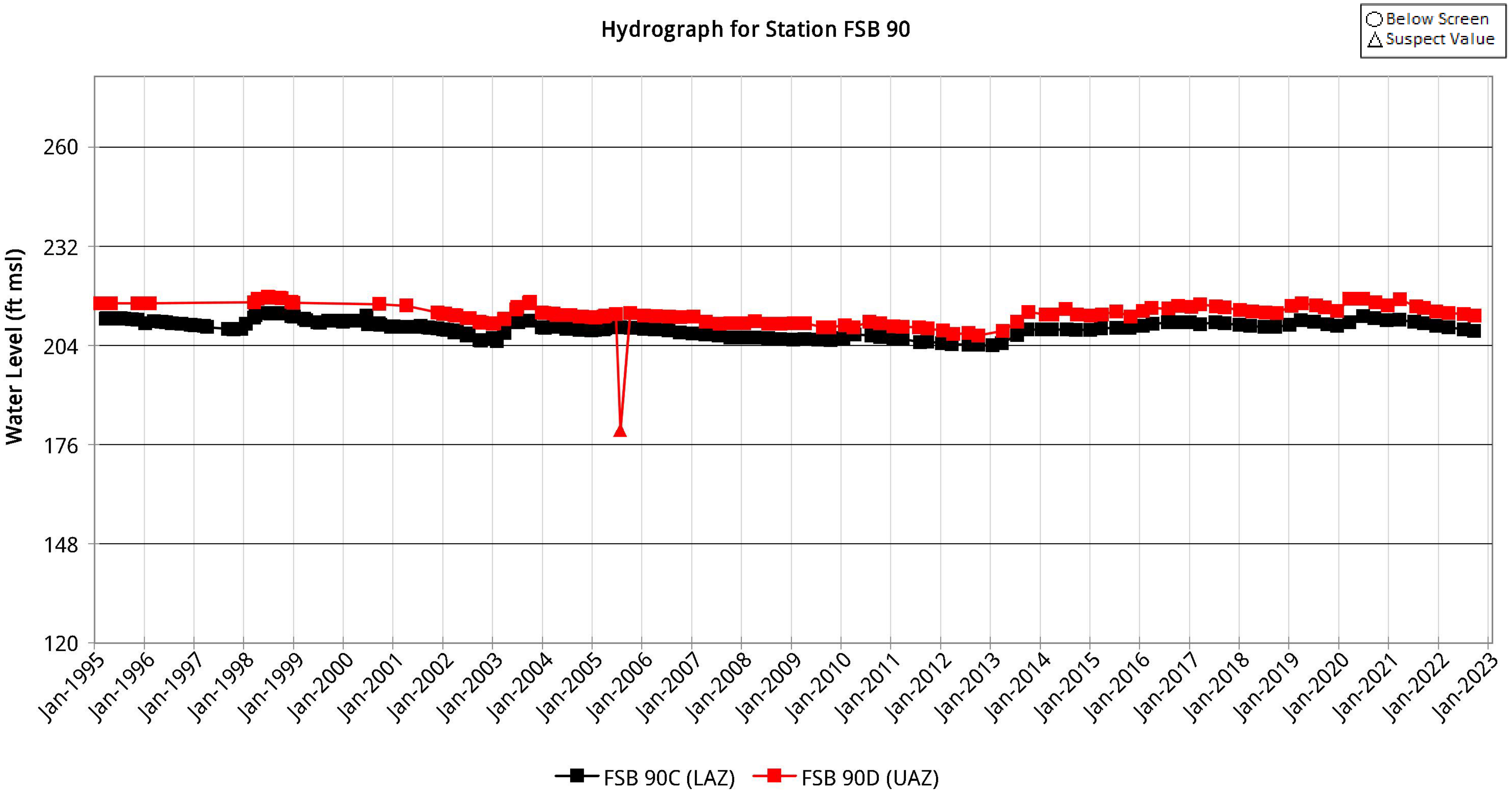
FSB 79B (GAU)
FSB 79C (LAZ)
FSB 79 (UAZ)


Hydrograph for Station FSB 90
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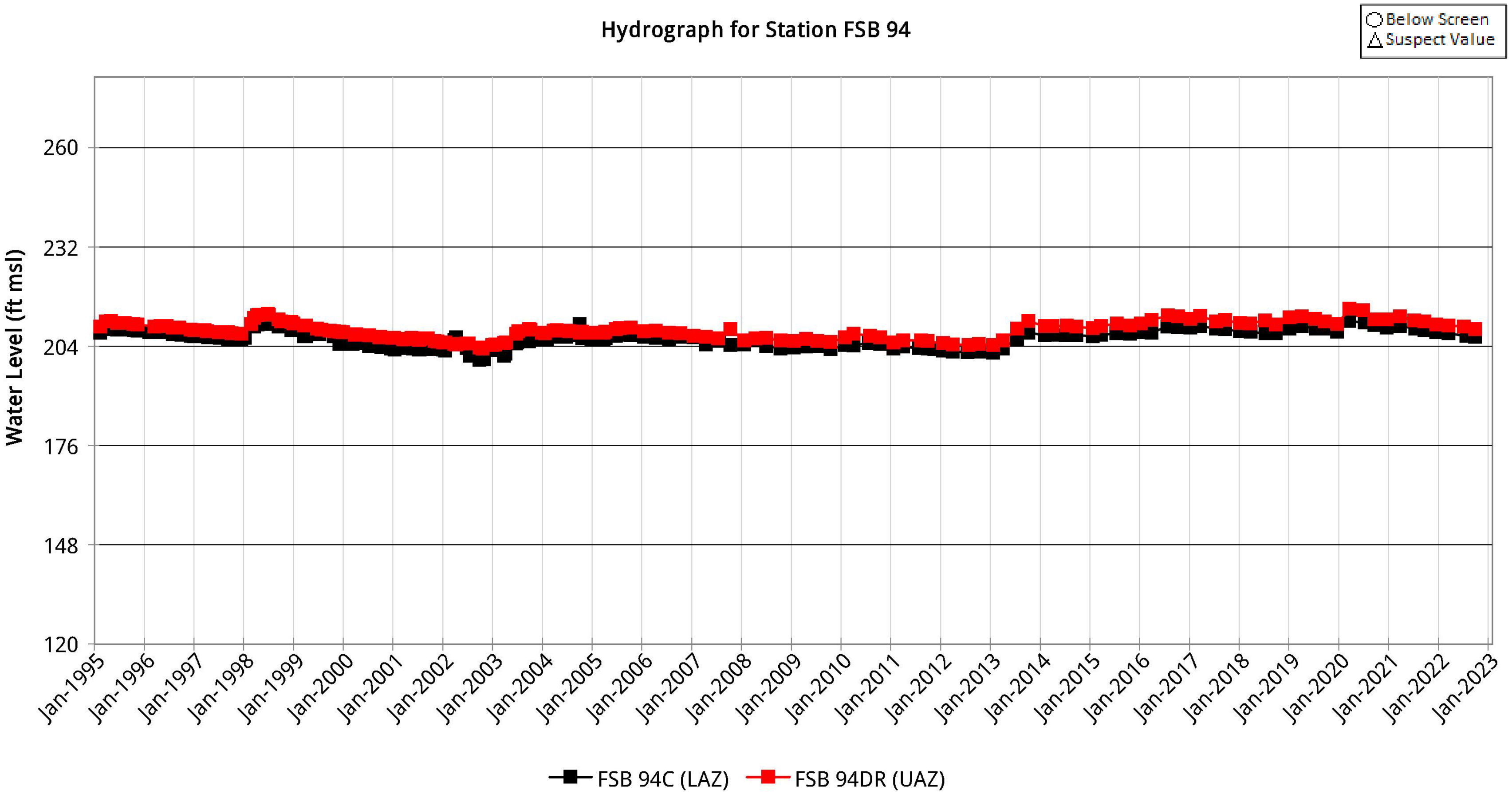
FSB 90C (LAZ)
FSB 90D (UAZ)


Hydrograph for Station FSB 94
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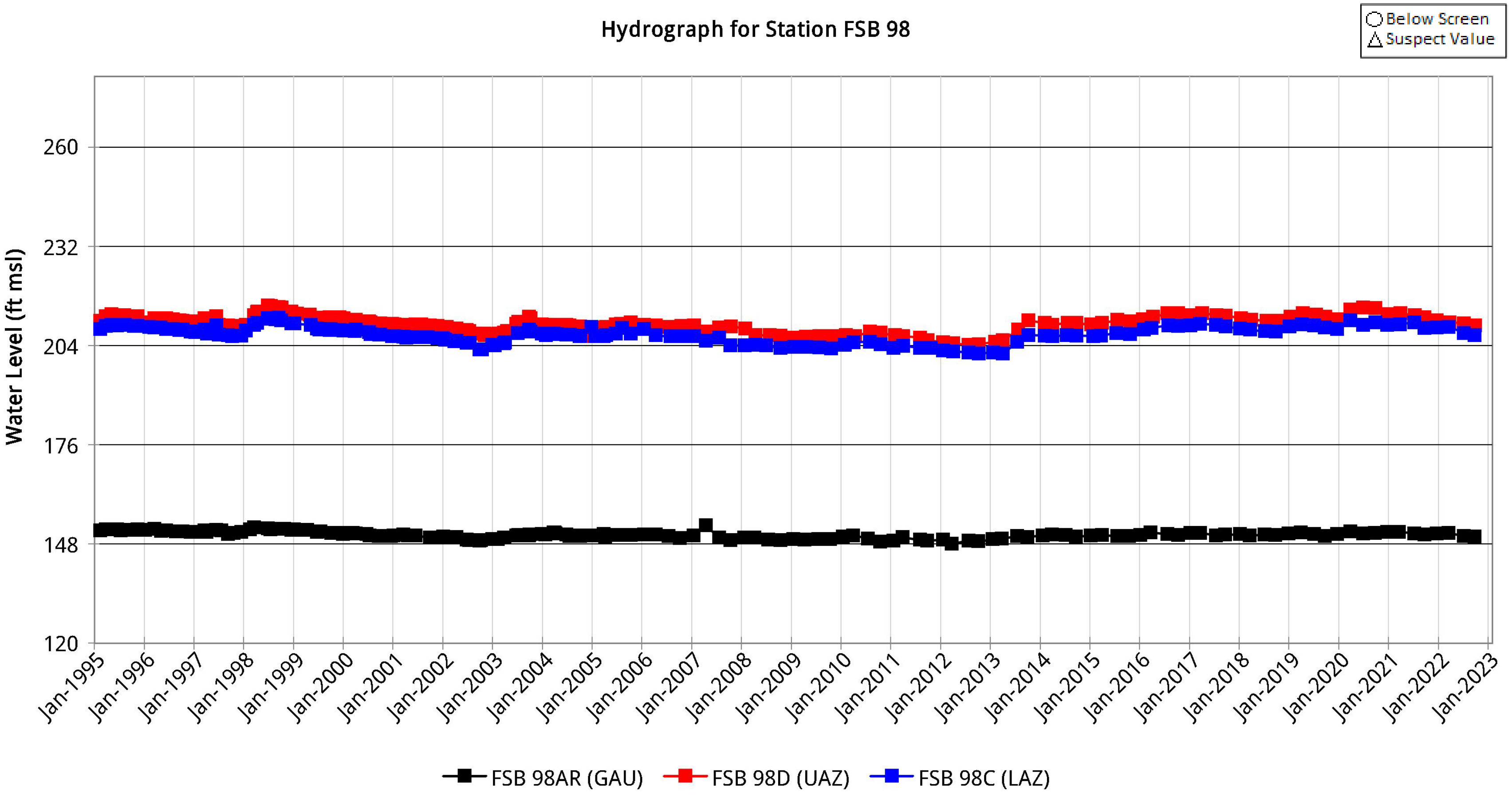
FSB 94C (LAZ)
FSB 94DR (UAZ)


Hydrograph for Station FSB 98
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△ Suspect Value
Water Level (ft msl)
260
232
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176
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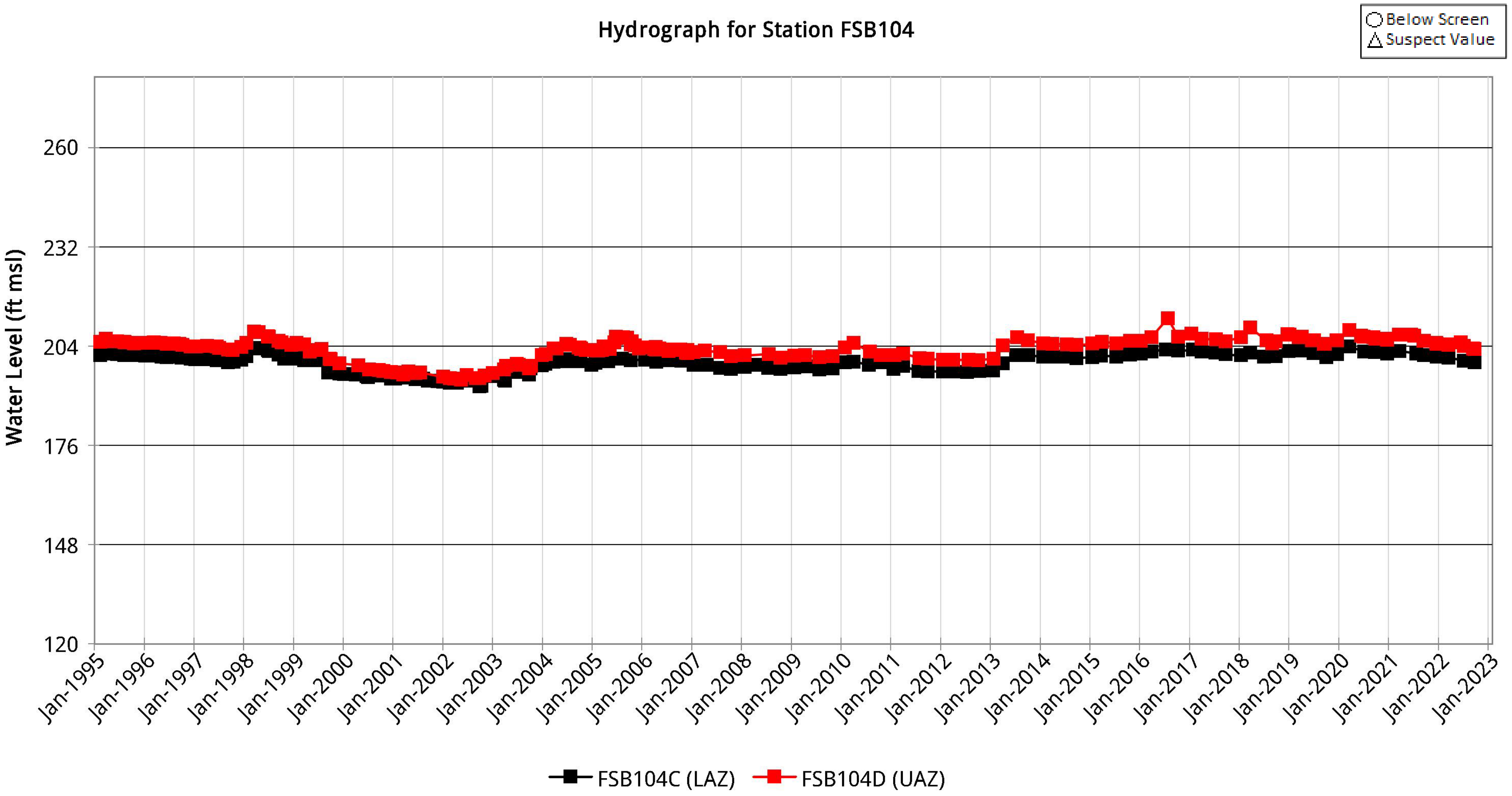
FSB 98AR (GAU)
FSB 98D (UAZ)
FSB 98C (LAZ)


Hydrograph for Station FSB104
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Water Level (ft msl)
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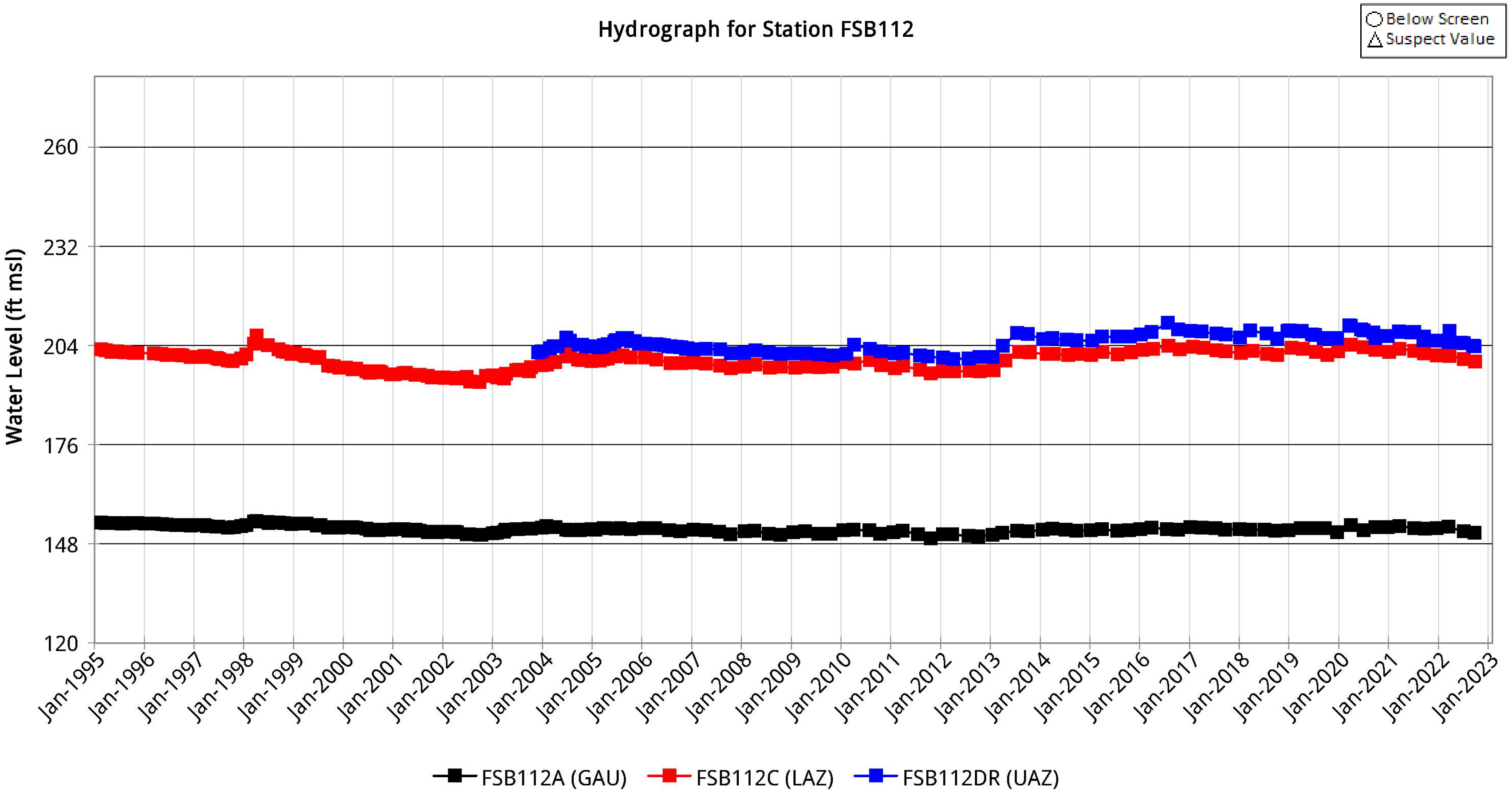
FSB104C (LAZ)
FSB104D (UAZ)


Hydrograph for Station FSB112
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Water Level (ft msl)
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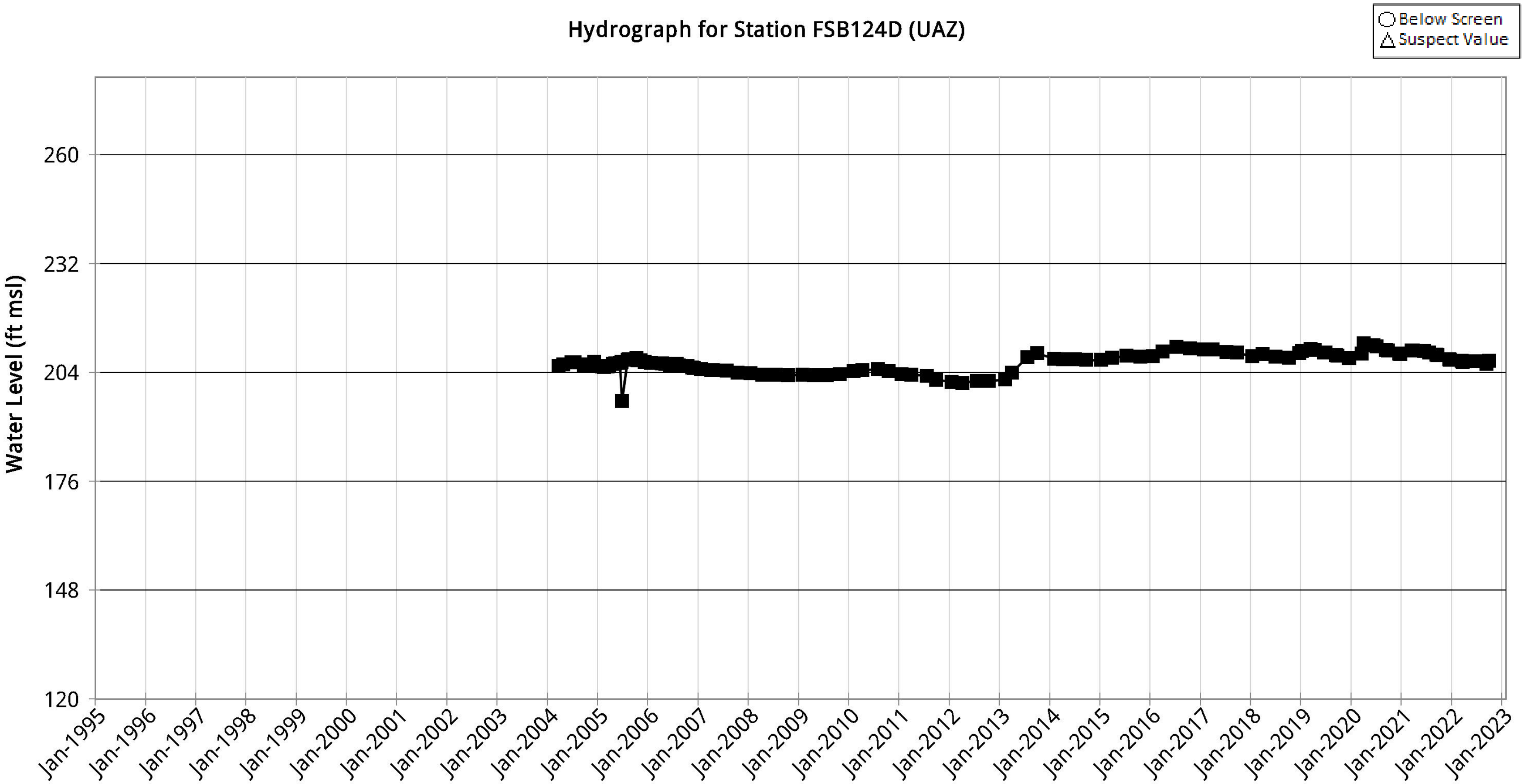
FSB112A (GAU)
FSB112C (LAZ)
FSB112DR (UAZ)


Hydrograph for Station FSB124D (UAZ)
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Water Level (ft msl)
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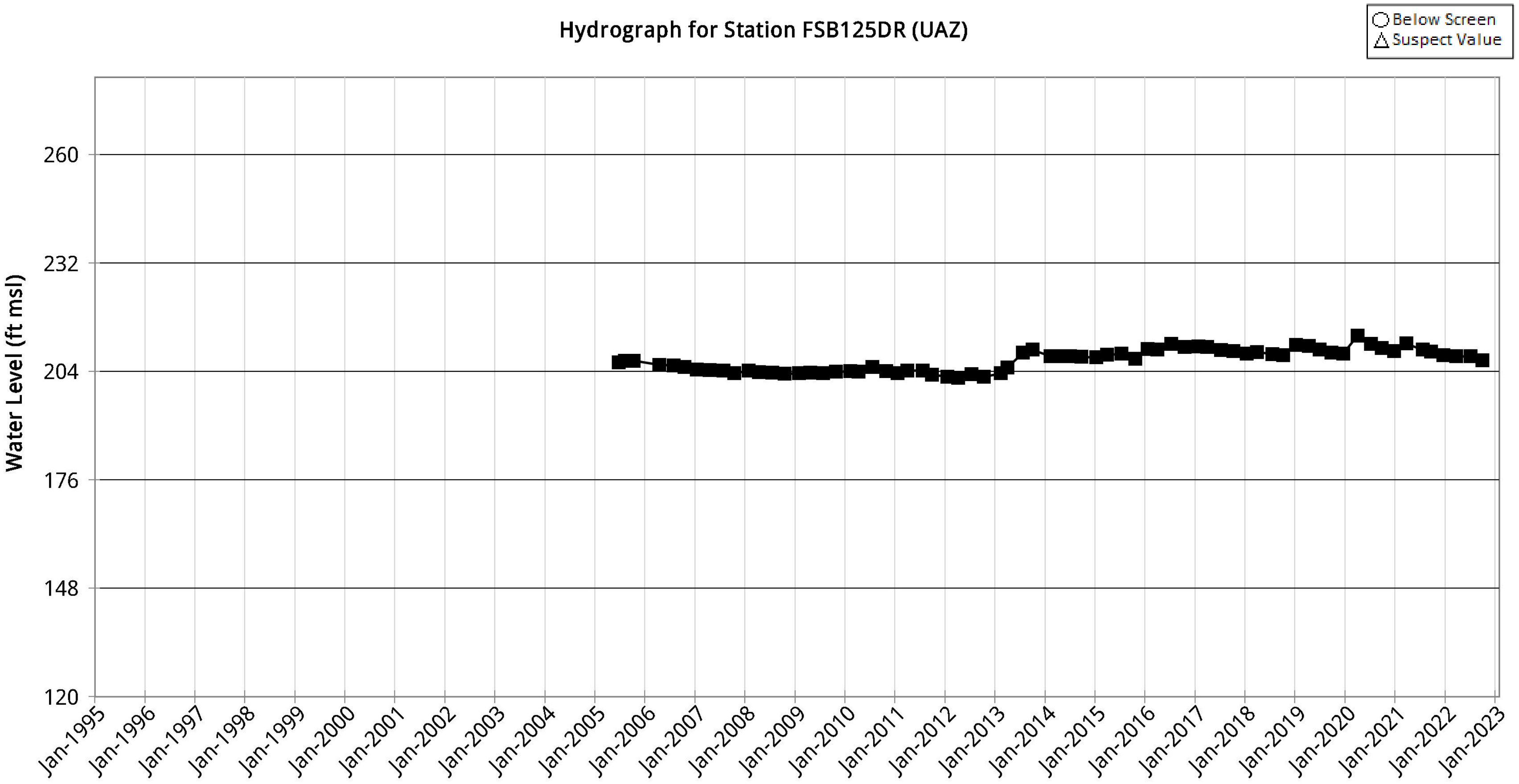
Hydrograph for Station FSB125DR (UAZ)
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Water Level (ft msl)
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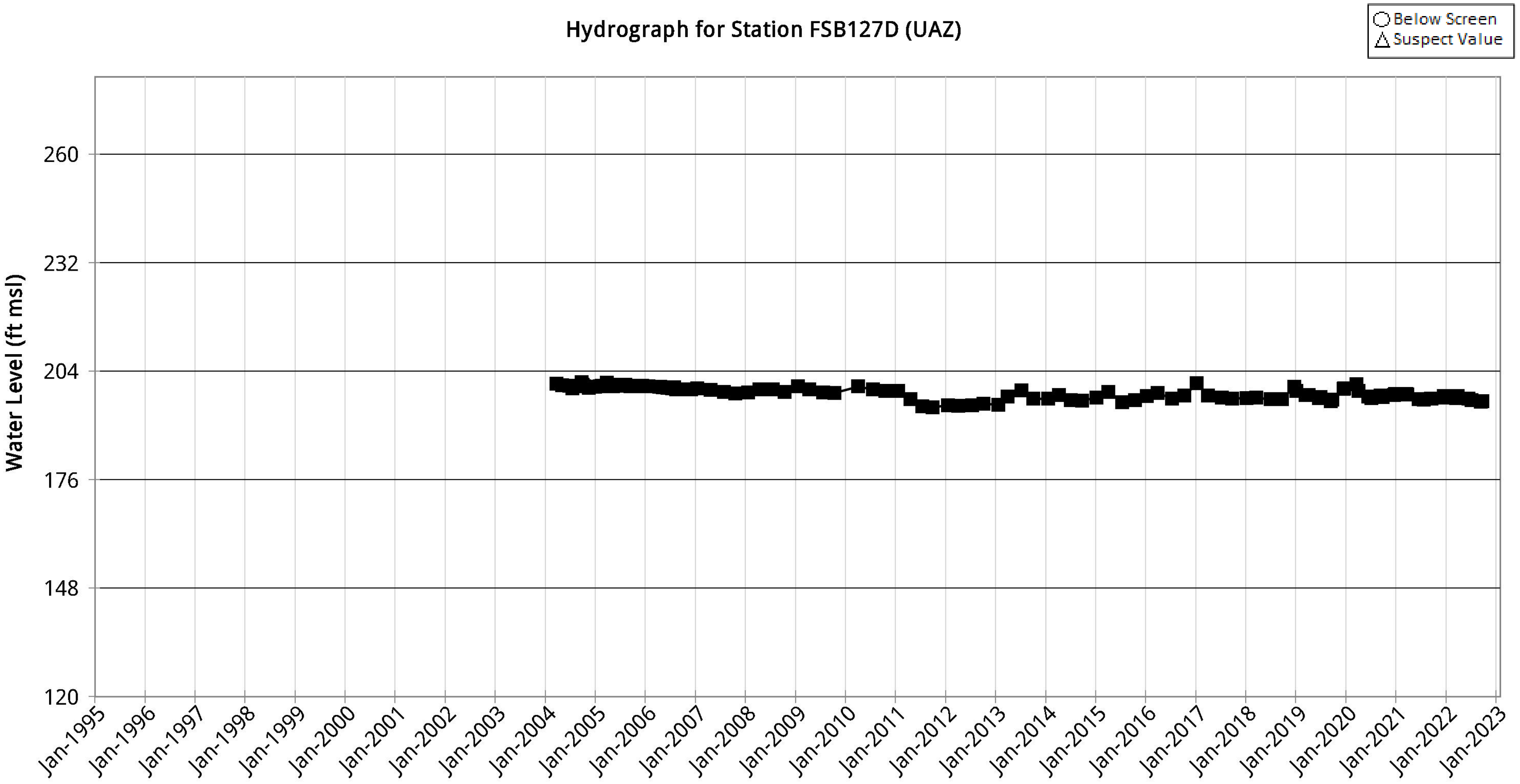
Hydrograph for Station FSB127D (UAZ)
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Water Level (ft msl)
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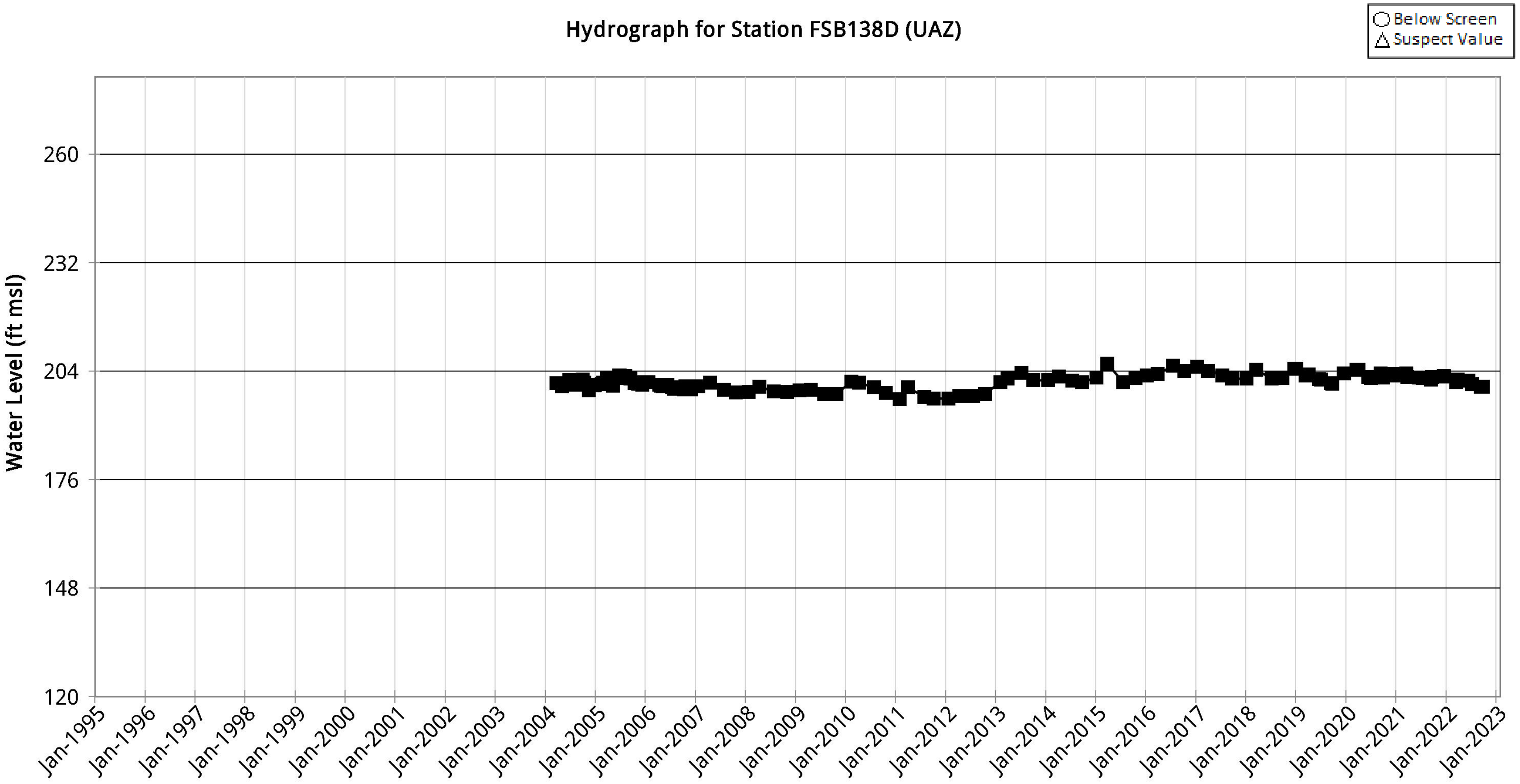
Hydrograph for Station FSB138D (UAZ)
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△ Suspect Value
Water Level (ft msl)
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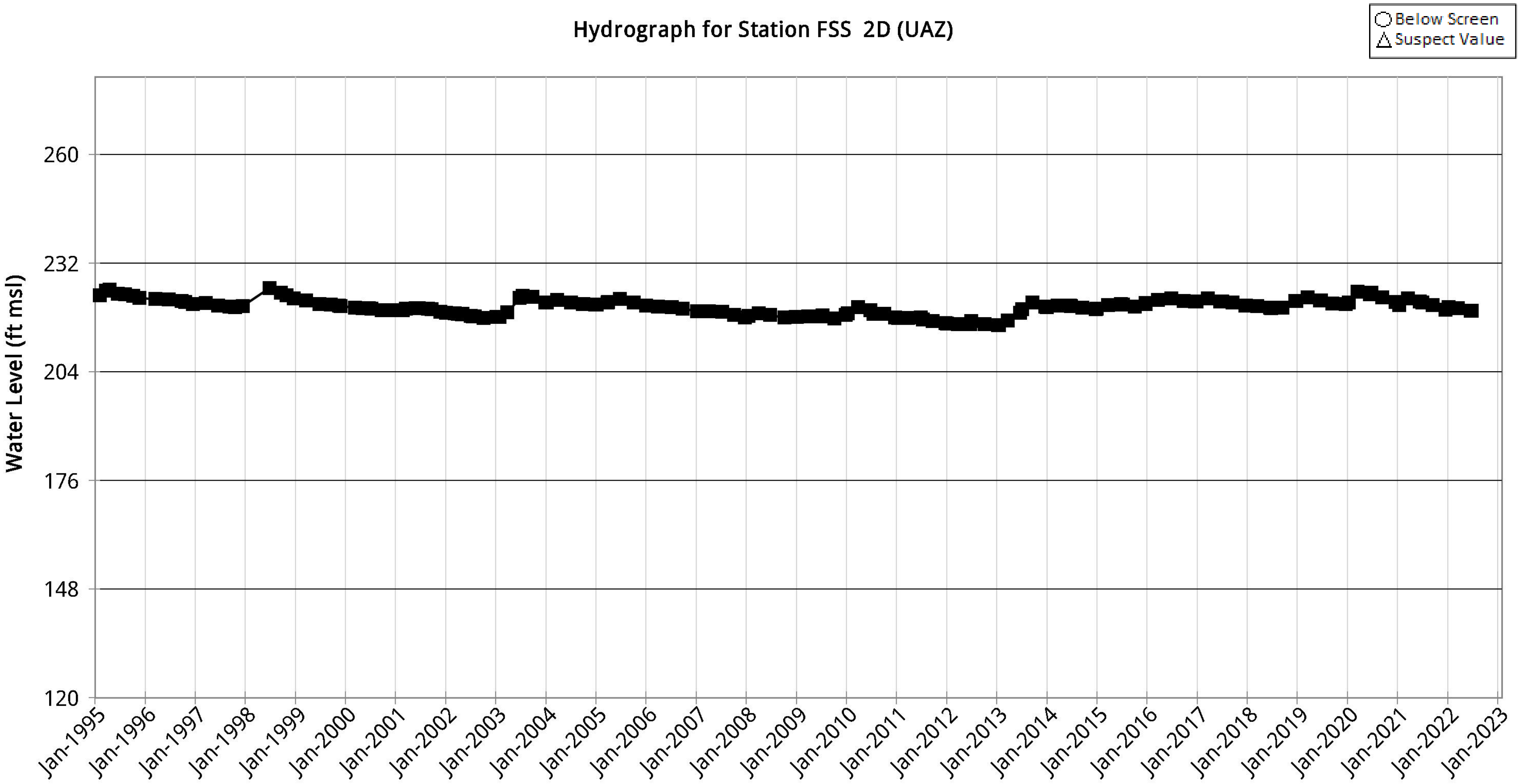
Hydrograph for Station FSS 2D (UAZ)
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Water Level (ft msl)
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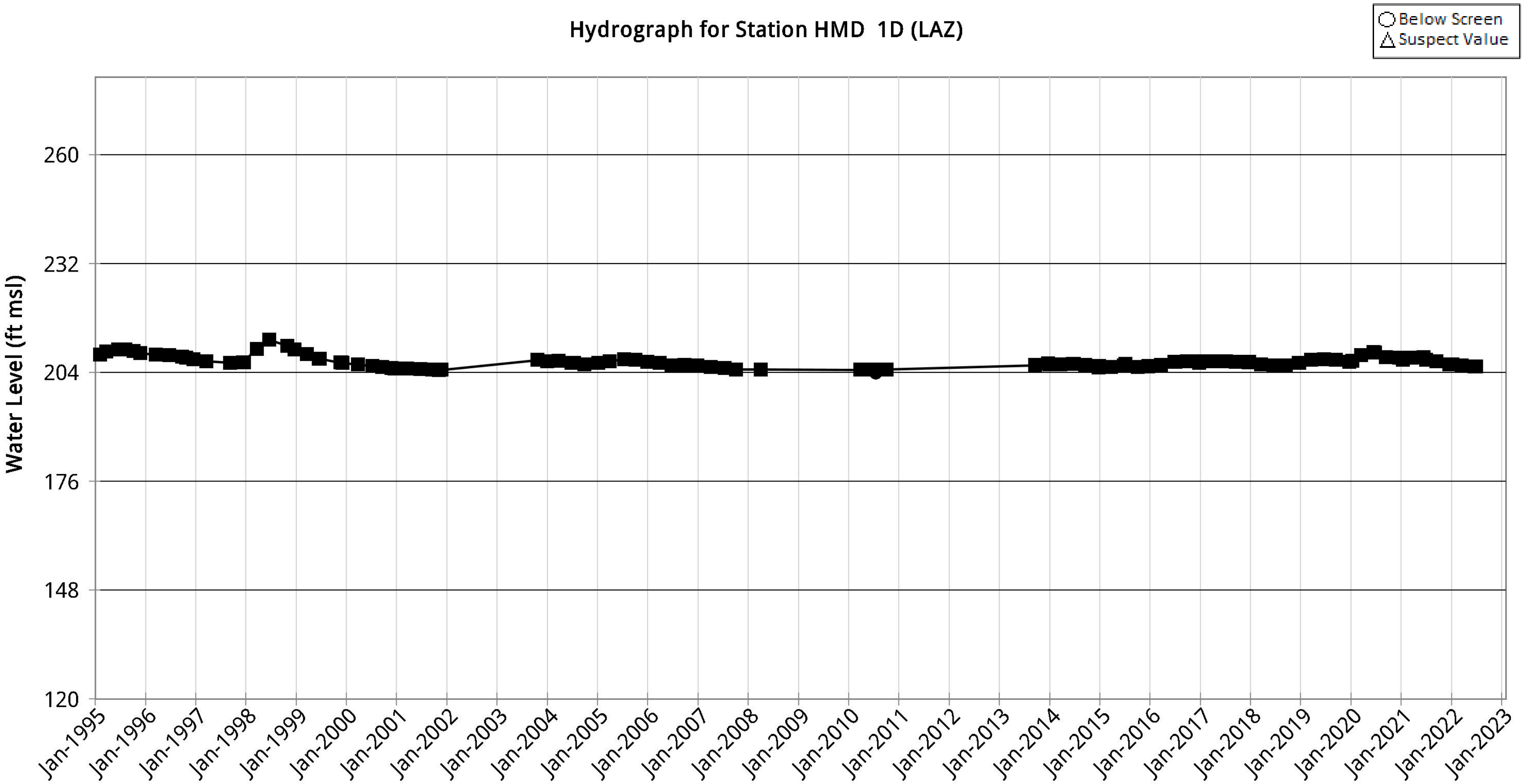
Hydrograph for Station HMD 1D (LAZ)
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Suspect Value
Water Level (ft msl)
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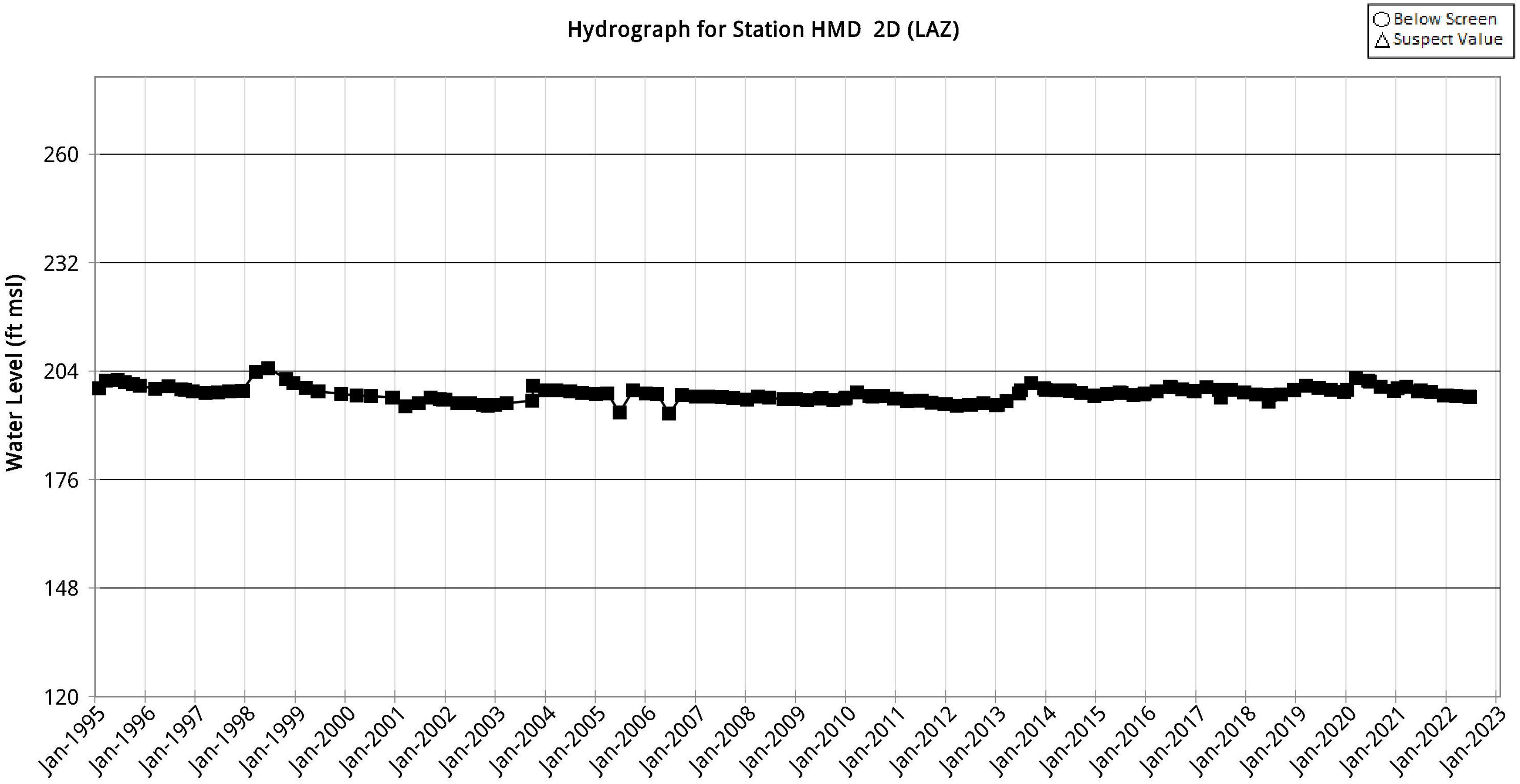
Hydrograph for Station HMD 2D (LAZ)
○ Below Screen
△ Suspect Value
Water Level (ft msl)
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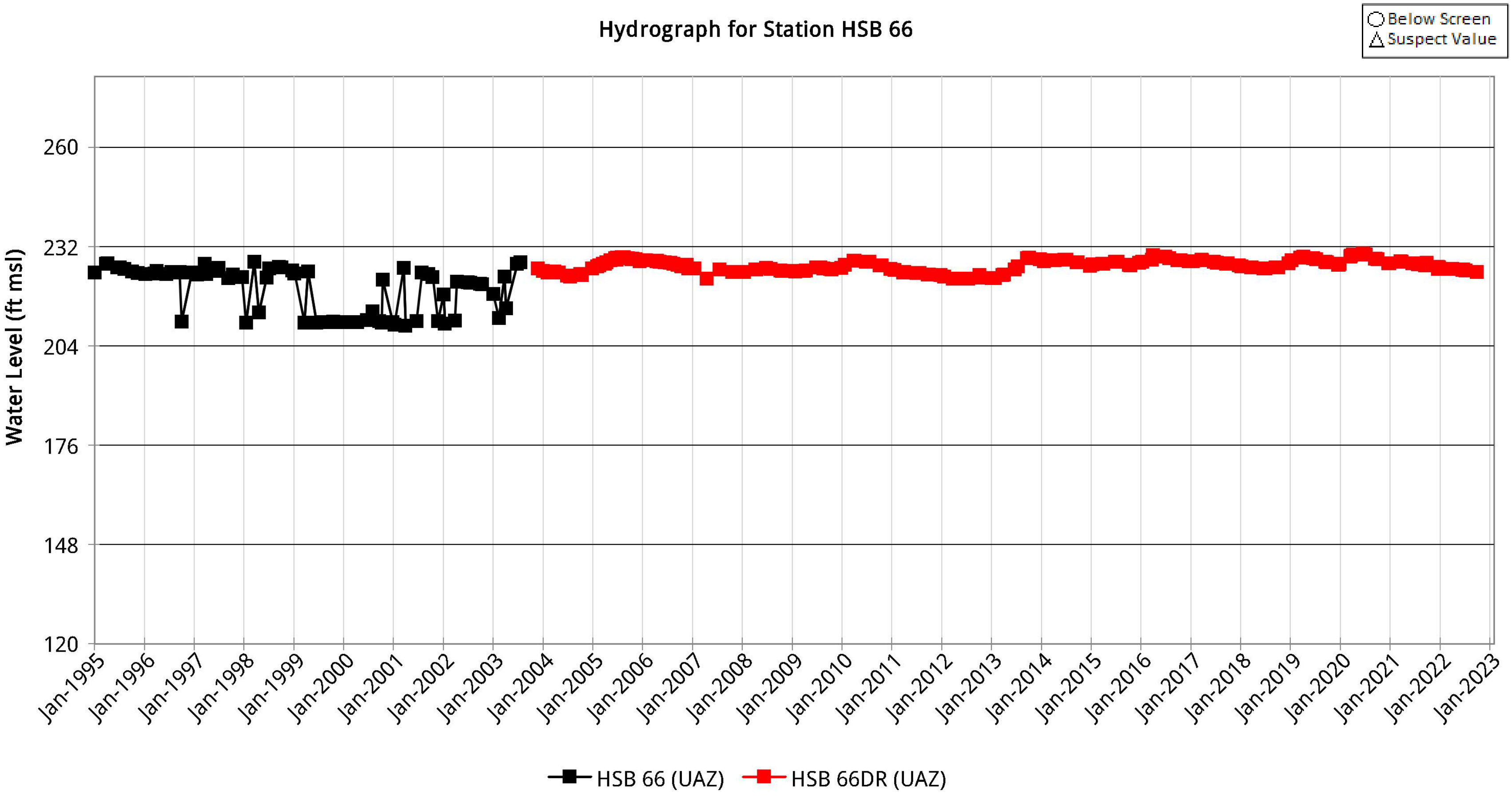
Hydrograph for Station HSB 66
○ Below Screen
△ Suspect Value
Water Level (ft msl)
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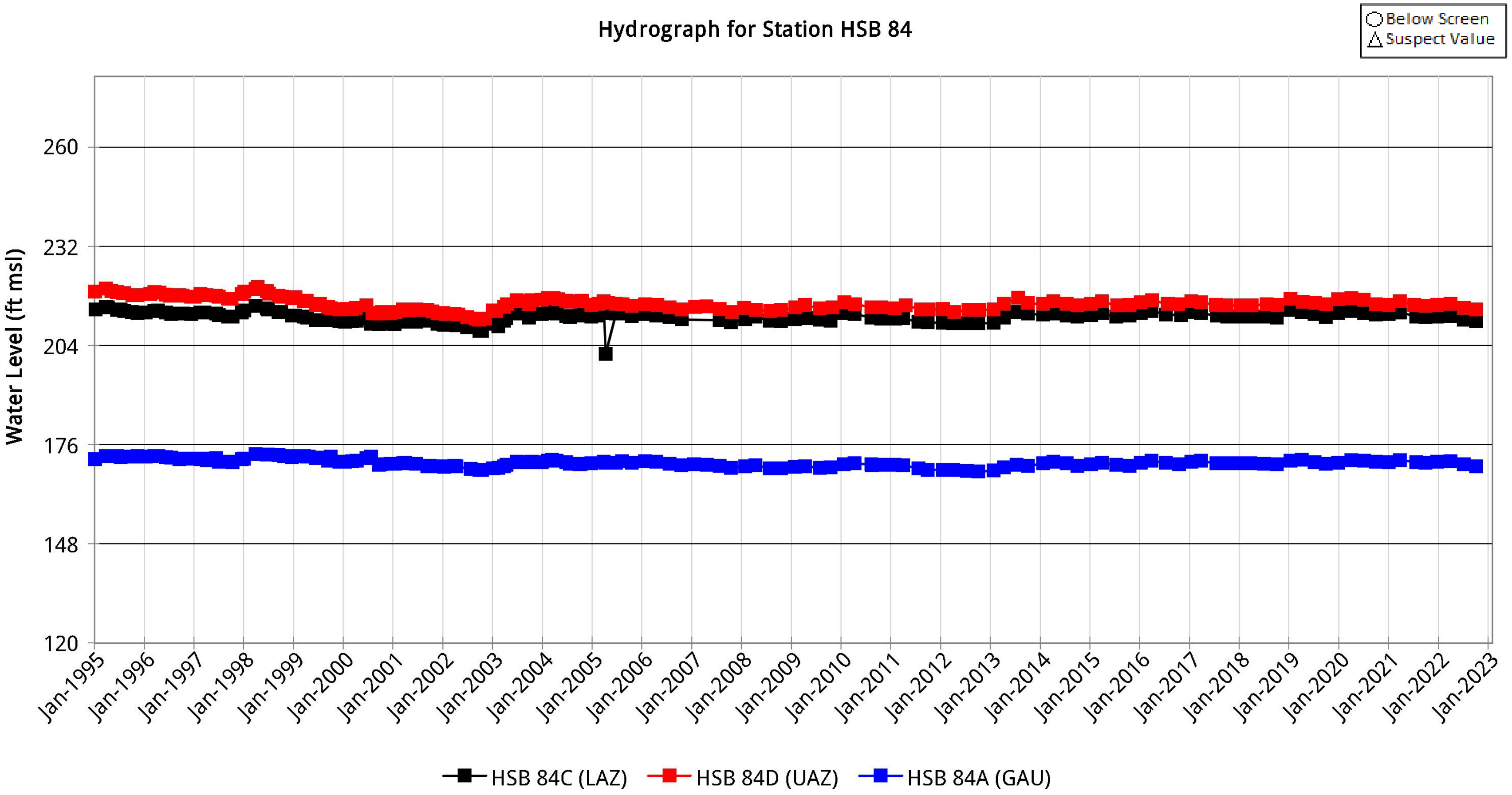
HSB 66 (UAZ)
HSB 66DR (UAZ)


Hydrograph for Station HSB 84
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Water Level (ft msl)
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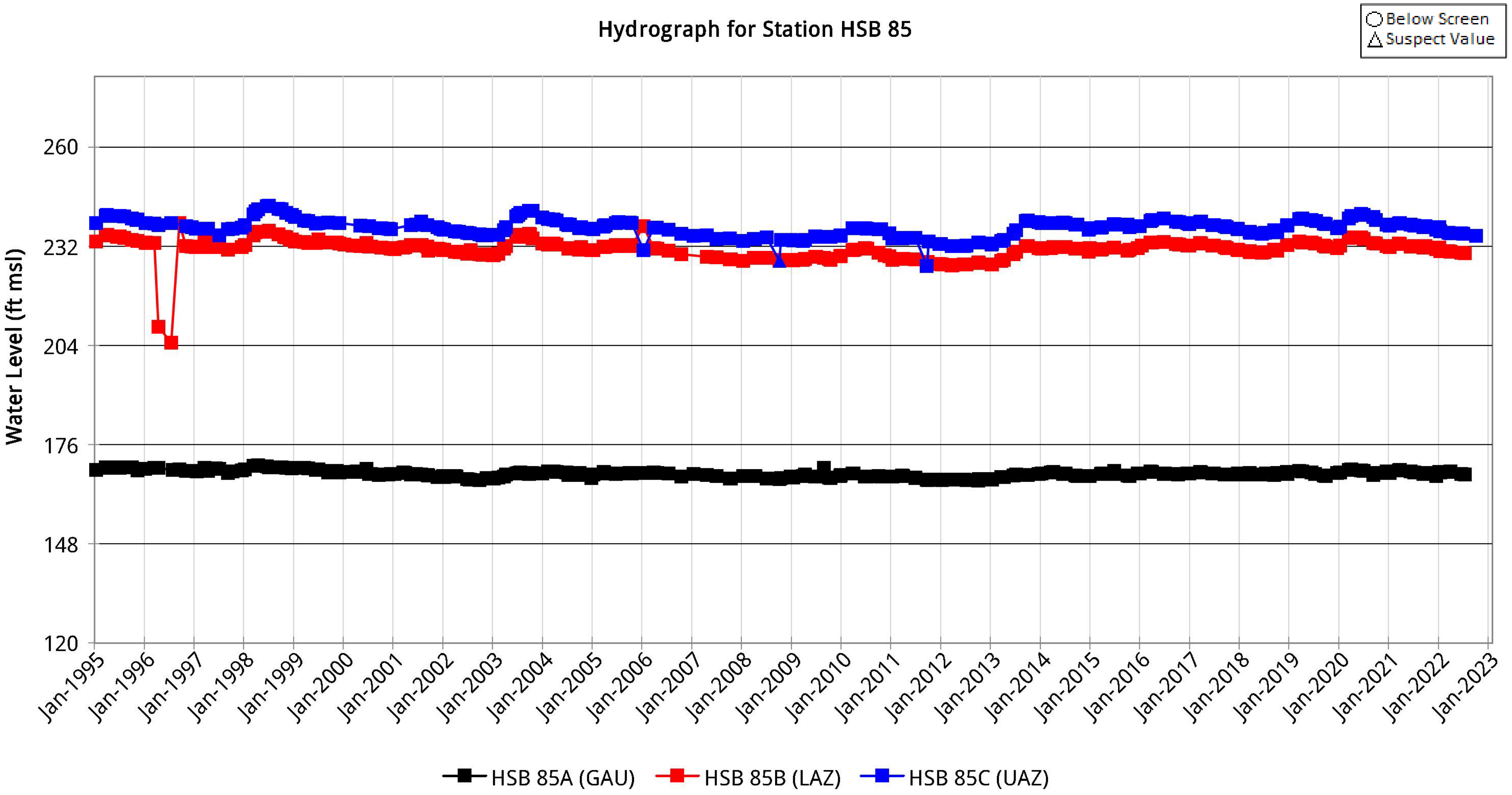
HSB 84C (LAZ)
HSB 84D (UAZ)
HSB 84A (GAU)


Hydrograph for Station HSB 85
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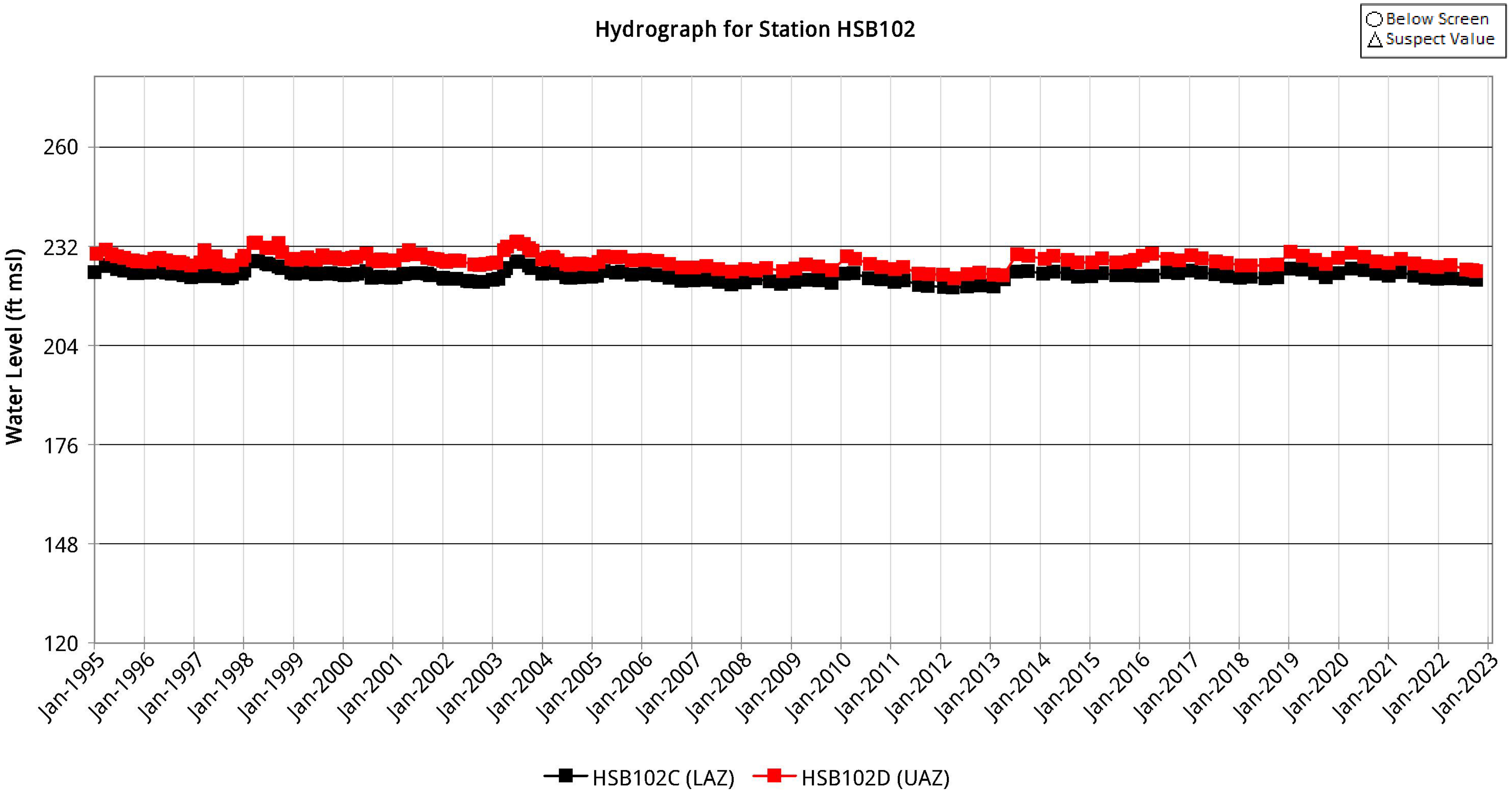
HSB 85A (GAU)
HSB 85B (LAZ)
HSB 85C (UAZ)


Hydrograph for Station HSB102
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Water Level (ft msl)
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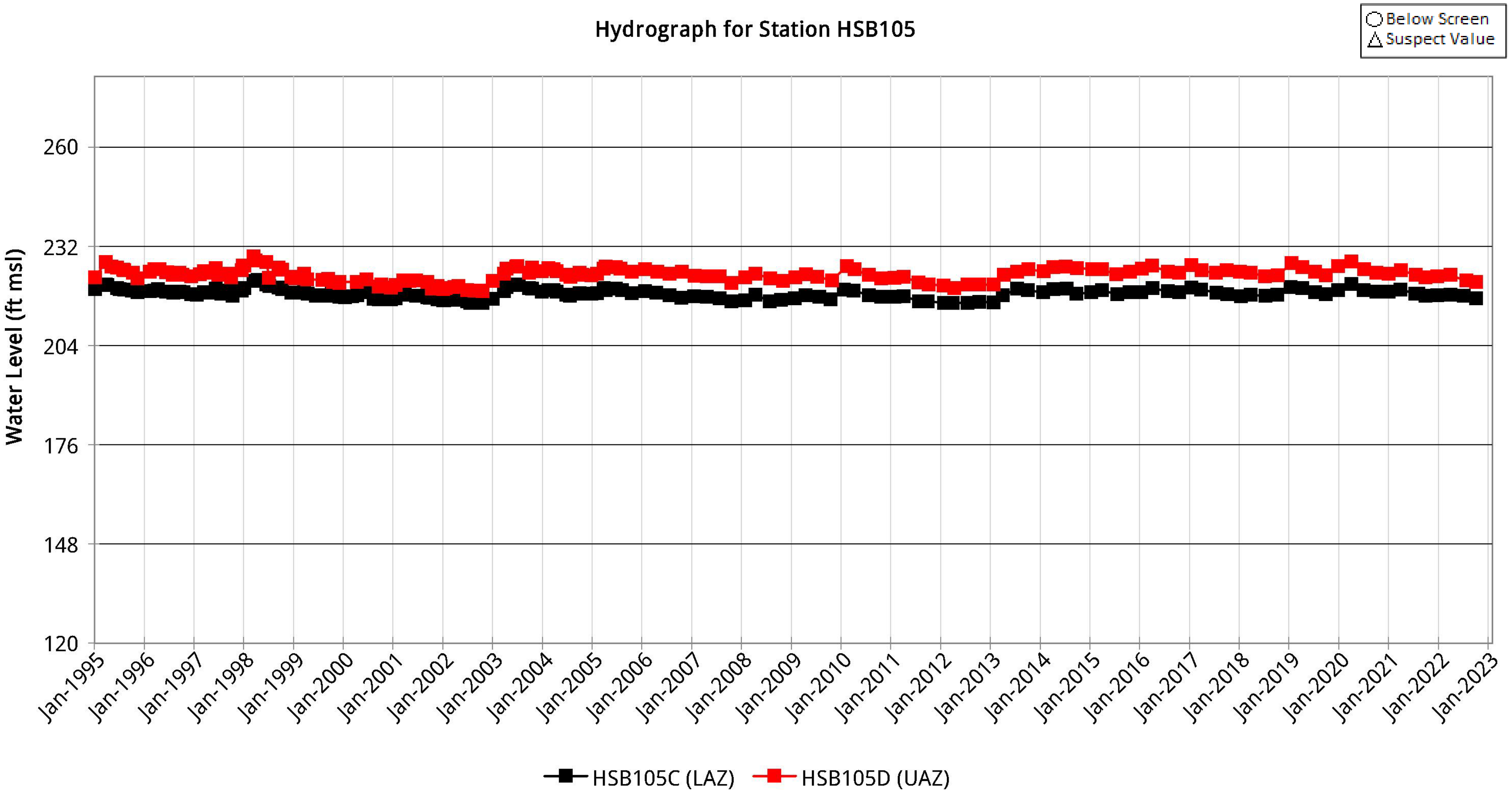
HSB102C (LAZ)
HSB102D (UAZ)


Hydrograph for Station HSB105
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Water Level (ft msl)
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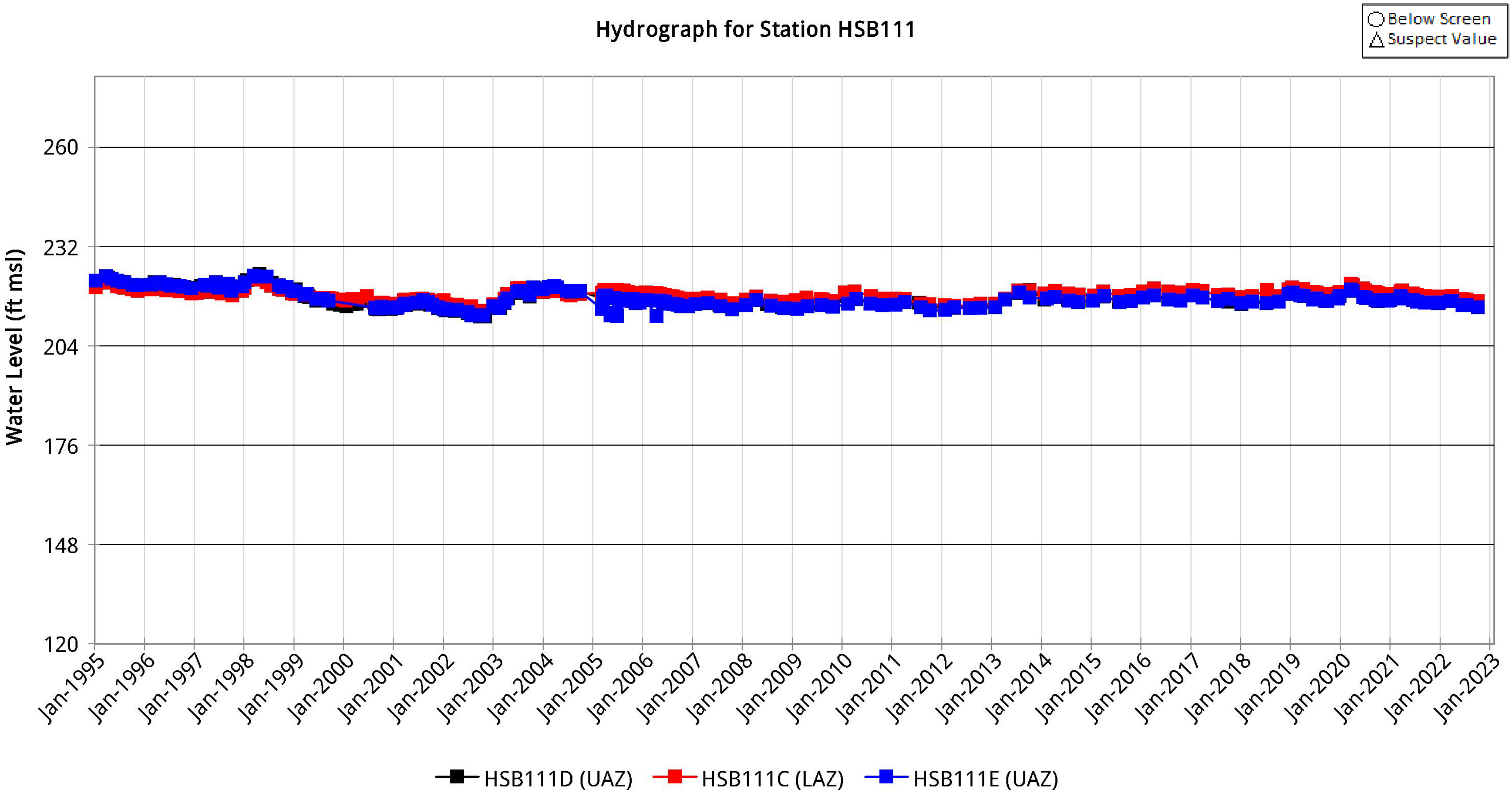
HSB105C (LAZ)
HSB105D (UAZ)


Hydrograph for Station HSB111
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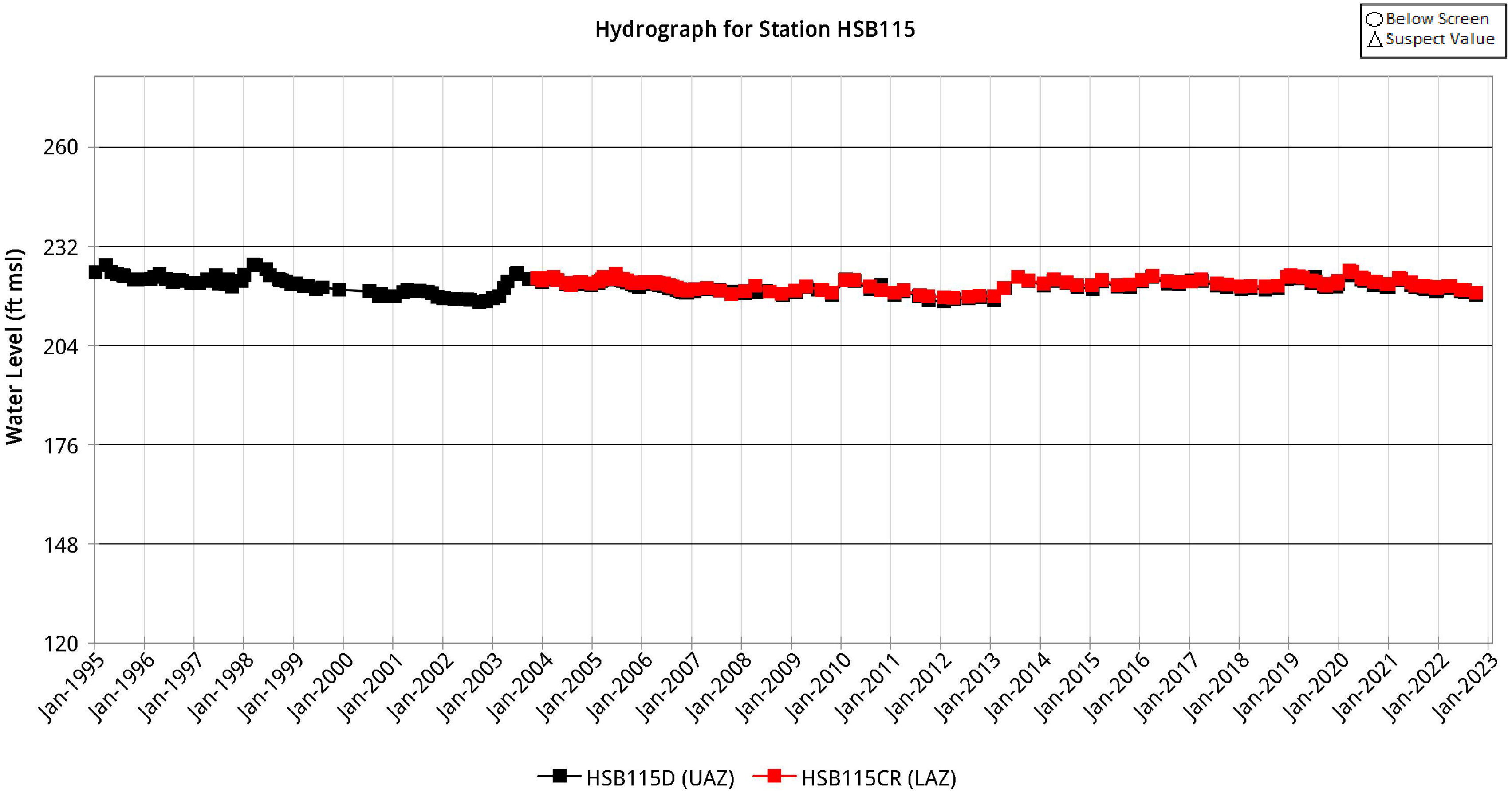
HSB111D (UAZ)
HSB111C (LAZ)
HSB111E (UAZ)


Hydrograph for Station HSB115
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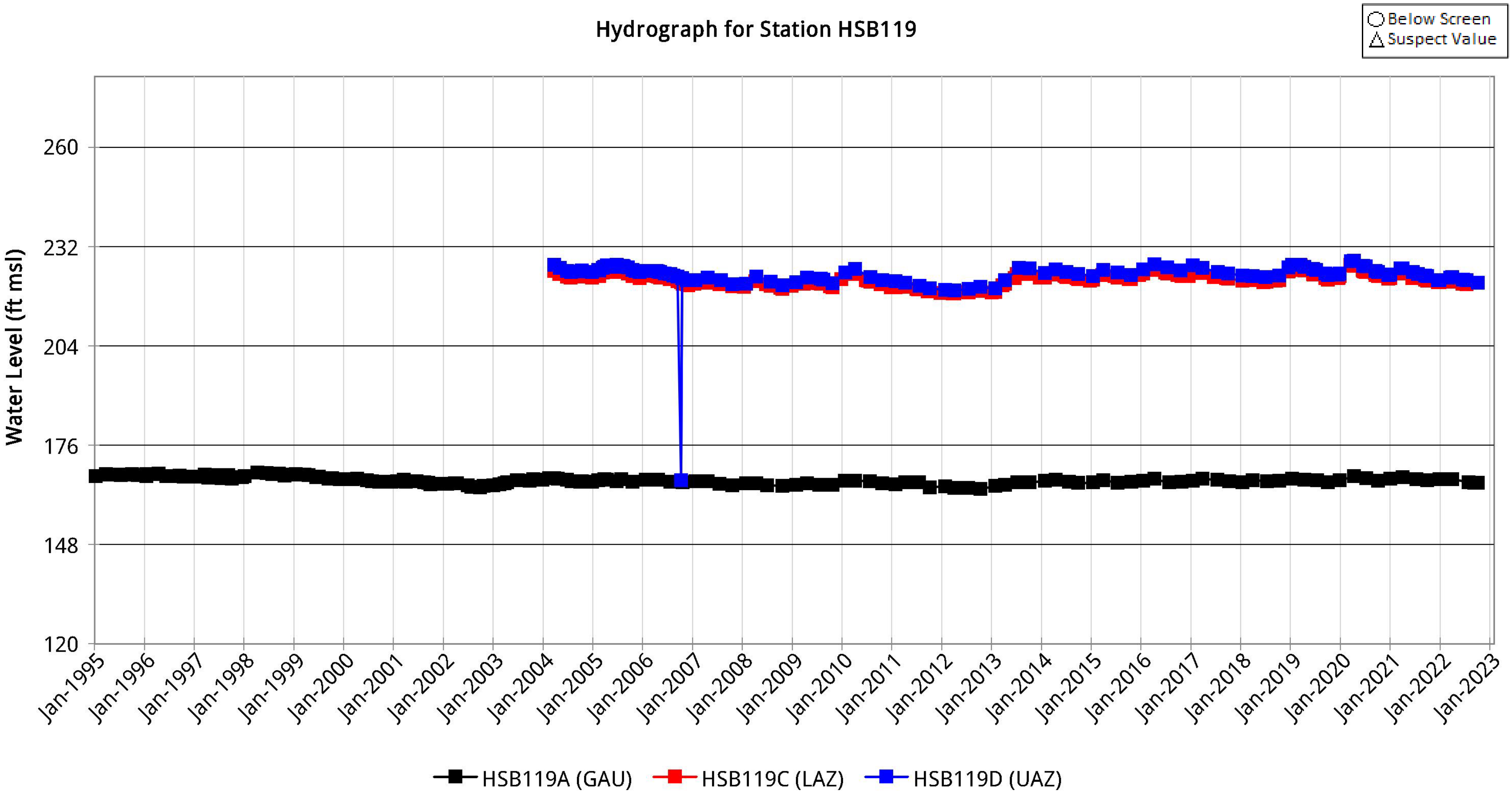
HSB115D (UAZ)
HSB115CR (LAZ)


Hydrograph for Station HSB119
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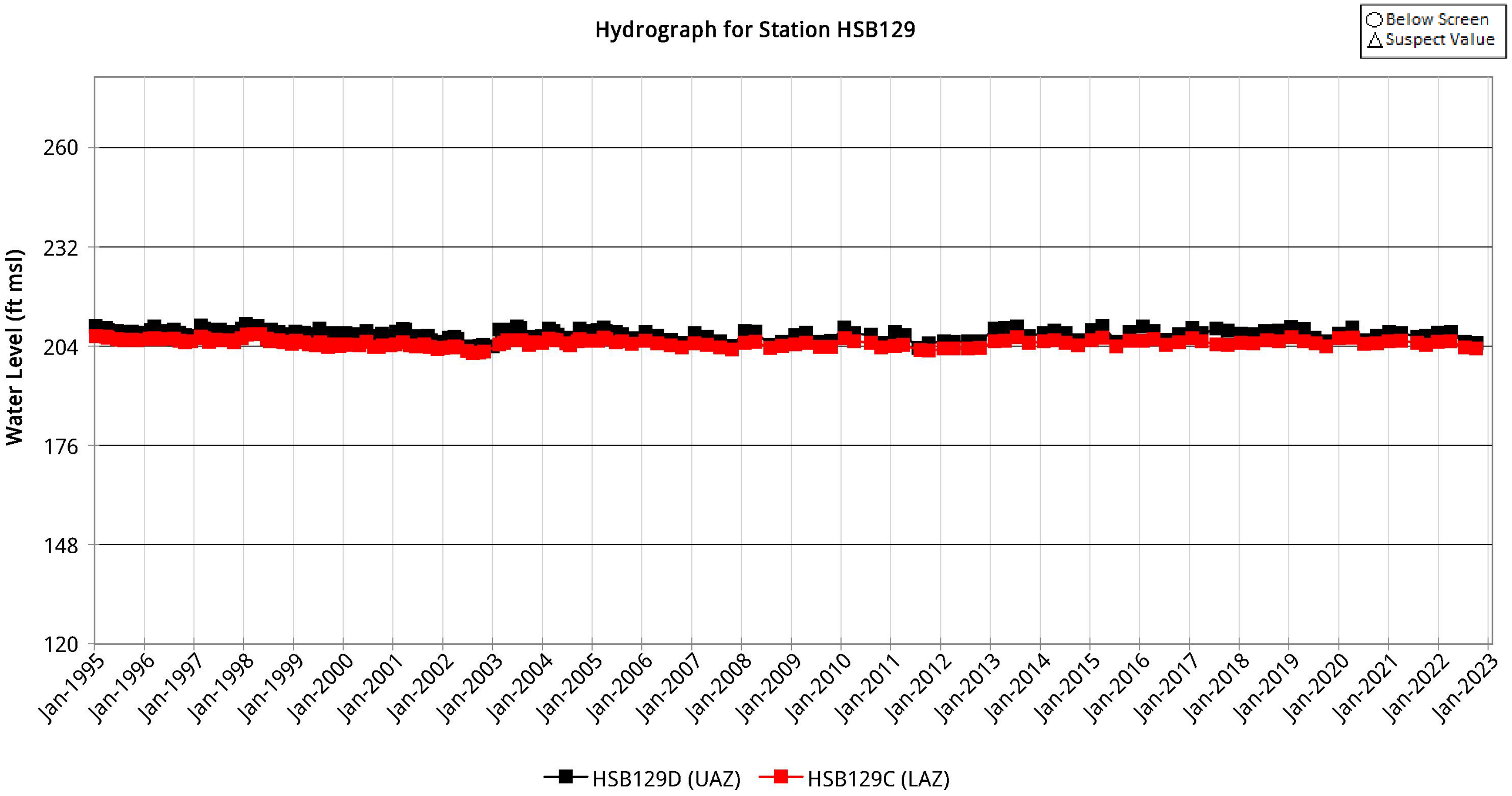
HSB119A (GAU)
HSB119C (LAZ)
HSB119D (UAZ)


Hydrograph for Station HSB129
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Water Level (ft msl)
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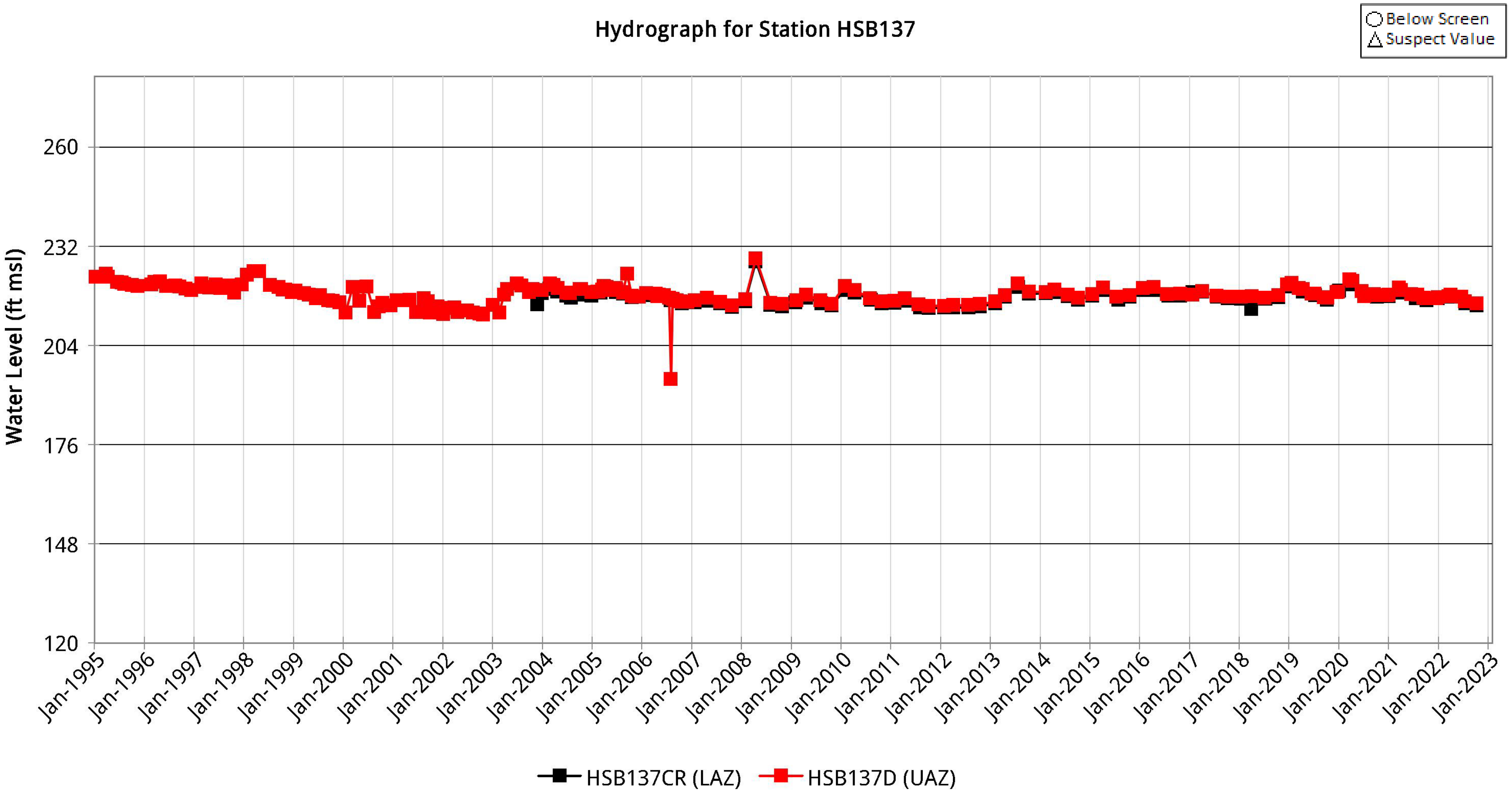
HSB129D (UAZ)
HSB129C (LAZ)


Hydrograph for Station HSB137
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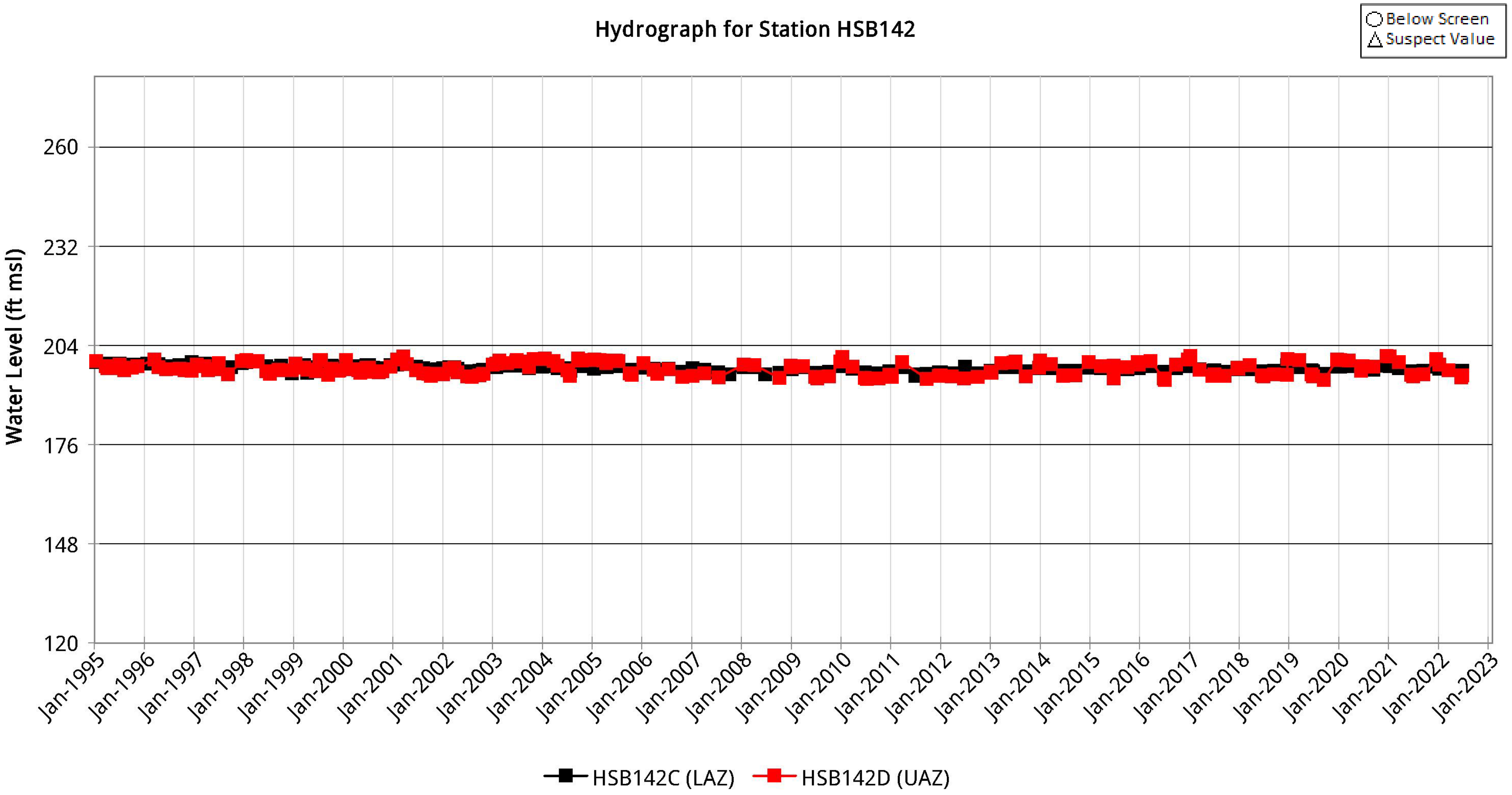
HSB137CR (LAZ)
HSB137D (UAZ)


Hydrograph for Station HSB142
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Water Level (ft msl)
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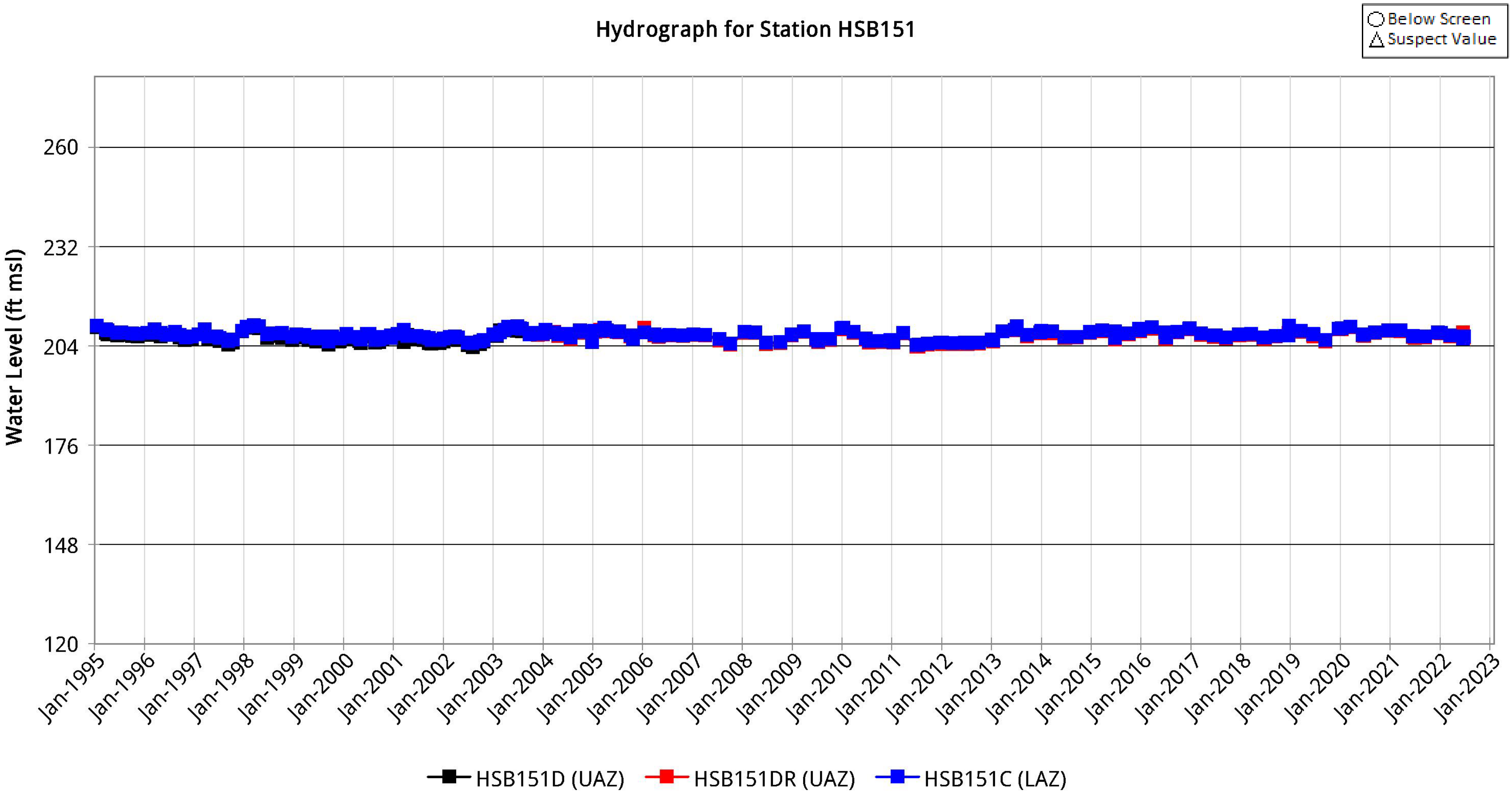
HSB142C (LAZ)
HSB142D (UAZ)


Hydrograph for Station HSB151
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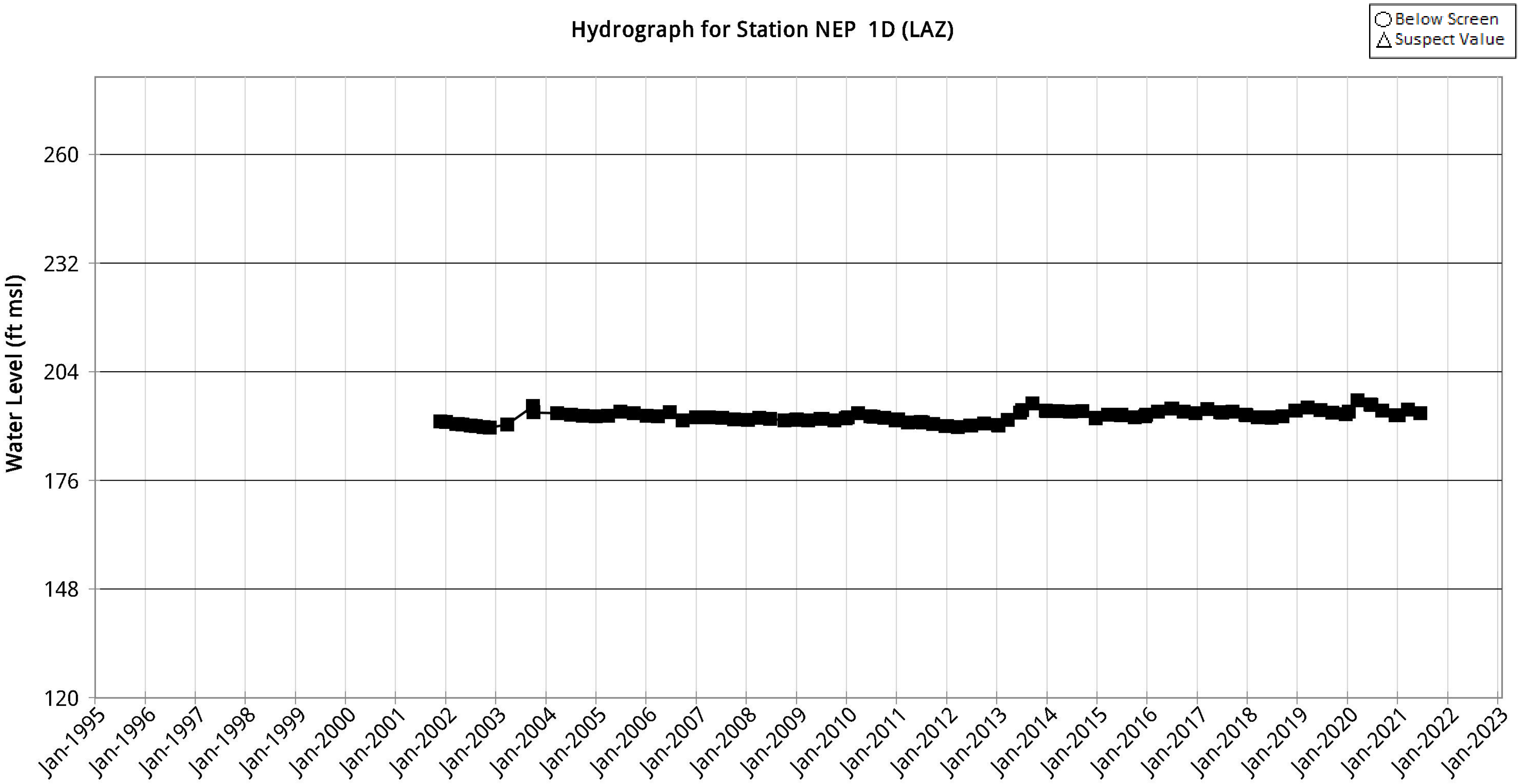
HSB151D (UAZ)
HSB151DR (UAZ)
HSB151C (LAZ)


Hydrograph for Station NEP 1D (LAZ)
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Water Level (ft msl)
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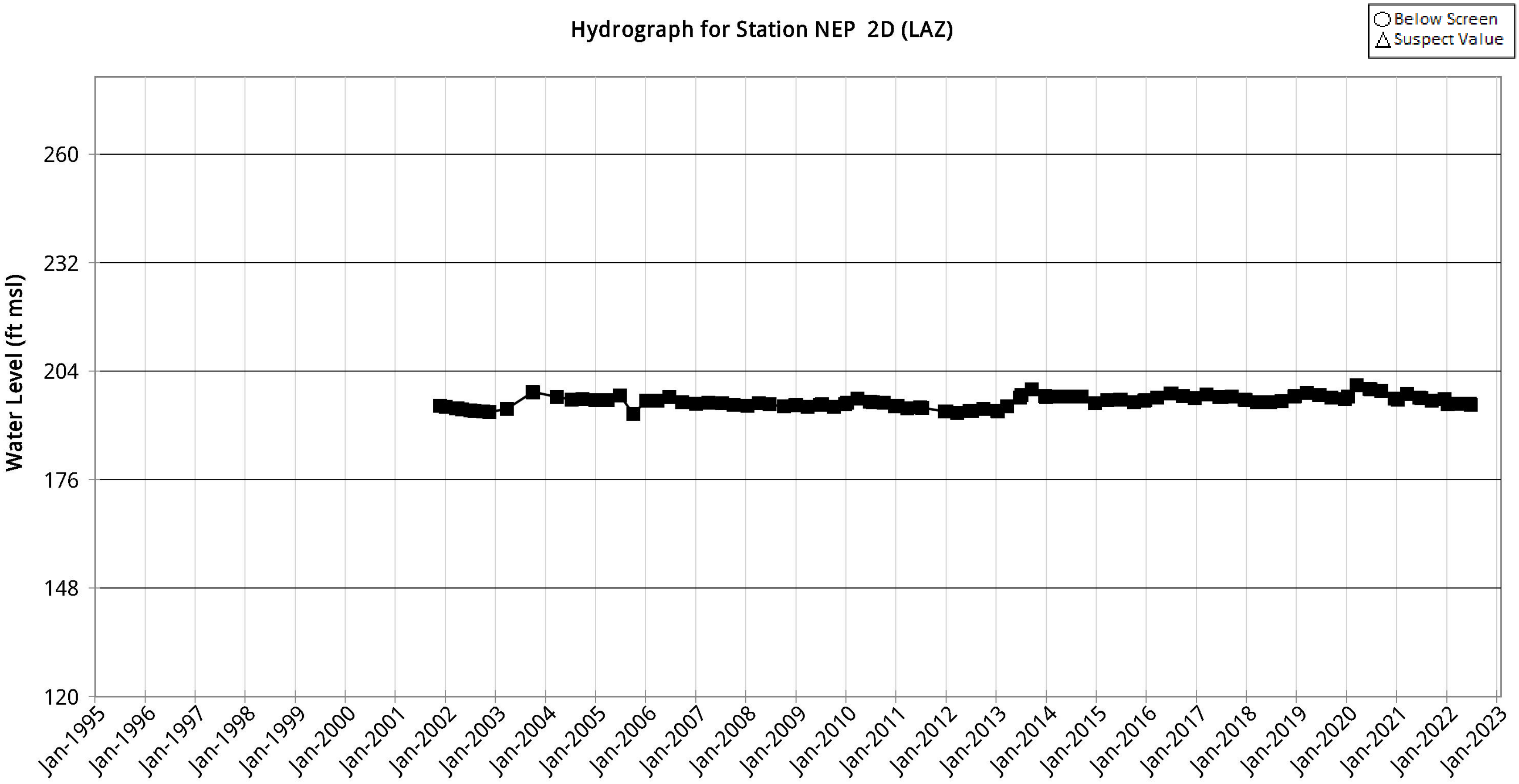
Hydrograph for Station NEP 2D (LAZ)
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△ Suspect Value
Water Level (ft msl)
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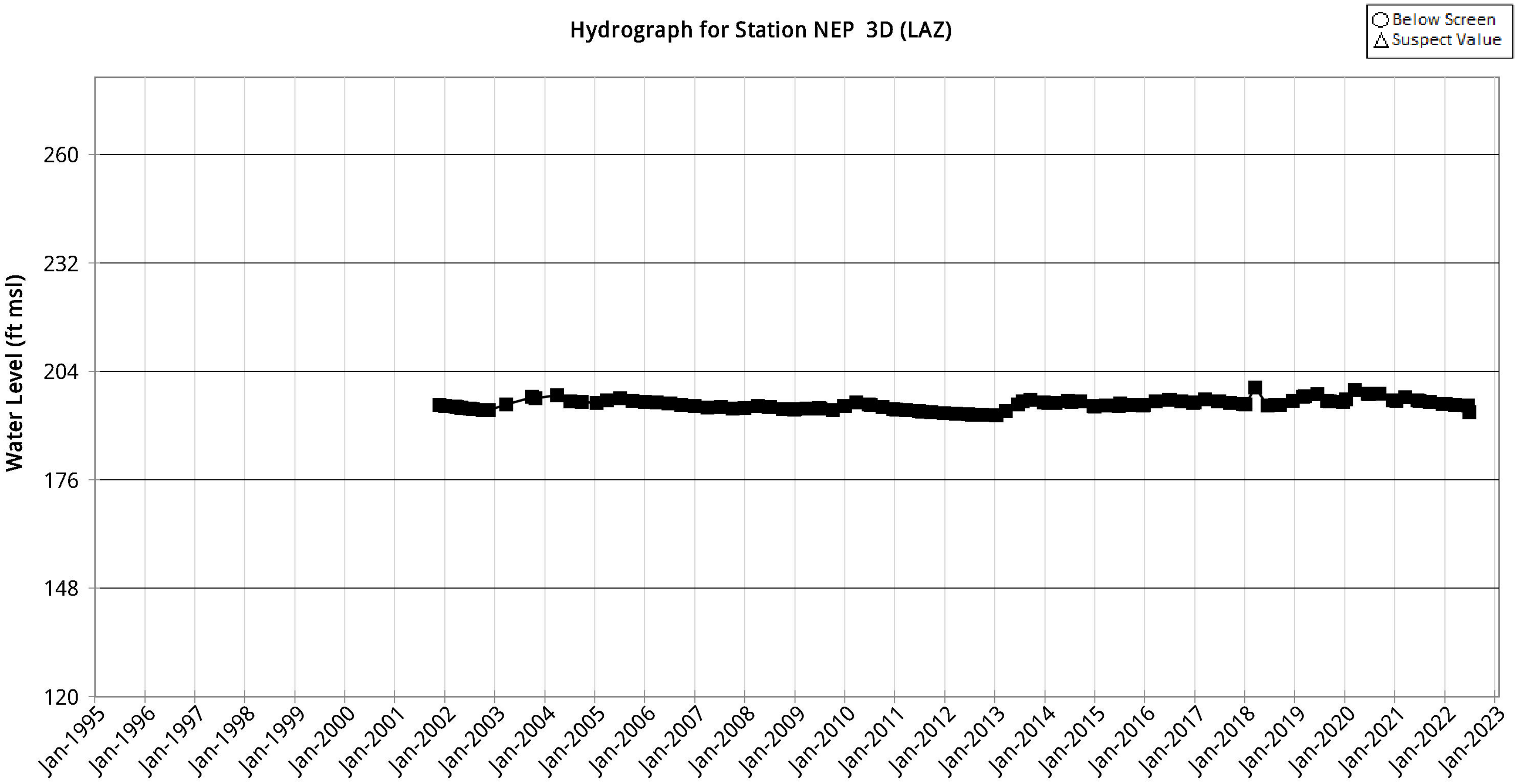
Hydrograph for Station NEP 3D (LAZ)
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Water Level (ft msl)
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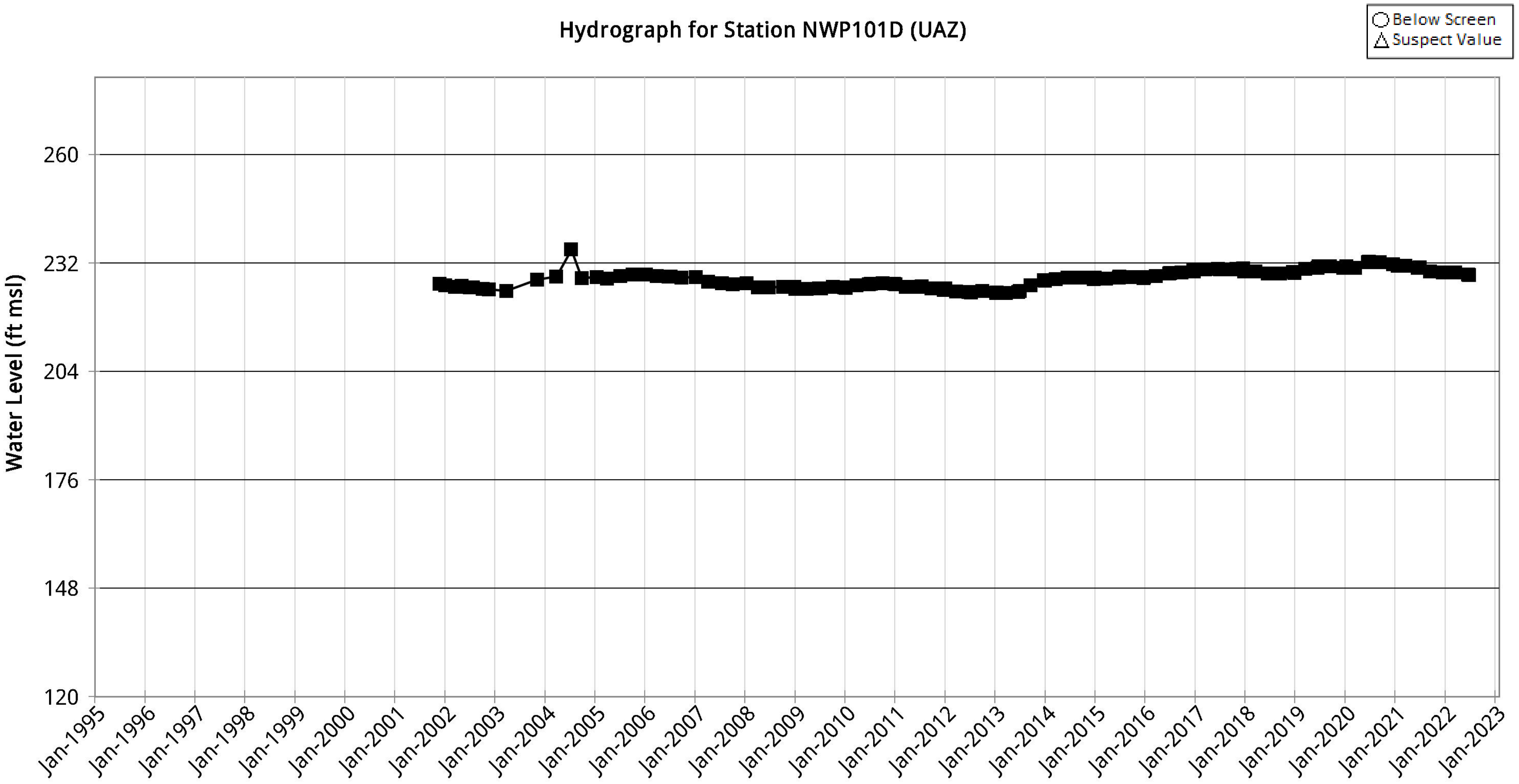
Hydrograph for Station NWP101D (UAZ)
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Water Level (ft msl)
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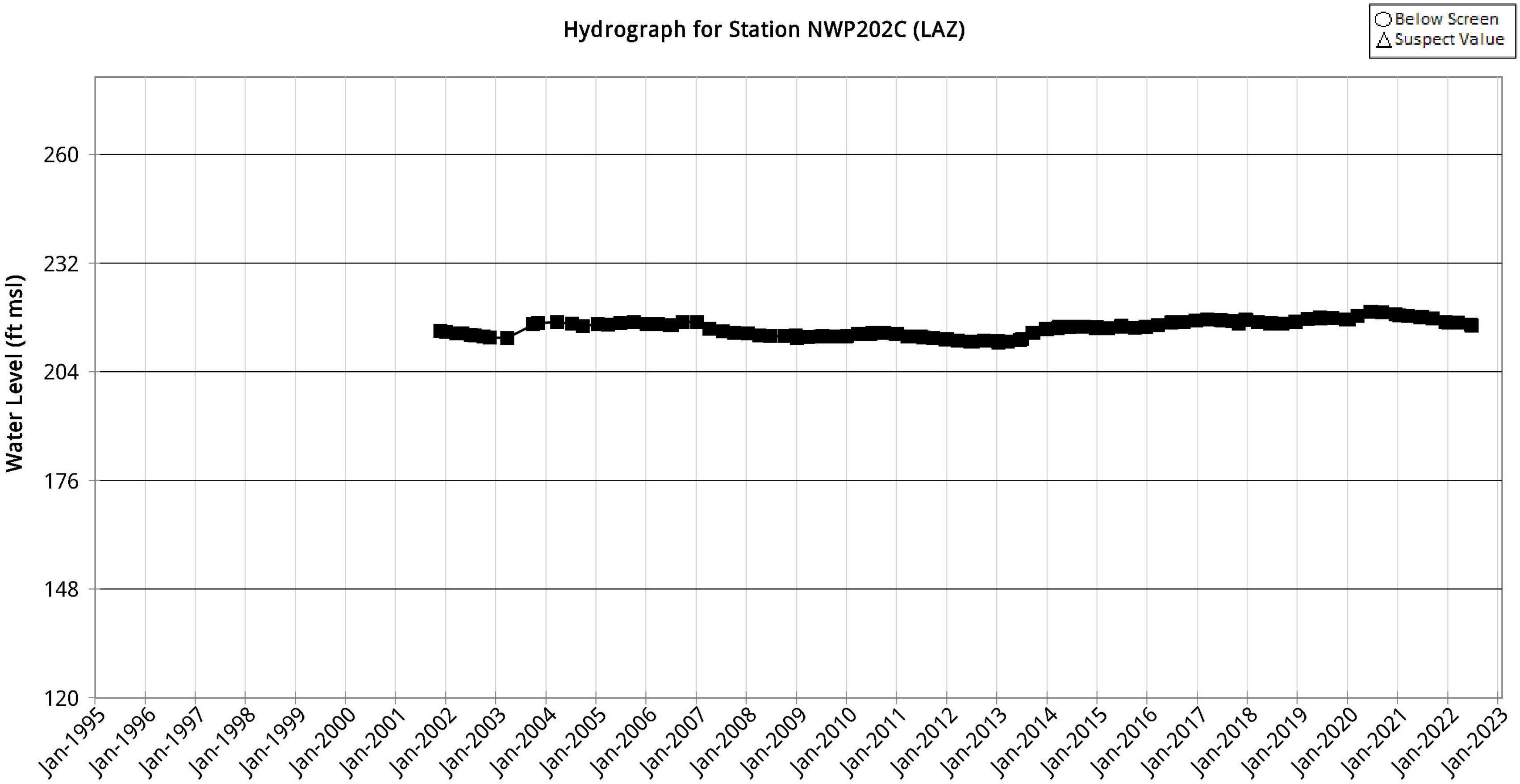
Hydrograph for Station NWP202C (LAZ)
○ Below Screen
△ Suspect Value
Water Level (ft msl)
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232
204
176
148
120
Jan-1995
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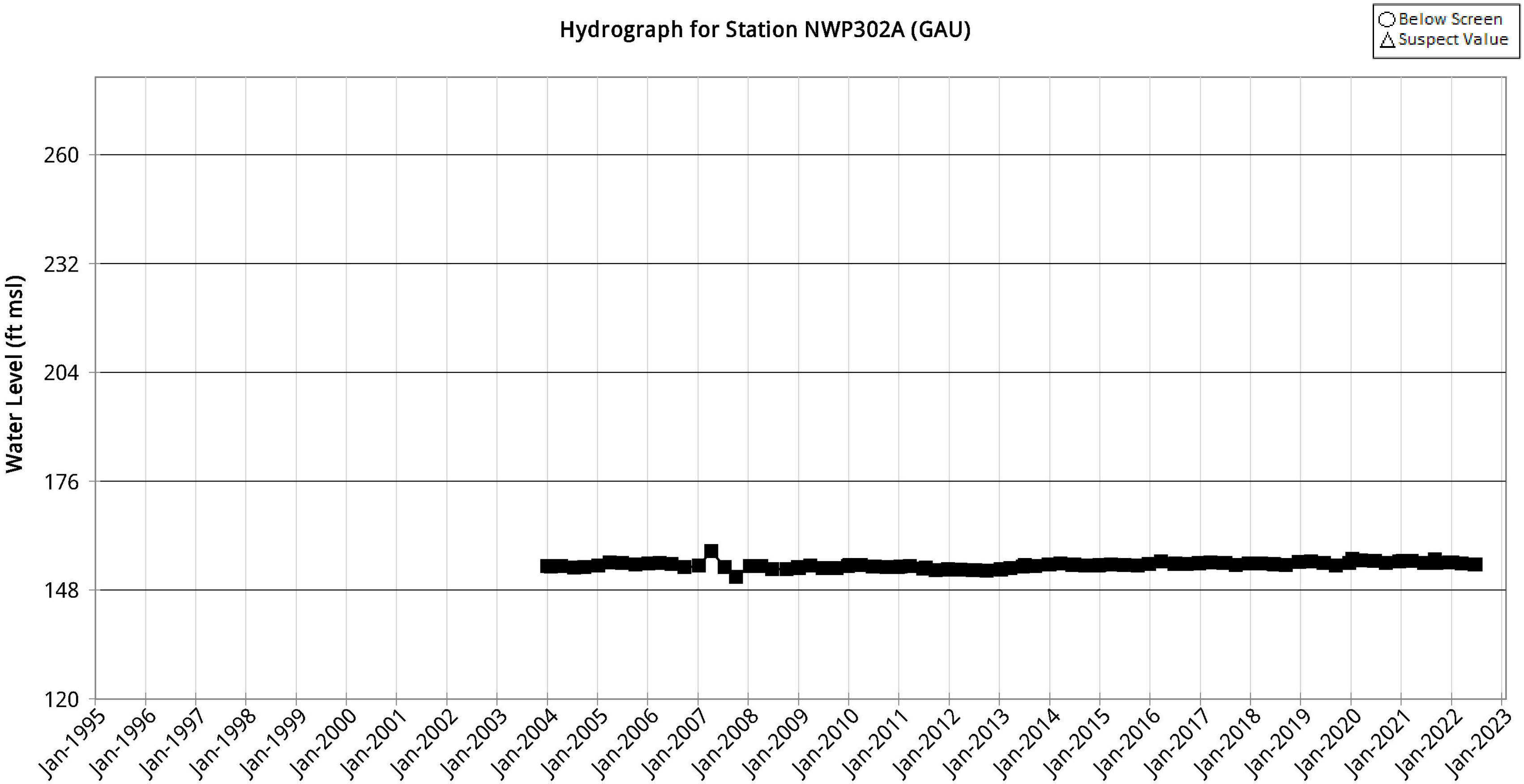
Hydrograph for Station NWP302A (GAU)
○ Below Screen
△ Suspect Value
Water Level (ft msl)
260
232
204
176
148
120
Jan-1995
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Jan-1998
Jan-1999
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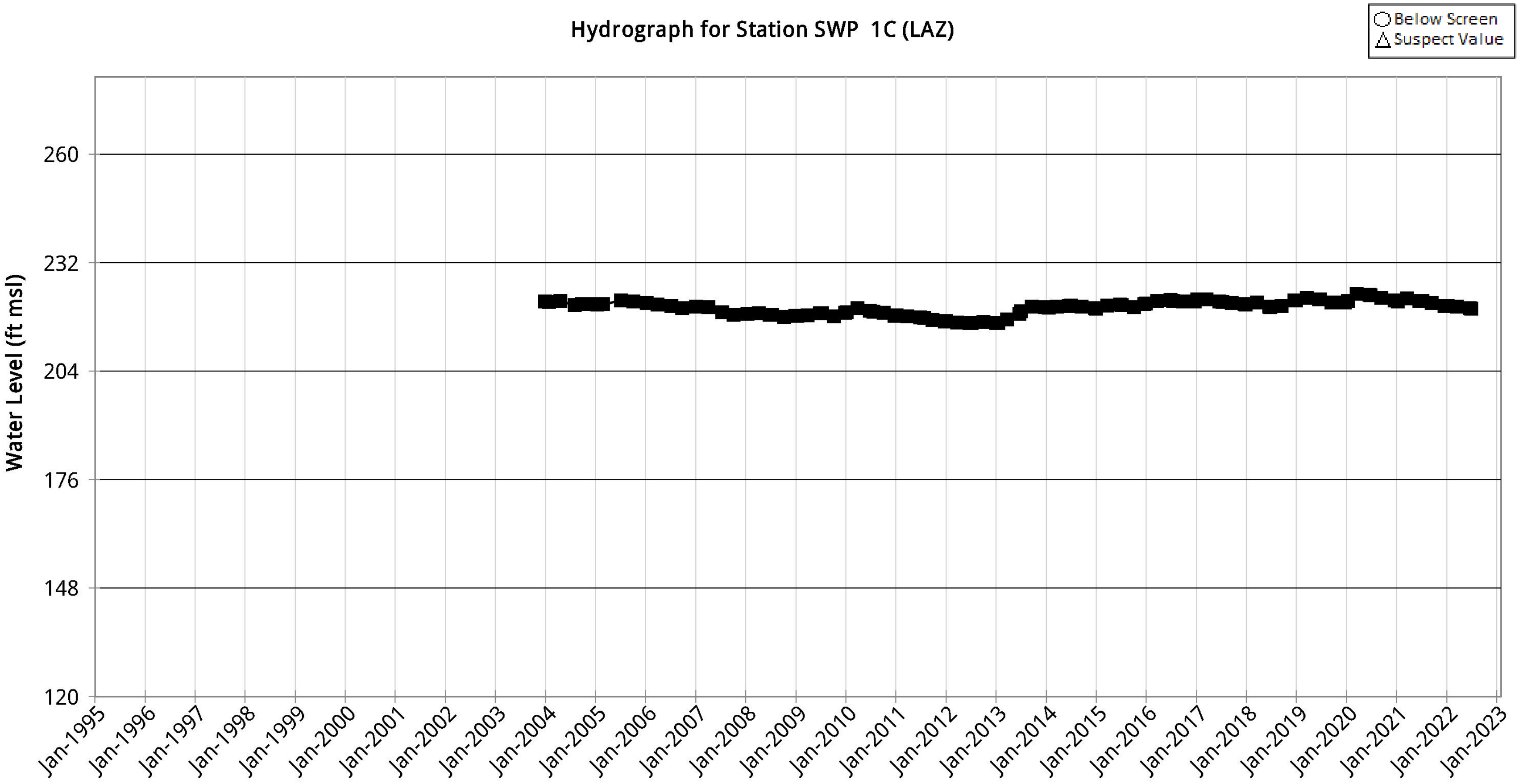
Hydrograph for Station SWP 1C (LAZ)
○ Below Screen
△ Suspect Value
Water Level (ft msl)
260
232
204
176
148
120
Jan-1995
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Jan-1997
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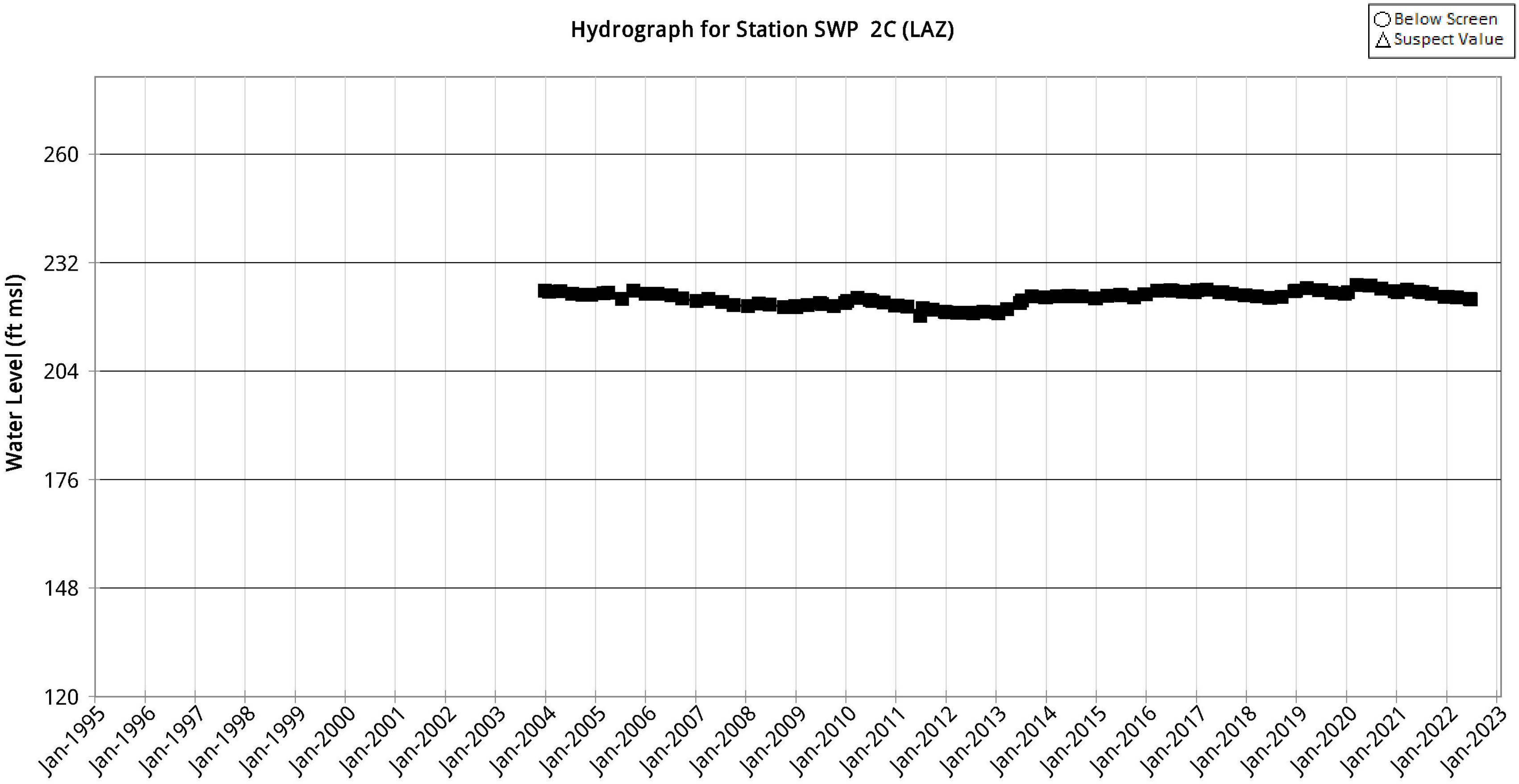
Hydrograph for Station SWP 2C (LAZ)
○ Below Screen
△ Suspect Value
Water Level (ft msl)
260
232
204
176
148
120
Jan-1995
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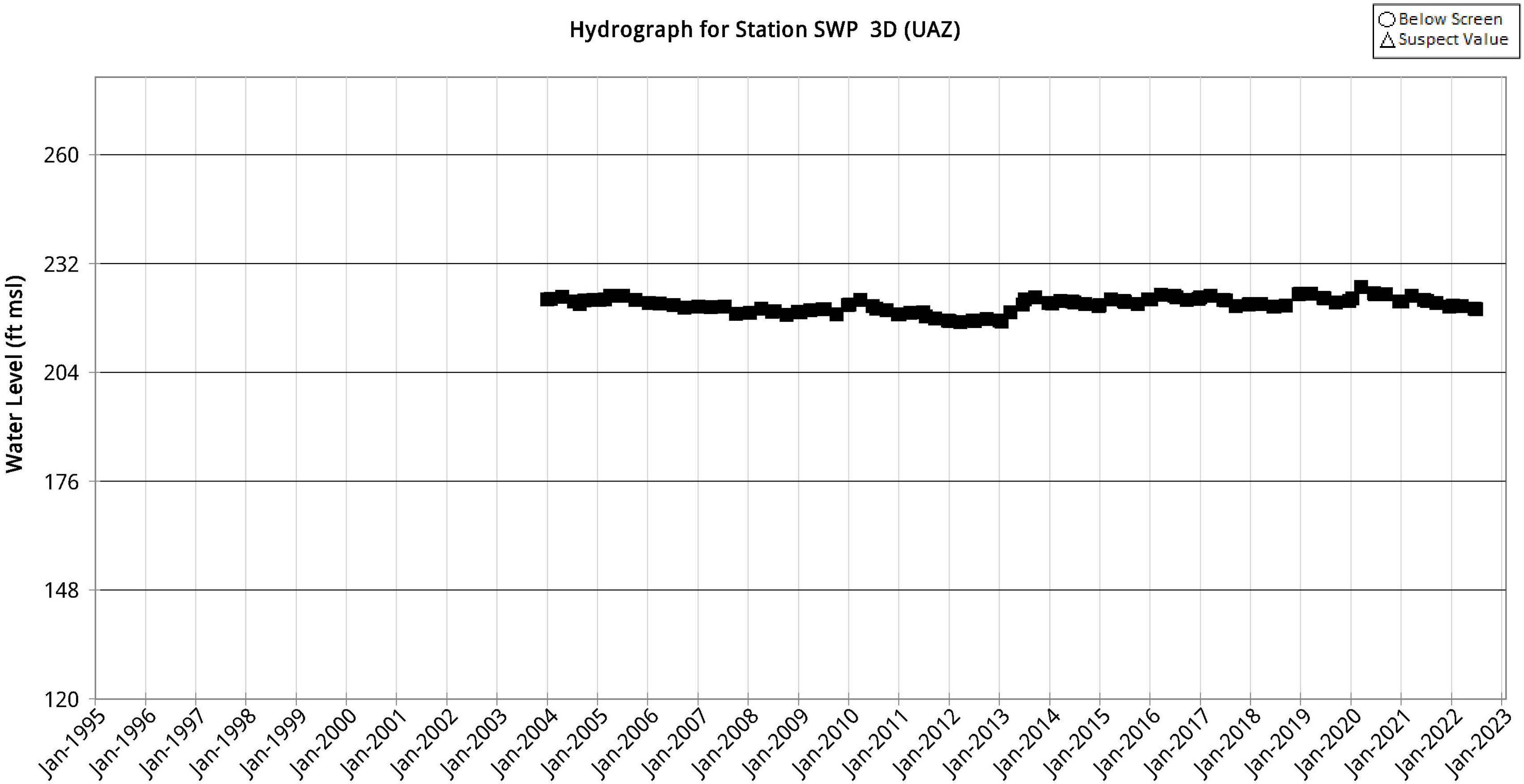
Hydrograph for Station SWP 3D (UAZ)
○ Below Screen
△ Suspect Value
Water Level (ft msl)
260
232
204
176
148
120
Jan-1995
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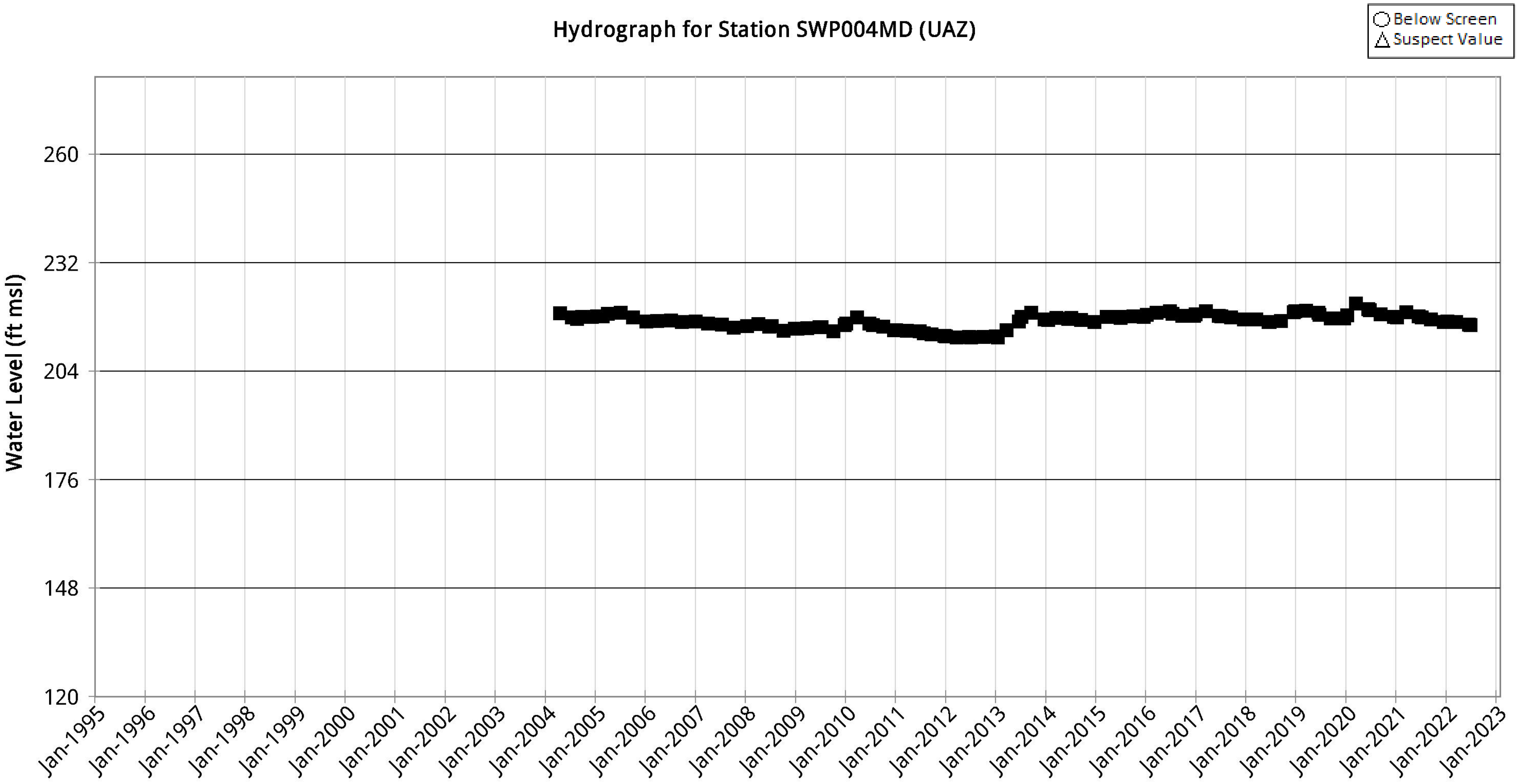
Hydrograph for Station SWP004MD (UAZ)
○ Below Screen
△ Suspect Value
Water Level (ft msl)
260
232
204
176
148
120
Jan-1995
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Jan-2023

APPENDIX E

F-AREA, H-AREA, AND MIXED WASTE MANAGEMENT FACILITY

TIME SERIES PLOTS

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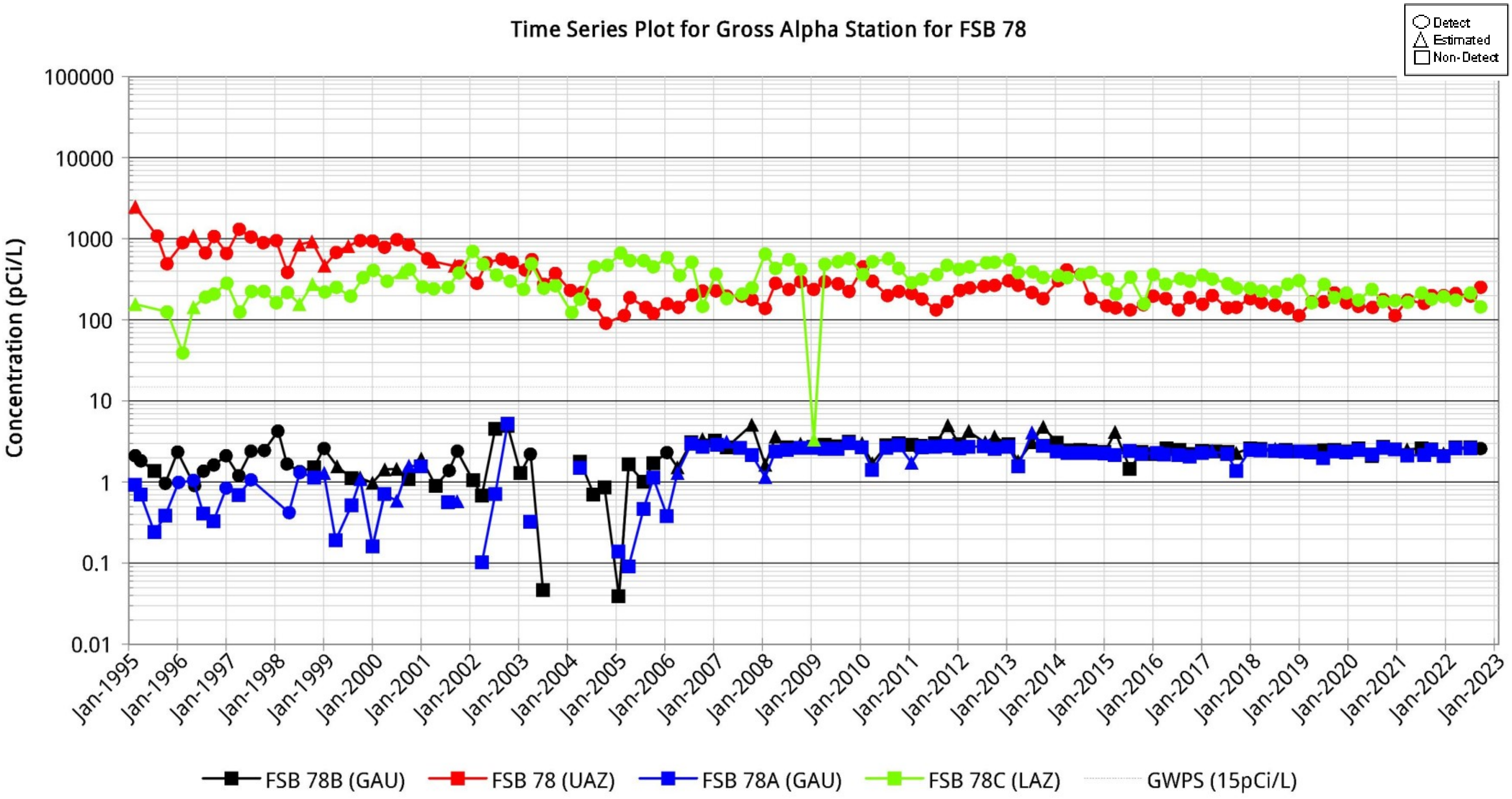
Time Series Plot for Gross Alpha Station for FSB 78
Detect
Estimated
Non-Detect
Concentration (pCi/L)
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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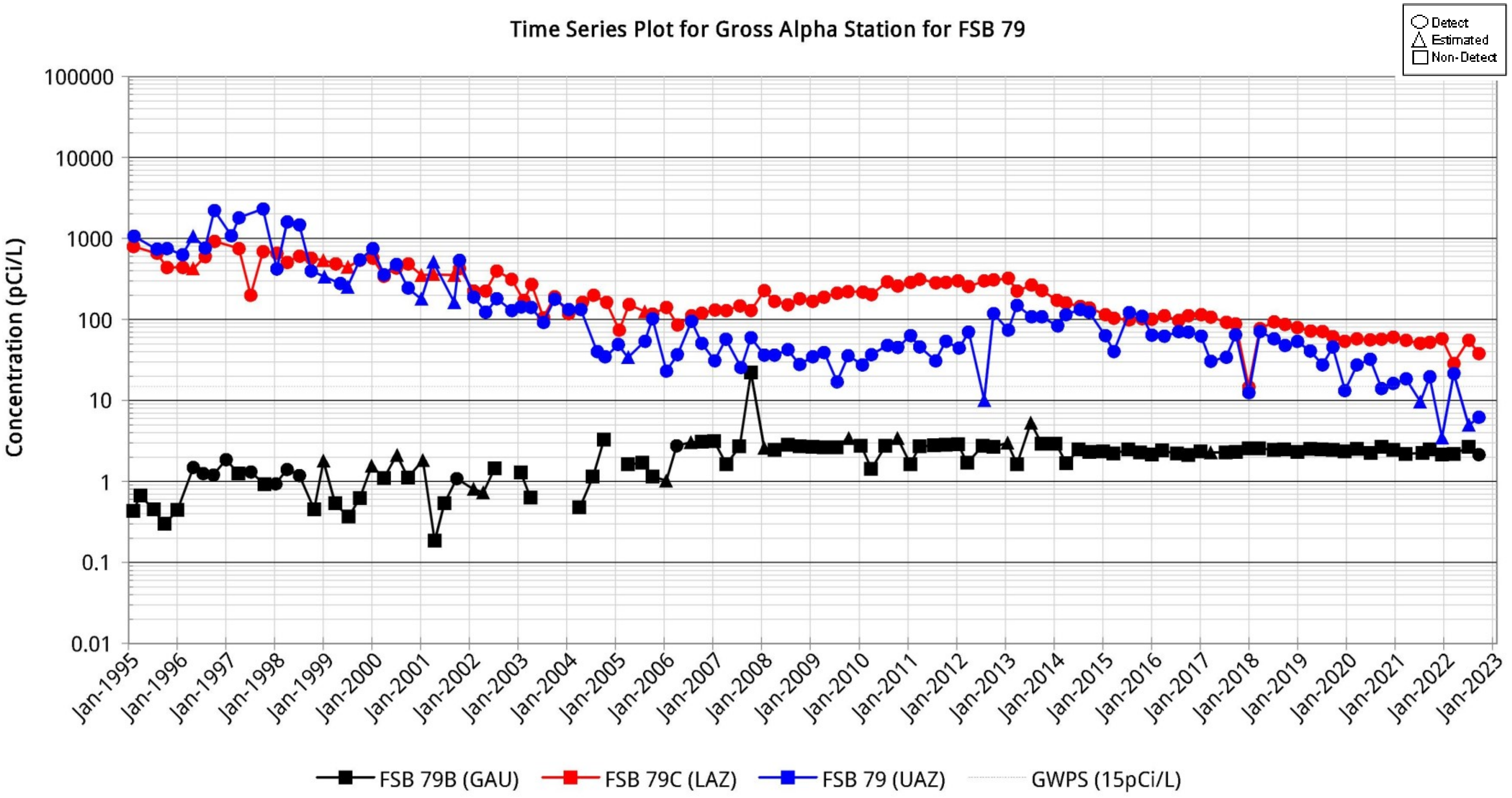
Jan-2023
FSB 78B (GAU)
FSB 78 (UAZ)
FSB 78A (GAU)
FSB 78C (LAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for FSB 79
Detect
Estimated
Non-Detect
Concentration (pCi/L)
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
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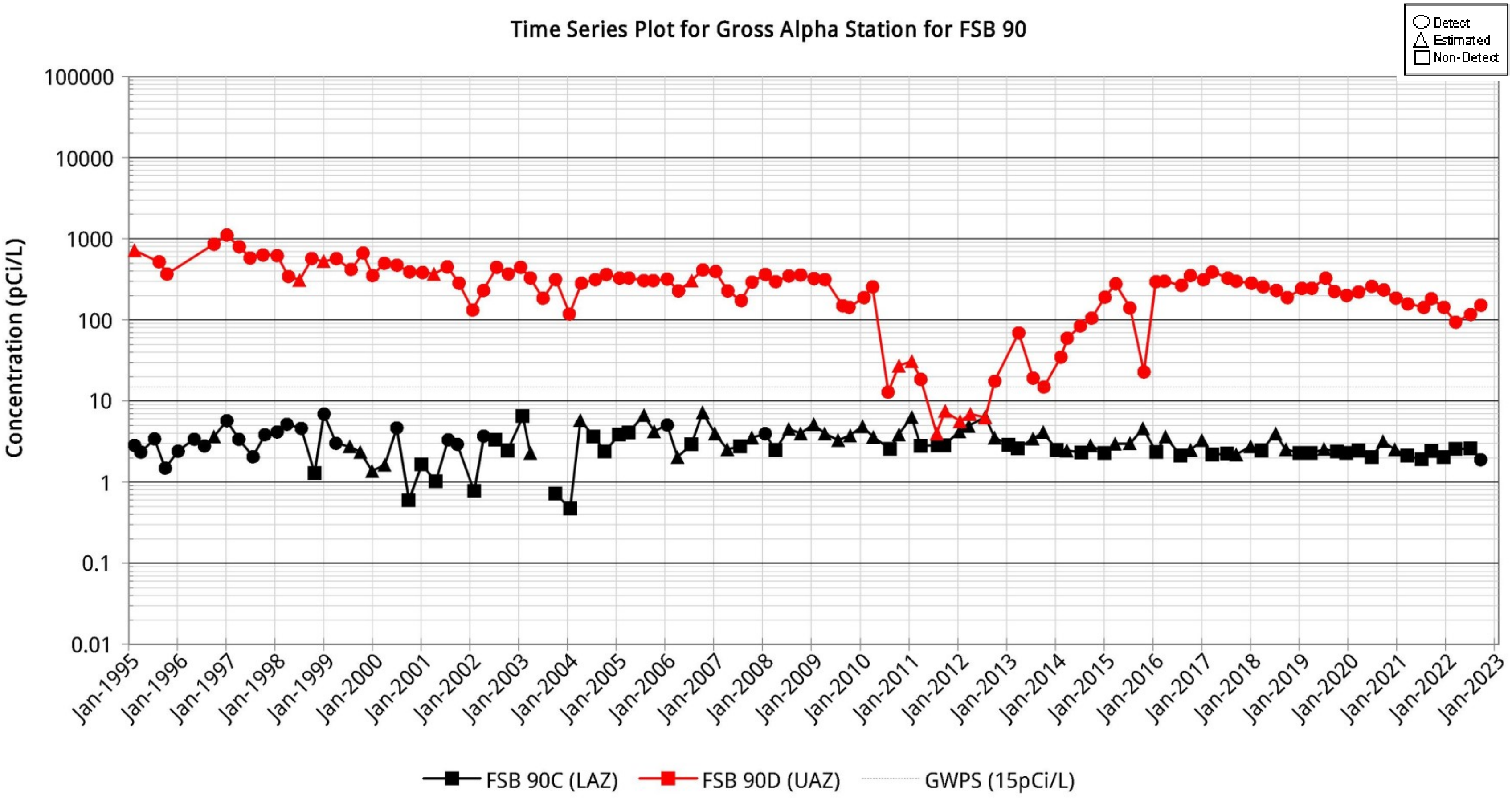
FSB 79B (GAU)
FSB 79C (LAZ)
FSB 79 (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for FSB 90
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
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10000
1000
100
10
1
0.1
0.01
Jan-1995
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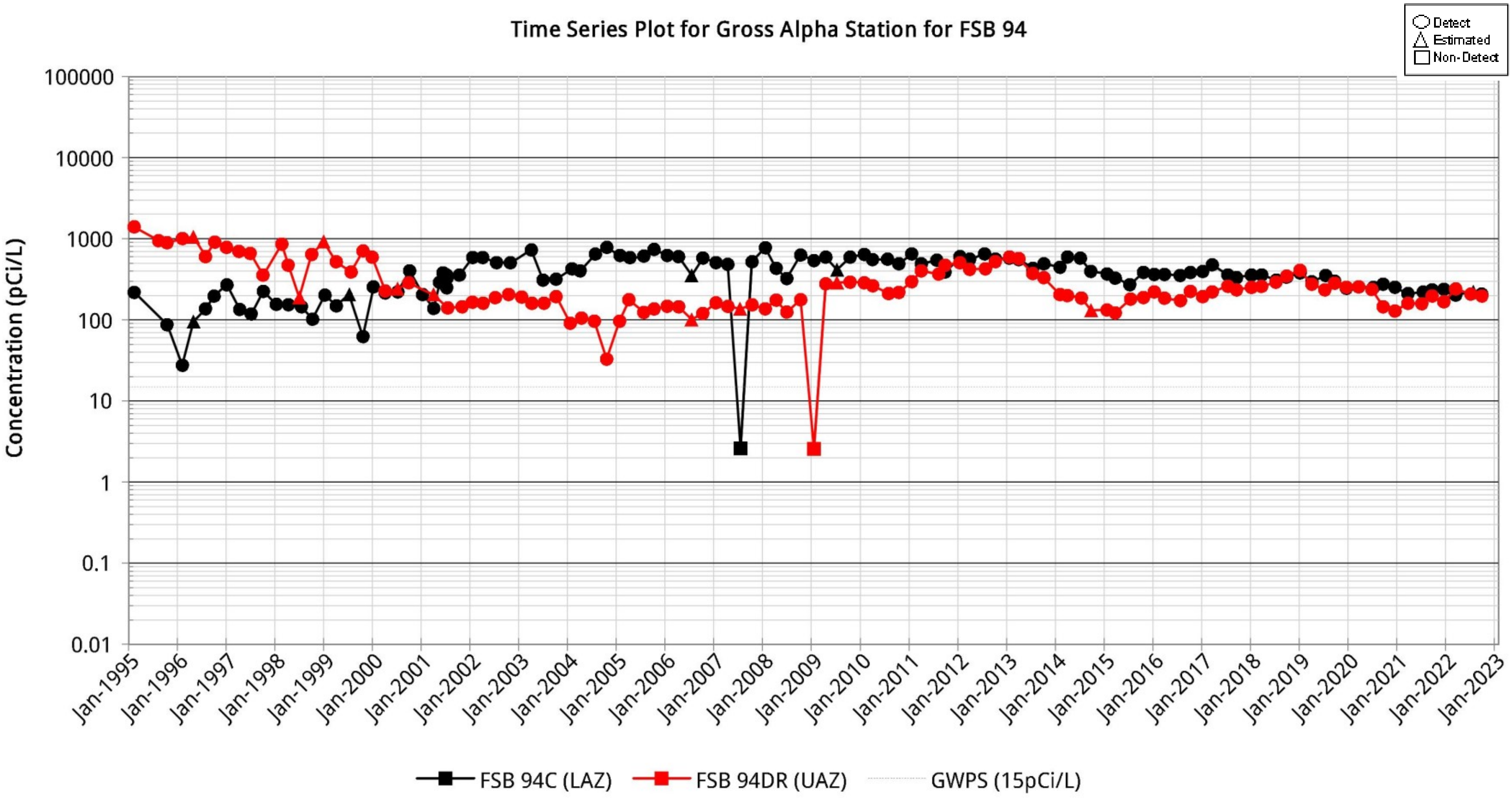
FSB 90C (LAZ)
FSB 90D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for FSB 94
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
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10000
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10
1
0.1
0.01
Jan-1995
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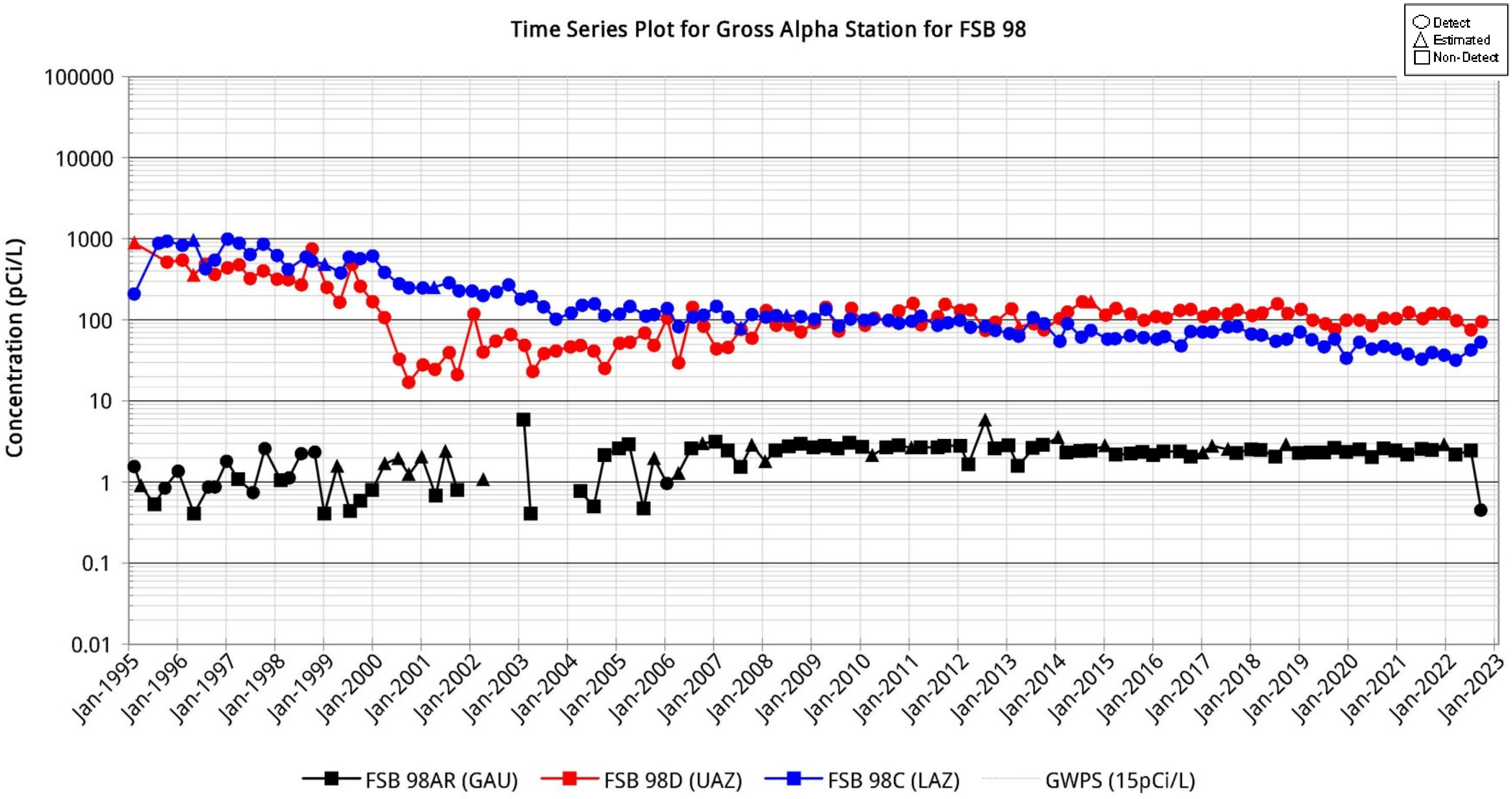
FSB 94C (LAZ)
FSB 94DR (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for FSB 98
Detect
Estimated
Non-Detect
Concentration (pCi/L)
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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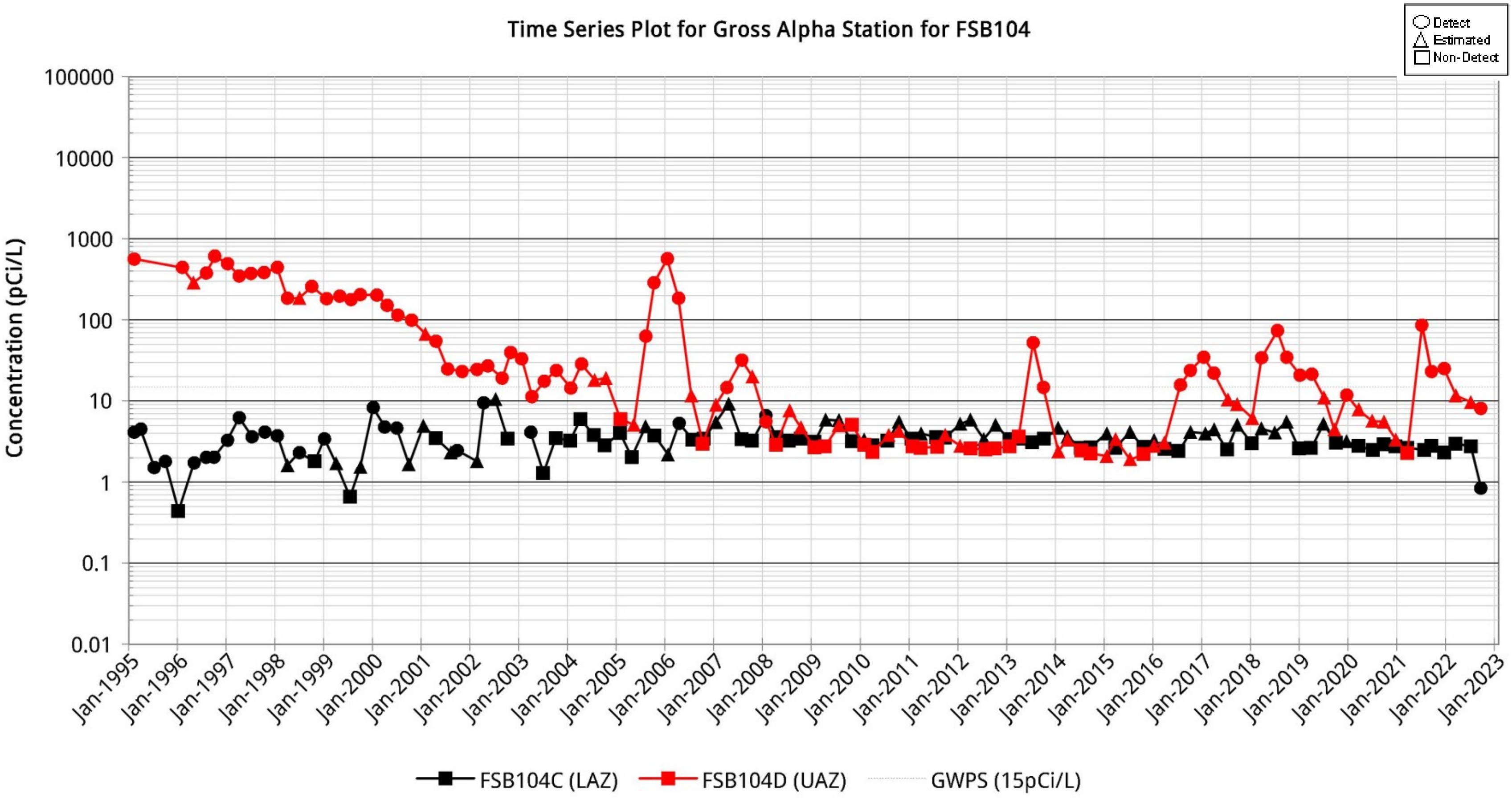
FSB 98AR (GAU)
FSB 98D (UAZ)
FSB 98C (LAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for FSB104
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
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10000
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10
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0.1
0.01
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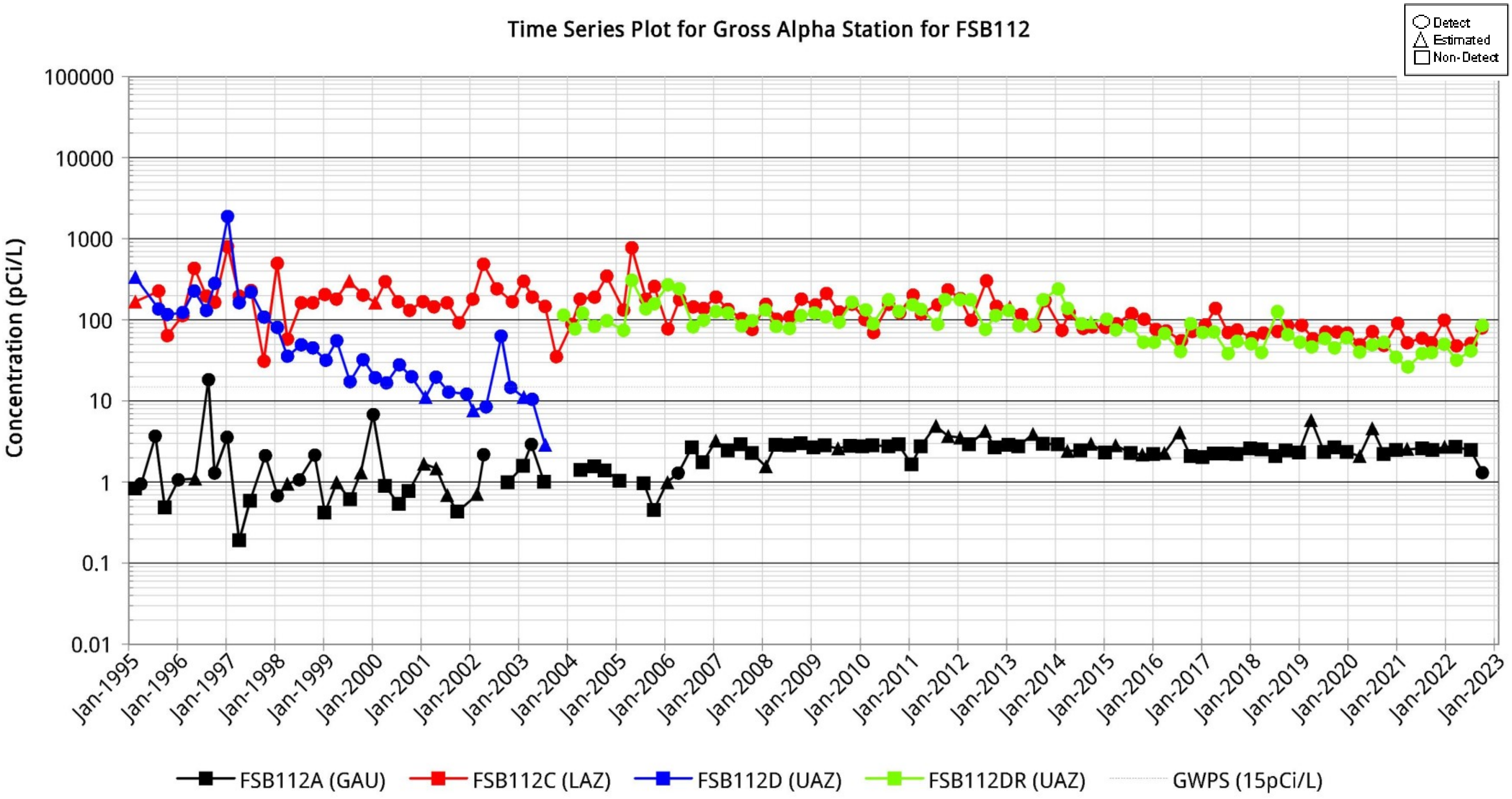
FSB104C (LAZ)
FSB104D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for FSB112
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
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10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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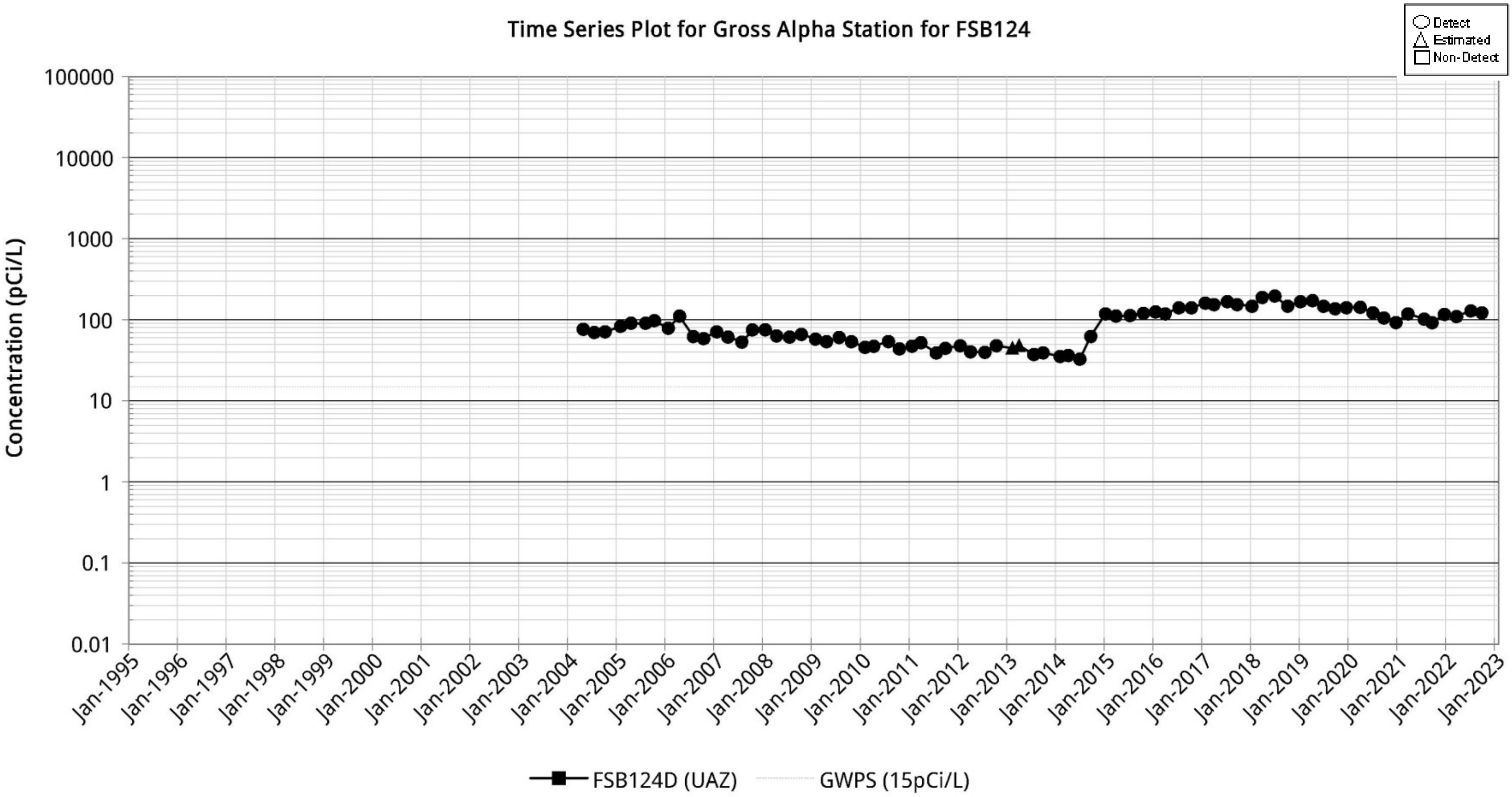
FSB112A (GAU)
FSB112C (LAZ)
FSB112D (UAZ)
FSB112DR (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for FSB124
Detect
Estimated
Non-Detect
Concentration (pCi/L)
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100
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1
0.1
0.01
Jan-1995
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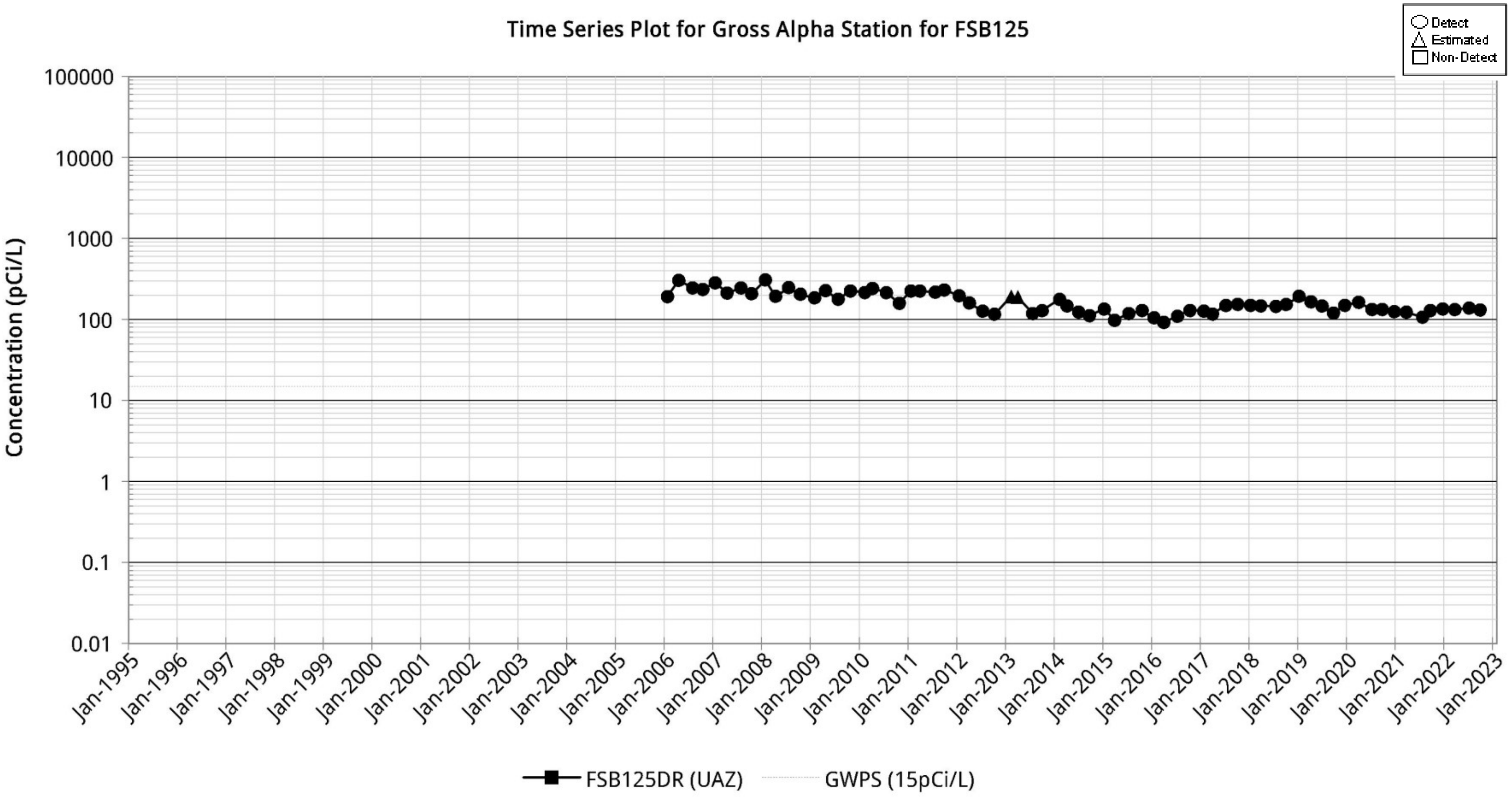
FSB124D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for FSB125
Detect
Estimated
Non-Detect
Concentration (pCi/L)
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100
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0.01
Jan-1995
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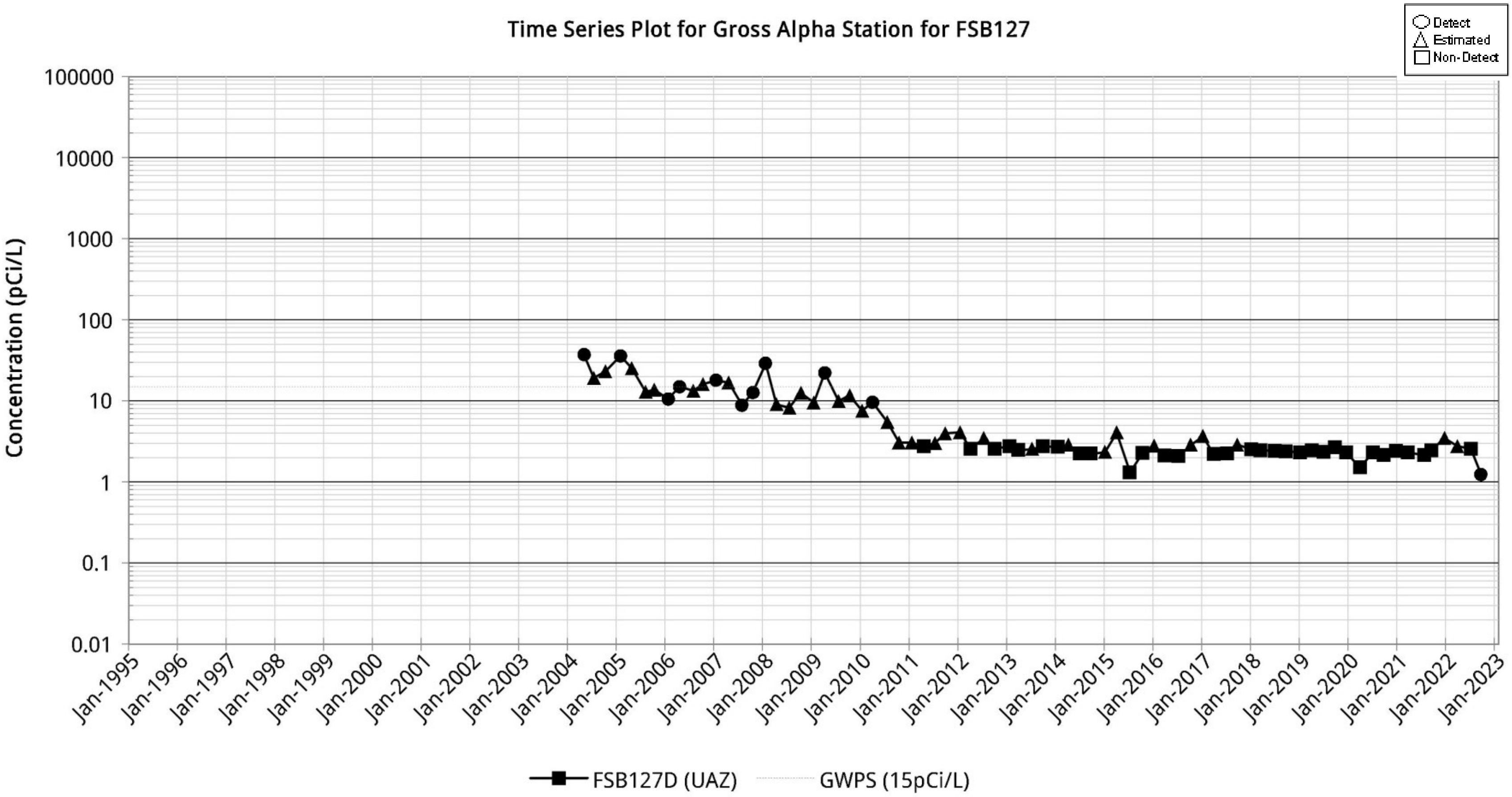
FSB125DR (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for FSB127
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
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0.1
0.01
Jan-1995
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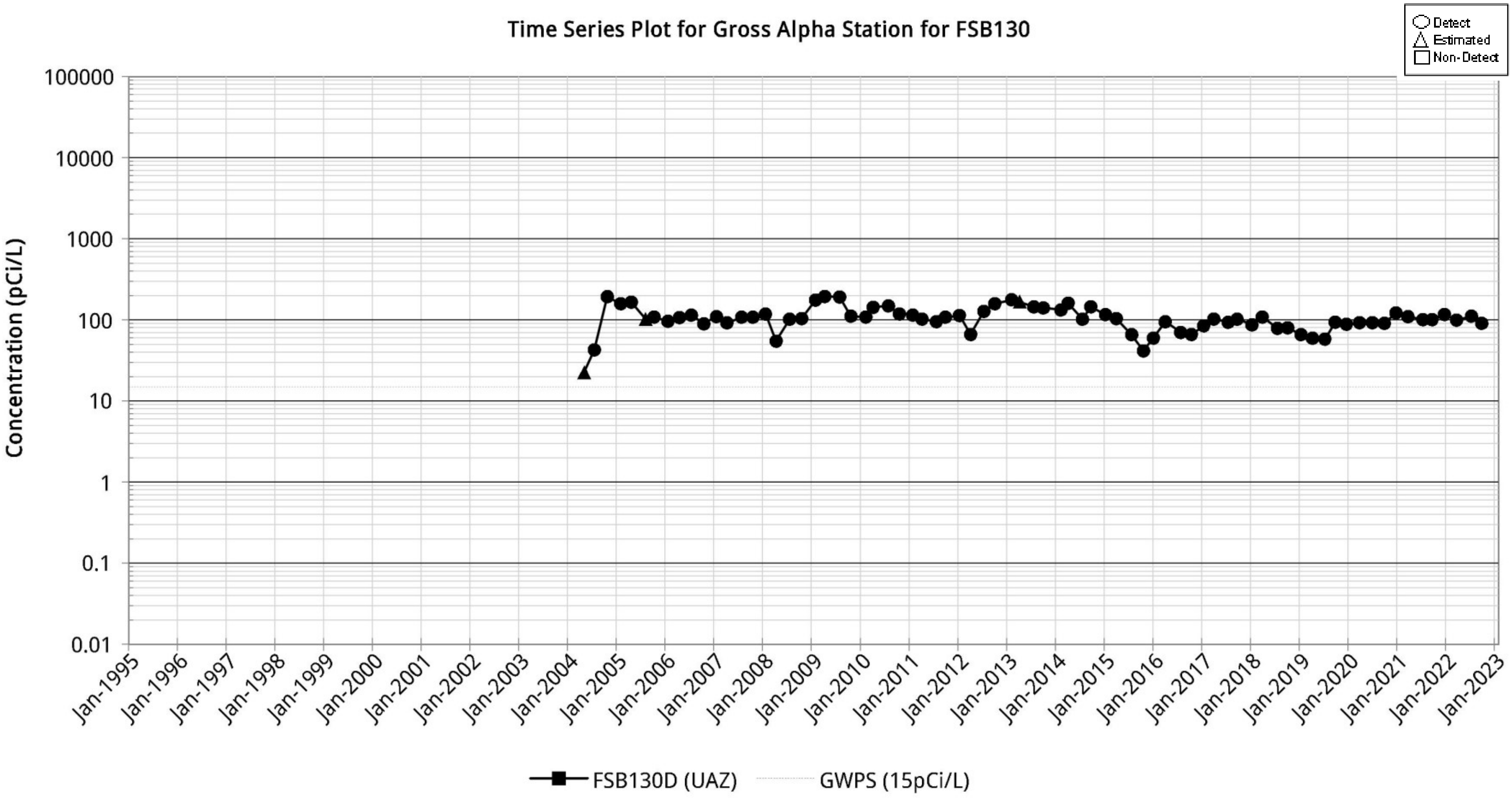
FSB127D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for FSB130
Detect
Estimated
Non-Detect
Concentration (pCi/L)
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10000
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100
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1
0.1
0.01
Jan-1995
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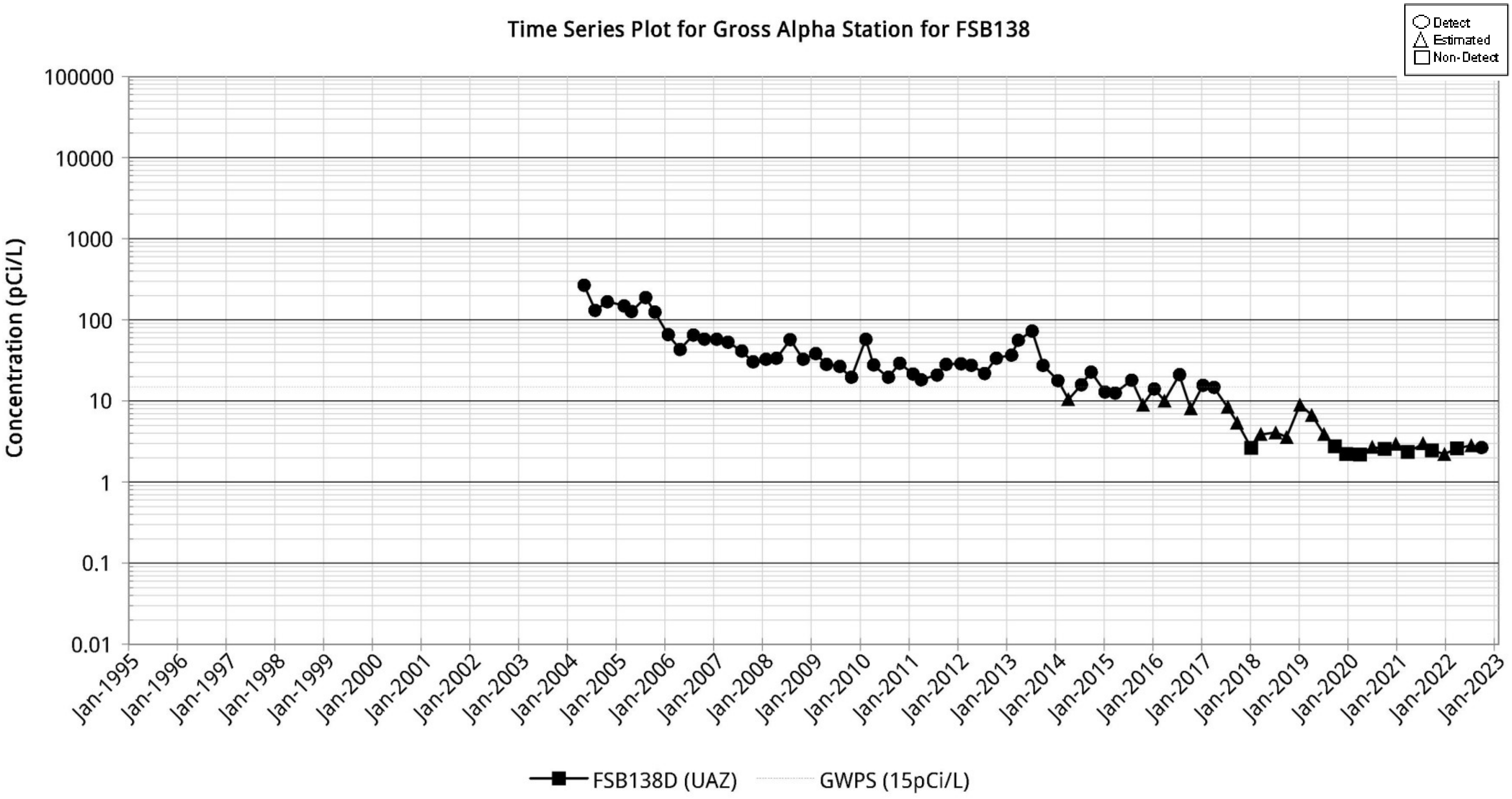
FSB130D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for FSB138
Detect
Estimated
Non-Detect
Concentration (pCi/L)
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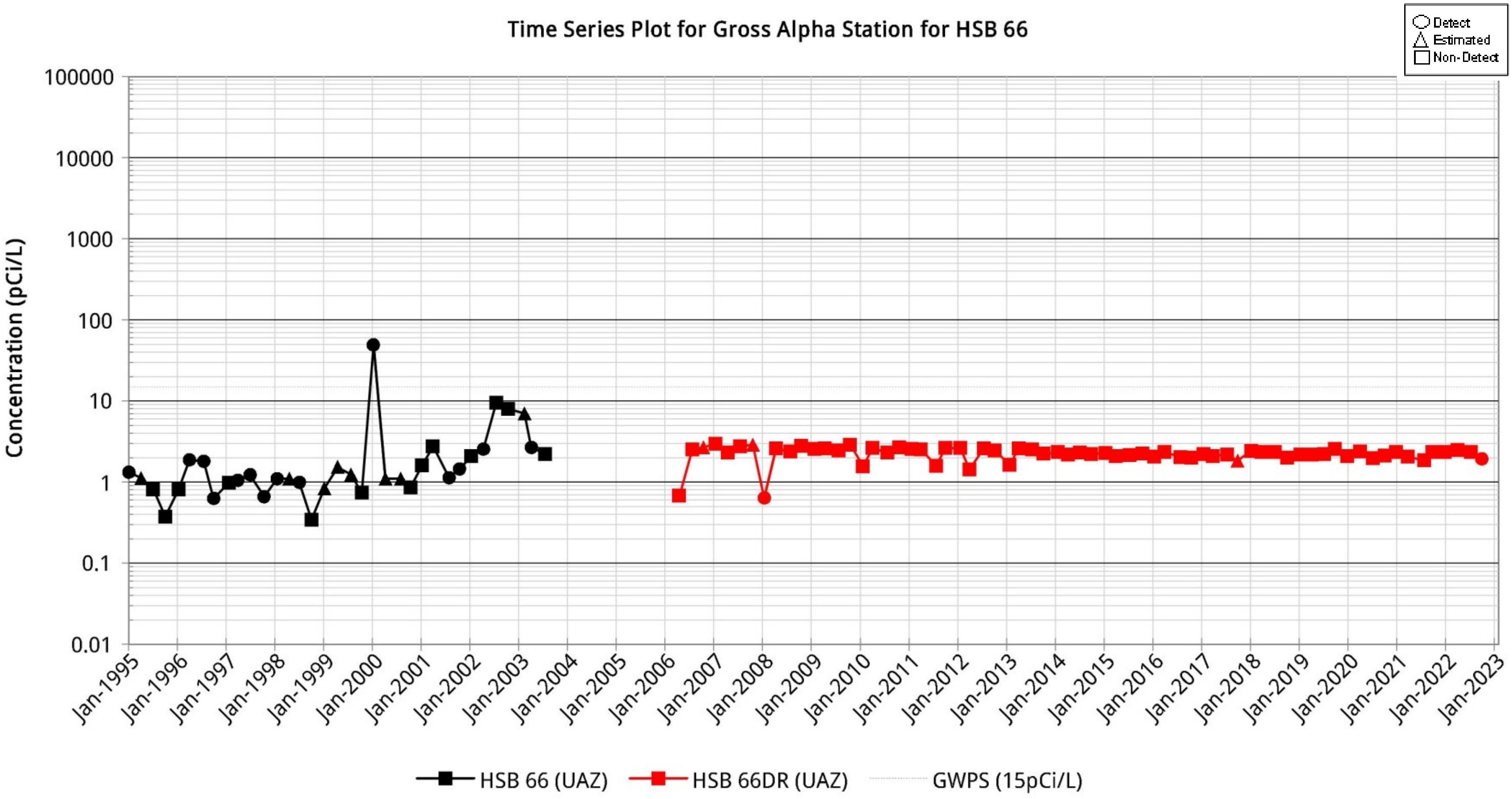
FSB138D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for HSB 66
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
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10000
1000
100
10
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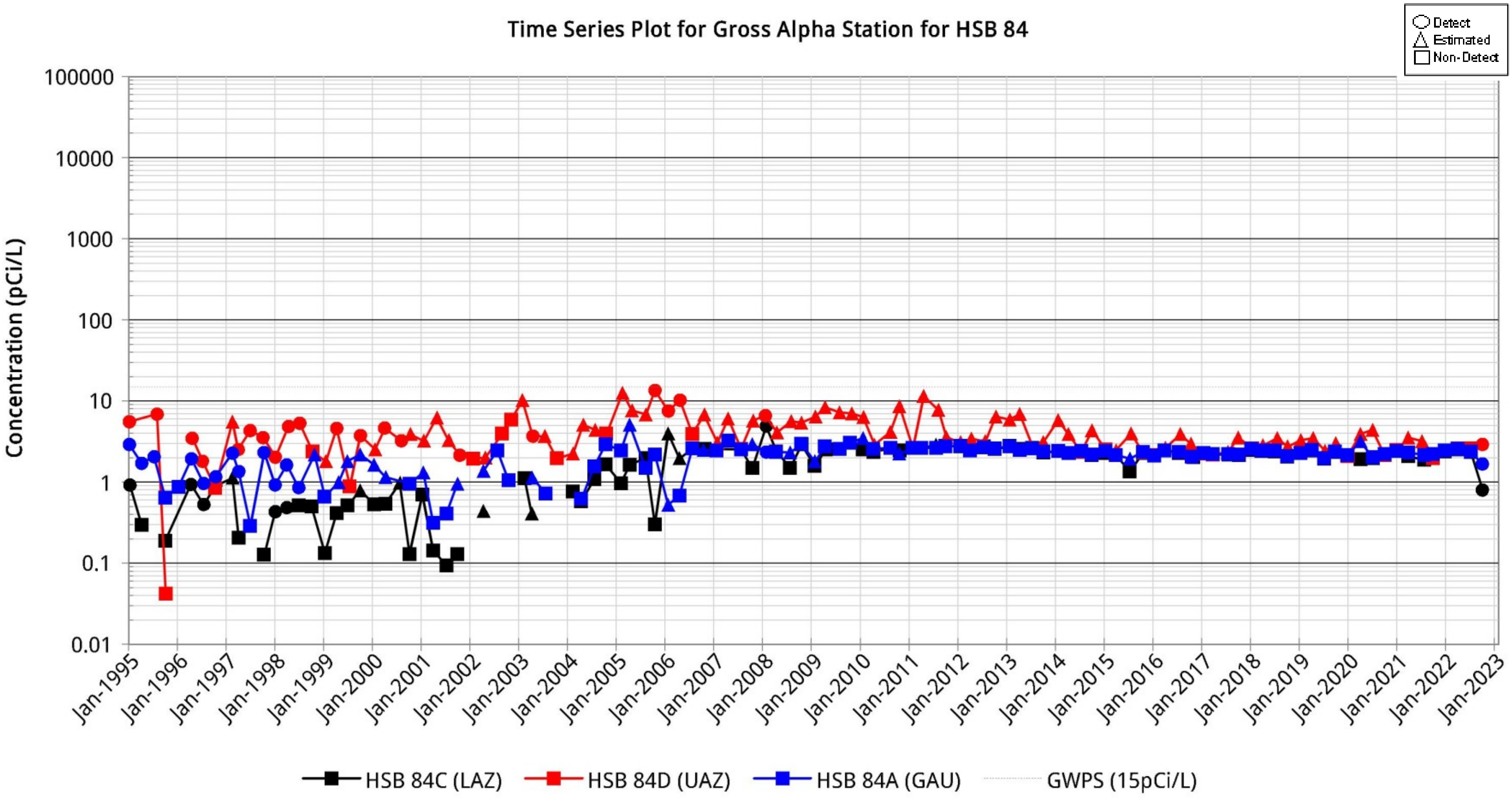
Jan-2023
HSB 66 (UAZ)
HSB 66DR (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for HSB 84
Detect
Estimated
Non-Detect
Concentration (pCi/L)
100000
10000
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0.01
Jan-1995
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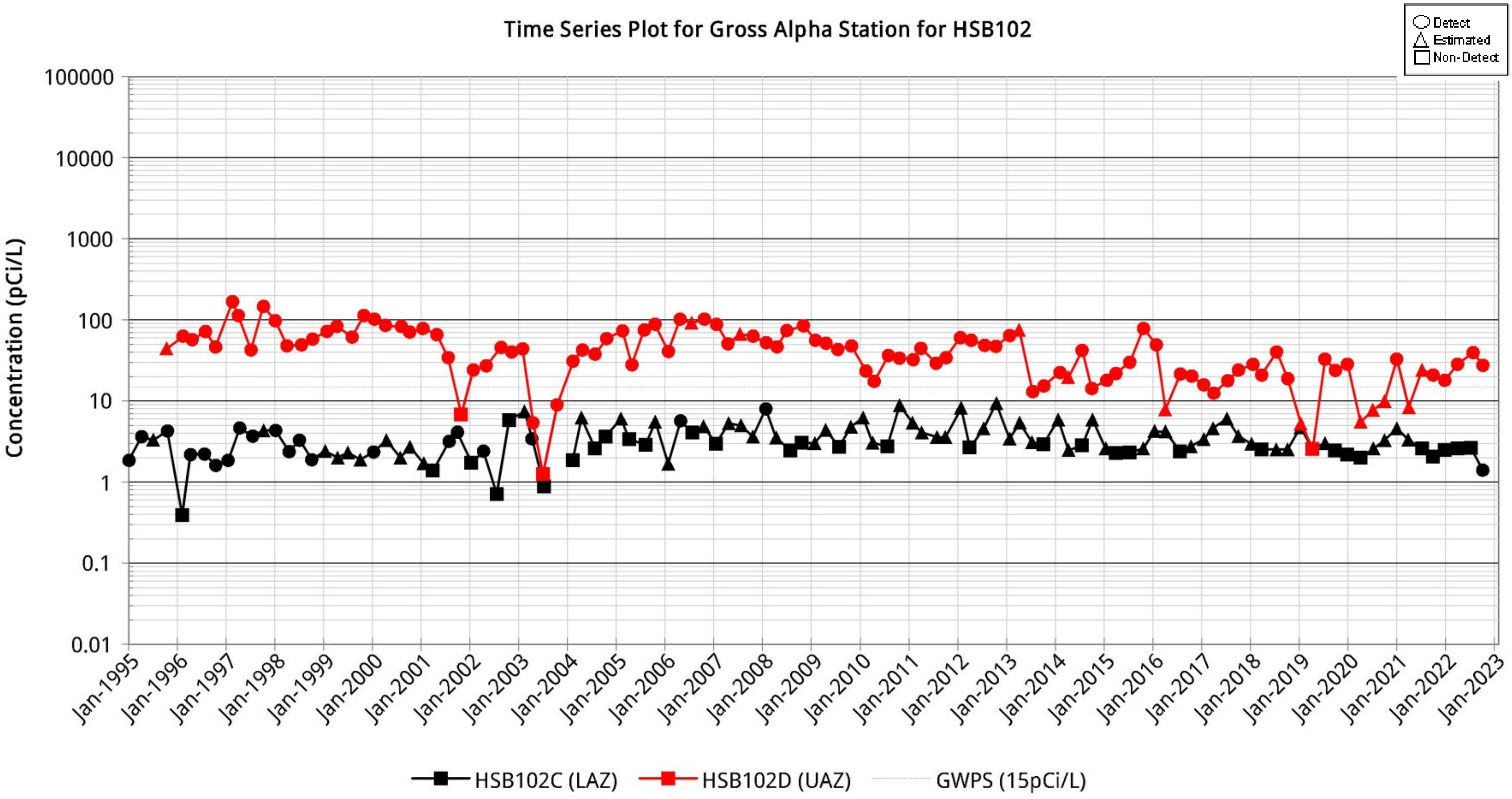
Jan-2023
HSB 84C (LAZ)
HSB 84D (UAZ)
HSB 84A (GAU)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for HSB102
Detect
Estimated
Non-Detect
Concentration (pCi/L)
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100
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0.1
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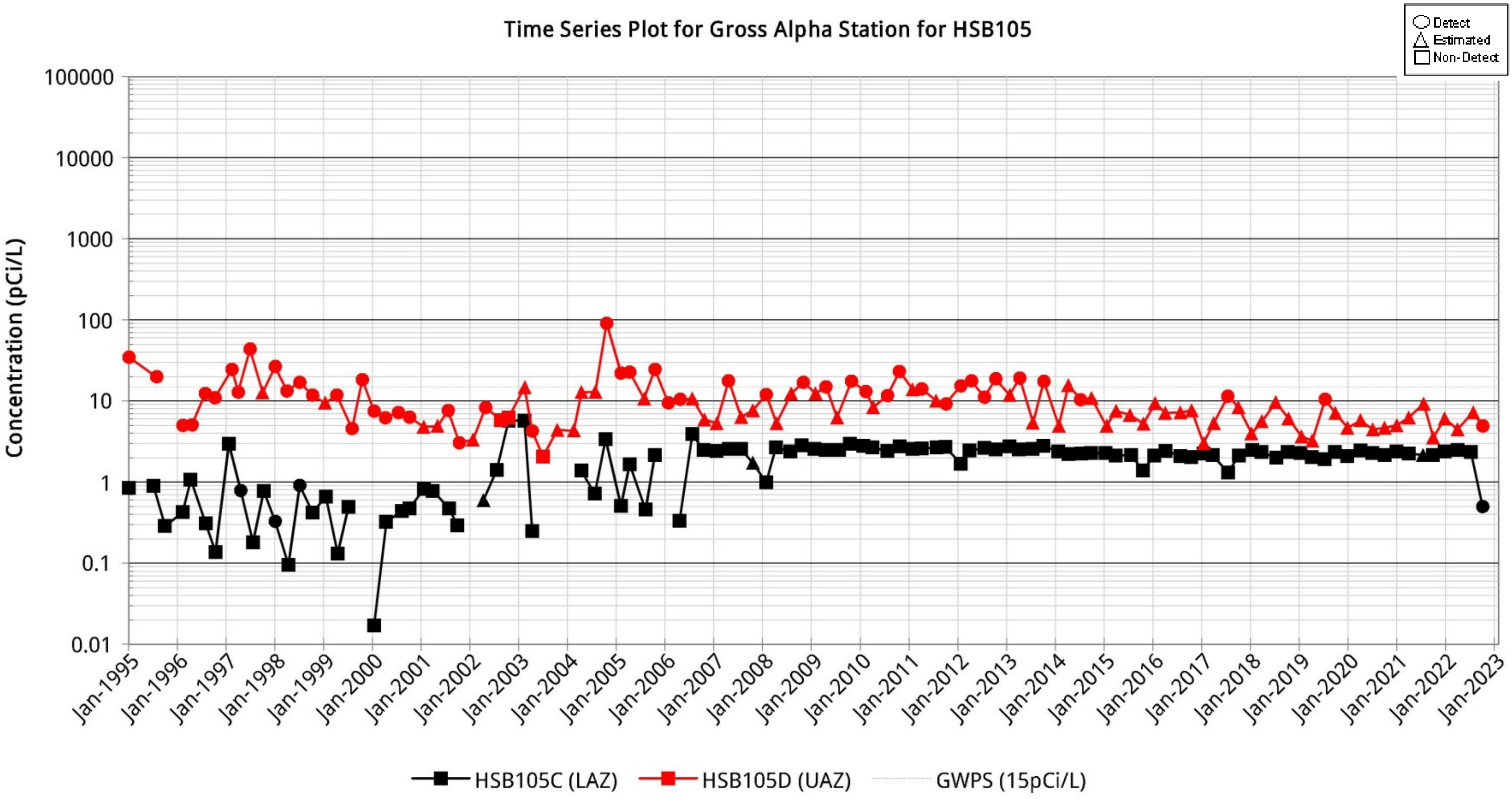
Jan-2023
HSB102C (LAZ)
HSB102D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for HSB105
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
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1000
100
10
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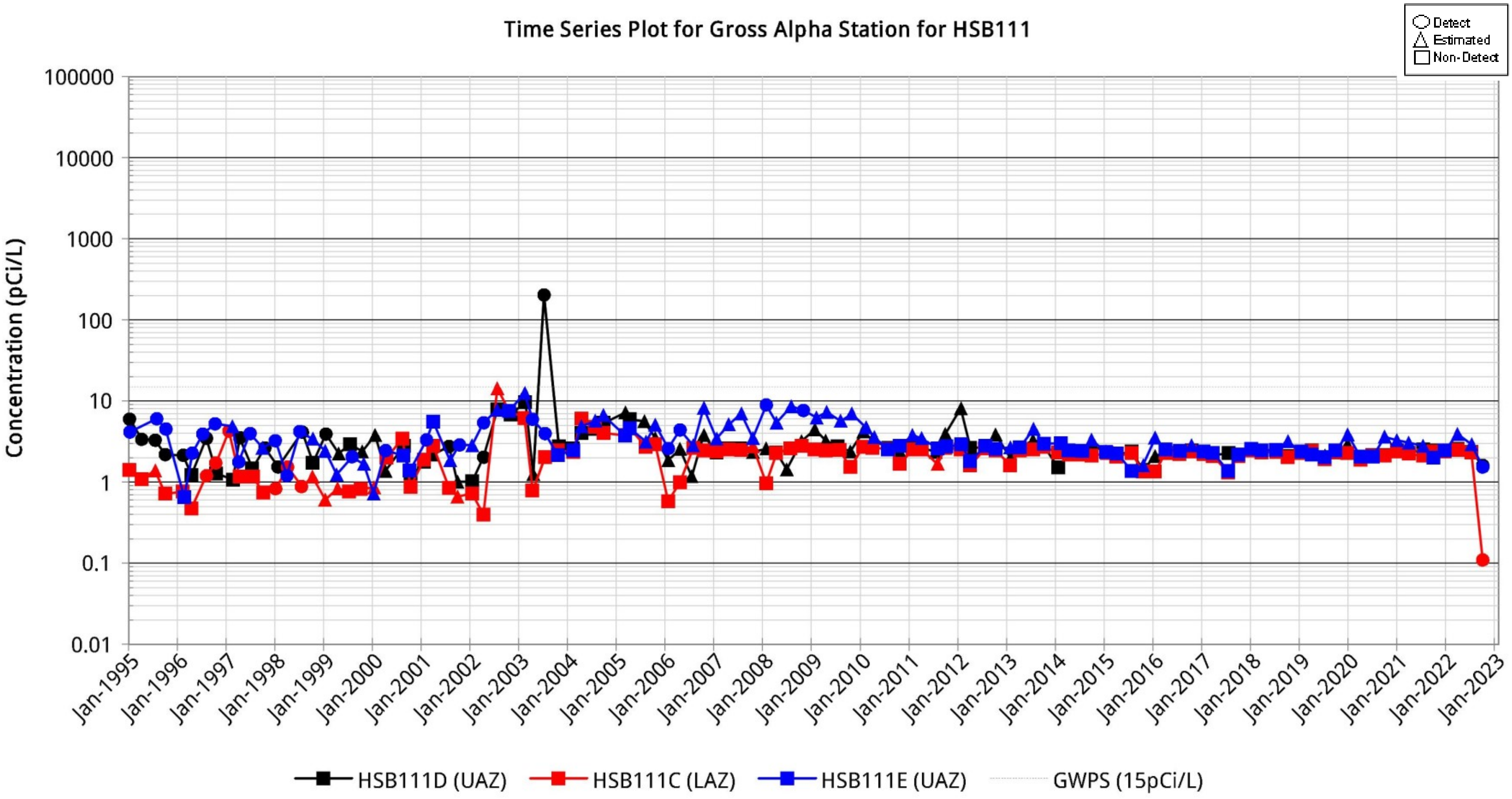
HSB105C (LAZ)
HSB105D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for HSB111
Detect
Estimated
Non-Detect
Concentration (pCi/L)
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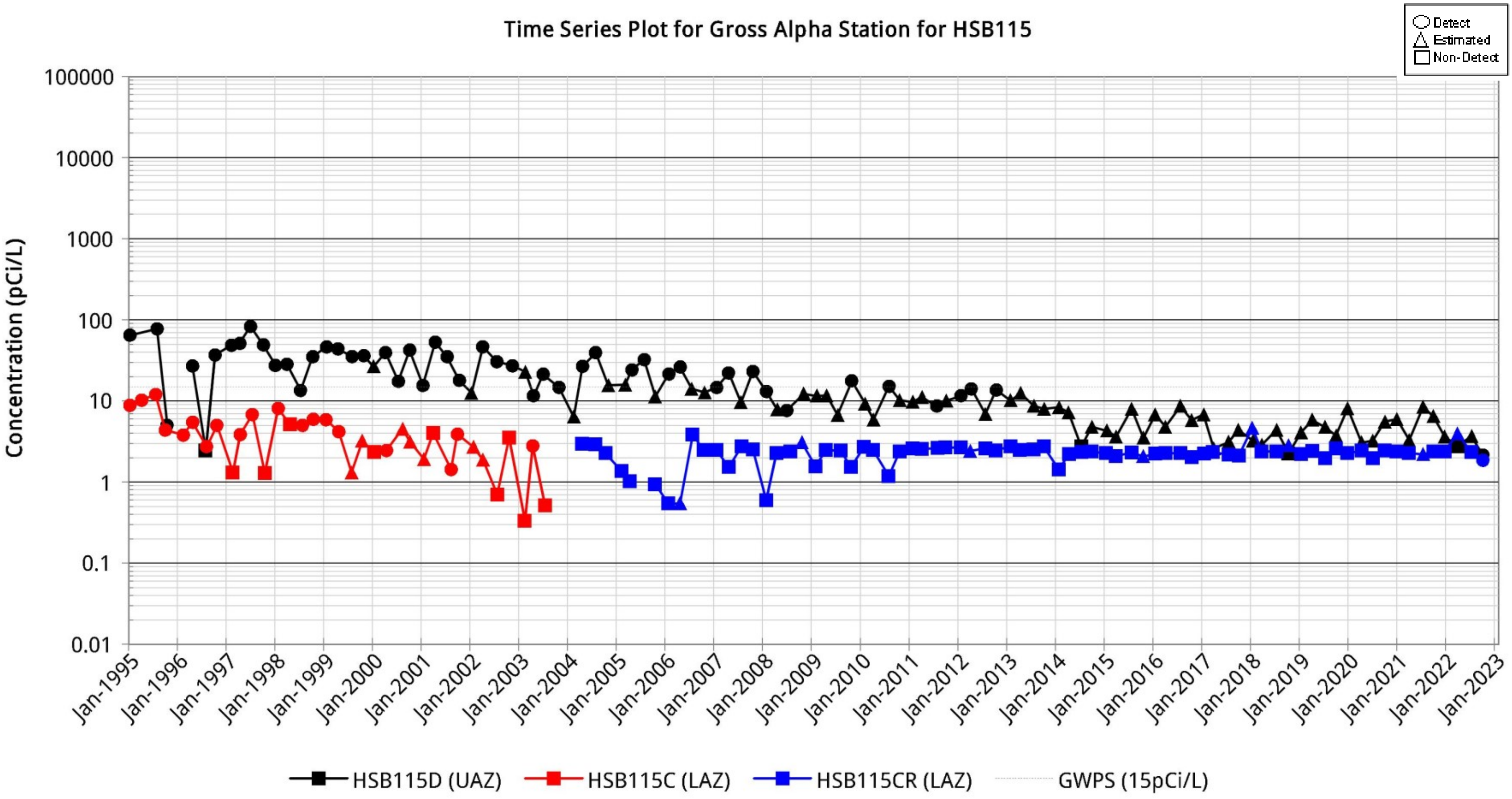
HSB111D (UAZ)
HSB111C (LAZ)
HSB111E (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for HSB115
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
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10000
1000
100
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0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
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Jan-2019
Jan-2020
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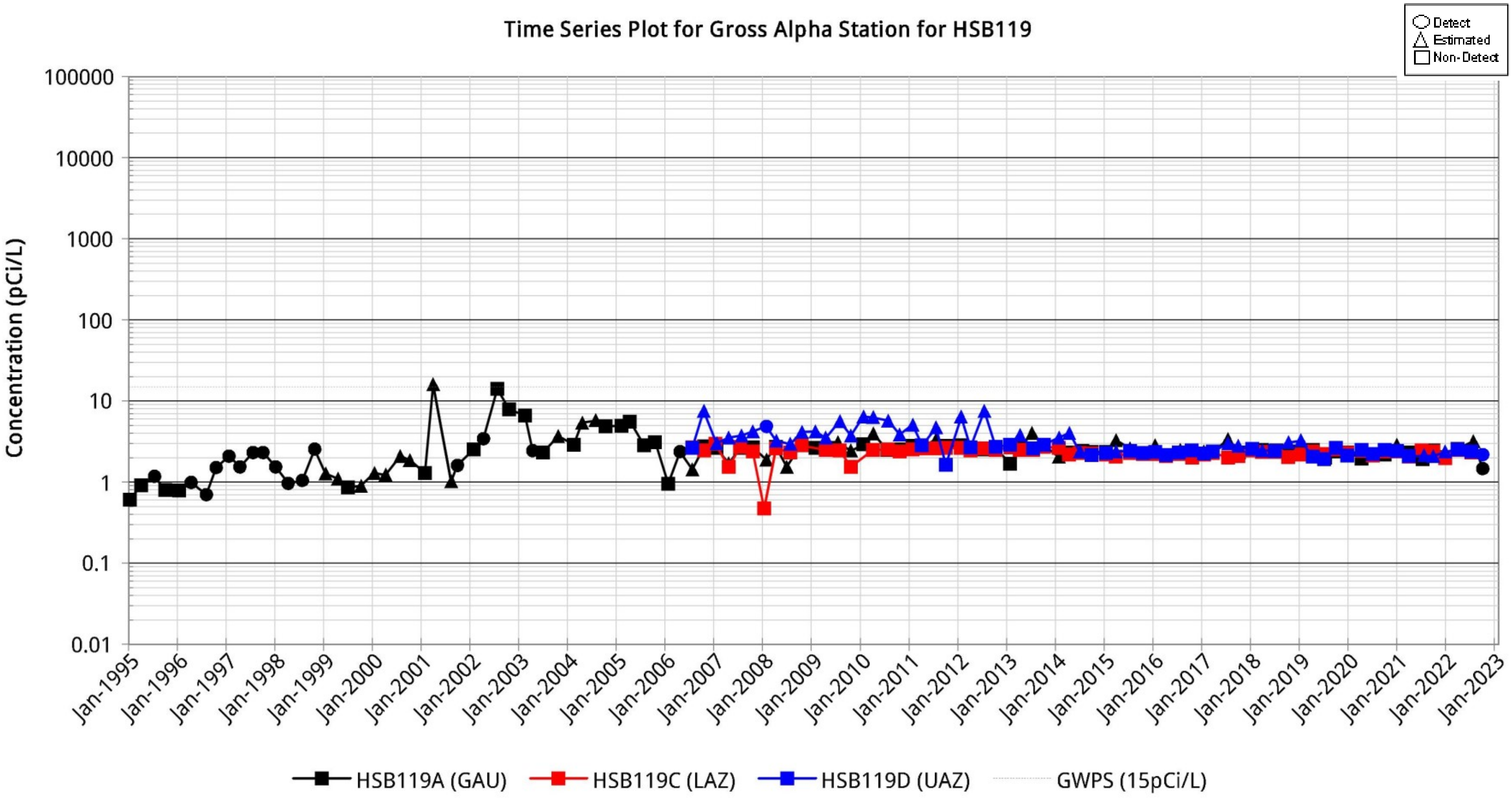
Jan-2023
HSB115D (UAZ)
HSB115C (LAZ)
HSB115CR (LAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for HSB119
Detect
Estimated
Non-Detect
Concentration (pCi/L)
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
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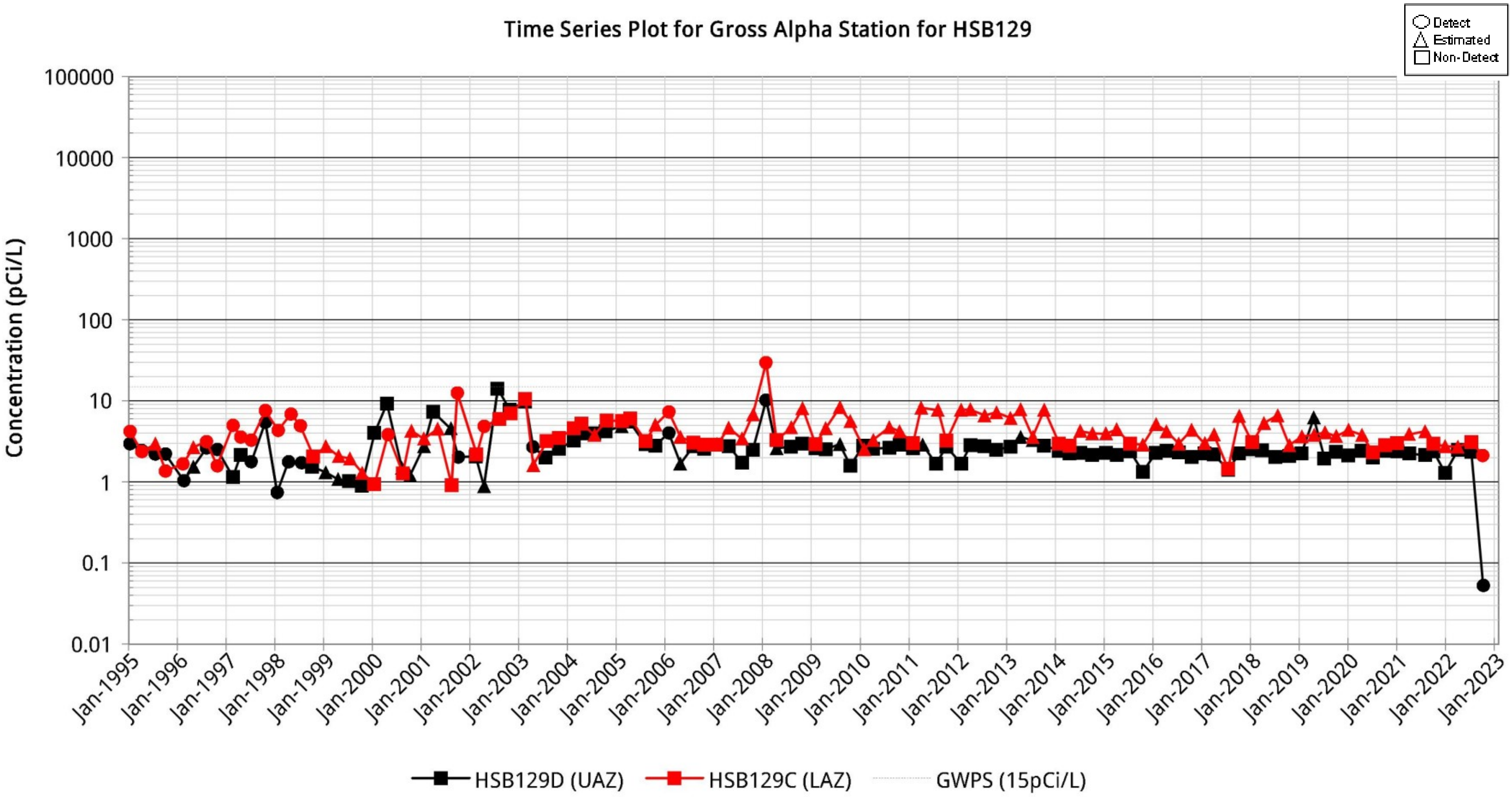
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB119A (GAU)
HSB119C (LAZ)
HSB119D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for HSB129
Detect
Estimated
Non-Detect
Concentration (pCi/L)
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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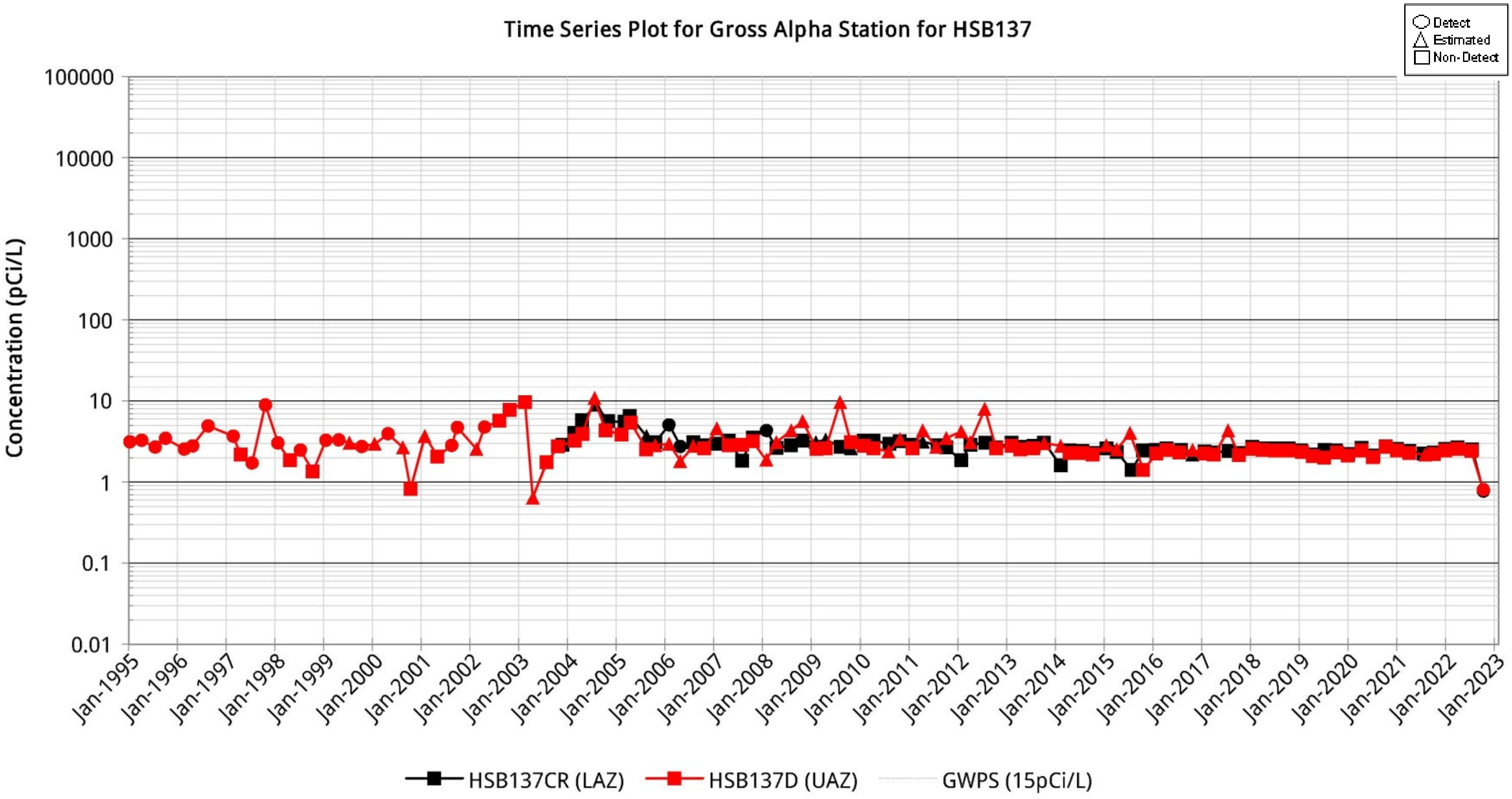
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB129D (UAZ)
HSB129C (LAZ)
GWPS (15pCi/L)


Time Series Plot for Gross Alpha Station for HSB137
Detect
Estimated
Non-Detect
Concentration (pCi/L)
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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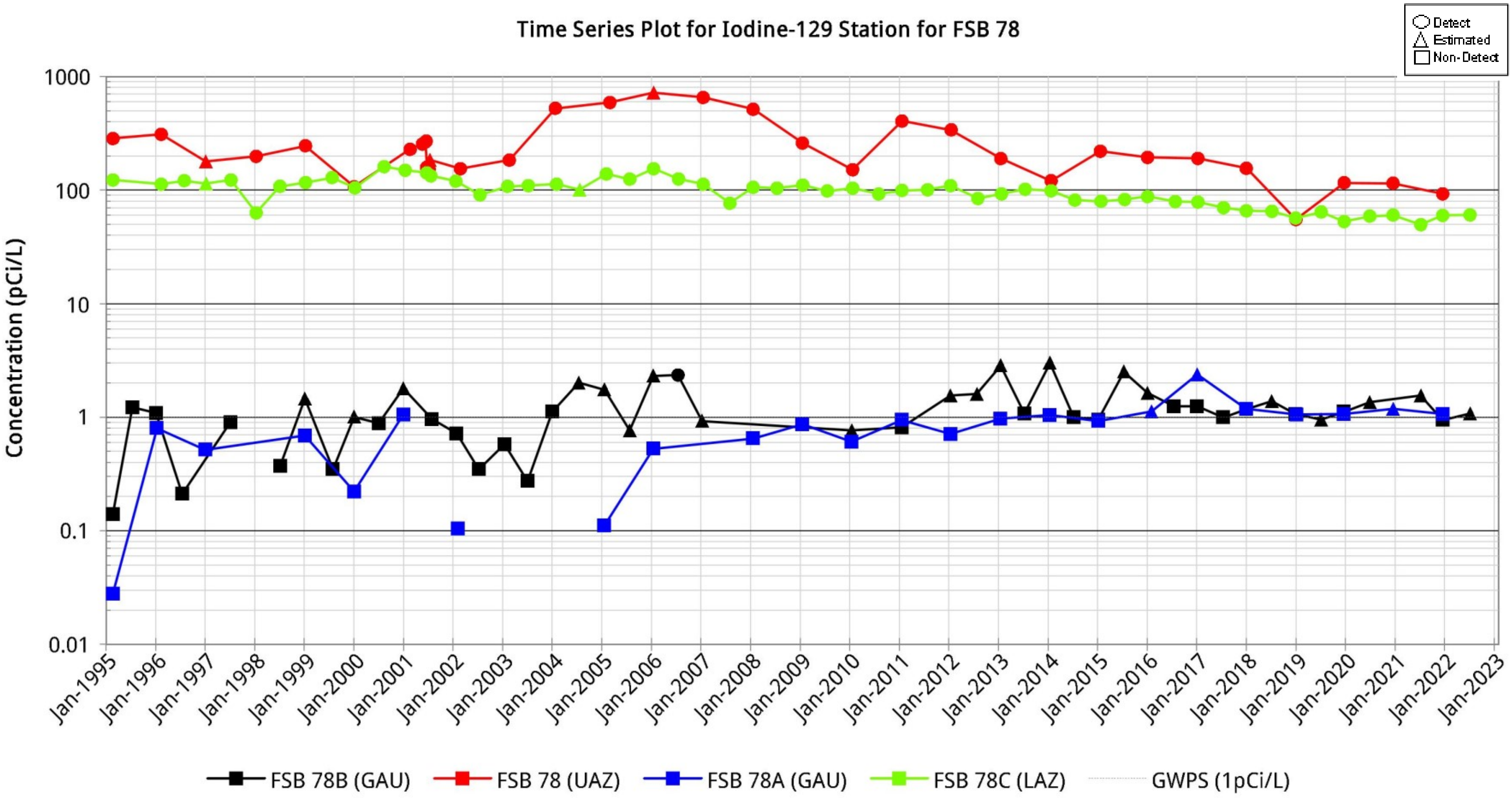
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB137CR (LAZ)
HSB137D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Iodine-129 Station for FSB 78
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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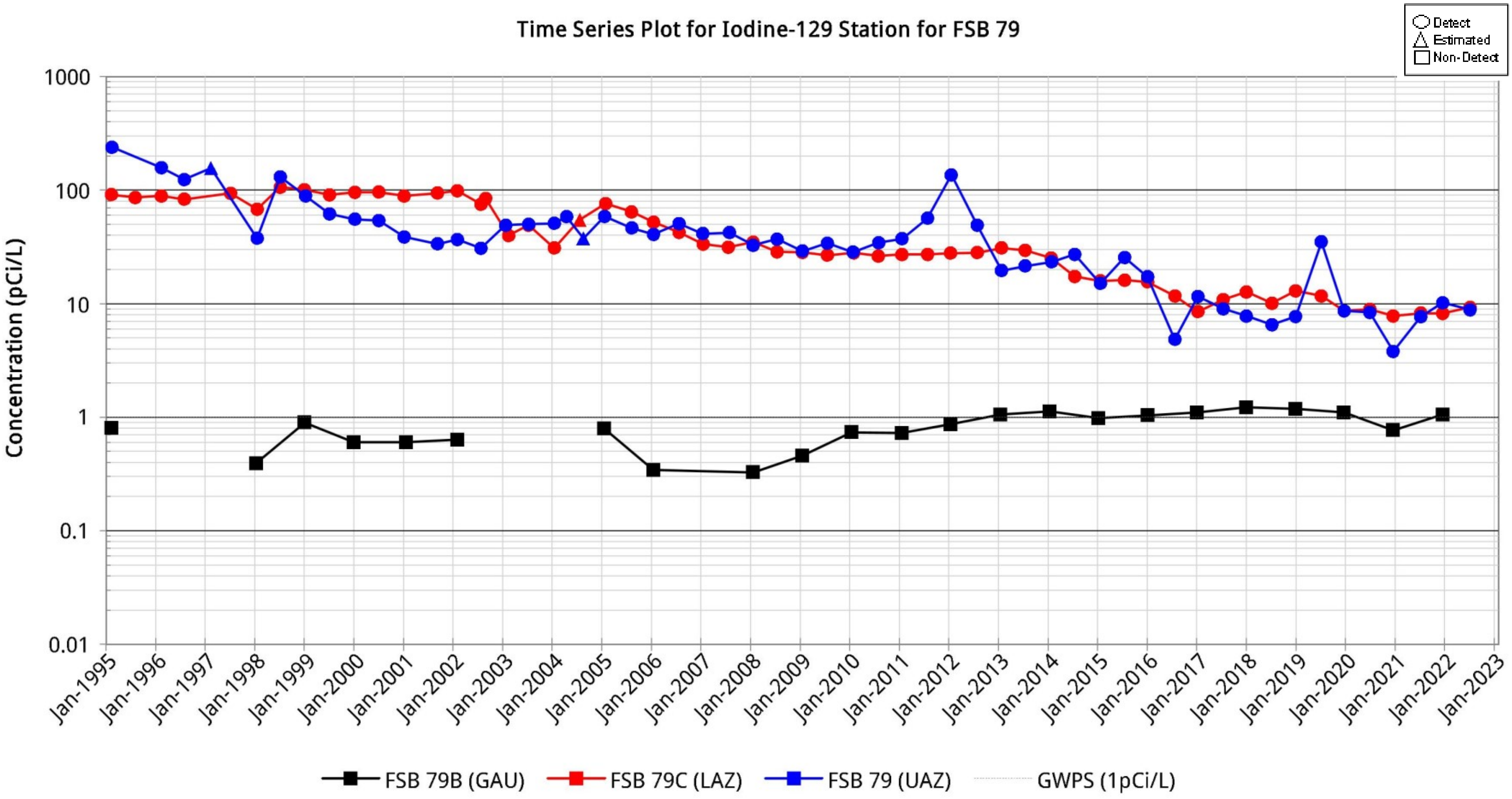
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 78B (GAU)
FSB 78 (UAZ)
FSB 78A (GAU)
FSB 78C (LAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for FSB 79
Detect
Estimated
Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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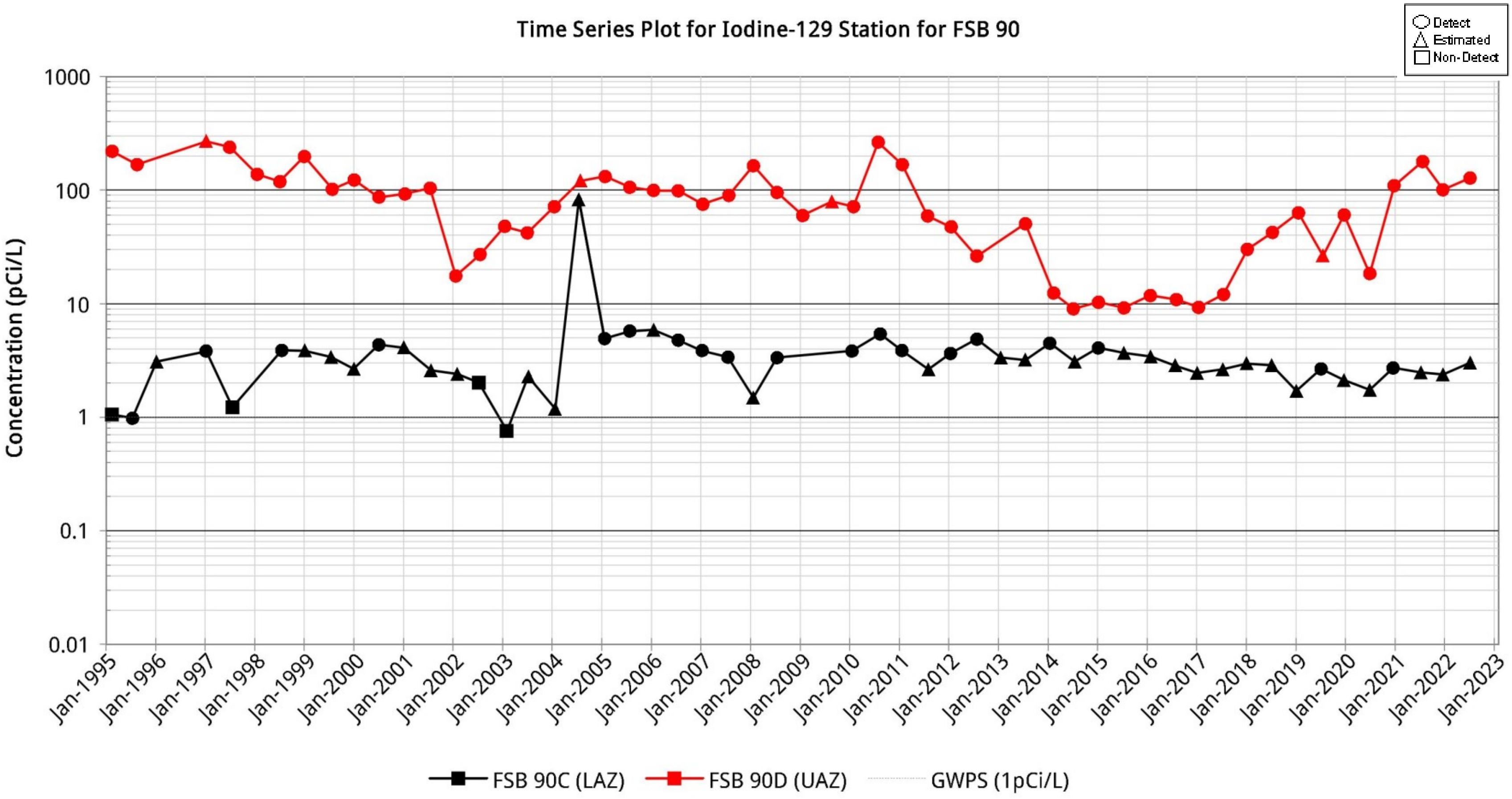
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 79B (GAU)
FSB 79C (LAZ)
FSB 79 (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for FSB 90
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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Jan-2018
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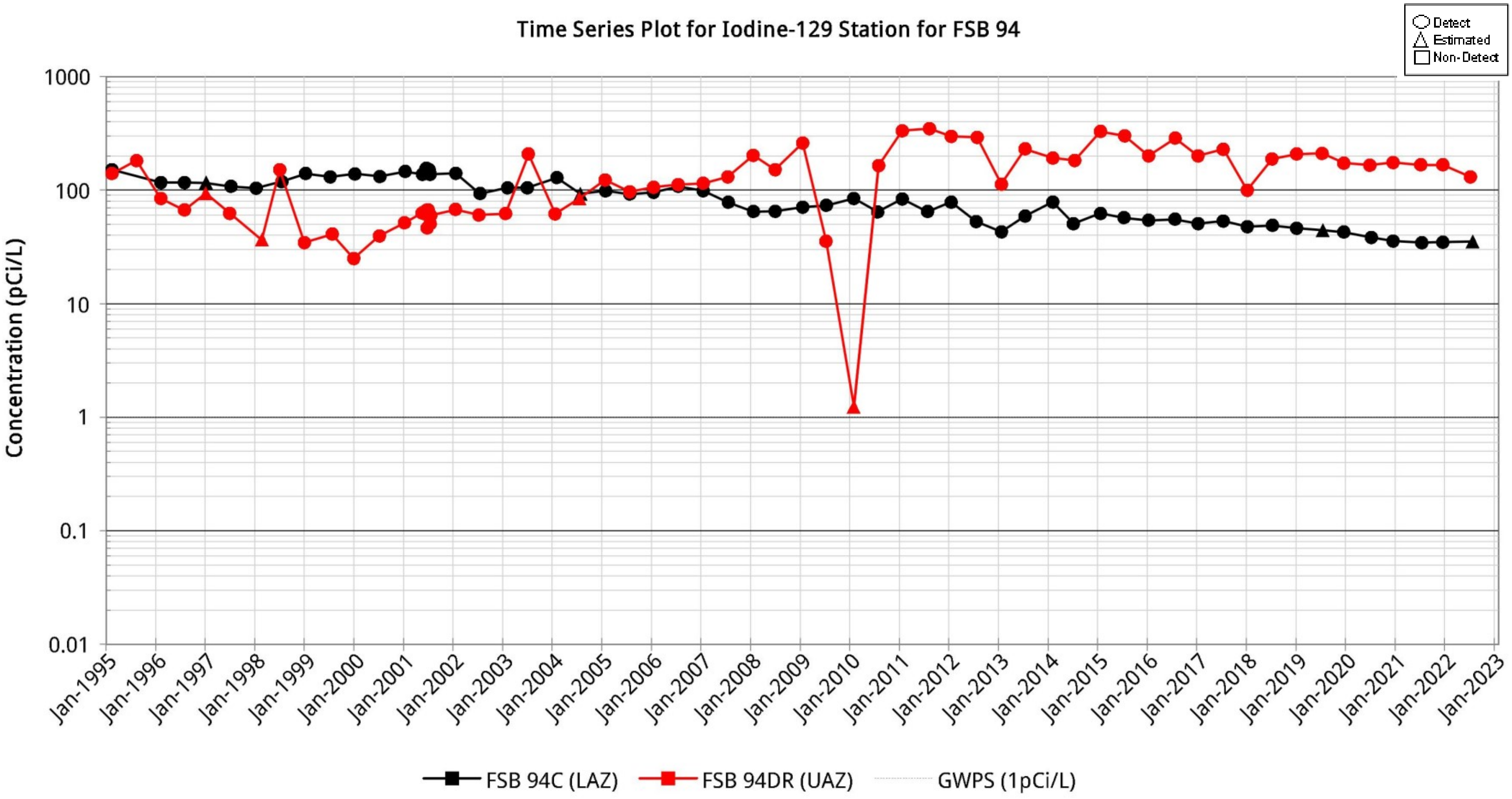
Jan-2021
Jan-2022
Jan-2023
FSB 90C (LAZ)
FSB 90D (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for FSB 94
Detect
Estimated
Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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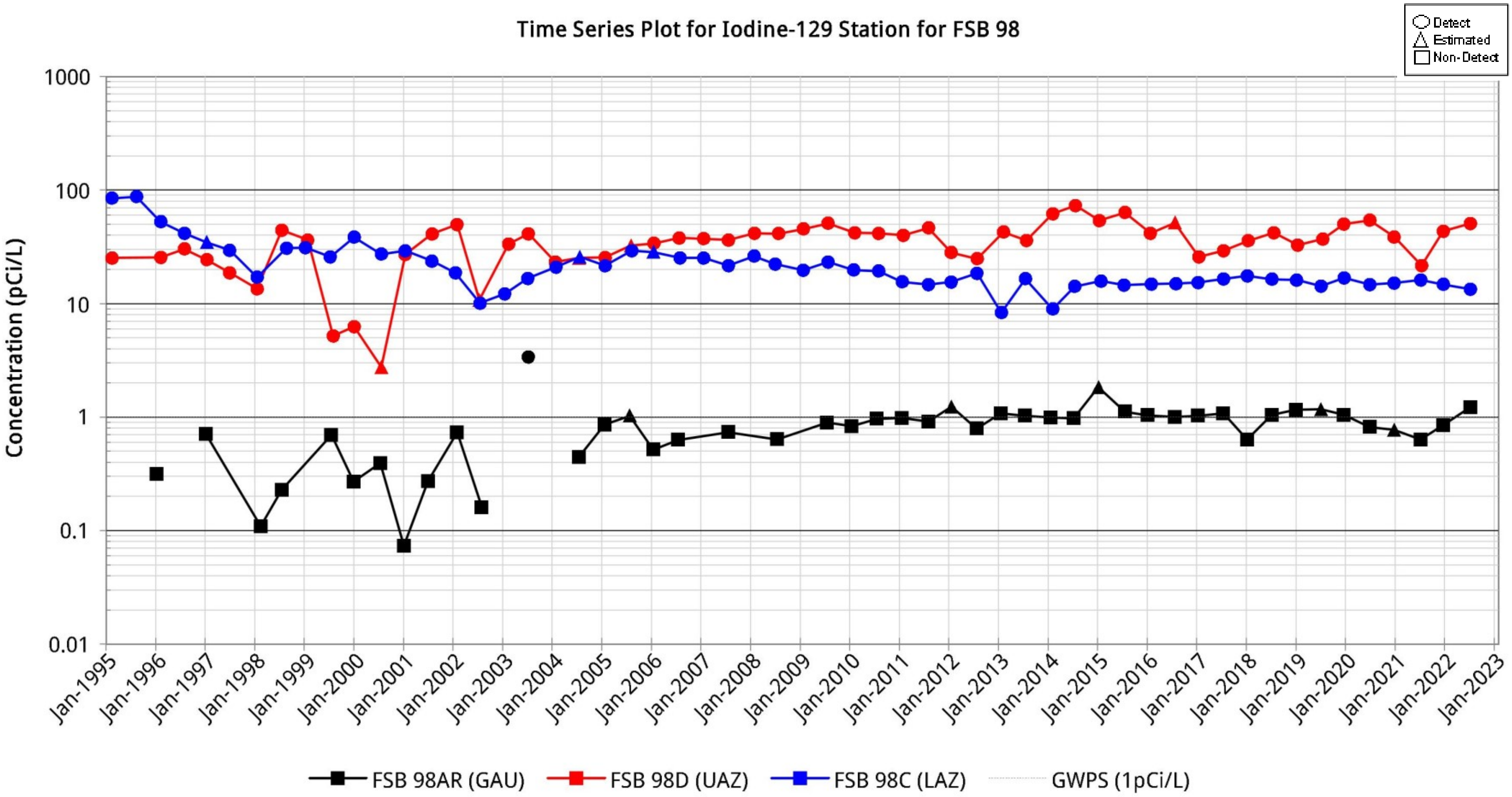
Jan-2021
Jan-2022
Jan-2023
FSB 94C (LAZ)
FSB 94DR (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for FSB 98
○ Detect
△ Estimated
□ Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
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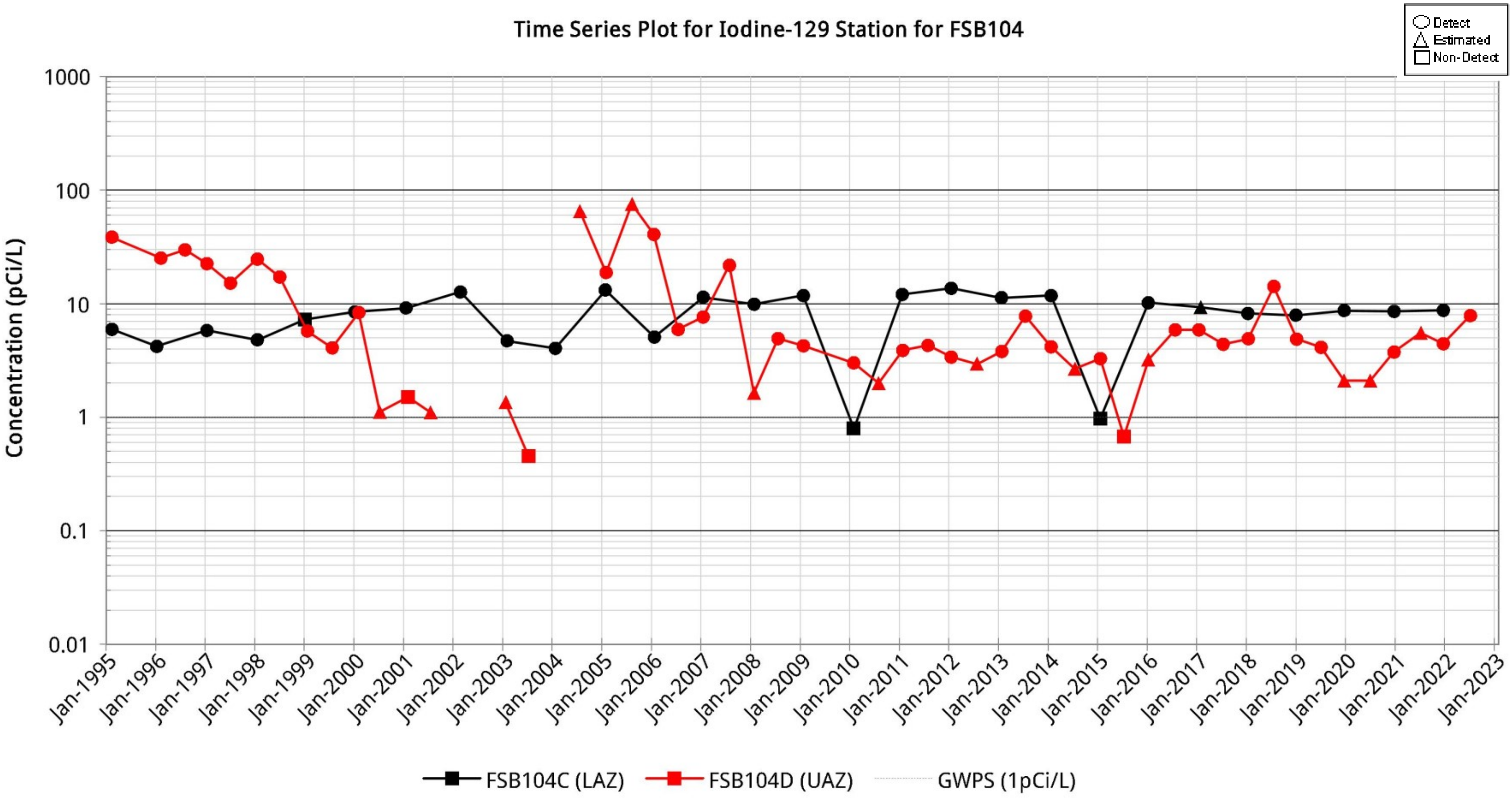
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 98AR (GAU)
FSB 98D (UAZ)
FSB 98C (LAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for FSB104
Detect
Estimated
Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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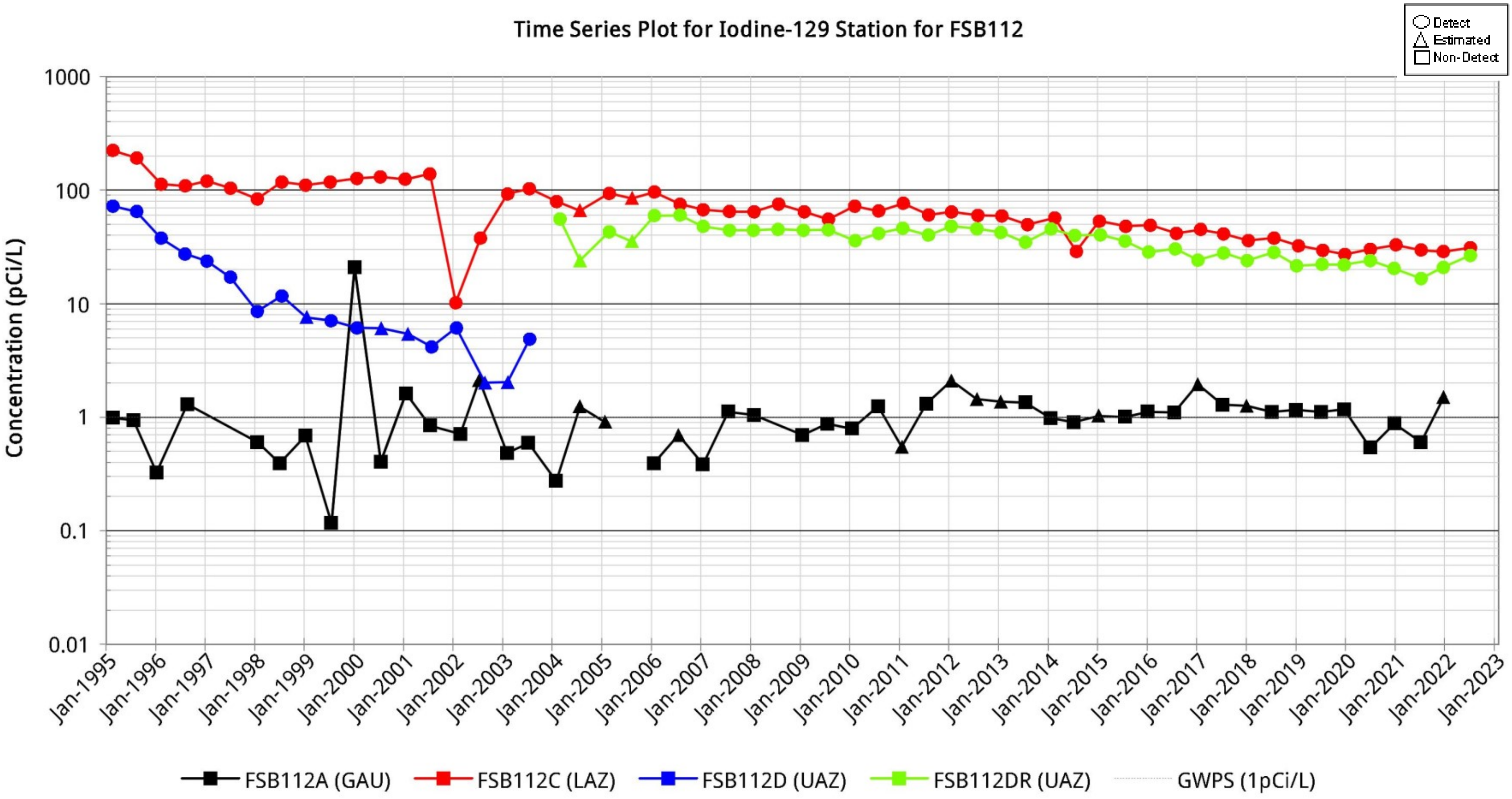
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB104C (LAZ)
FSB104D (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for FSB112
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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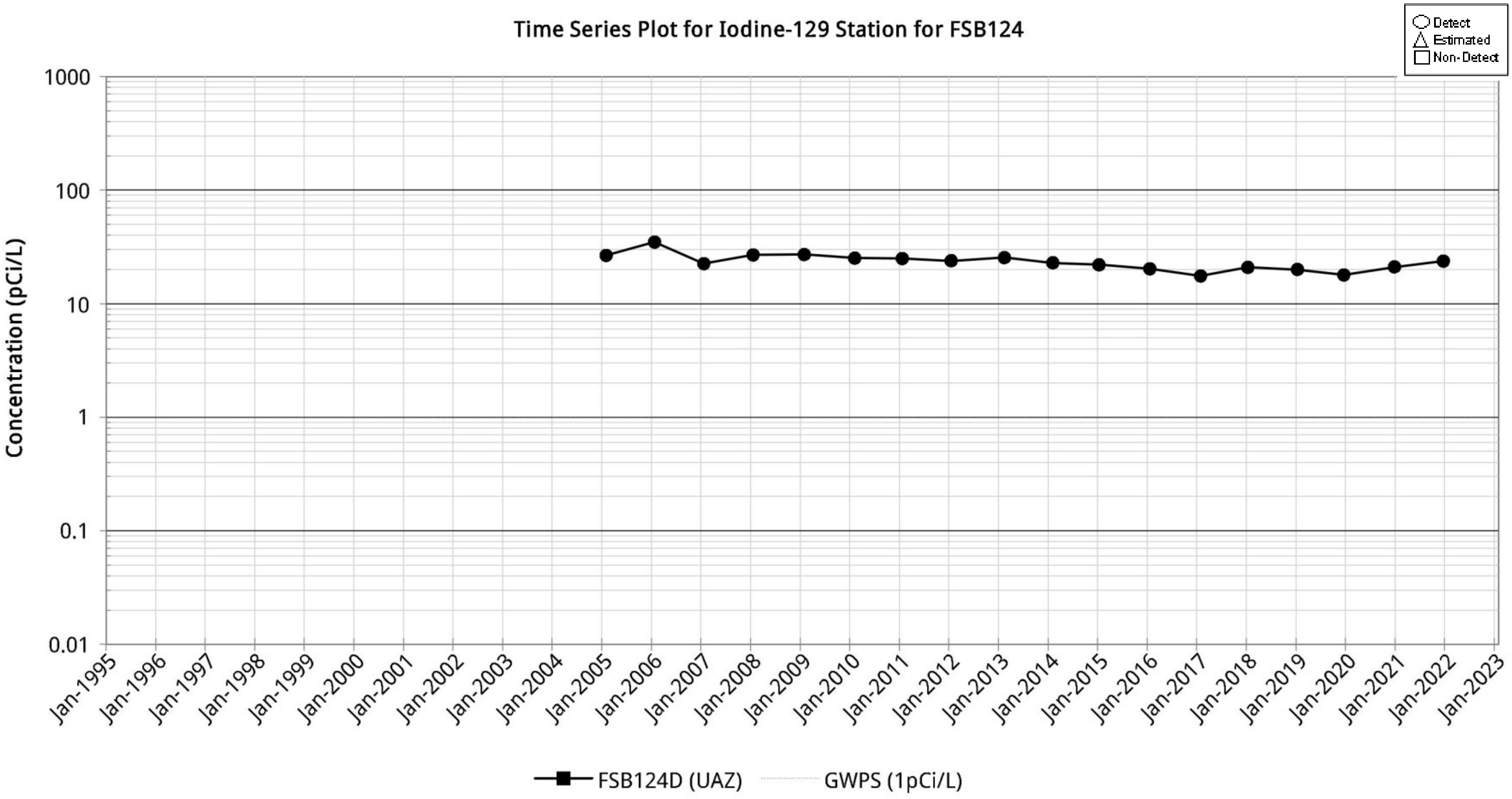
Jan-2021
Jan-2022
Jan-2023
FSB112A (GAU)
FSB112C (LAZ)
FSB112D (UAZ)
FSB112DR (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for FSB124
Detect
Estimated
Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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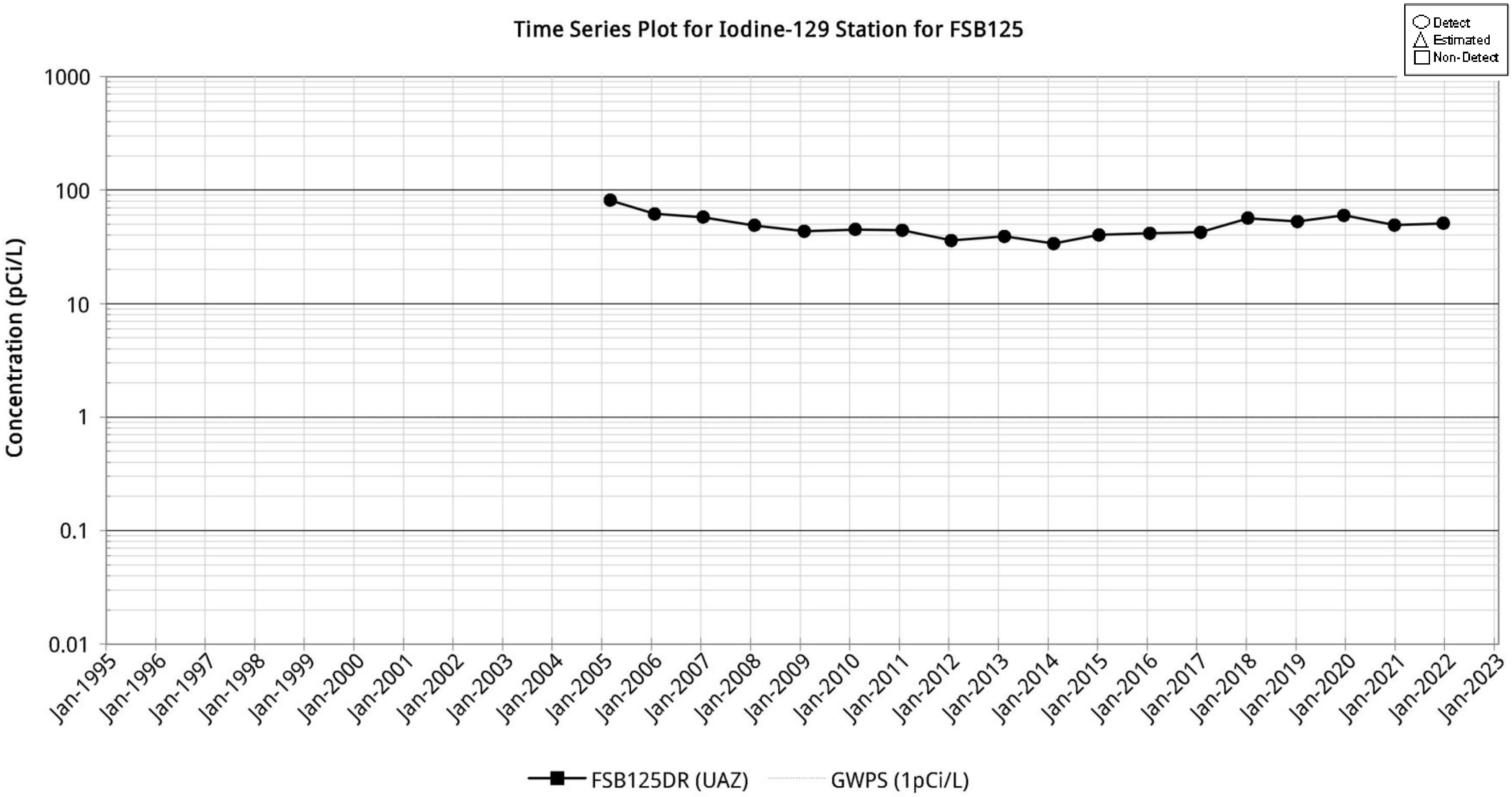
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB124D (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for FSB125
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
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Jan-2020
Jan-2021
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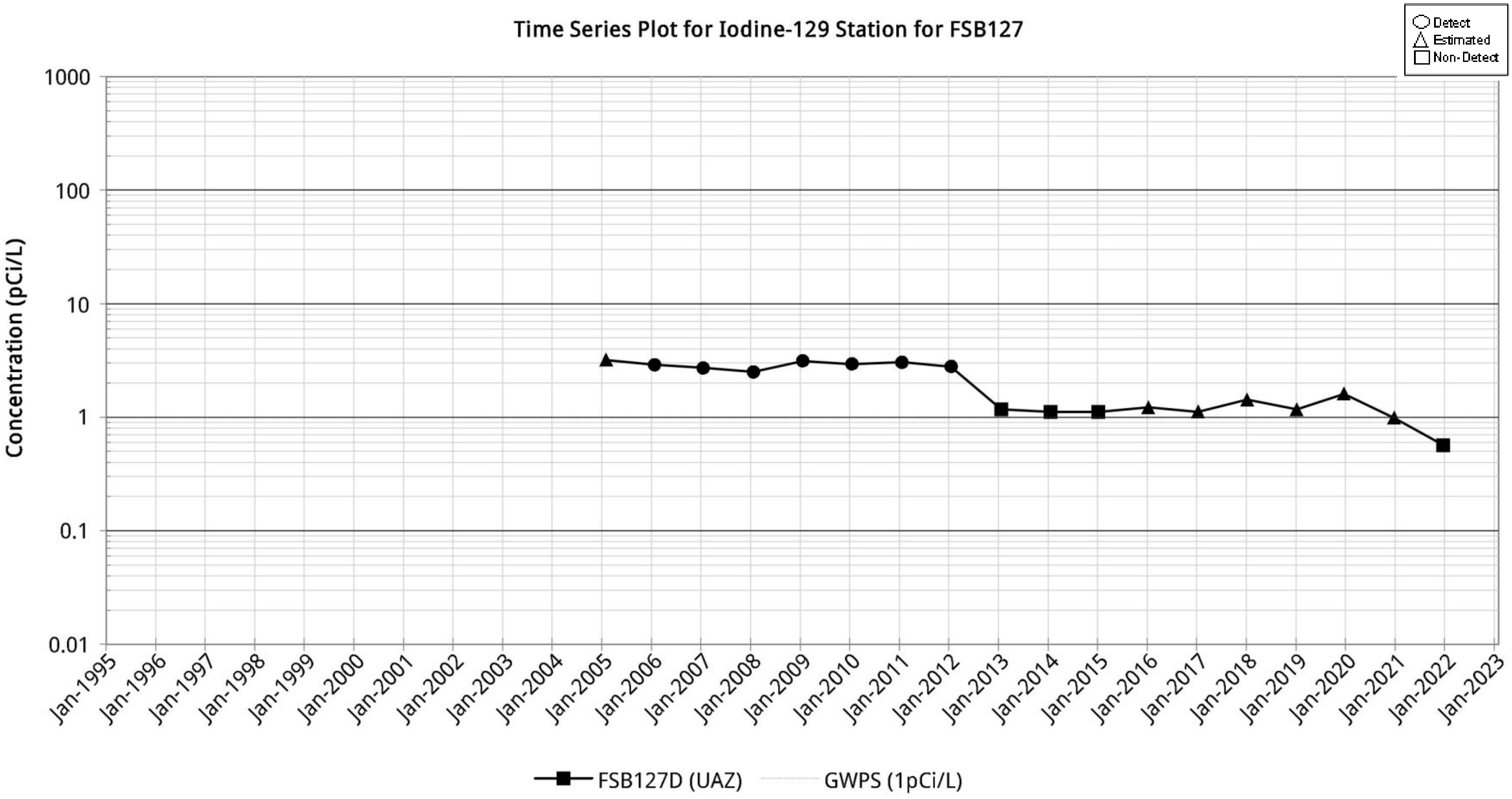
Jan-2023
FSB125DR (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for FSB127
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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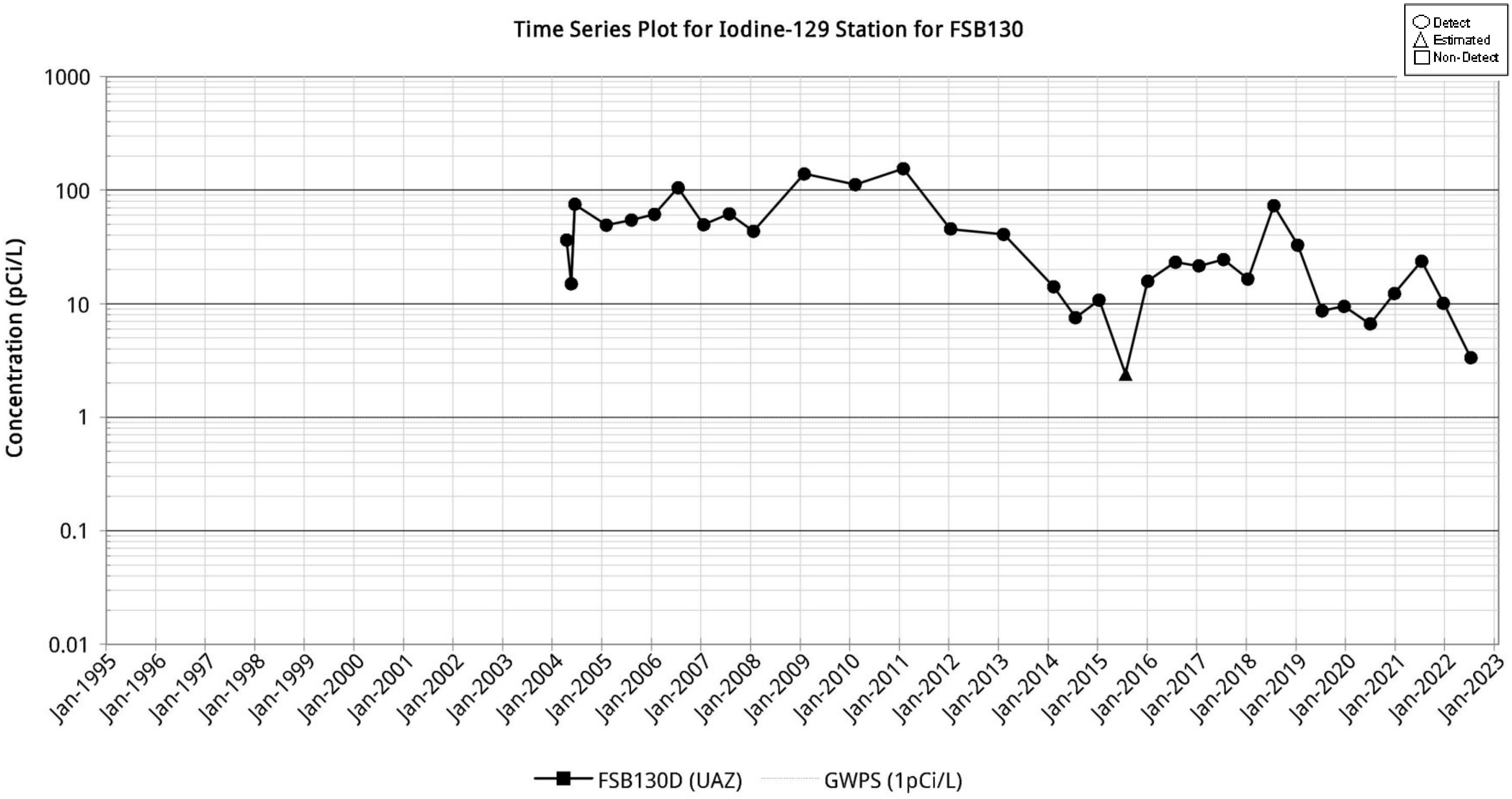
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB127D (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for FSB130
Detect
Estimated
Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
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Jan-1999
Jan-2000
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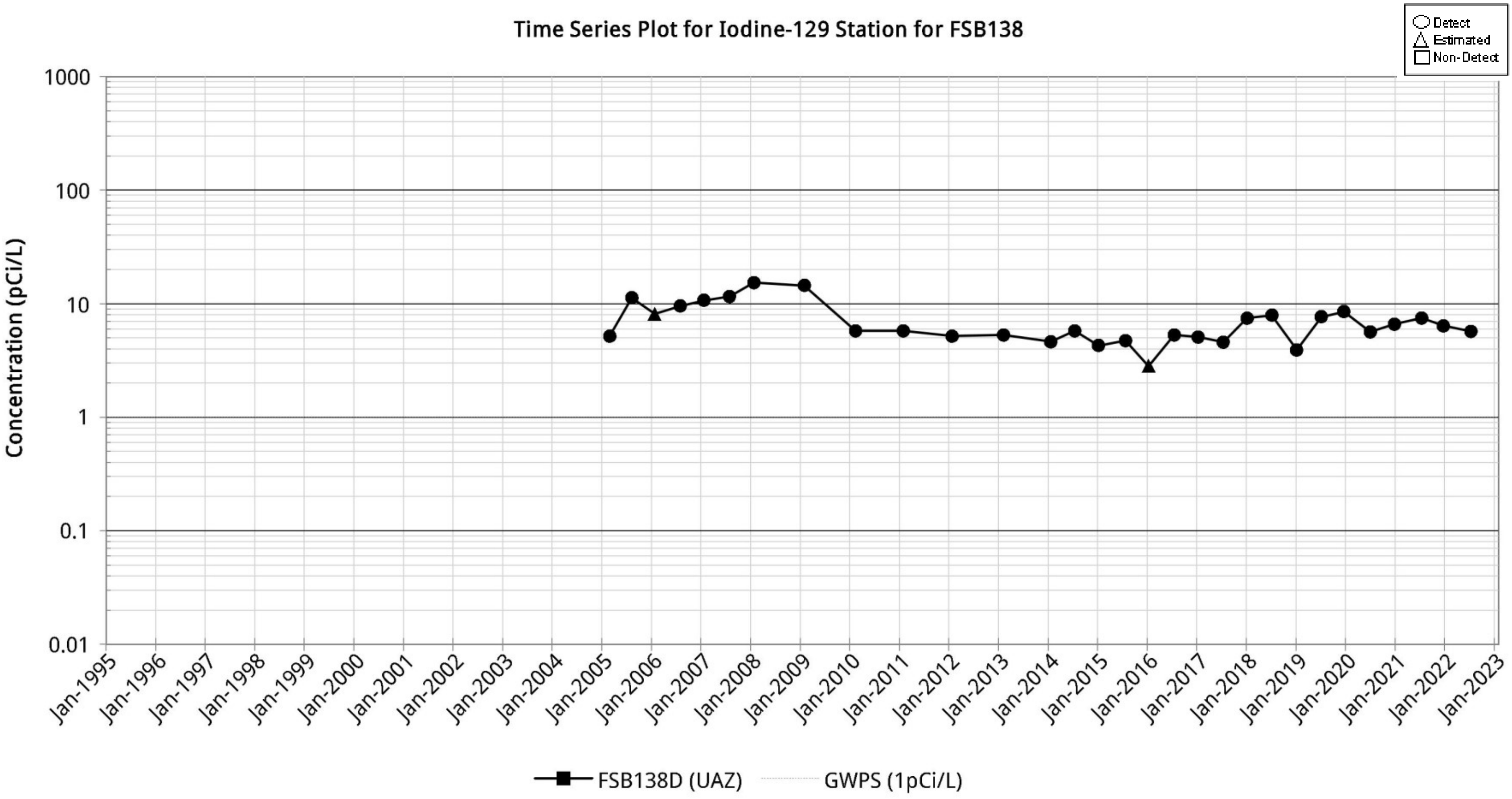
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB130D (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for FSB138
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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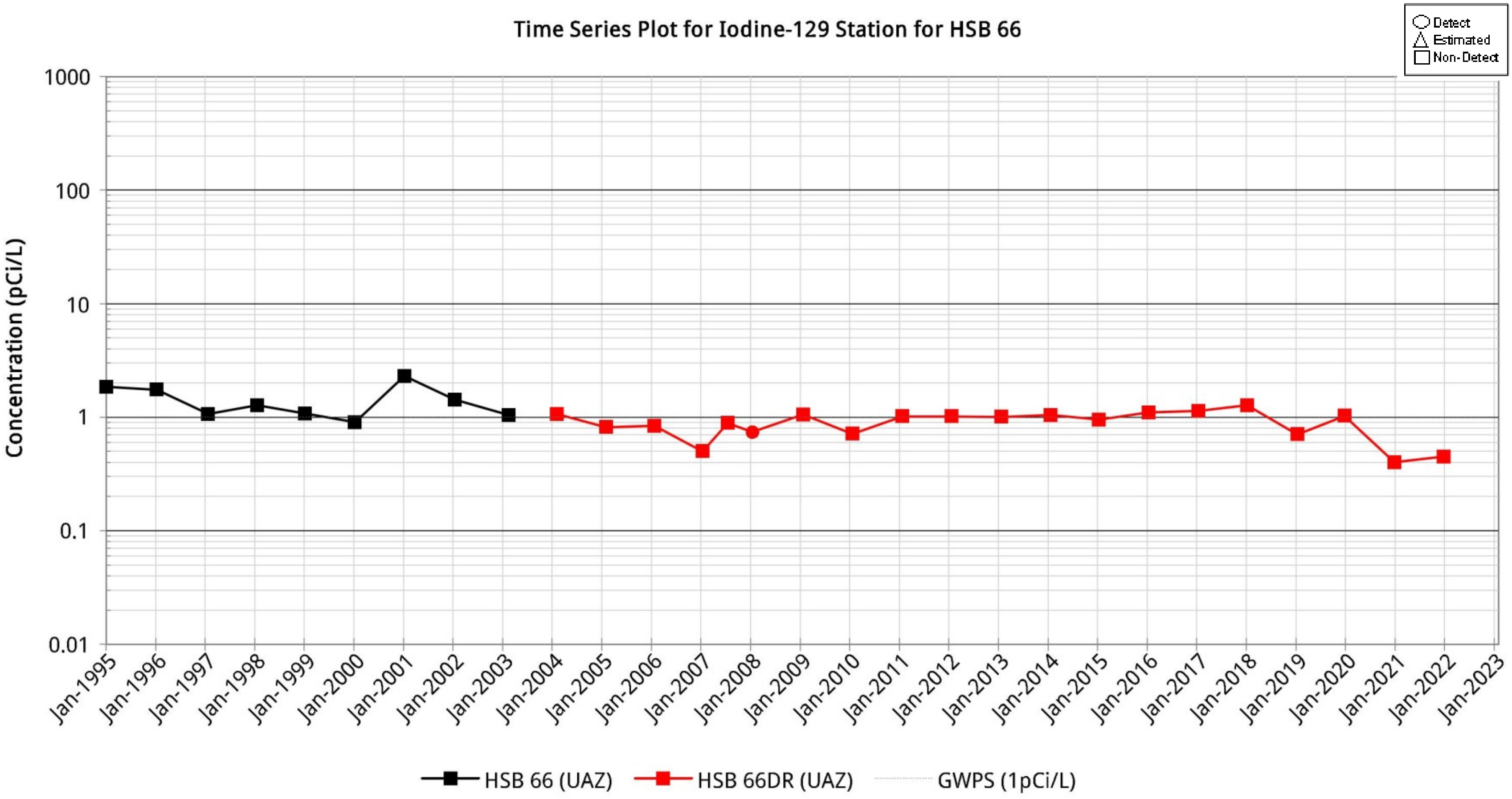
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB138D (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for HSB 66
Detect
Estimated
Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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Jan-2018
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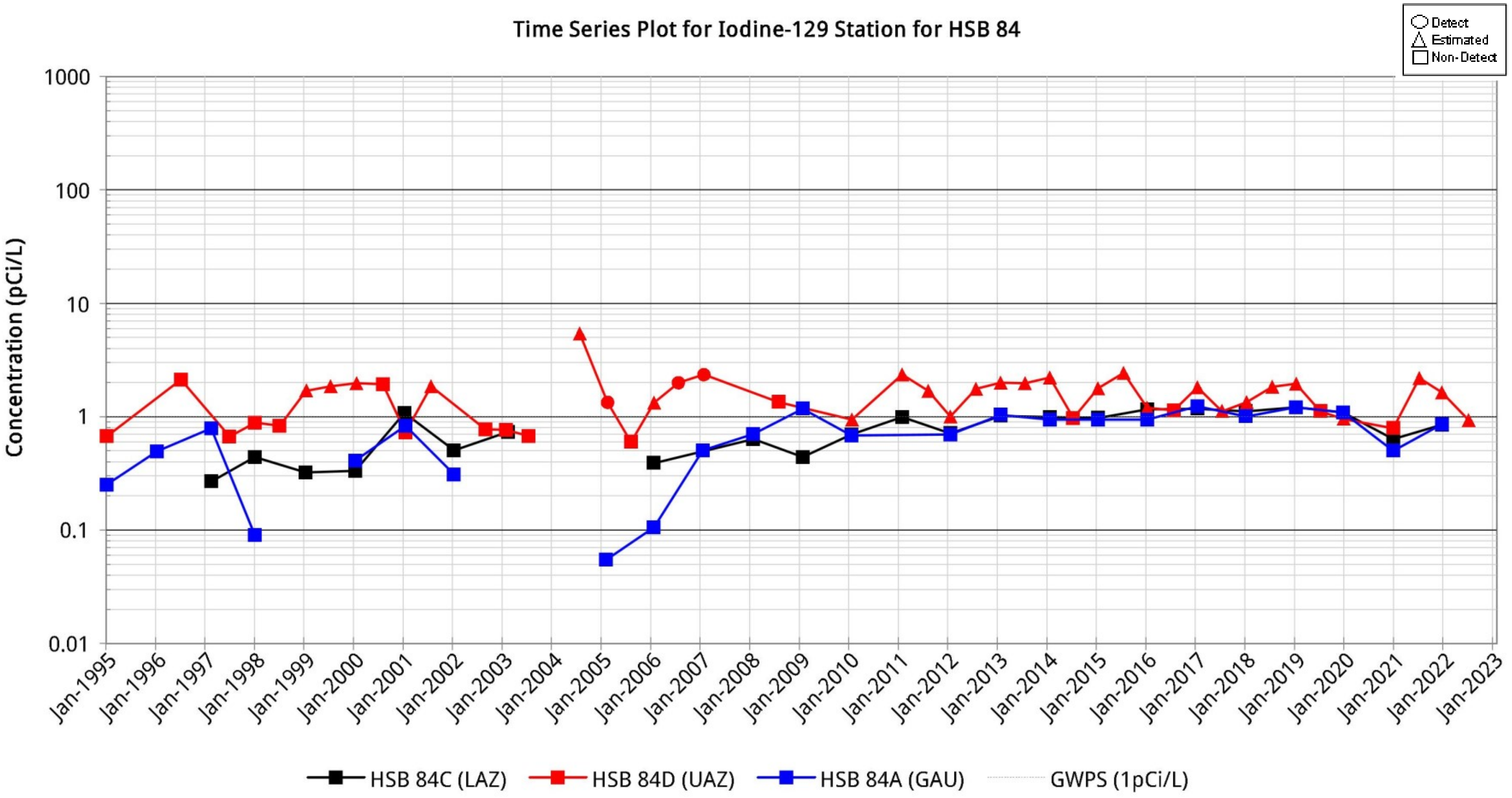
Jan-2021
Jan-2022
Jan-2023
HSB 66 (UAZ)
HSB 66DR (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for HSB 84
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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Jan-1998
Jan-1999
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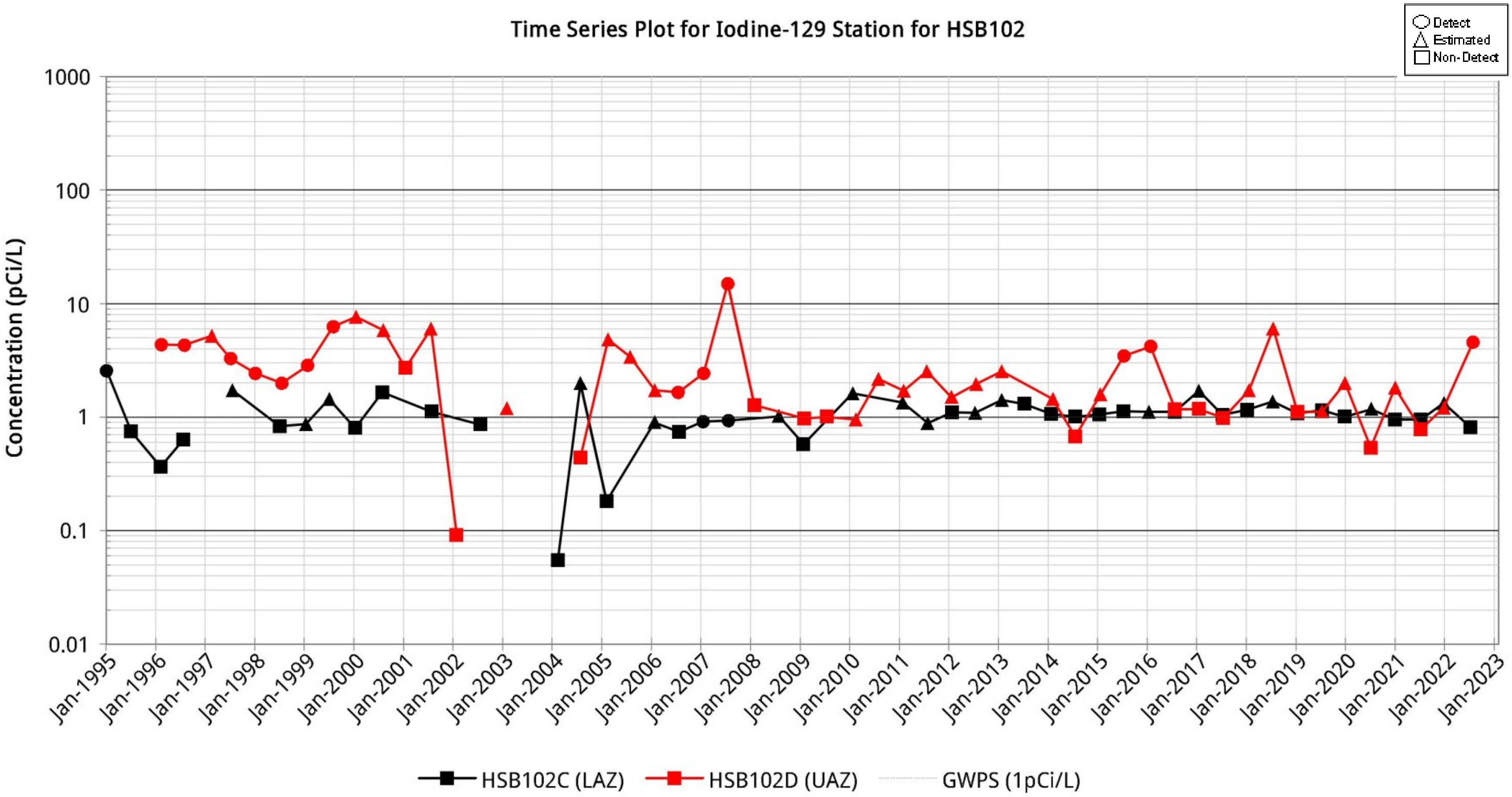
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB 84C (LAZ)
HSB 84D (UAZ)
HSB 84A (GAU)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for HSB102
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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Jan-2018
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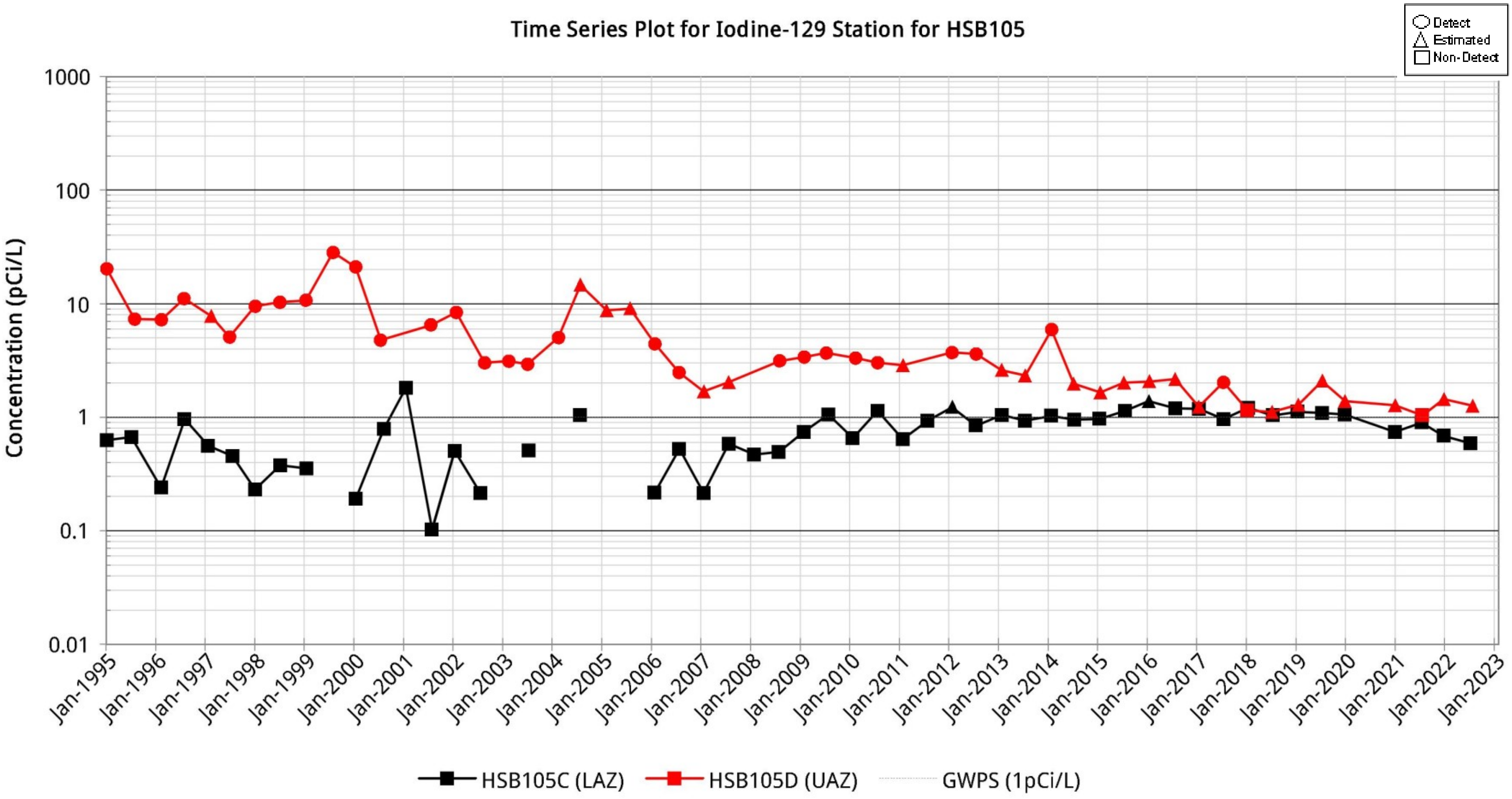
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB102C (LAZ)
HSB102D (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for HSB105
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
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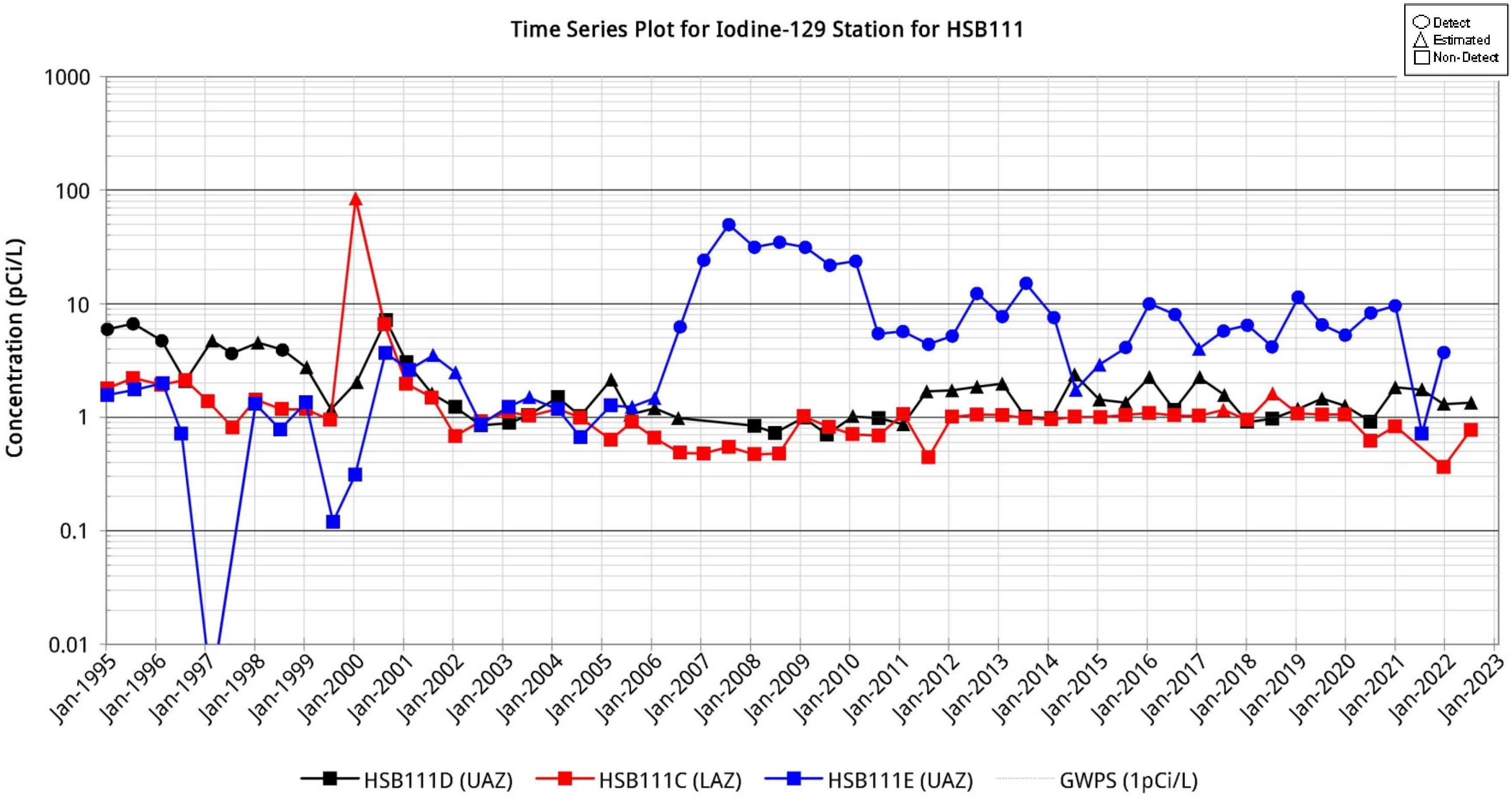
Jan-2021
Jan-2022
Jan-2023
HSB105C (LAZ)
HSB105D (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for HSB111
Detect
Estimated
Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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Jan-2020
Jan-2021
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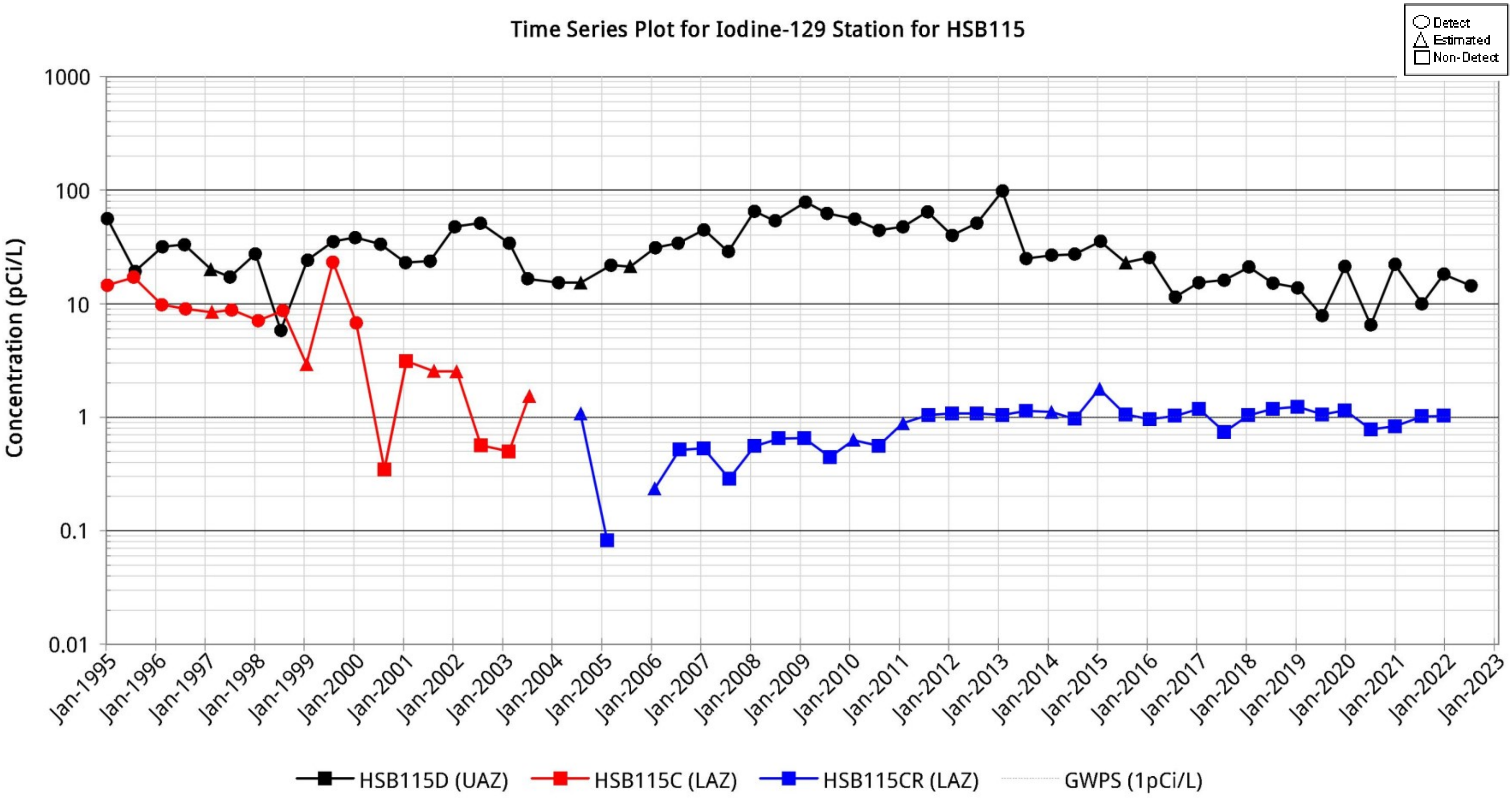
Jan-2023
HSB111D (UAZ)
HSB111C (LAZ)
HSB111E (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for HSB115
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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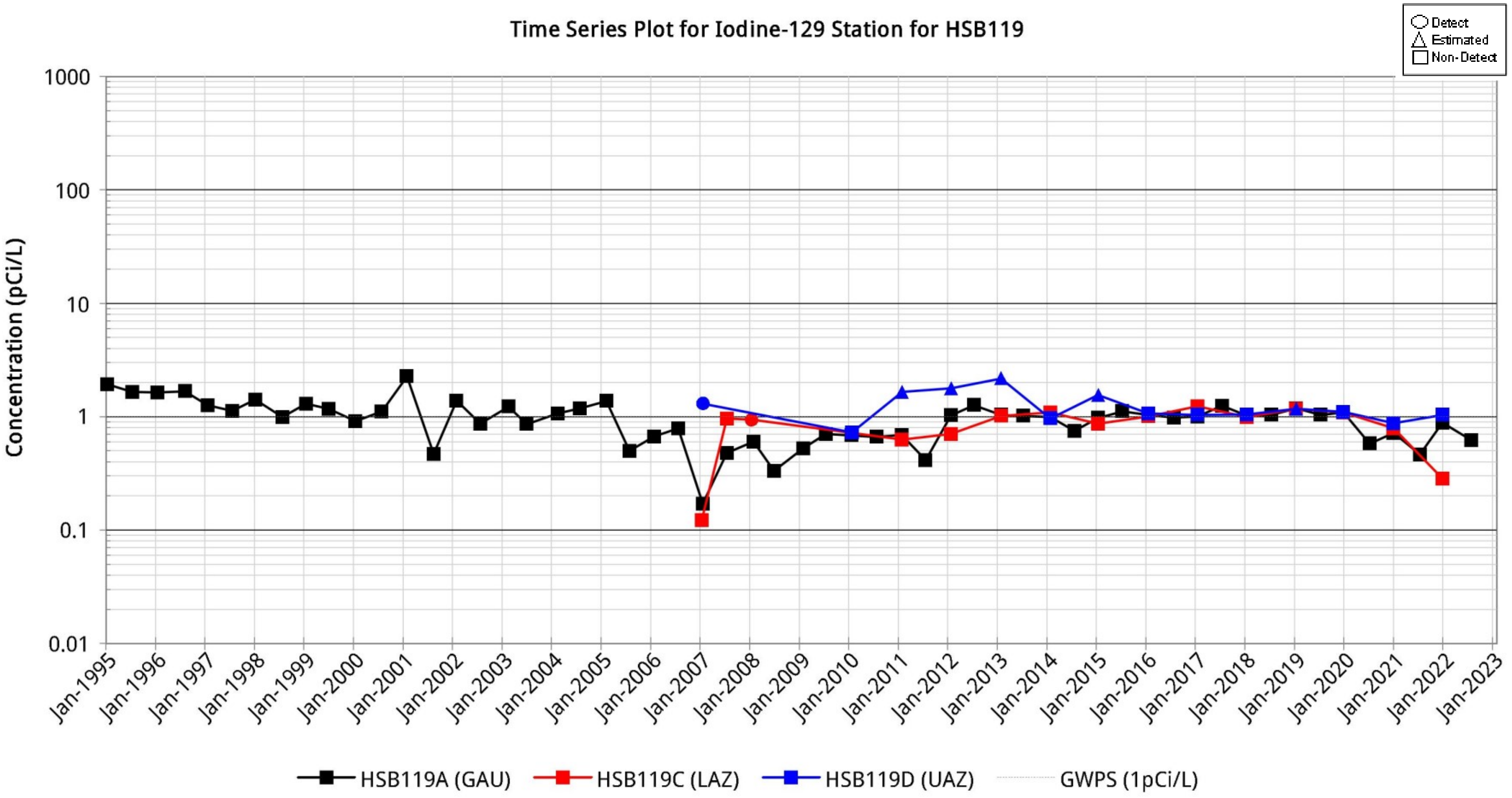
Jan-2022
Jan-2023
HSB115D (UAZ)
HSB115C (LAZ)
HSB115CR (LAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for HSB119
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
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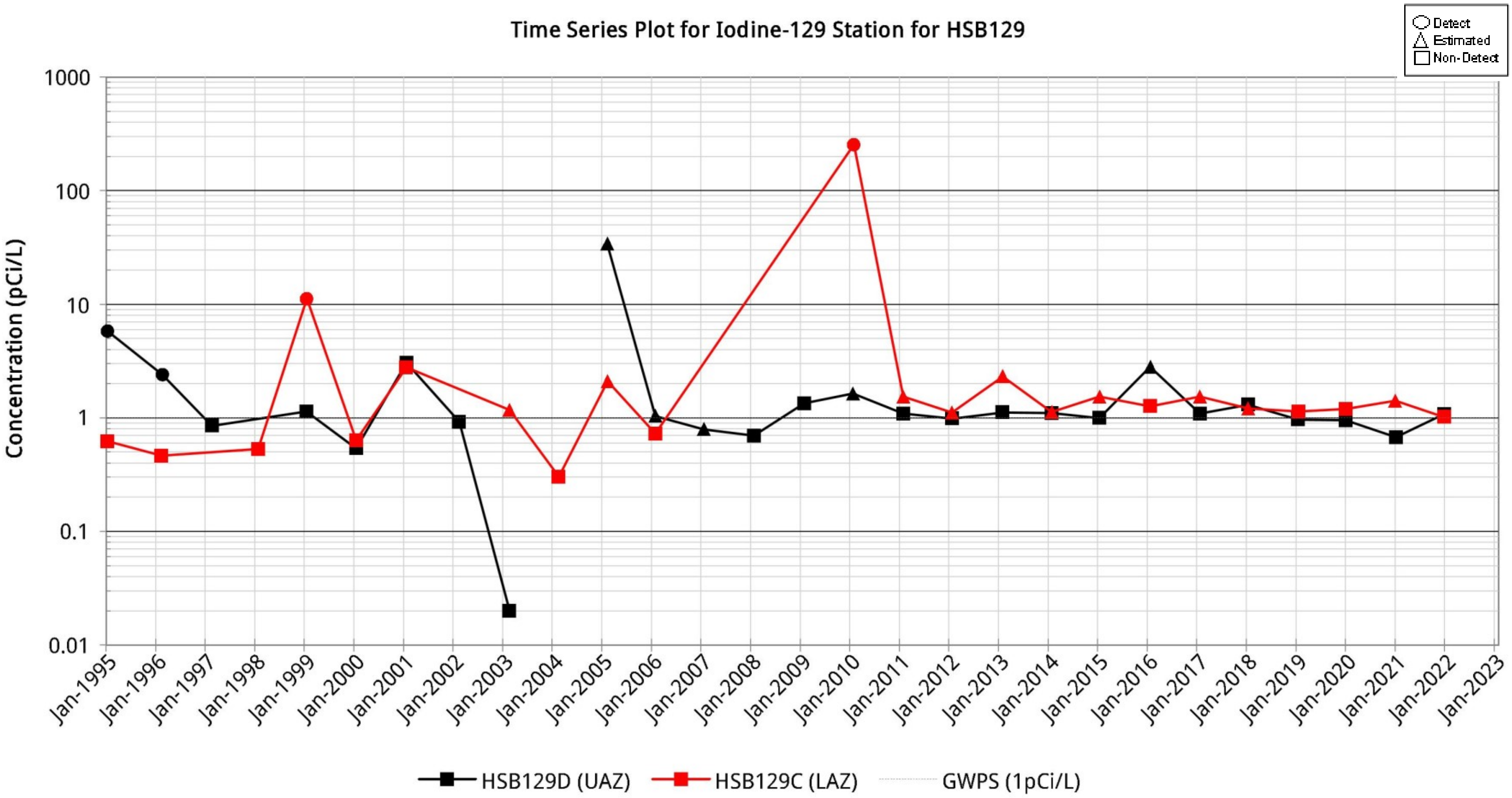
Jan-2021
Jan-2022
Jan-2023
HSB119A (GAU)
HSB119C (LAZ)
HSB119D (UAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for HSB129
Detect
Estimated
Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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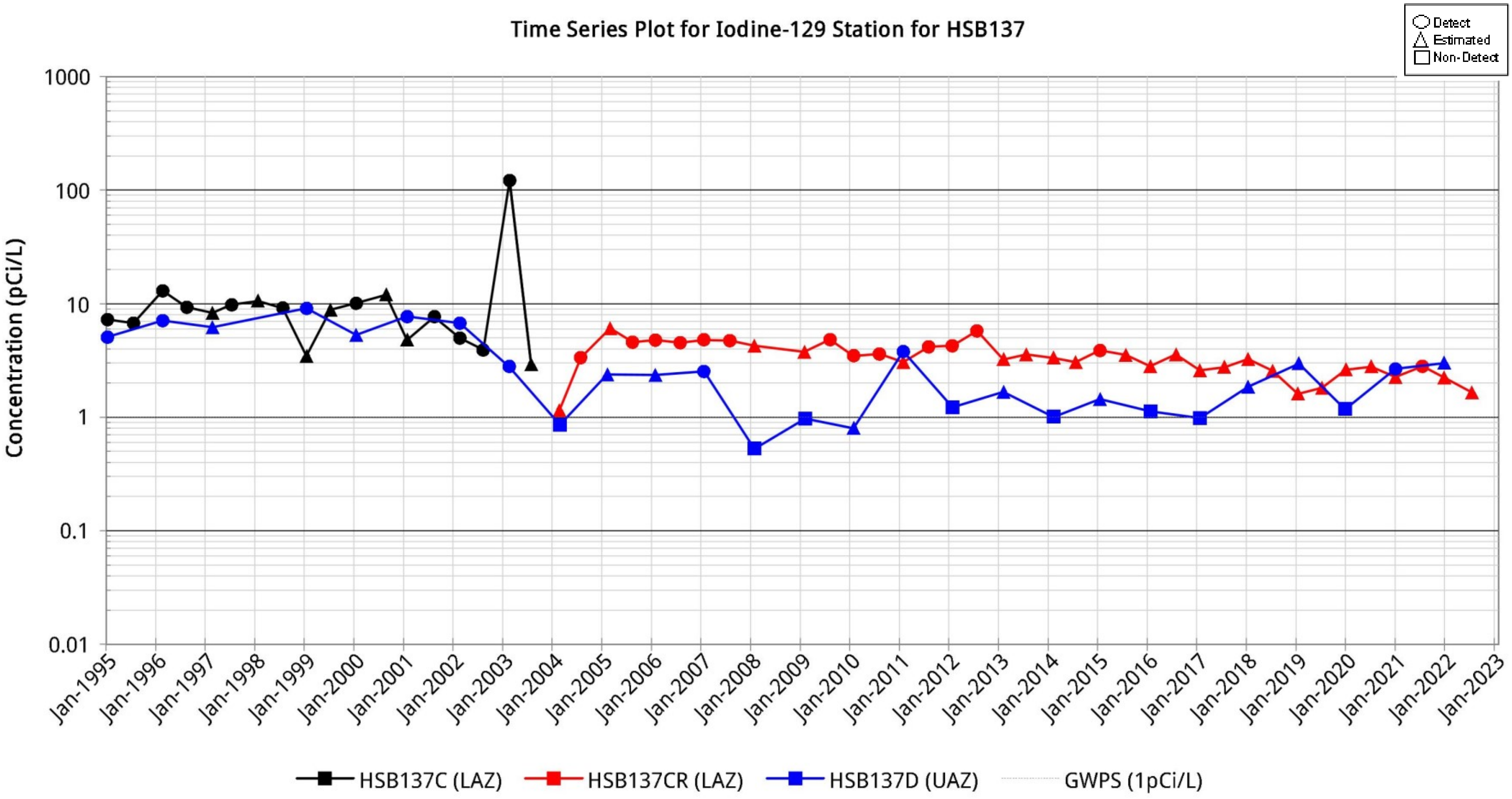
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB129D (UAZ)
HSB129C (LAZ)
GWPS (1pCi/L)


Time Series Plot for Iodine-129 Station for HSB137
Detect
Estimated
Non-Detect
Concentration (pCi/L)
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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Jan-2016
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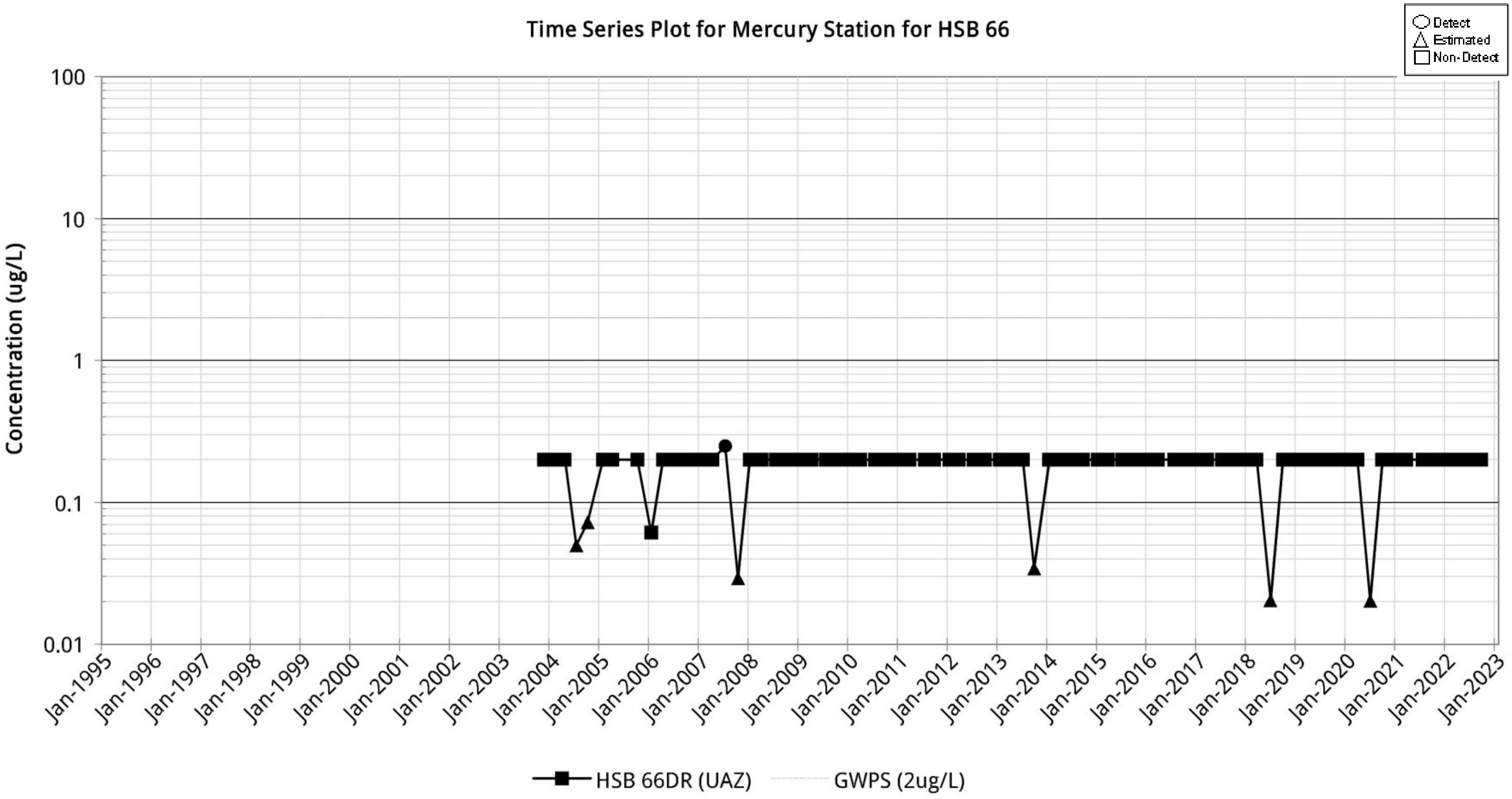
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB137C (LAZ)
HSB137CR (LAZ)
HSB137D (UAZ)
GWPS (1pCi/L)


Time Series Plot for Mercury Station for HSB 66
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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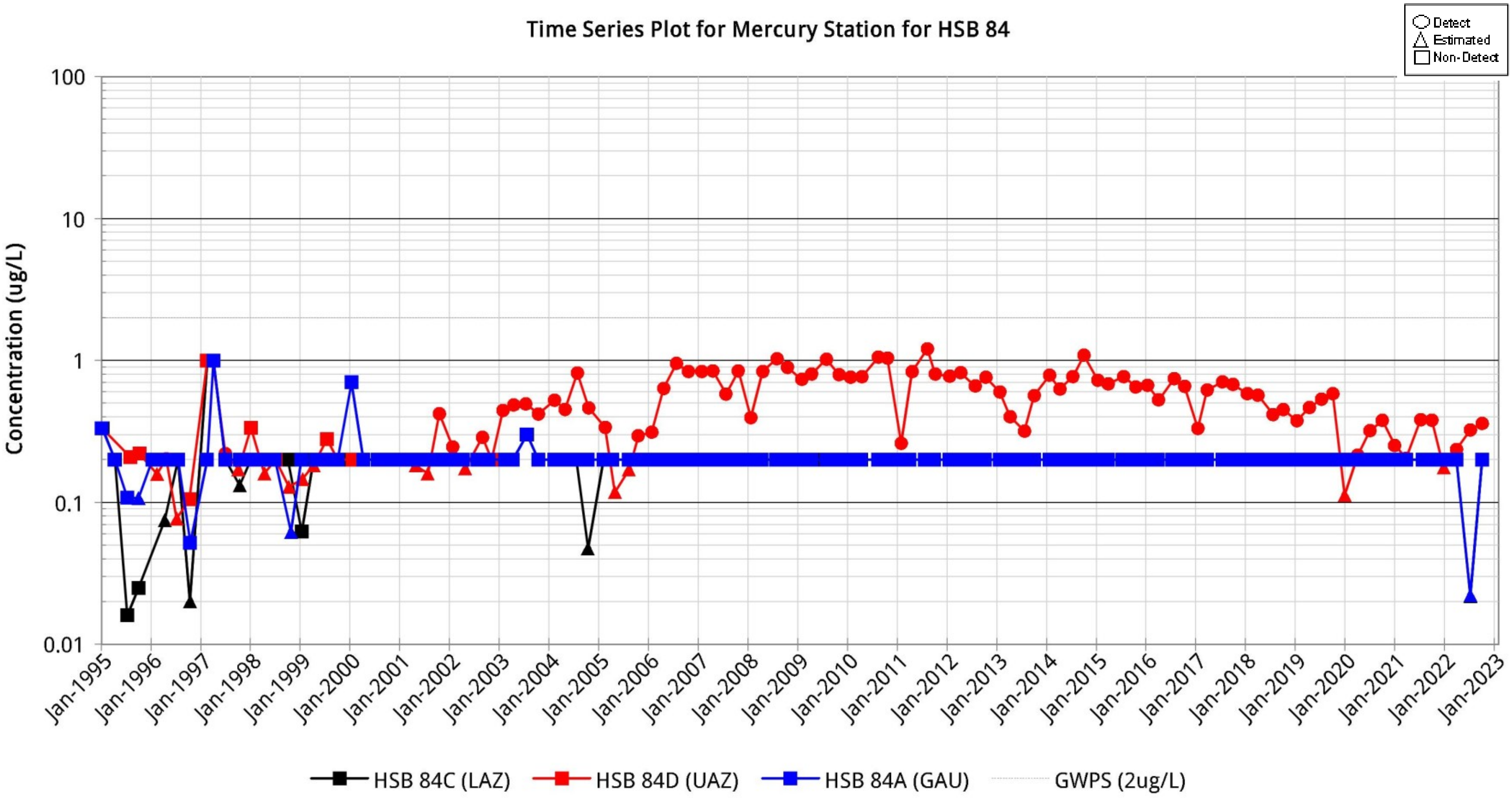
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB 66DR (UAZ)
GWPS (2ug/L)


Time Series Plot for Mercury Station for HSB 84
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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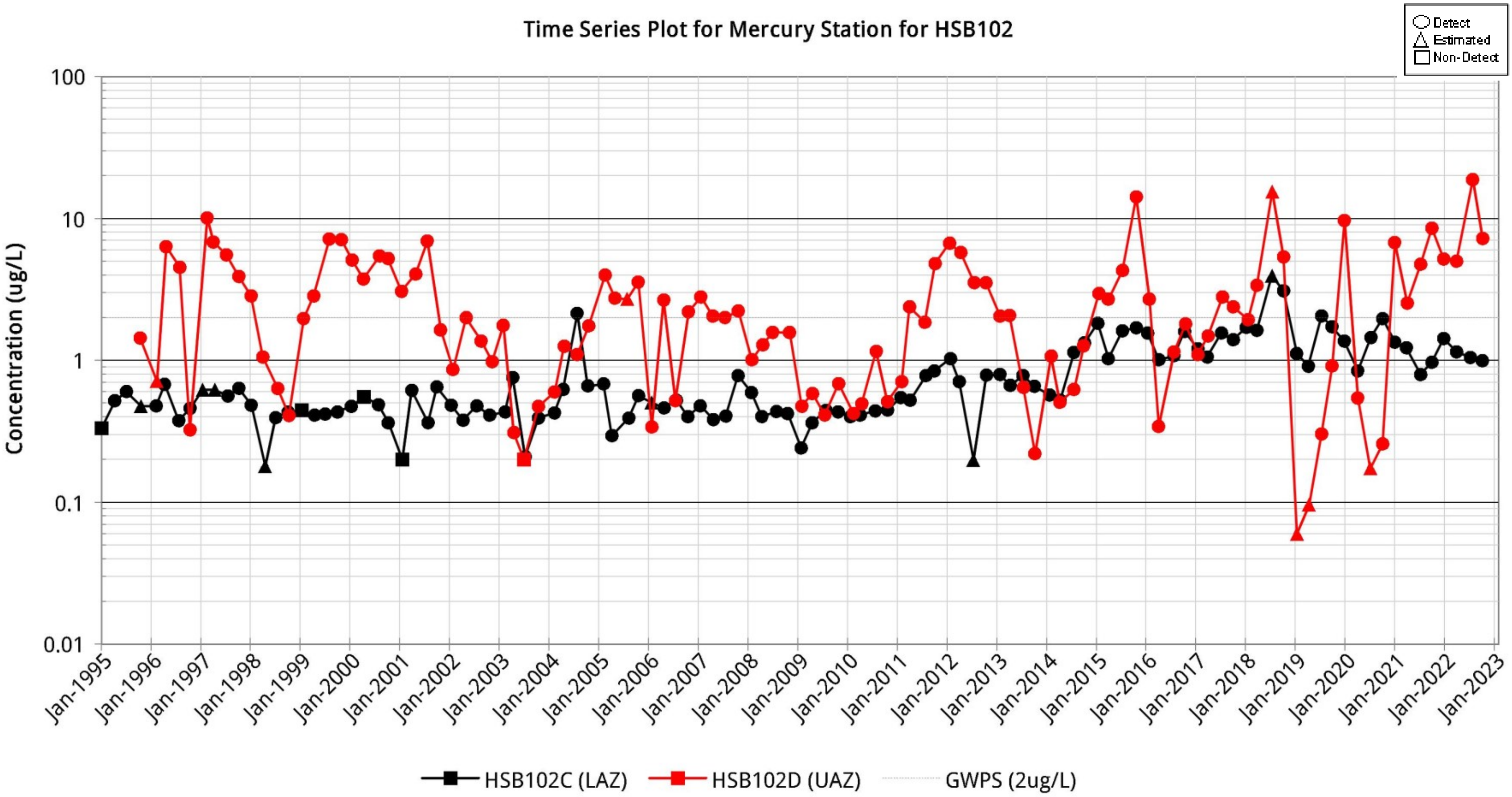
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB 84C (LAZ)
HSB 84D (UAZ)
HSB 84A (GAU)
GWPS (2ug/L)


Time Series Plot for Mercury Station for HSB102
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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Jan-2016
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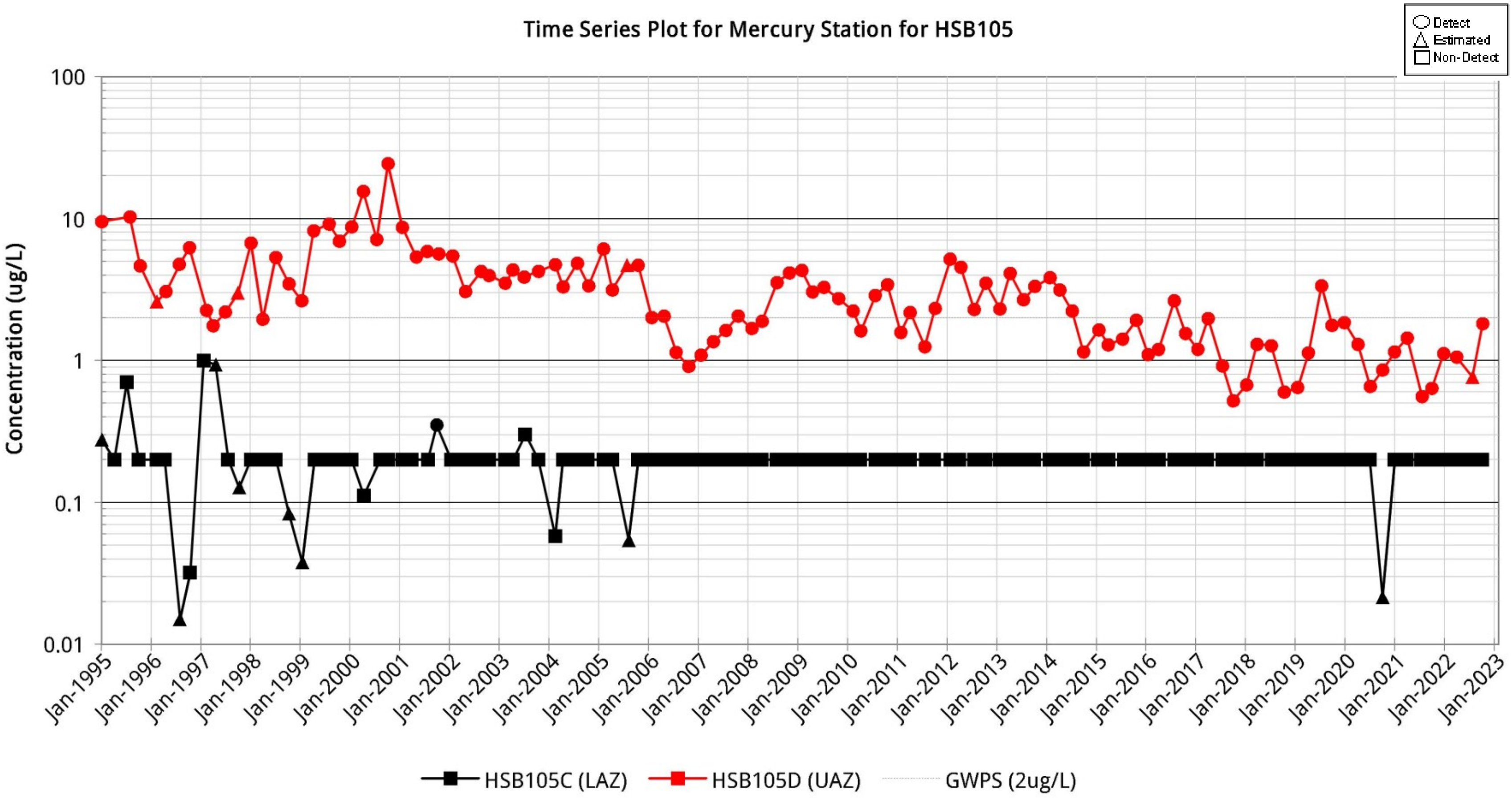
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB102C (LAZ)
HSB102D (UAZ)
GWPS (2ug/L)


Time Series Plot for Mercury Station for HSB105
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
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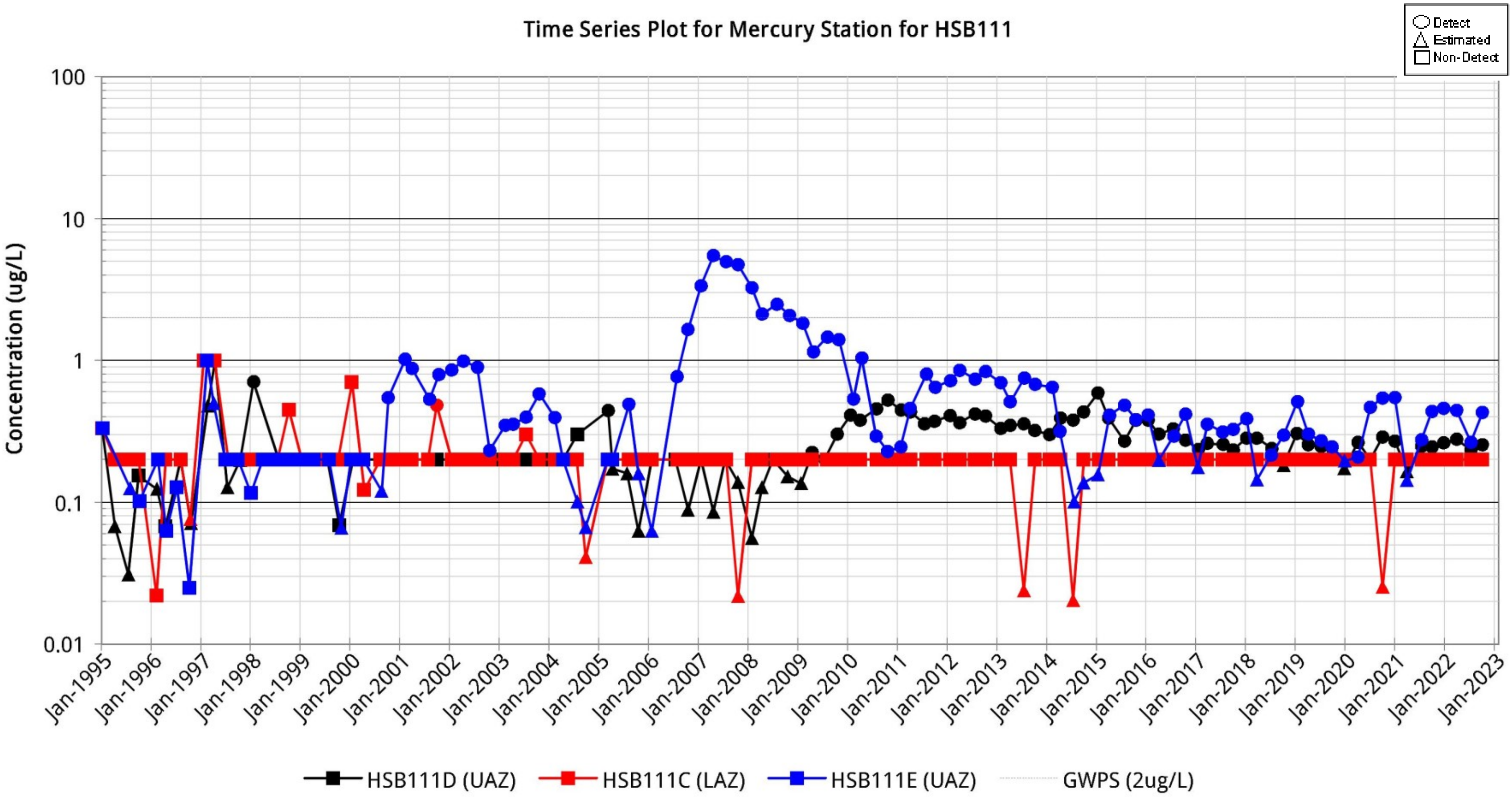
Jan-2016
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB105C (LAZ)
HSB105D (UAZ)
GWPS (2ug/L)


Time Series Plot for Mercury Station for HSB111
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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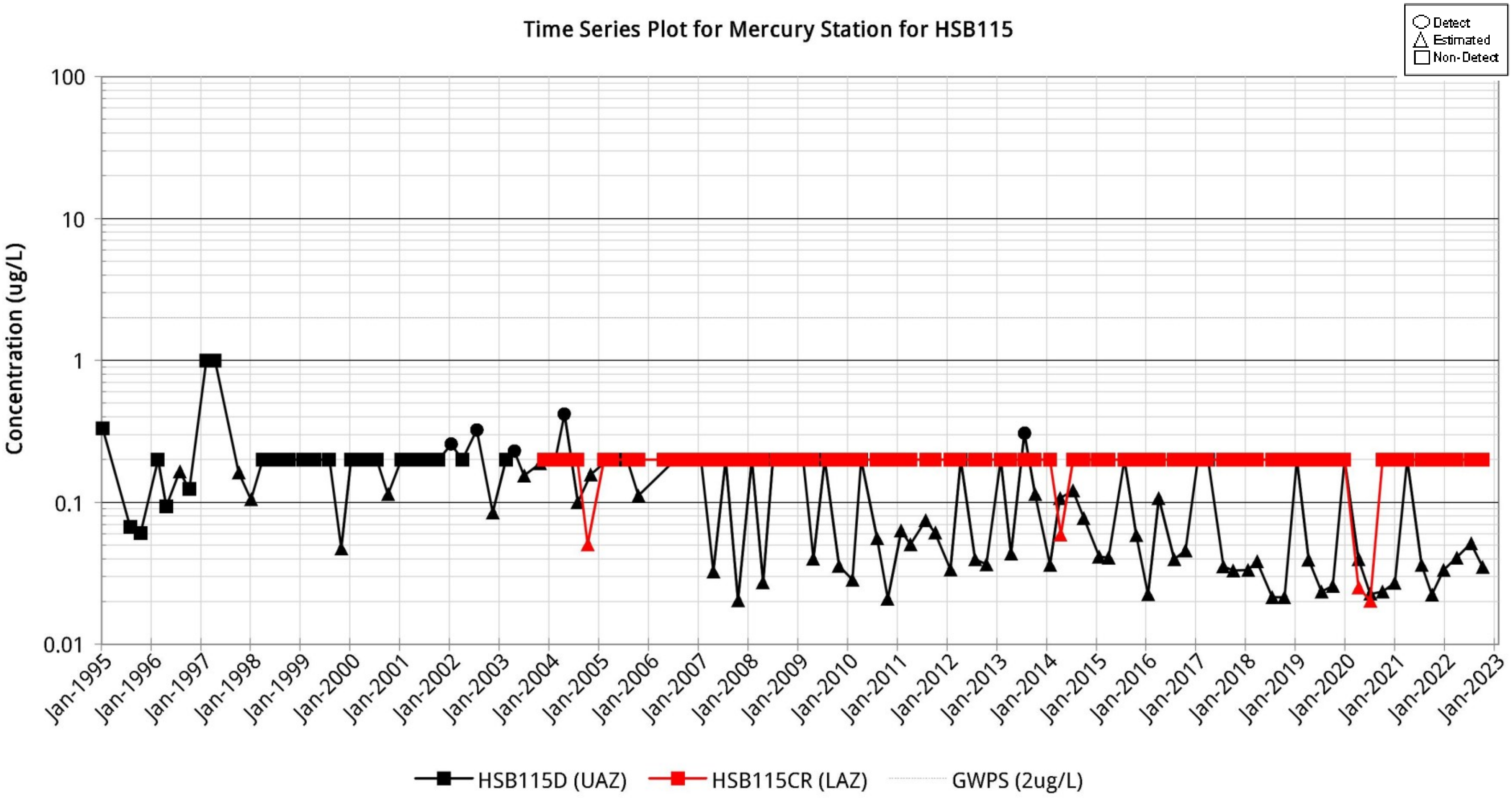
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB111D (UAZ)
HSB111C (LAZ)
HSB111E (UAZ)
GWPS (2ug/L)


Time Series Plot for Mercury Station for HSB115
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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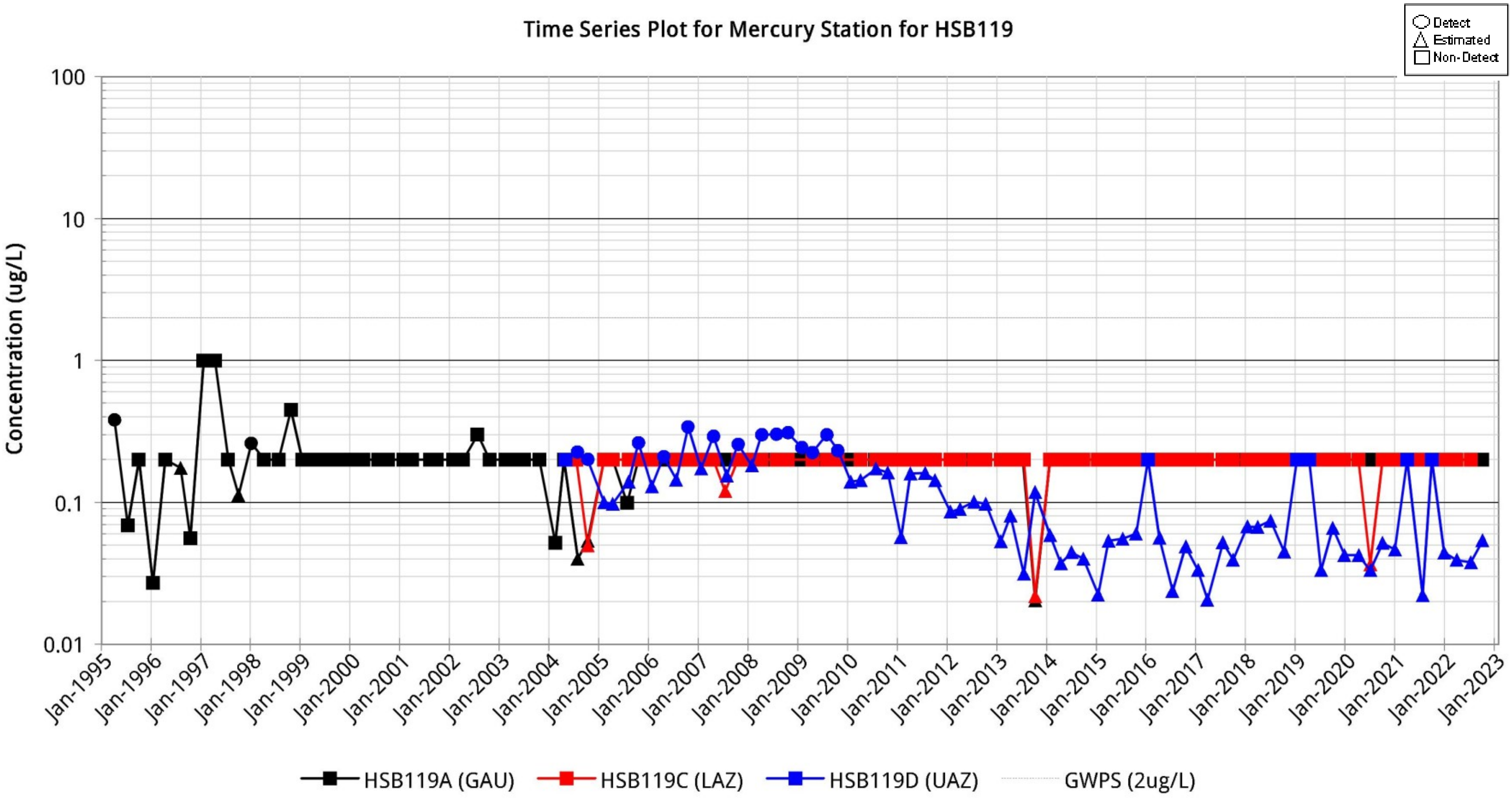
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB115D (UAZ)
HSB115CR (LAZ)
GWPS (2ug/L)


Time Series Plot for Mercury Station for HSB119
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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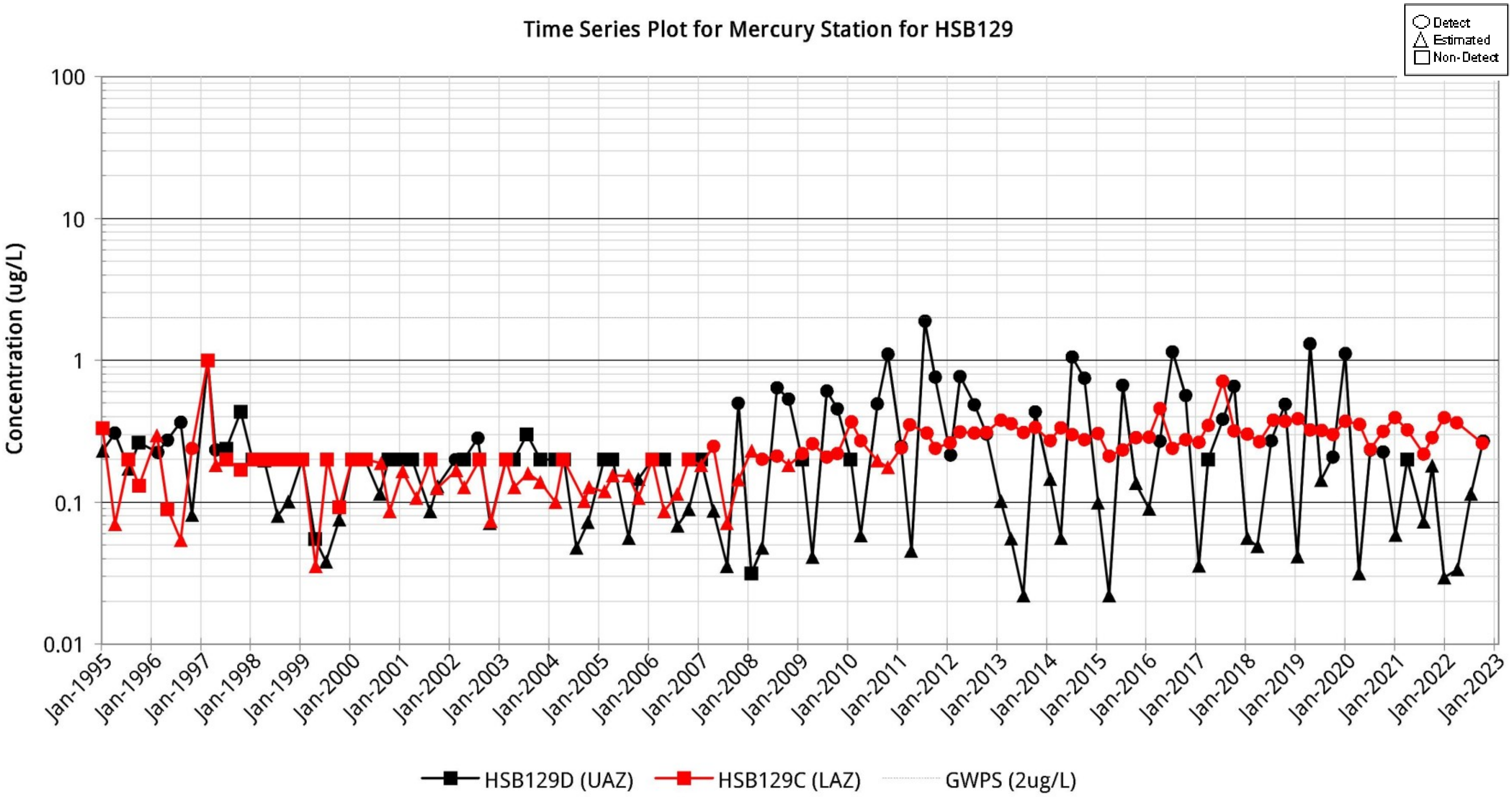
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB119A (GAU)
HSB119C (LAZ)
HSB119D (UAZ)
GWPS (2ug/L)


Time Series Plot for Mercury Station for HSB129
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
100
10
1
0.1
0.01
Jan-1995
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Jan-1997
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Jan-1999
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Jan-2003
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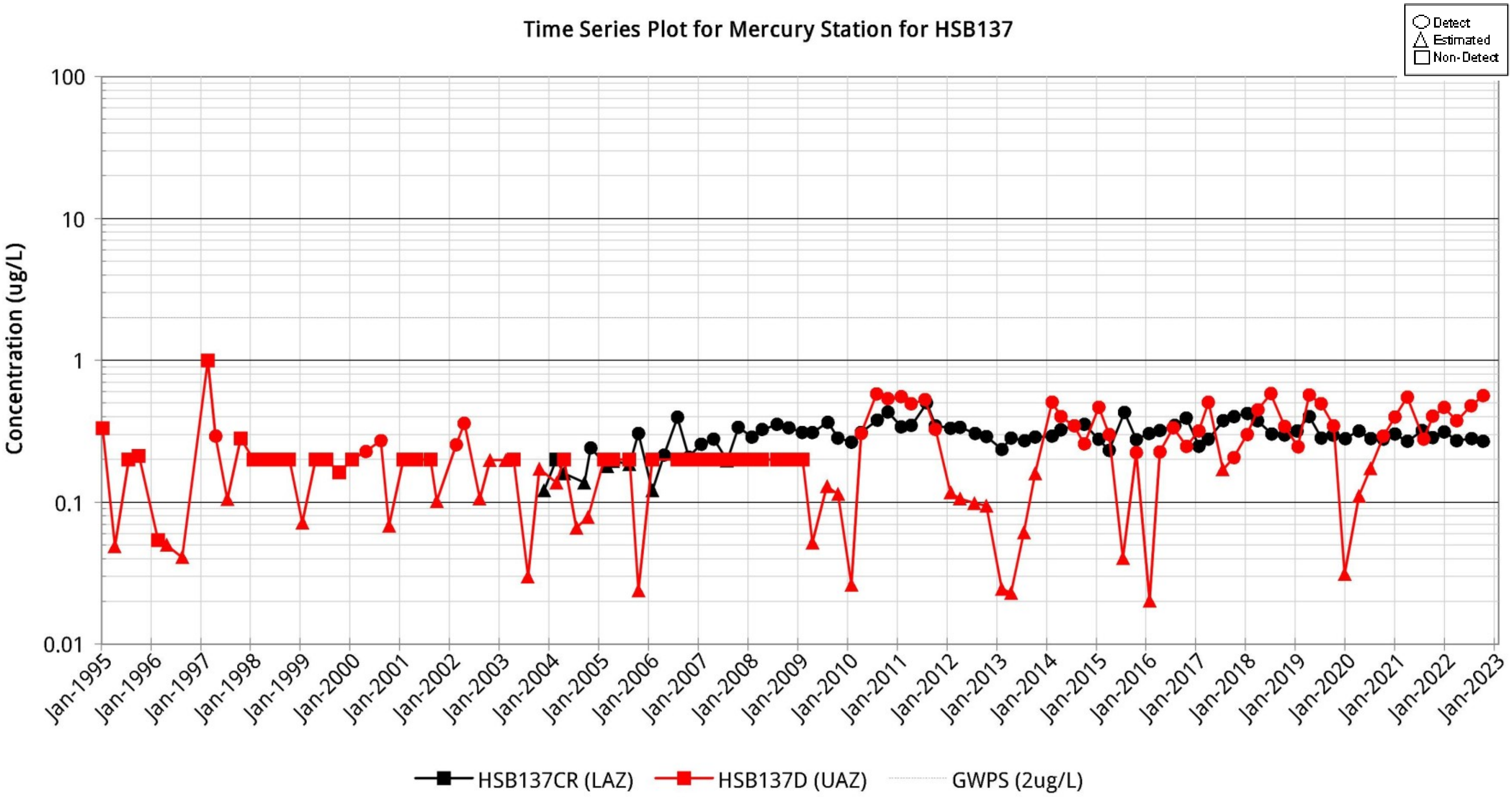
Jan-2021
Jan-2022
Jan-2023
HSB129D (UAZ)
HSB129C (LAZ)
GWPS (2ug/L)


Time Series Plot for Mercury Station for HSB137
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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Jan-2002
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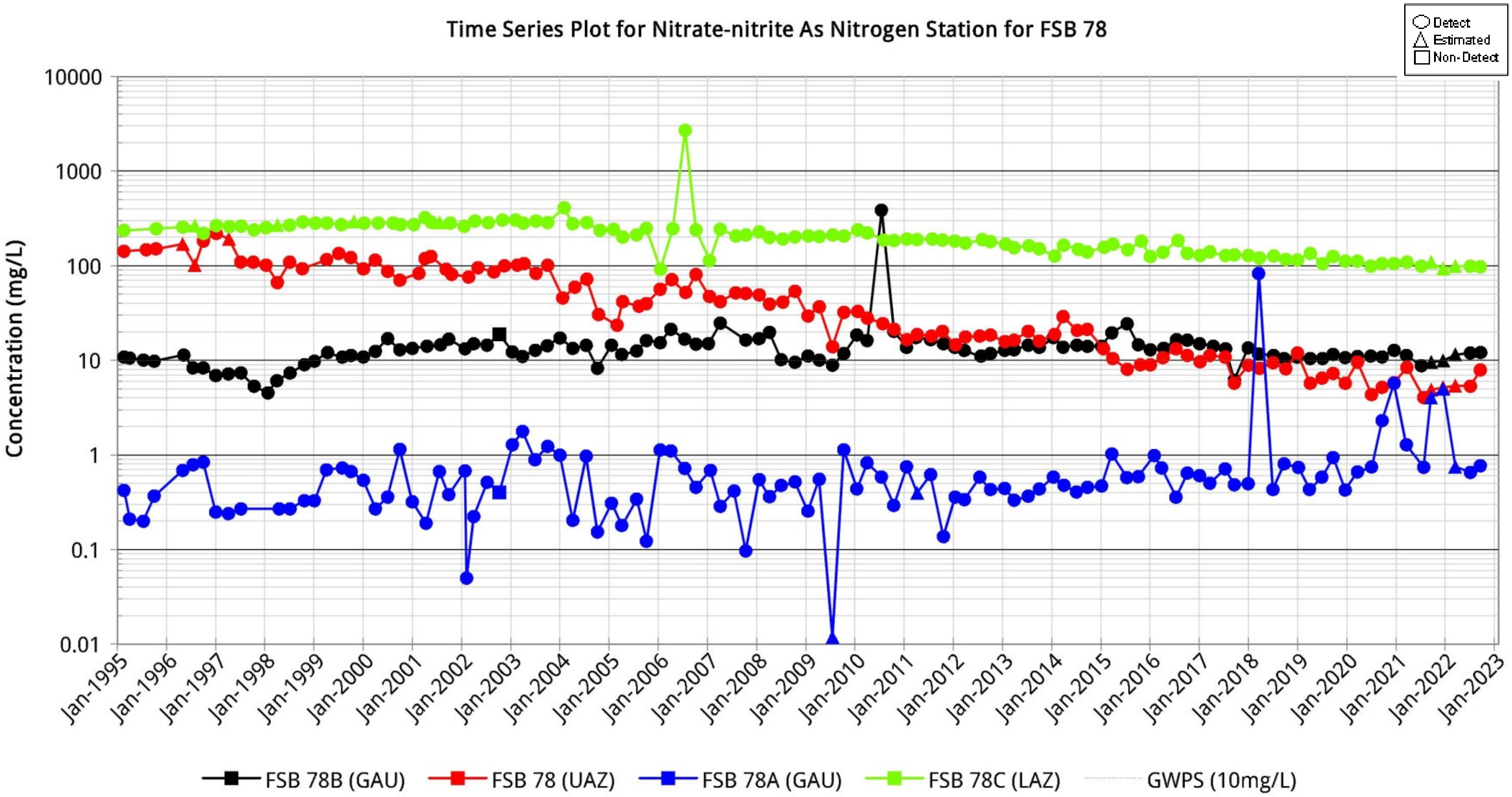
Jan-2021
Jan-2022
Jan-2023
HSB137CR (LAZ)
HSB137D (UAZ)
GWPS (2ug/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for FSB 78
○ Detect
△ Estimated
☐ Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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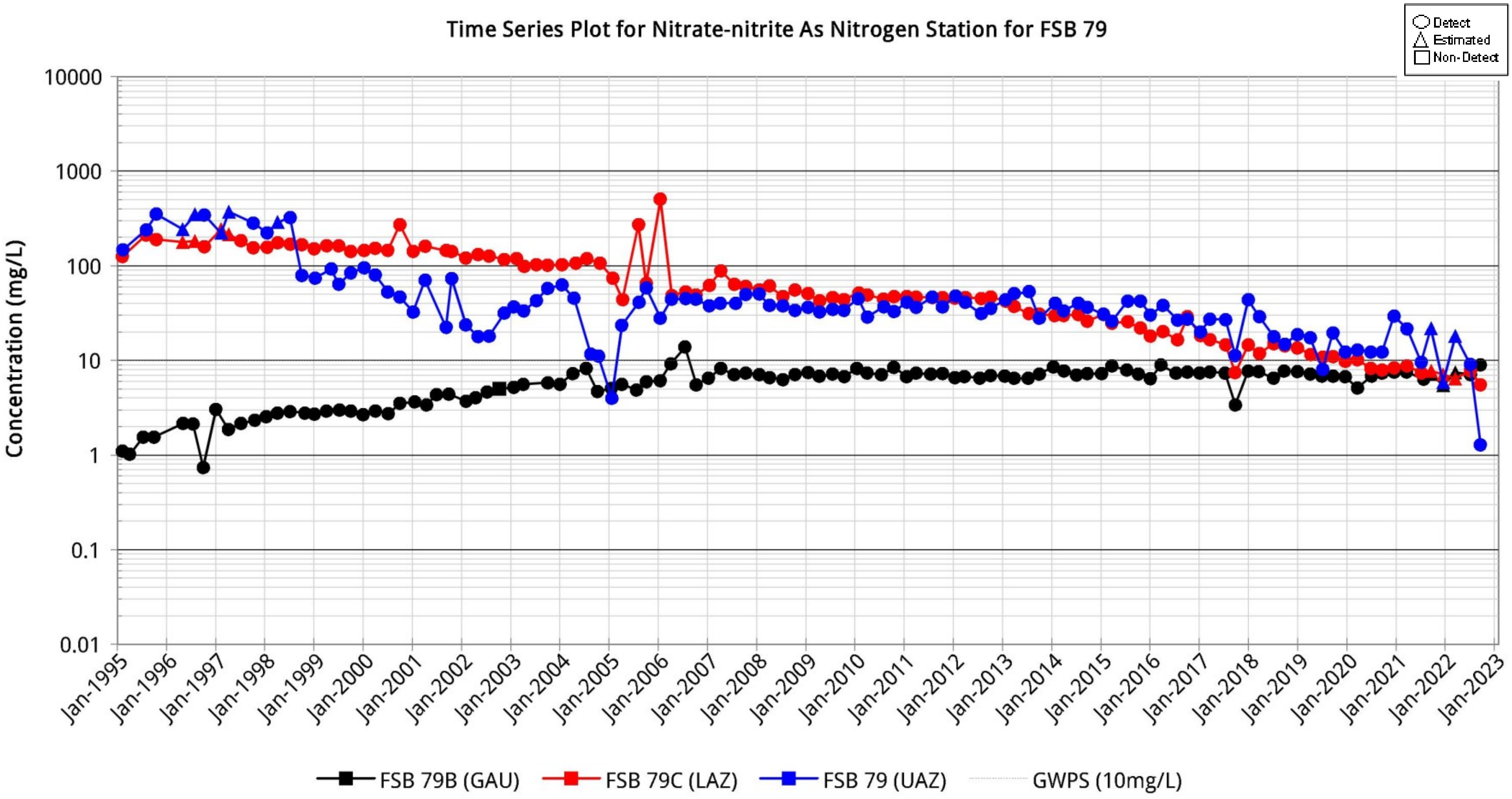
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 78B (GAU)
FSB 78 (UAZ)
FSB 78A (GAU)
FSB 78C (LAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for FSB 79
○ Detect
△ Estimated
☐ Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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Jan-2018
Jan-2019
Jan-2020
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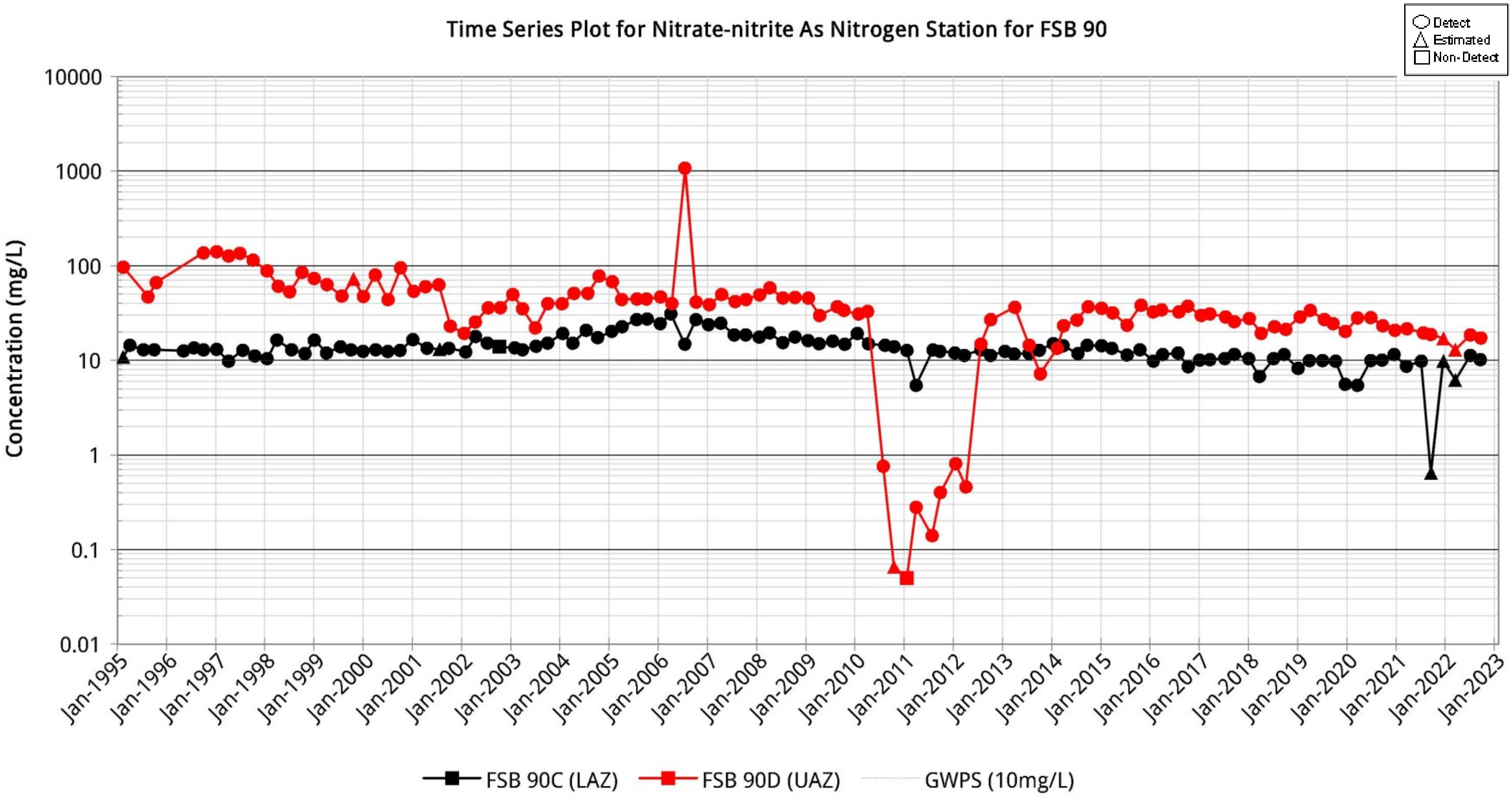
Jan-2023
FSB 79B (GAU)
FSB 79C (LAZ)
FSB 79 (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for FSB 90
○ Detect
△ Estimated
☐ Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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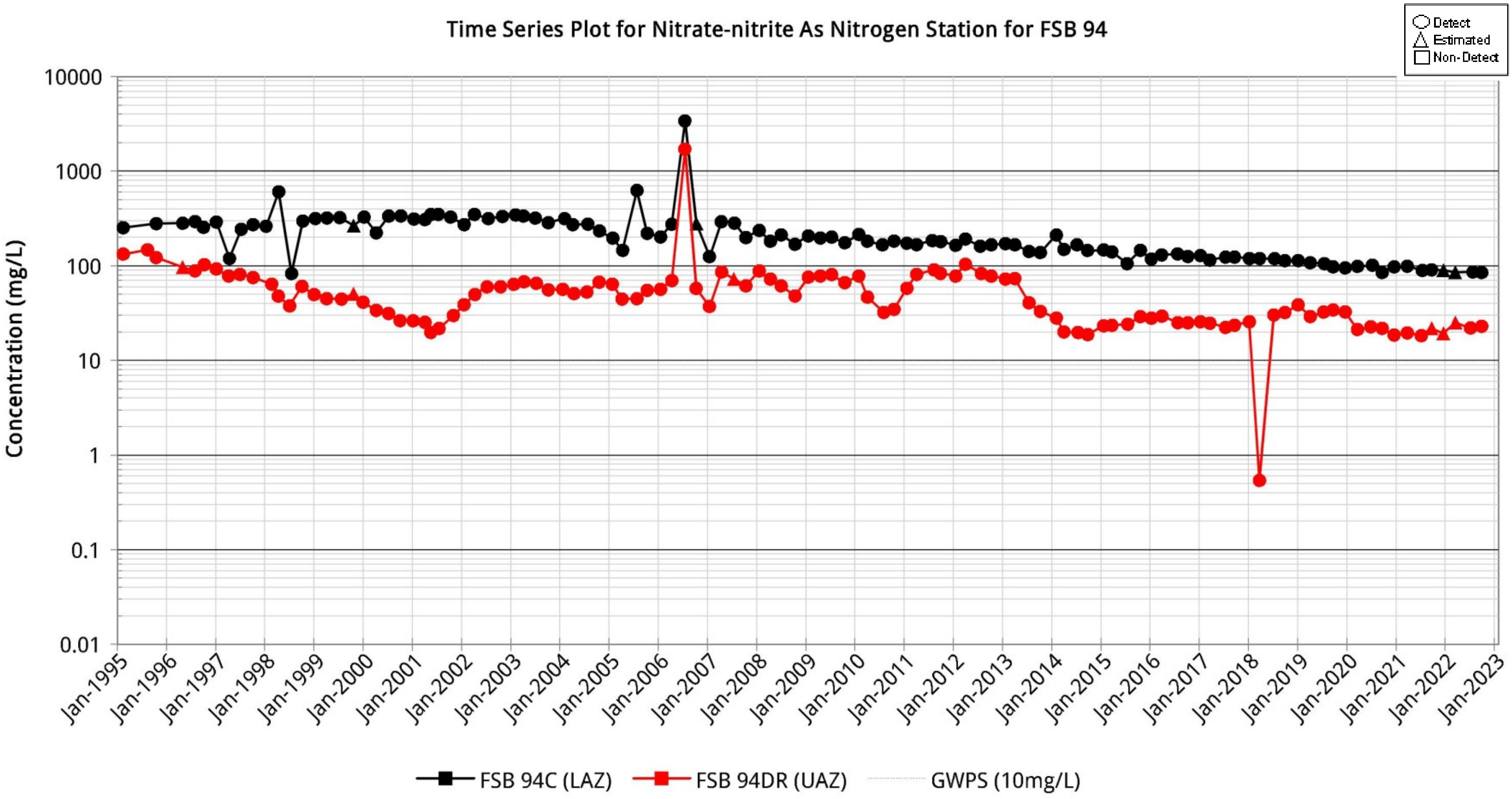
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 90C (LAZ)
FSB 90D (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for FSB 94
Detect
Estimated
Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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Jan-2018
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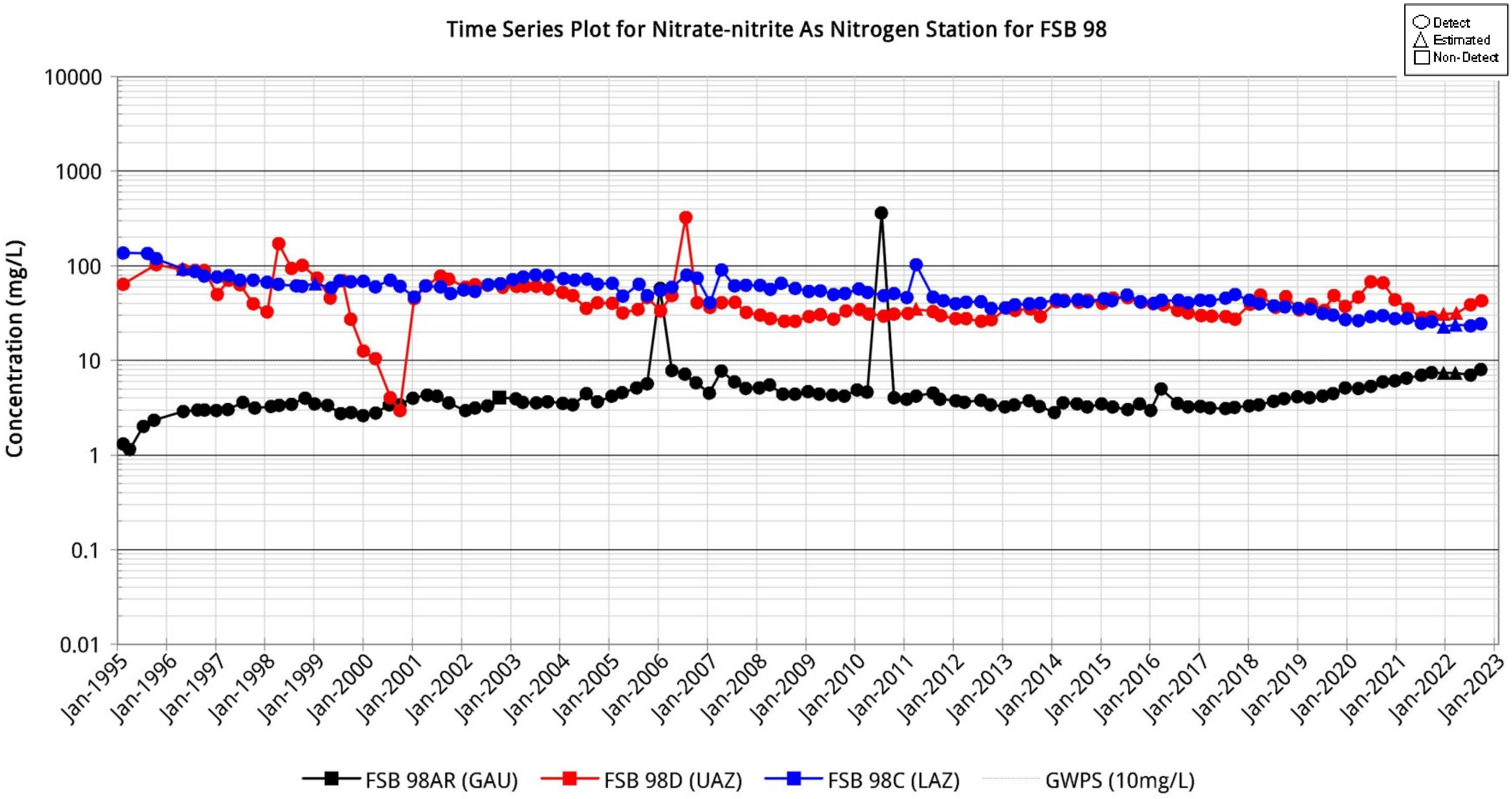
Jan-2021
Jan-2022
Jan-2023
FSB 94C (LAZ)
FSB 94DR (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for FSB 98
Detect
Estimated
Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
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Jan-2018
Jan-2019
Jan-2020
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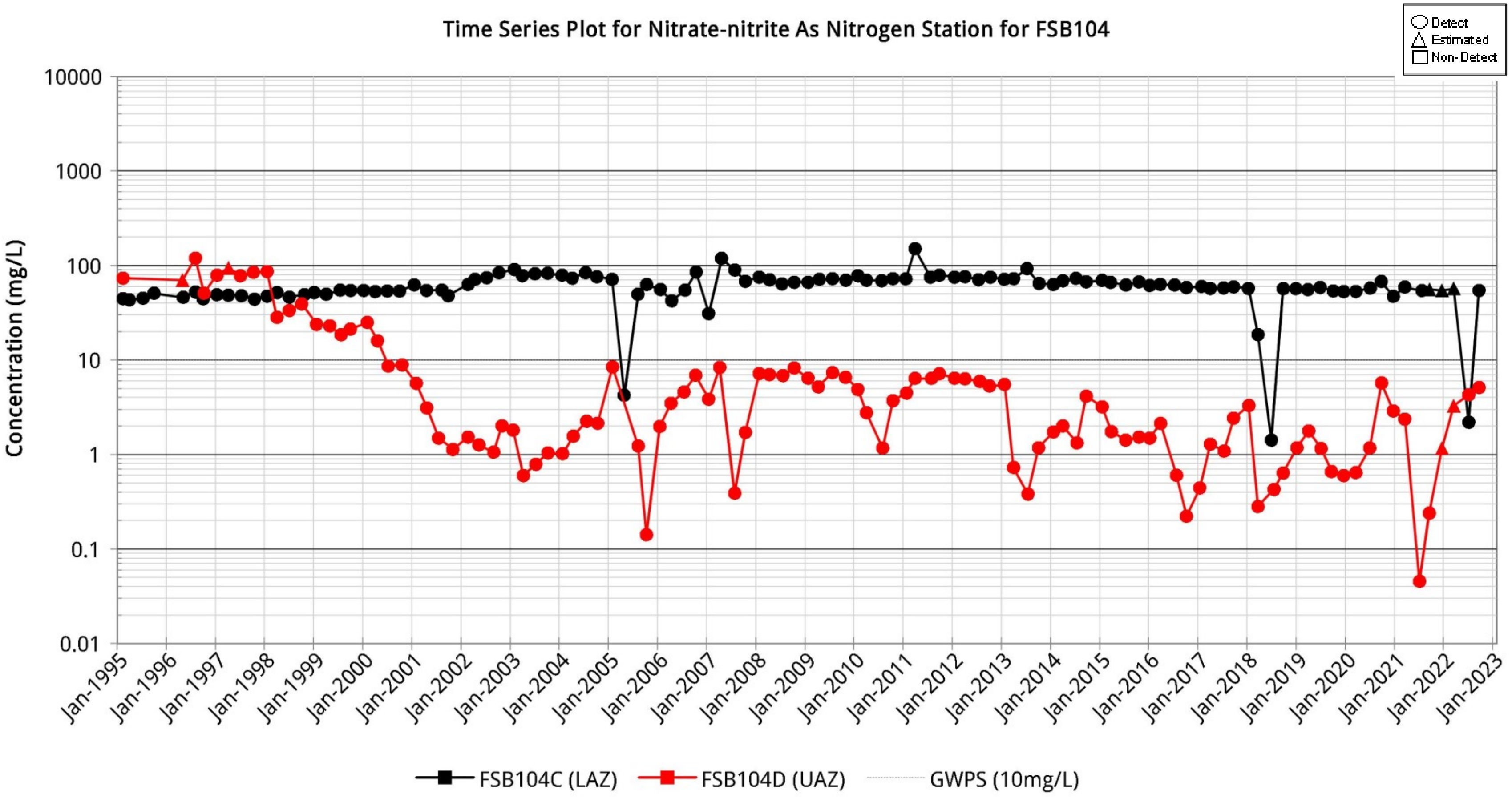
Jan-2023
FSB 98AR (GAU)
FSB 98D (UAZ)
FSB 98C (LAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for FSB104
○ Detect
△ Estimated
☐ Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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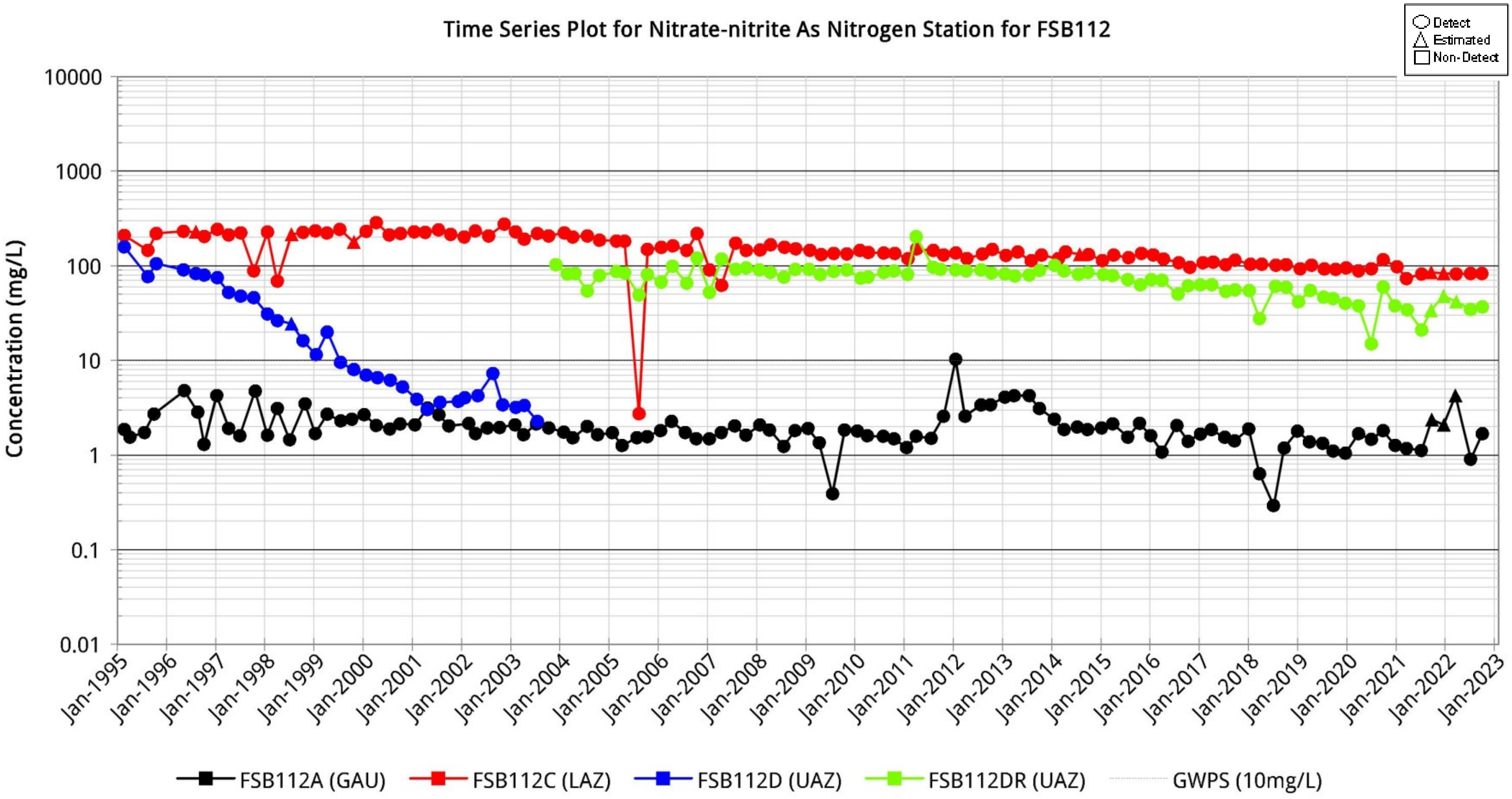
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB104C (LAZ)
FSB104D (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for FSB112
○ Detect
△ Estimated
☐ Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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Jan-1998
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Jan-2020
Jan-2021
Jan-2022
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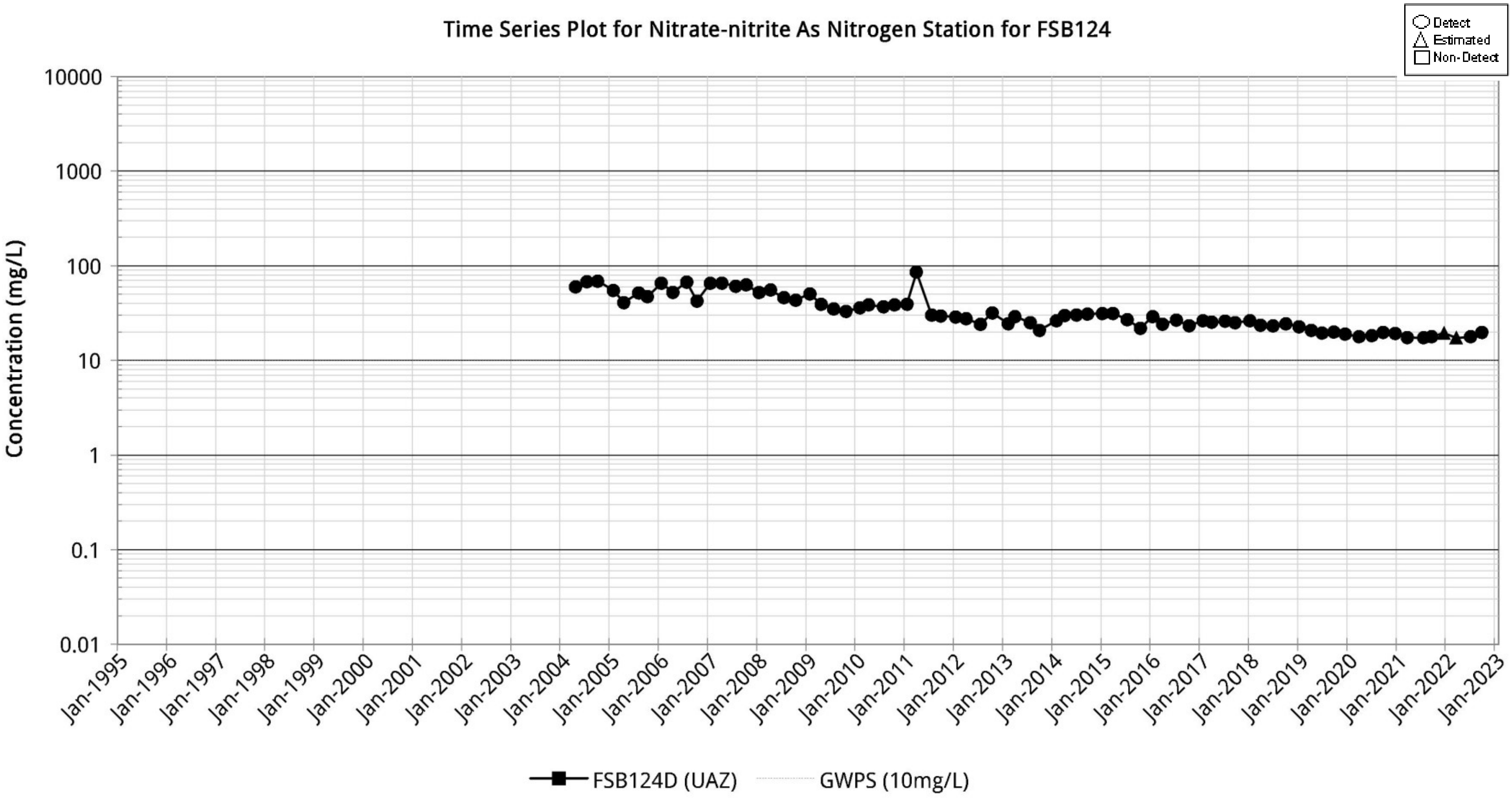
FSB112A (GAU)
FSB112C (LAZ)
FSB112D (UAZ)
FSB112DR (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for FSB124
○ Detect
△ Estimated
☐ Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
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Jan-2000
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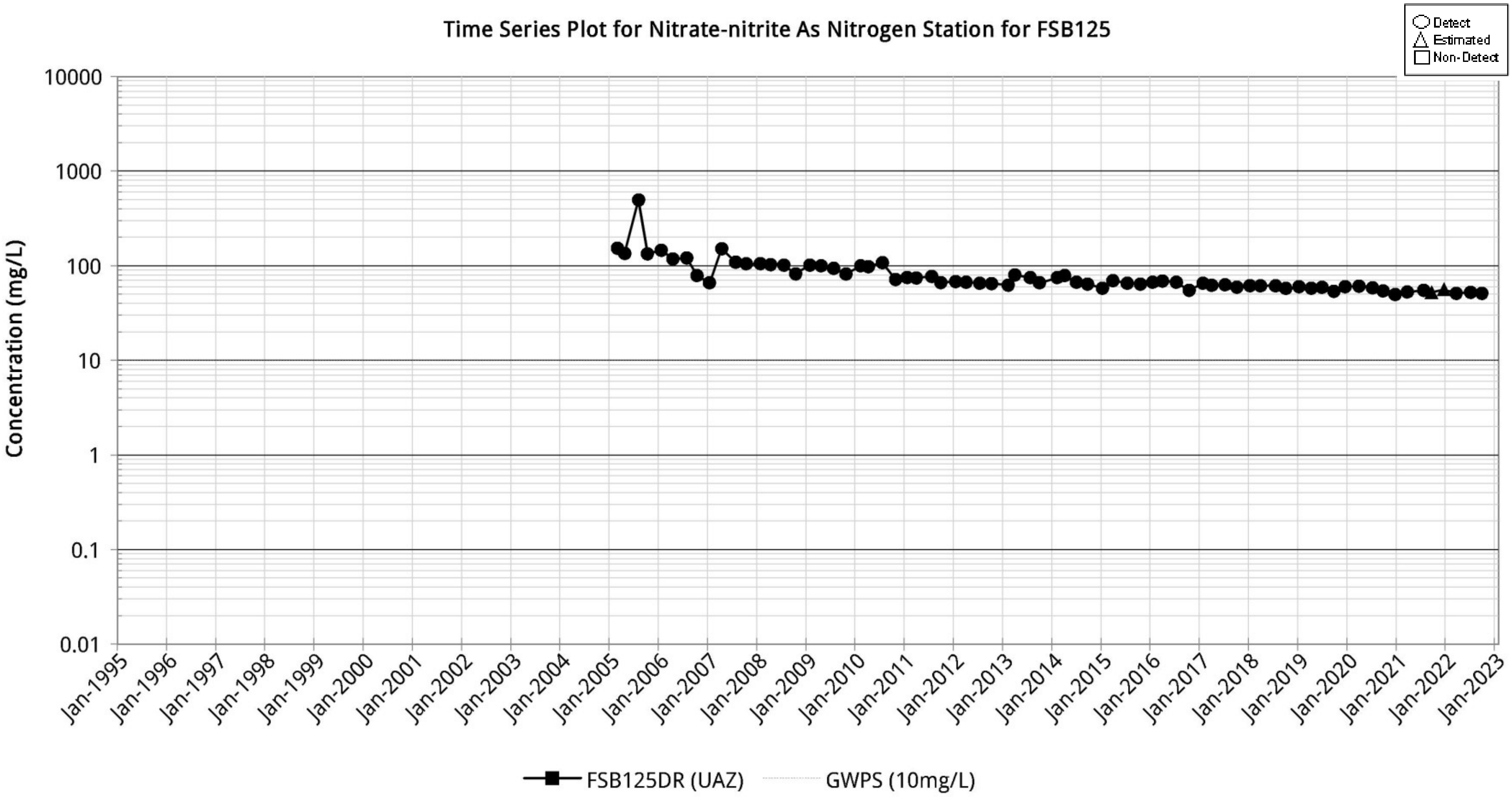
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB124D (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for FSB125
Detect
Estimated
Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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Jan-1999
Jan-2000
Jan-2001
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Jan-2020
Jan-2021
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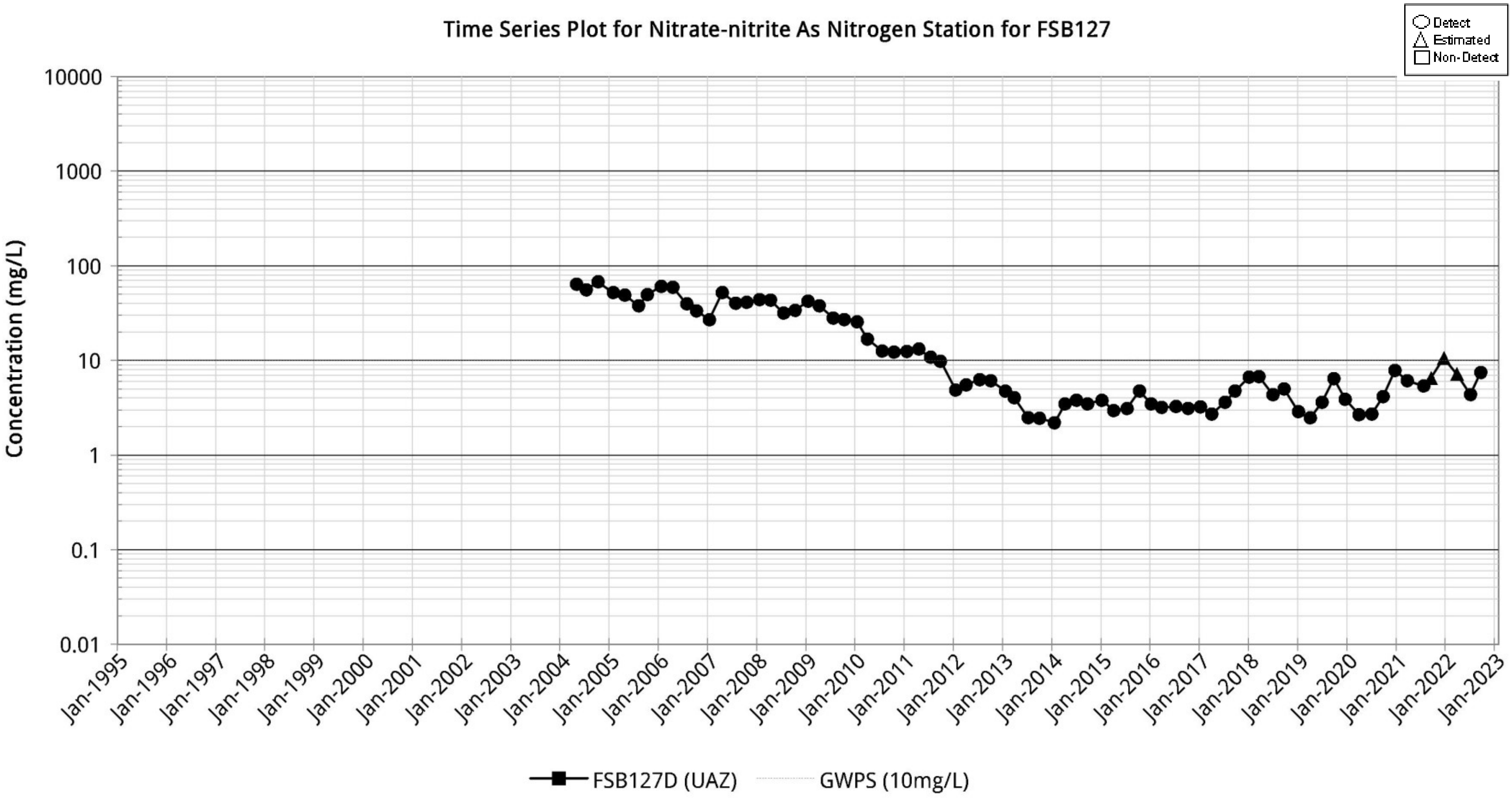
Jan-2023
FSB125DR (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for FSB127
Detect
Estimated
Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
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Jan-2020
Jan-2021
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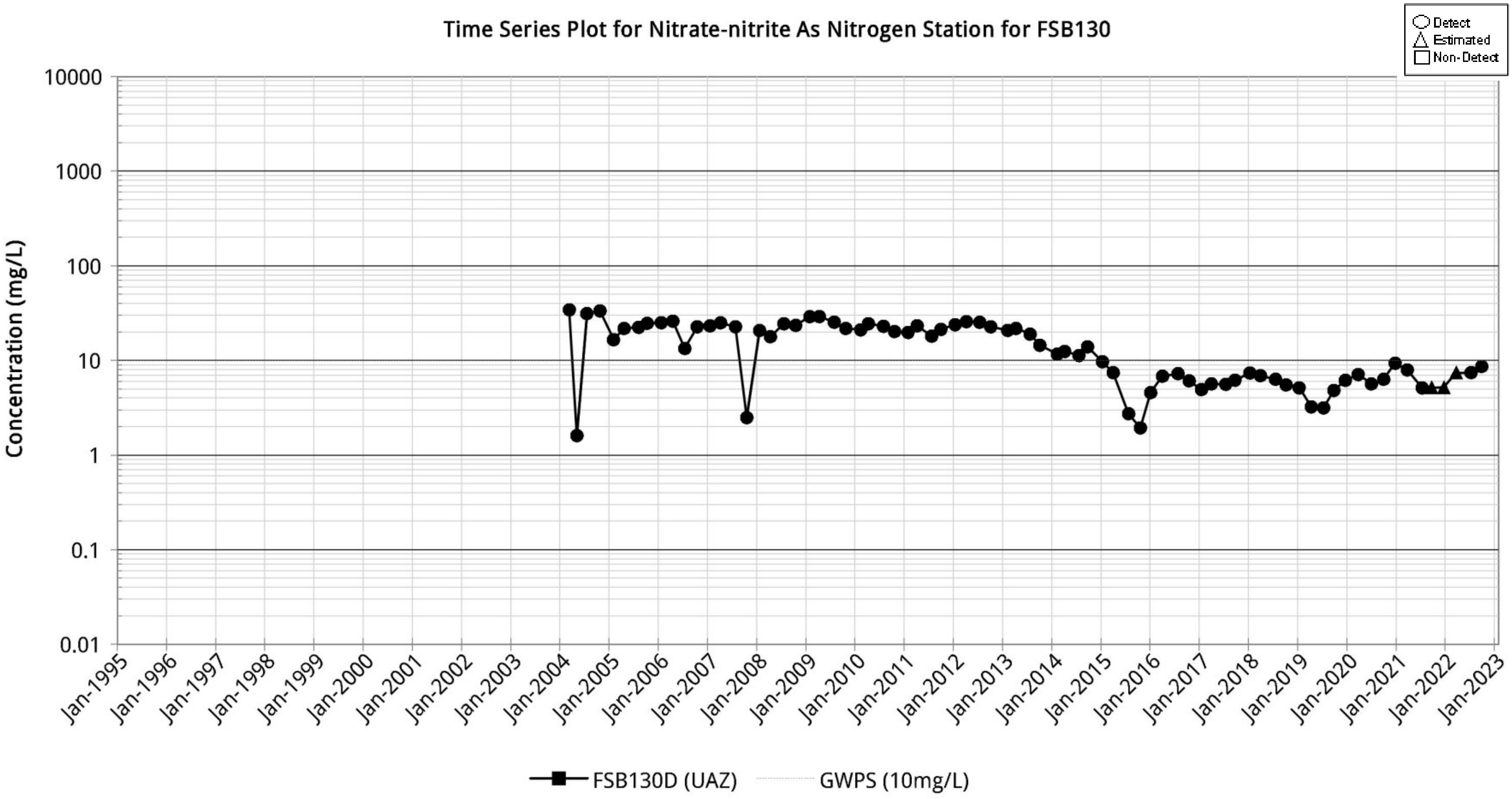
Jan-2023
FSB127D (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for FSB130
Detect
Estimated
Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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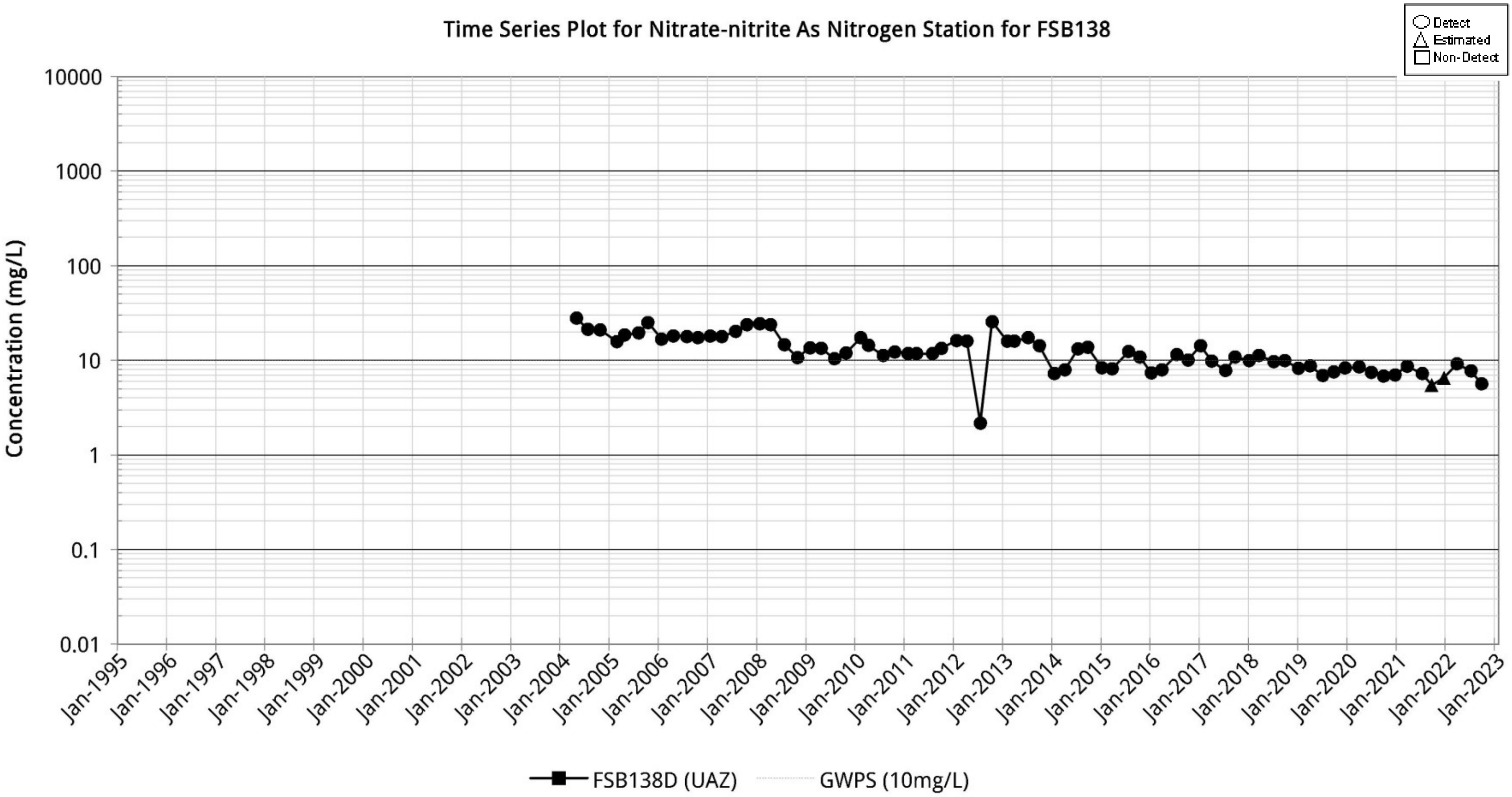
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB130D (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for FSB138
Detect
Estimated
Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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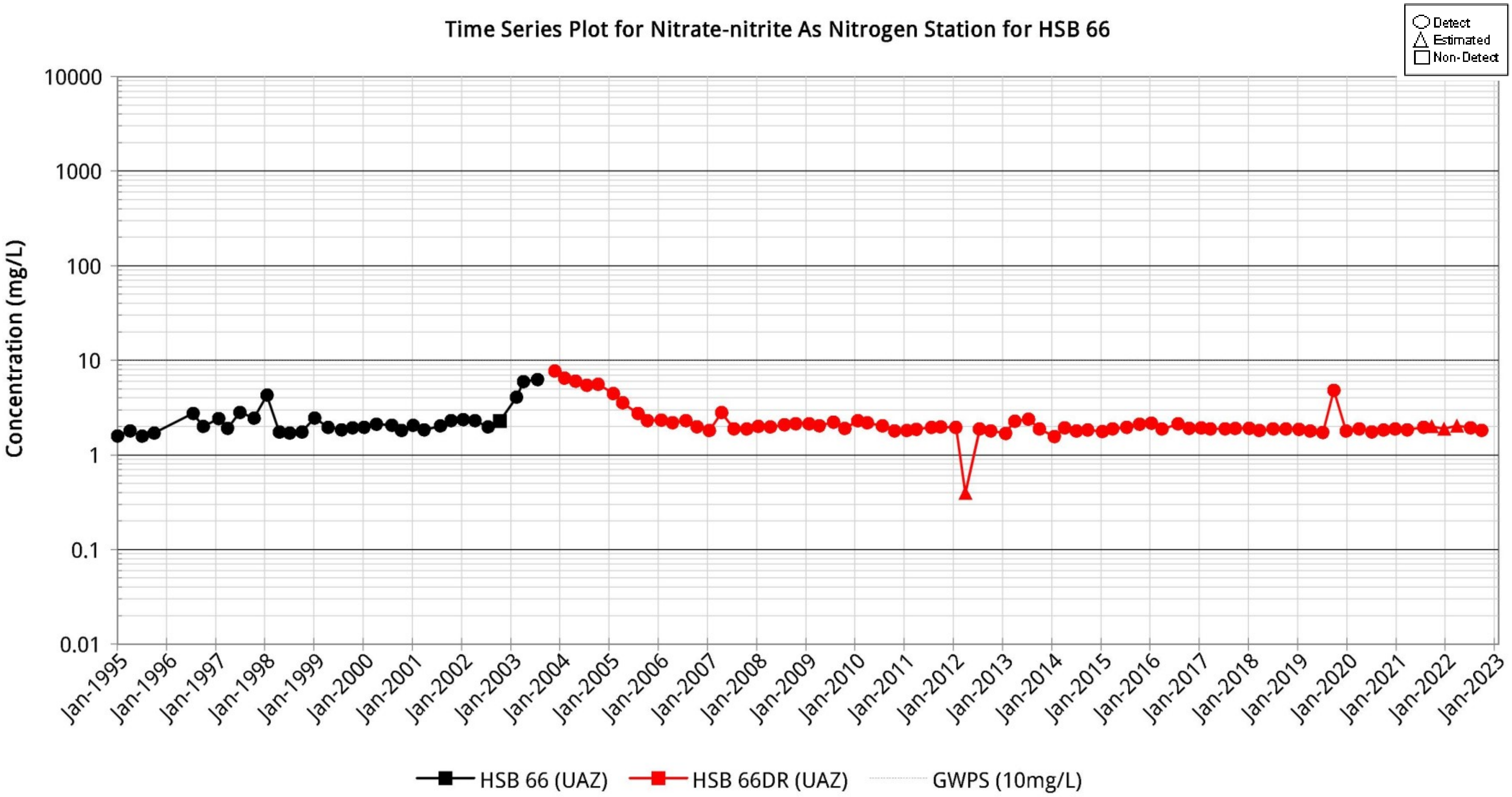
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB138D (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for HSB 66
Detect
Estimated
Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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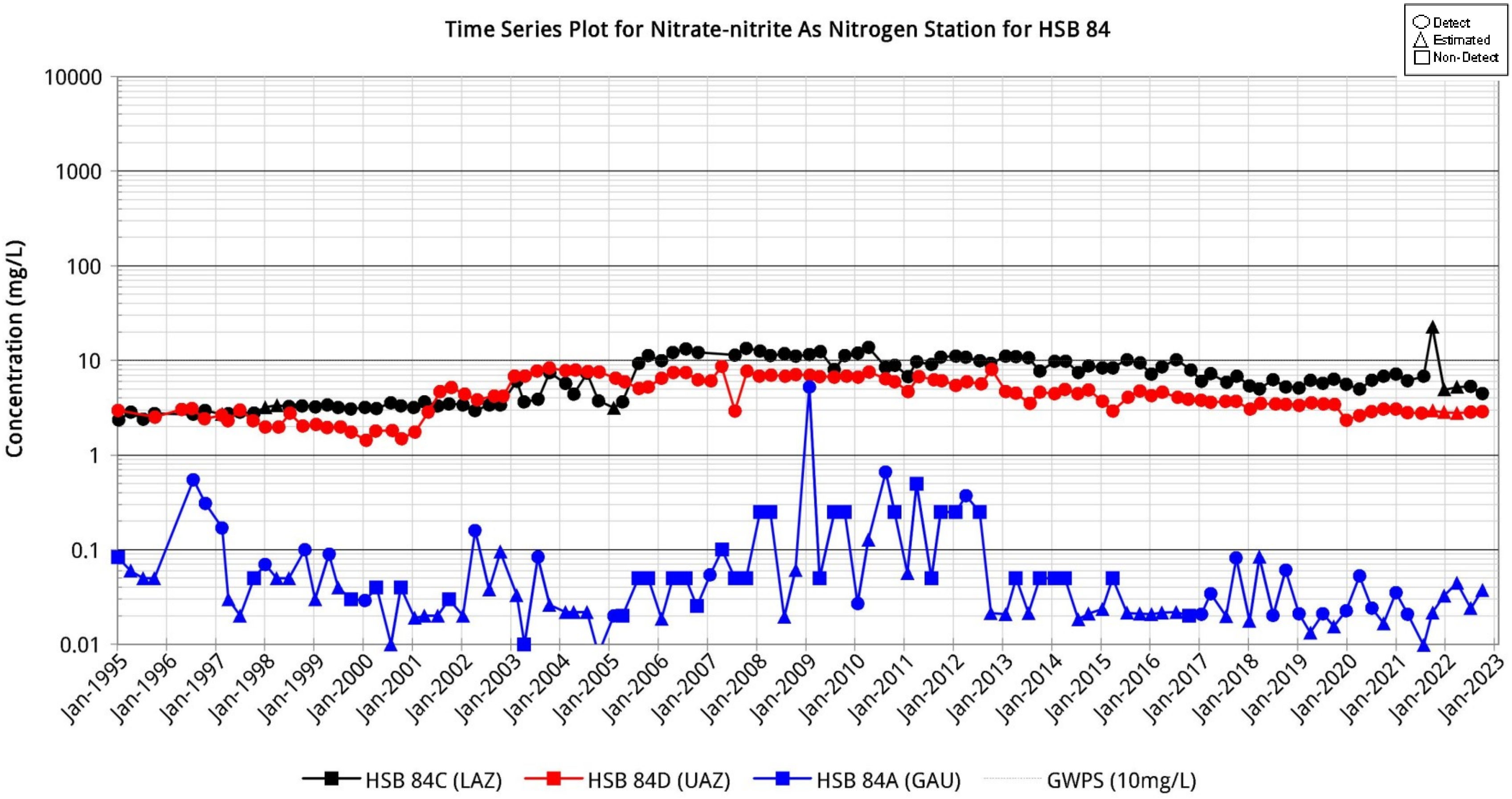
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB 66 (UAZ)
HSB 66DR (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for HSB 84
○ Detect
△ Estimated
☐ Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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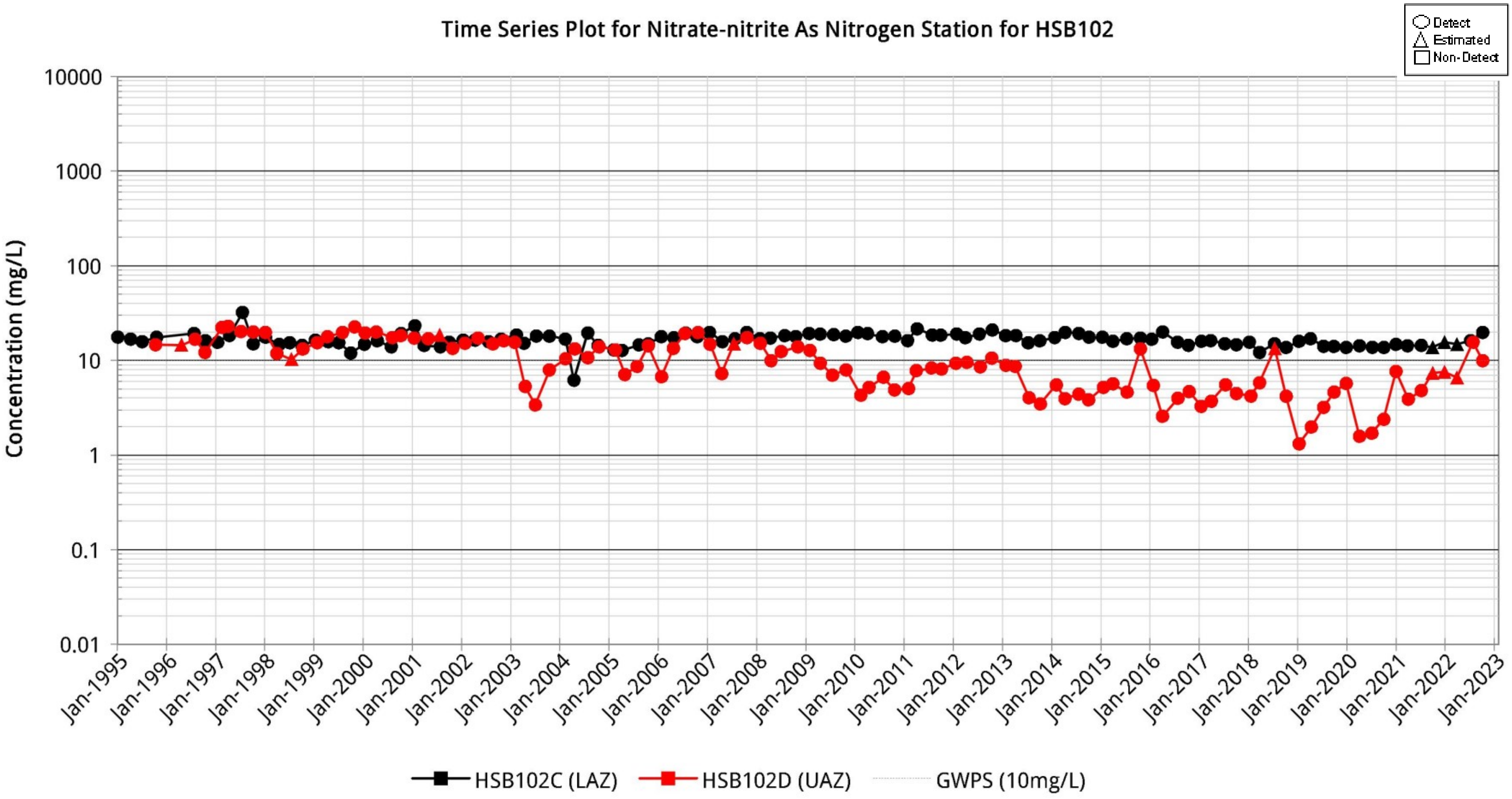
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB 84C (LAZ)
HSB 84D (UAZ)
HSB 84A (GAU)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for HSB102
○ Detect
△ Estimated
☐ Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
Jan-2008
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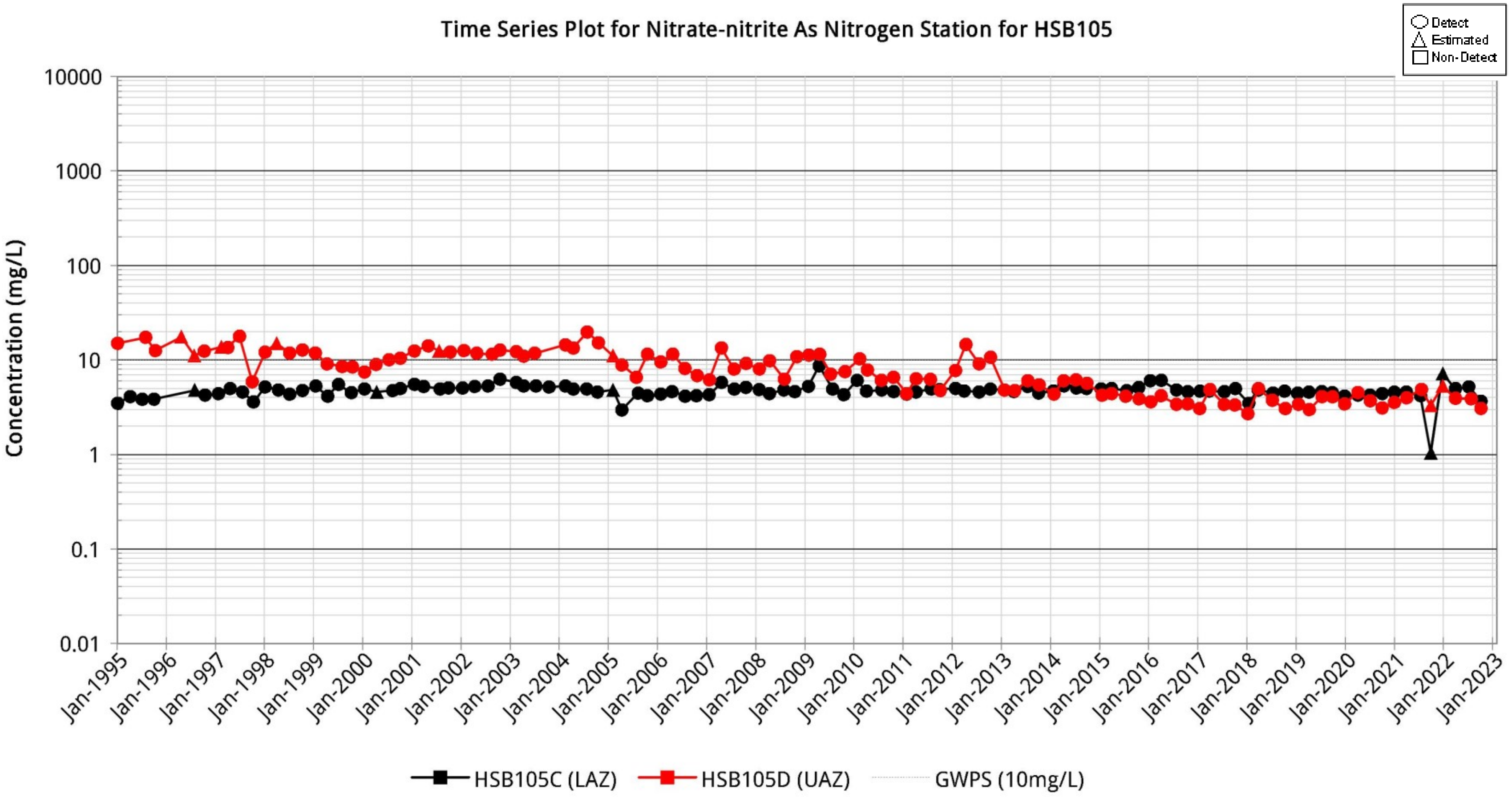
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB102C (LAZ)
HSB102D (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for HSB105
Detect
Estimated
Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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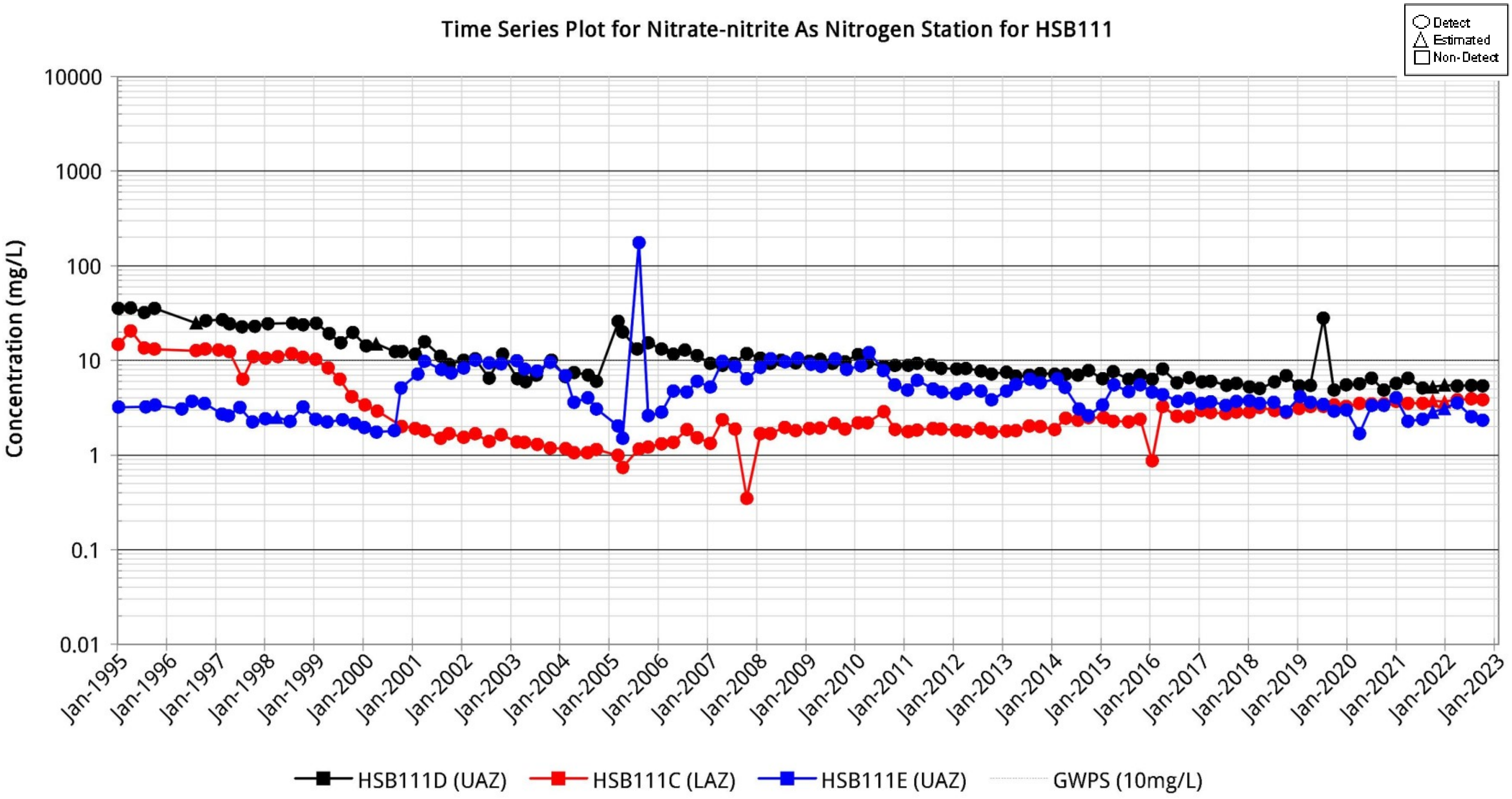
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB105C (LAZ)
HSB105D (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for HSB111
Detect
Estimated
Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
Jan-2008
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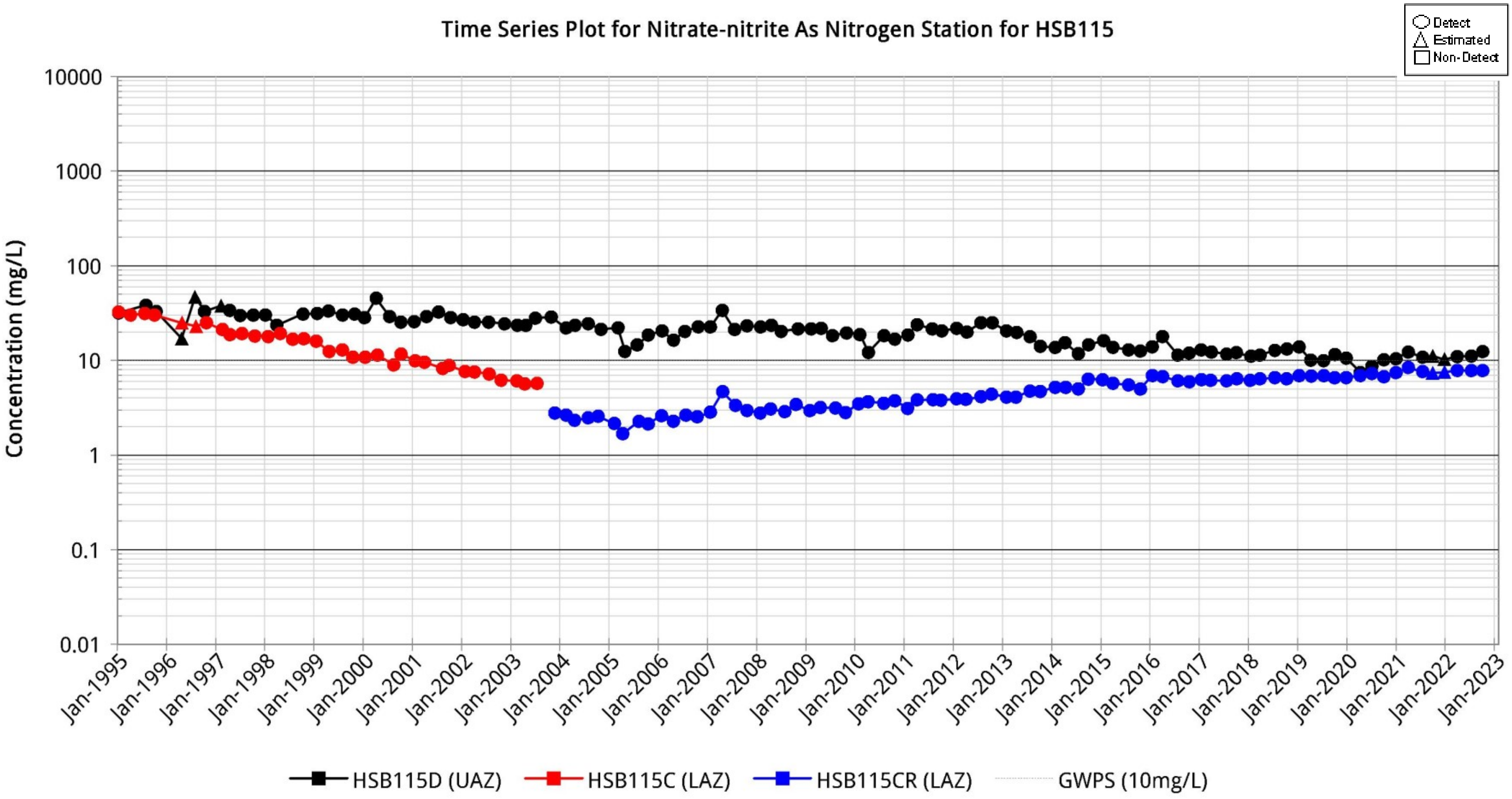
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB111D (UAZ)
HSB111C (LAZ)
HSB111E (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for HSB115
○ Detect
△ Estimated
☐ Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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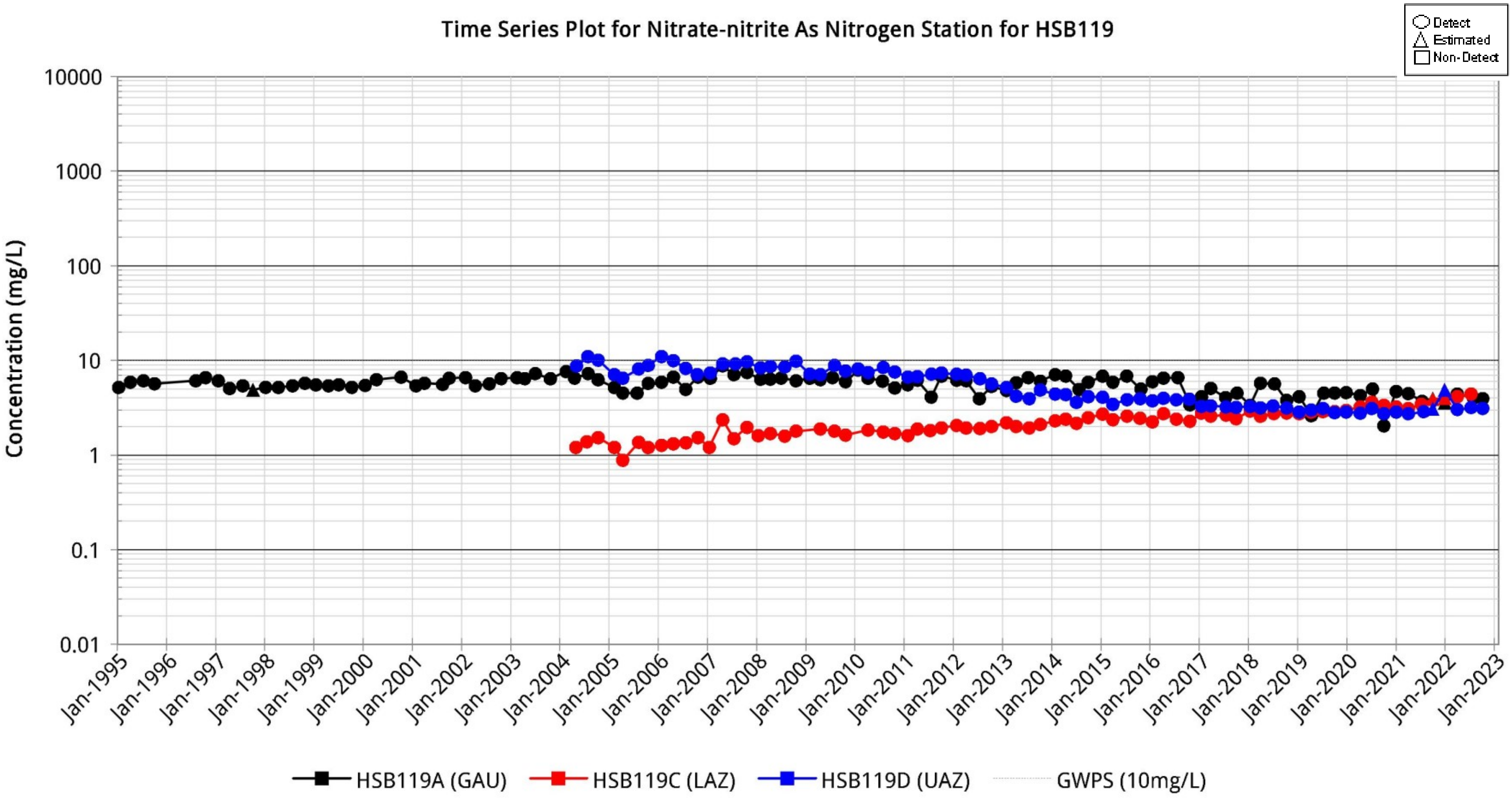
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB115D (UAZ)
HSB115C (LAZ)
HSB115CR (LAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for HSB119
○ Detect
△ Estimated
☐ Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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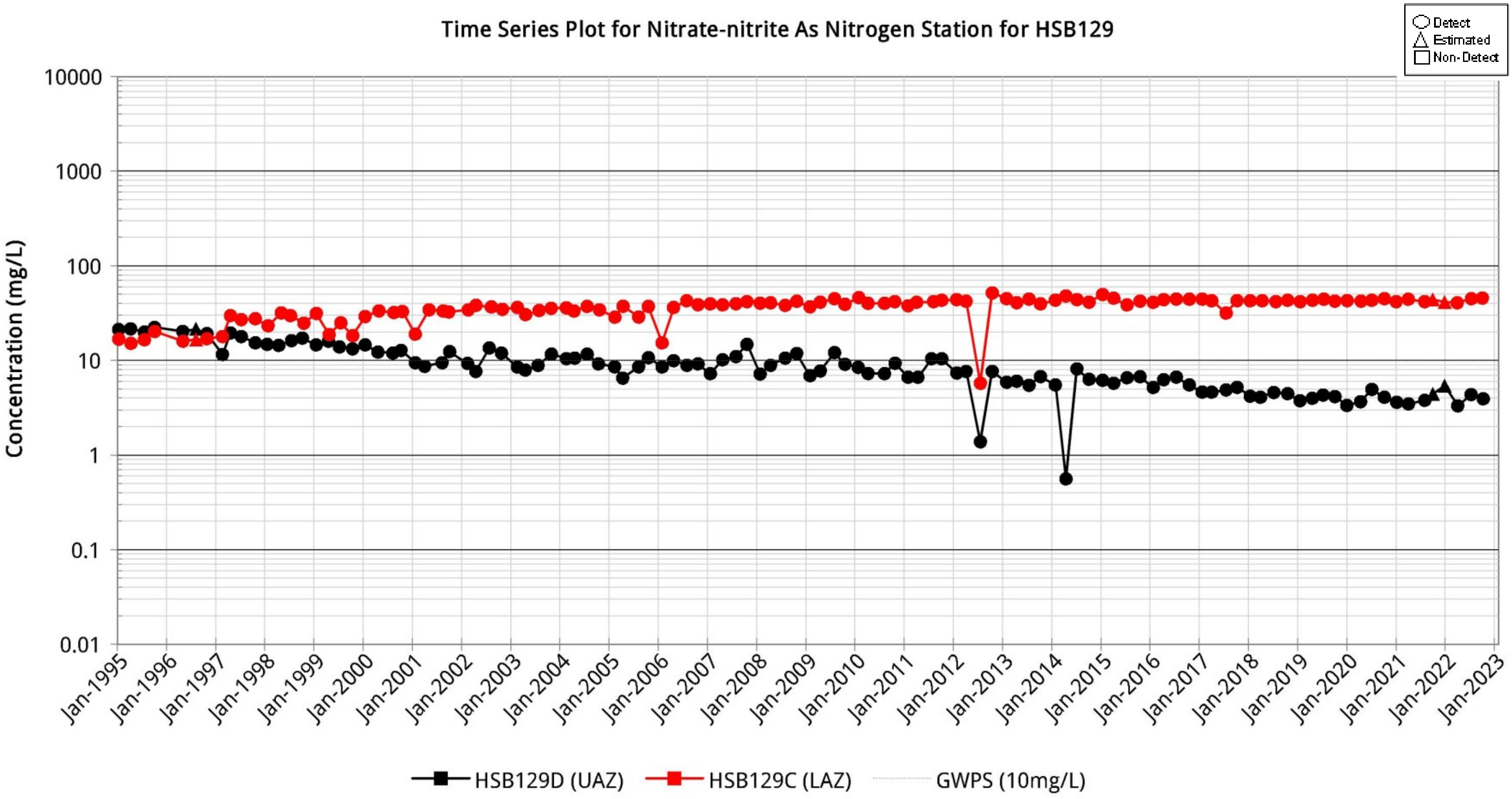
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB119A (GAU)
HSB119C (LAZ)
HSB119D (UAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for HSB129
○ Detect
△ Estimated
☐ Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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Jan-2018
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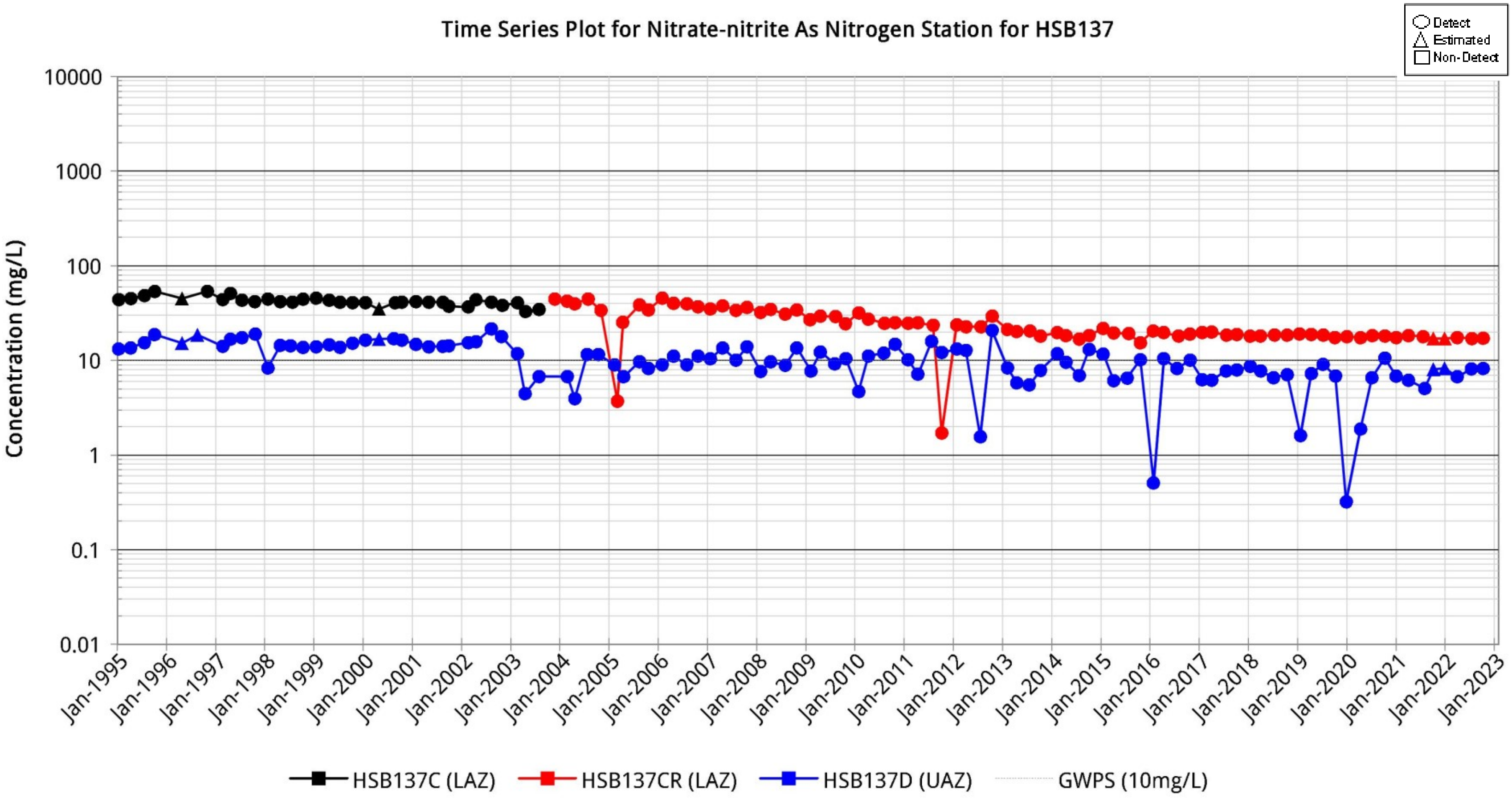
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB129D (UAZ)
HSB129C (LAZ)
GWPS (10mg/L)


Time Series Plot for Nitrate-nitrite As Nitrogen Station for HSB137
Detect
Estimated
Non-Detect
Concentration (mg/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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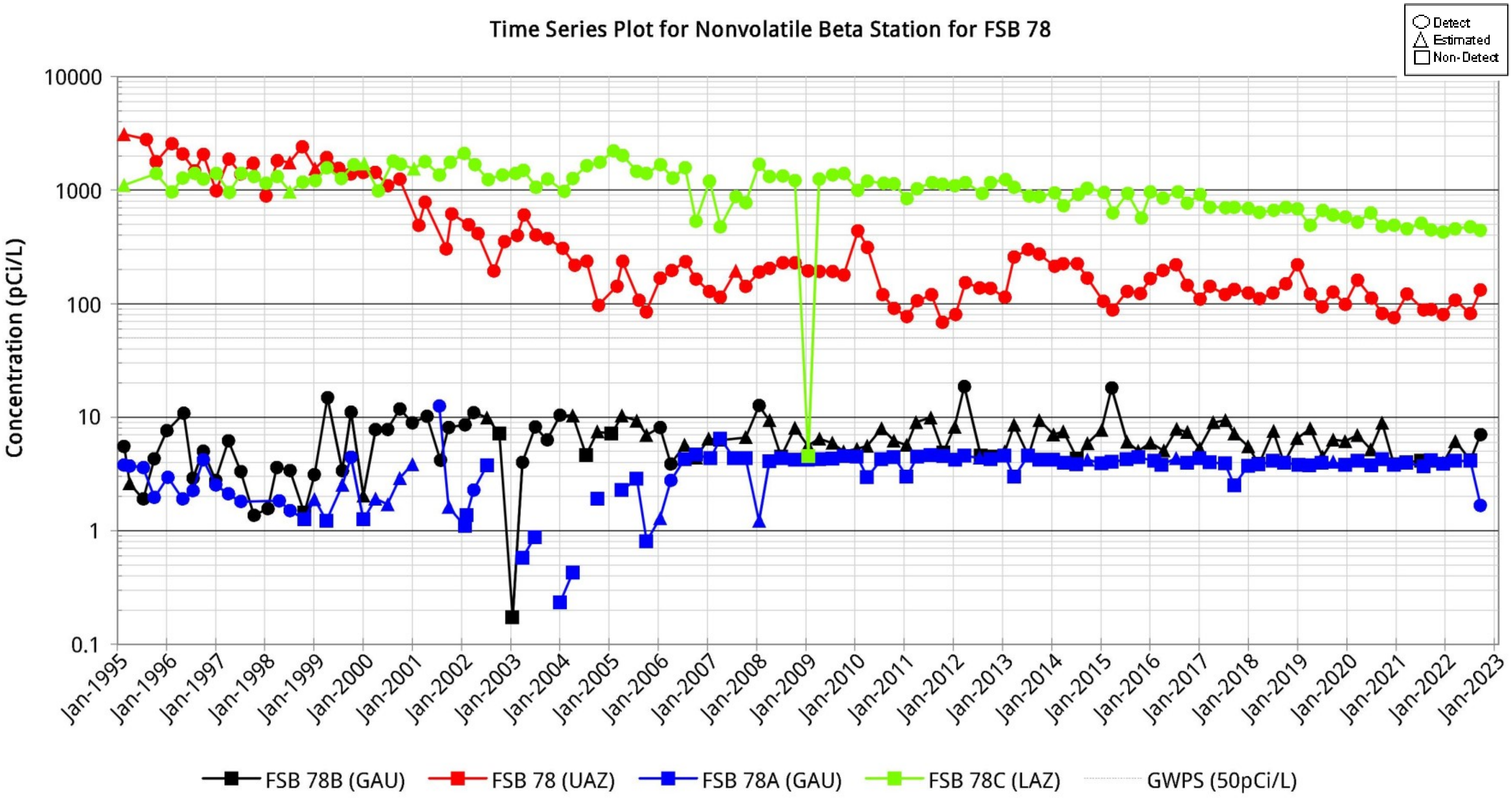
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB137C (LAZ)
HSB137CR (LAZ)
HSB137D (UAZ)
GWPS (10mg/L)


Time Series Plot for Nonvolatile Beta Station for FSB 78
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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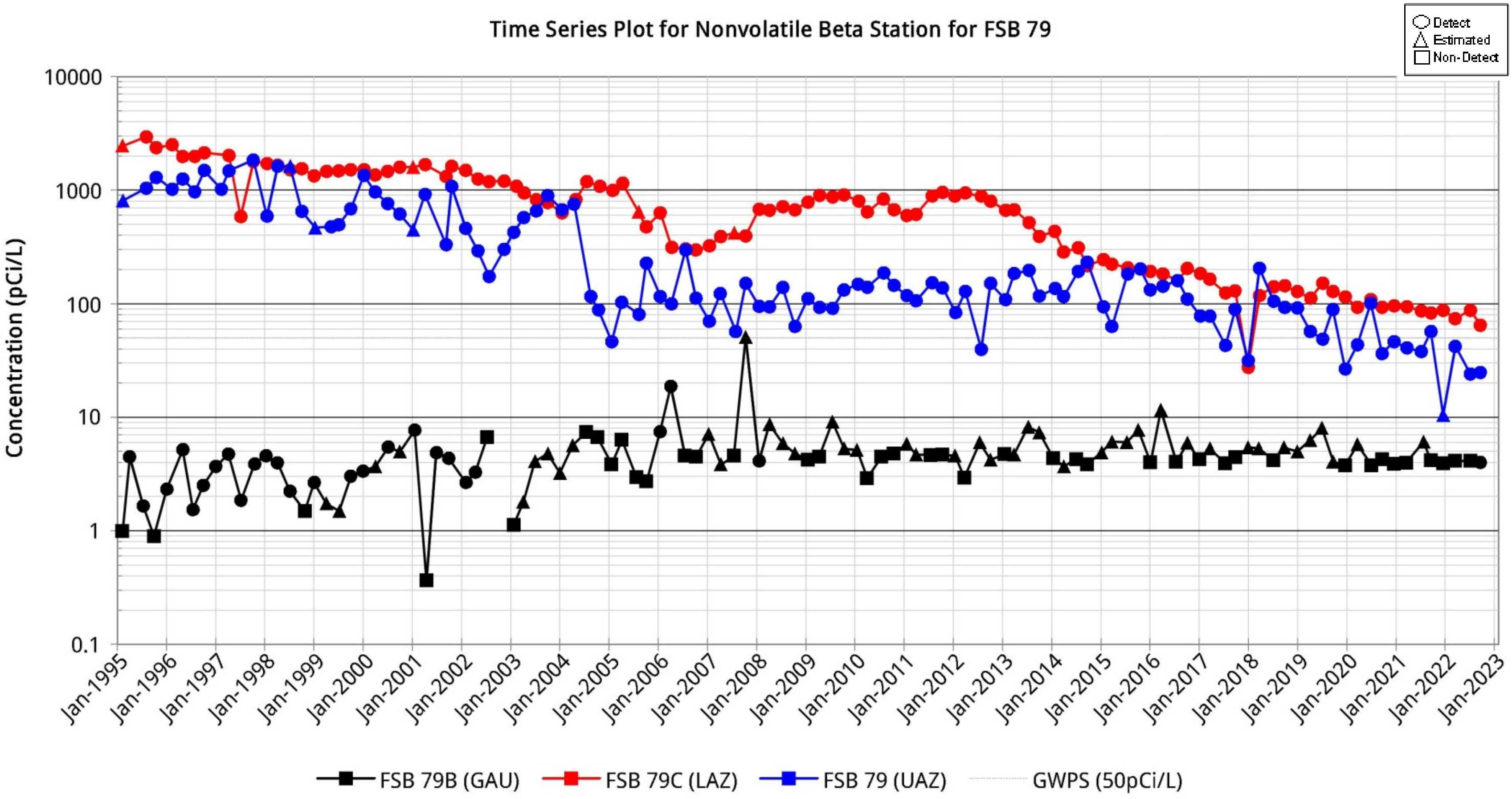
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 78B (GAU)
FSB 78 (UAZ)
FSB 78A (GAU)
FSB 78C (LAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for FSB 79
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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Jan-2020
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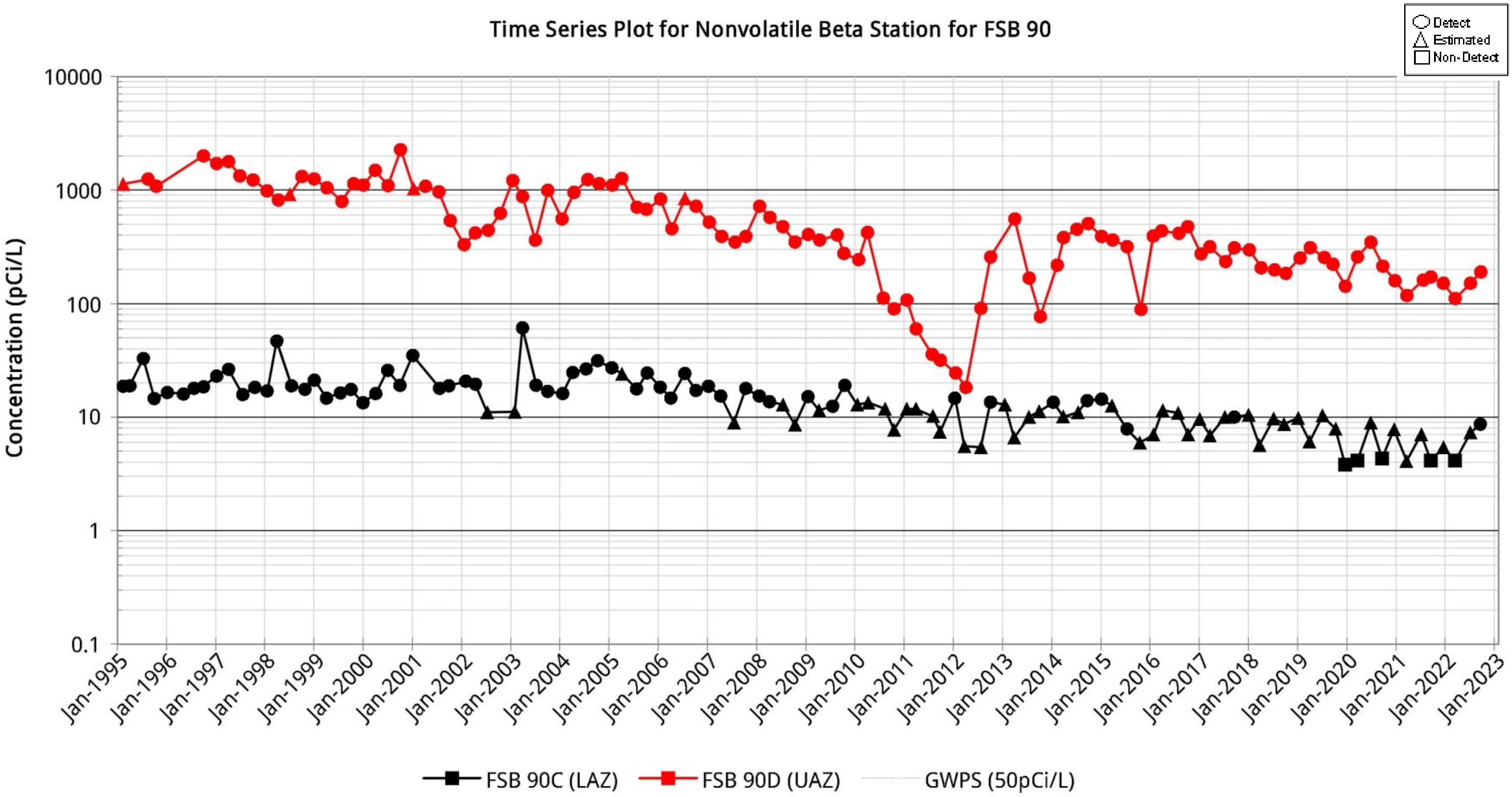
Jan-2023
FSB 79B (GAU)
FSB 79C (LAZ)
FSB 79 (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for FSB 90
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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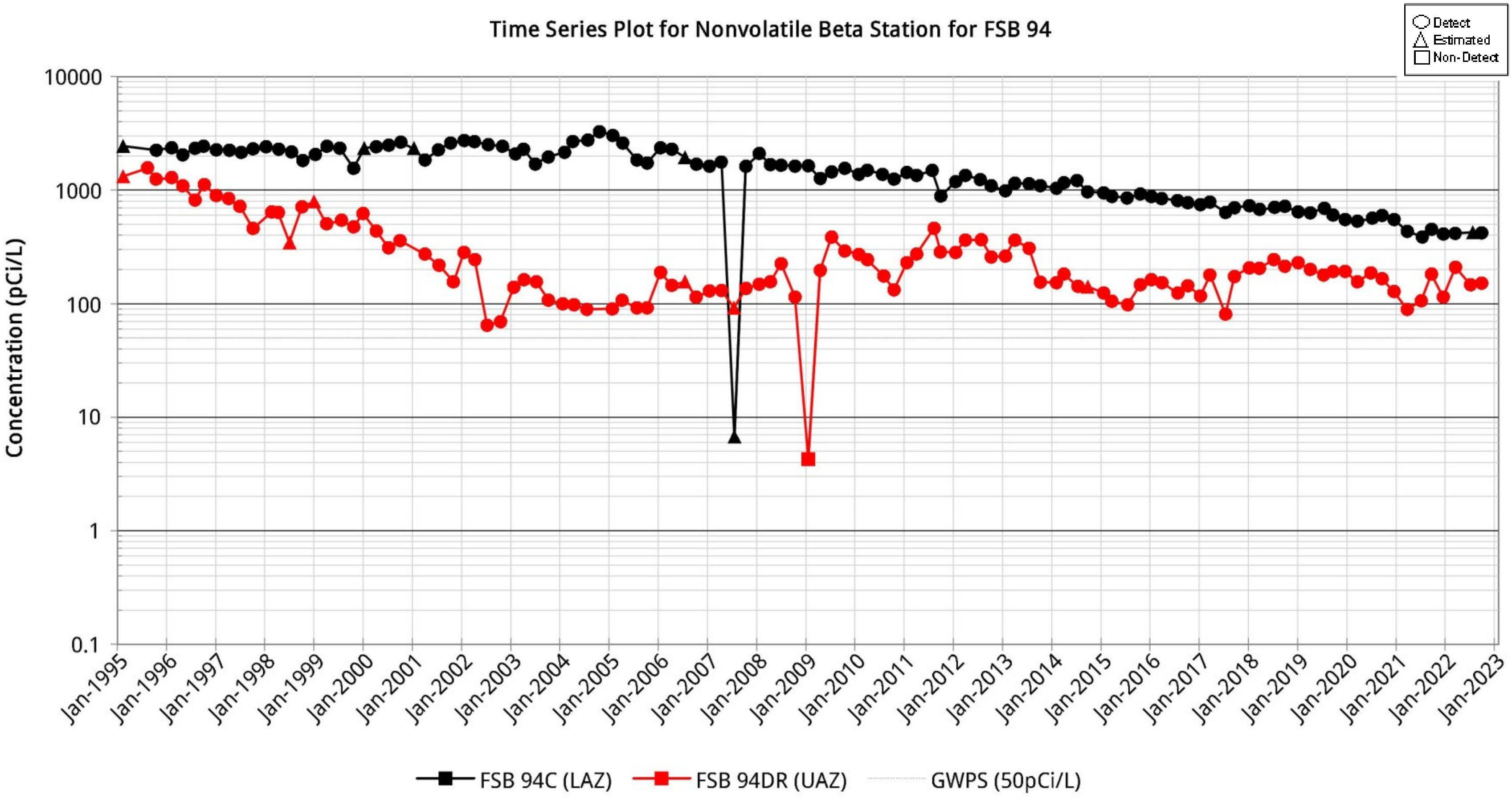
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 90C (LAZ)
FSB 90D (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for FSB 94
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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Jan-2018
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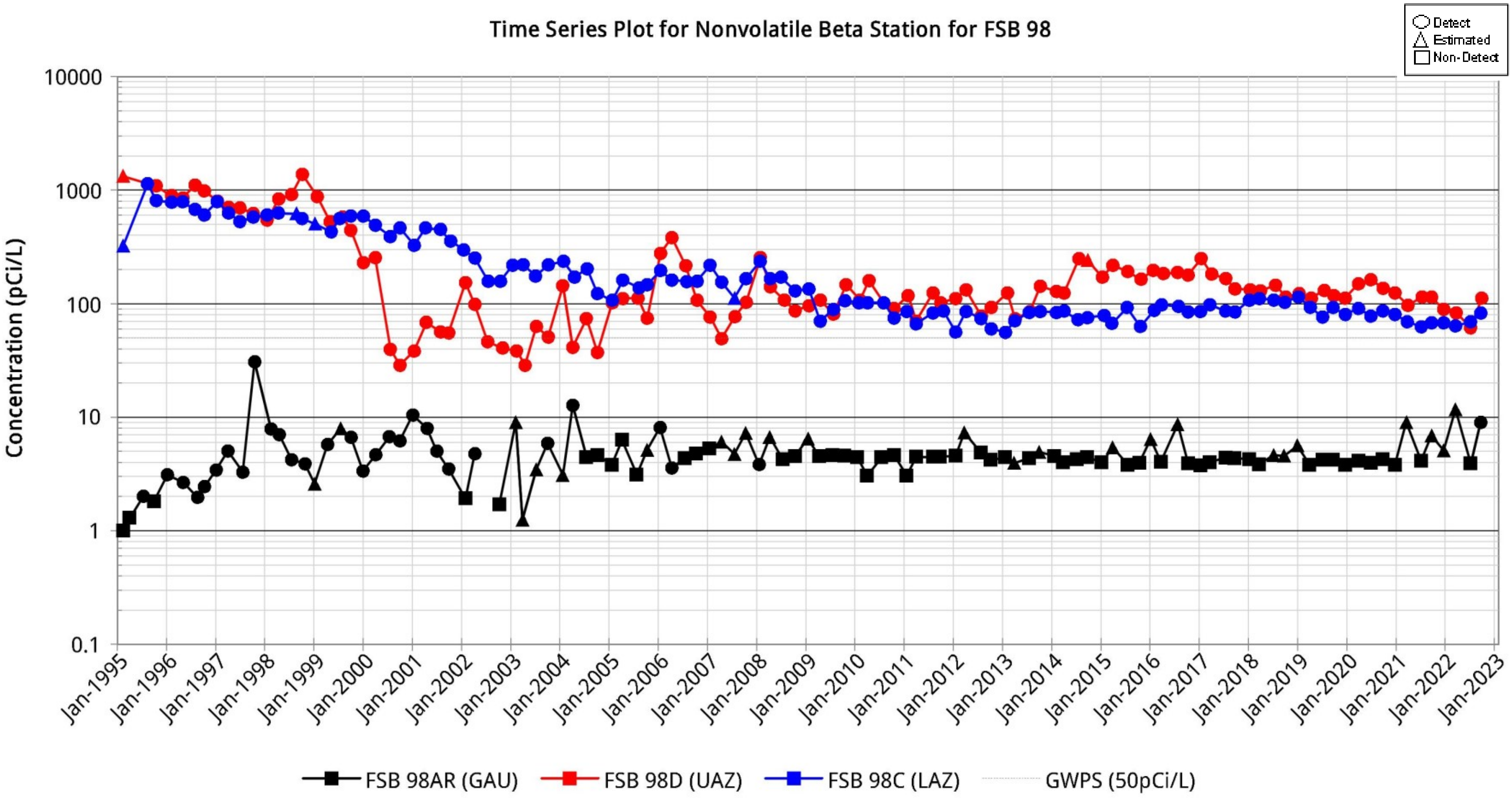
Jan-2021
Jan-2022
Jan-2023
FSB 94C (LAZ)
FSB 94DR (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for FSB 98
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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Jan-2007
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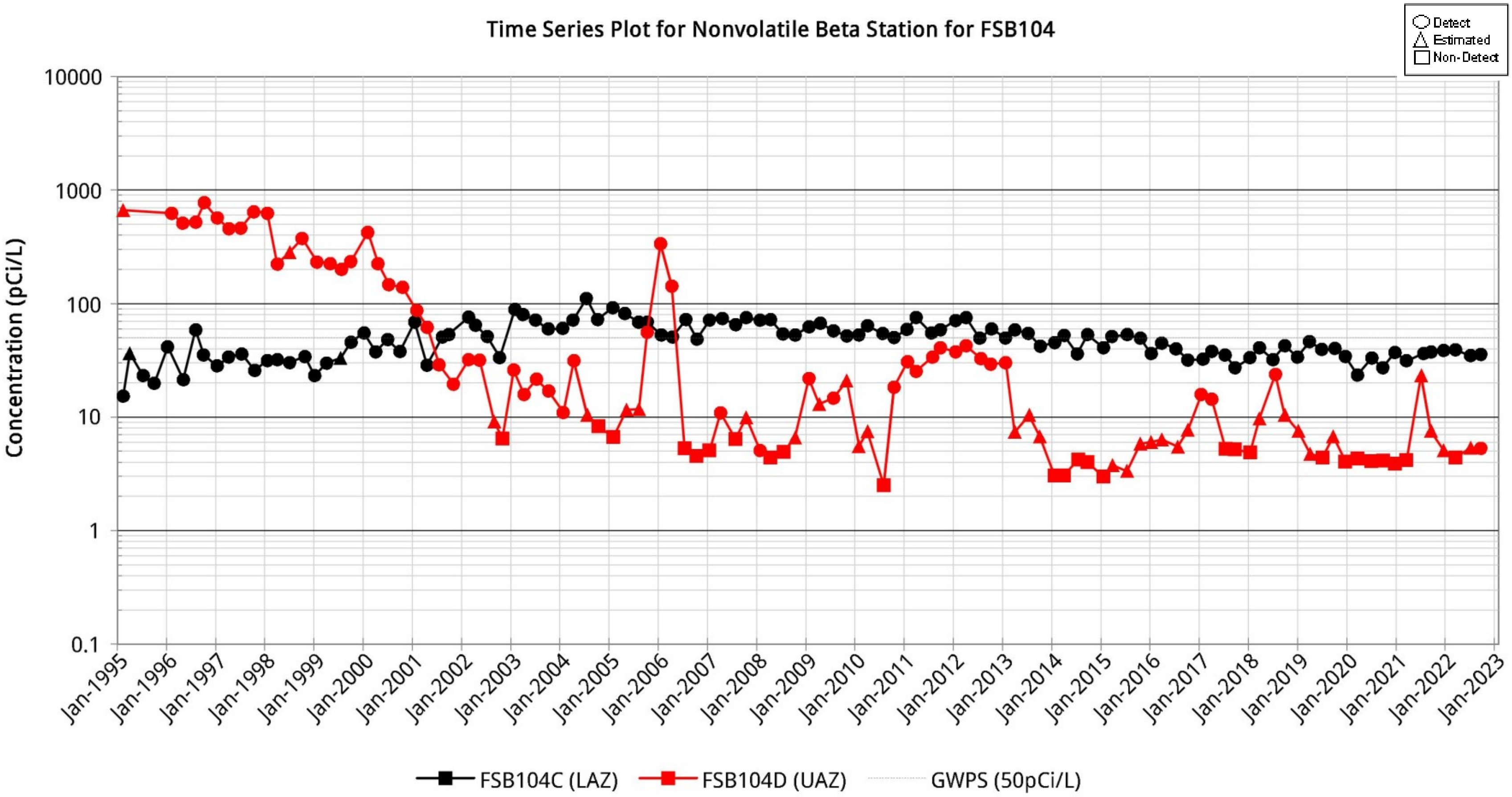
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 98AR (GAU)
FSB 98D (UAZ)
FSB 98C (LAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for FSB104
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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Jan-2004
Jan-2005
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Jan-2016
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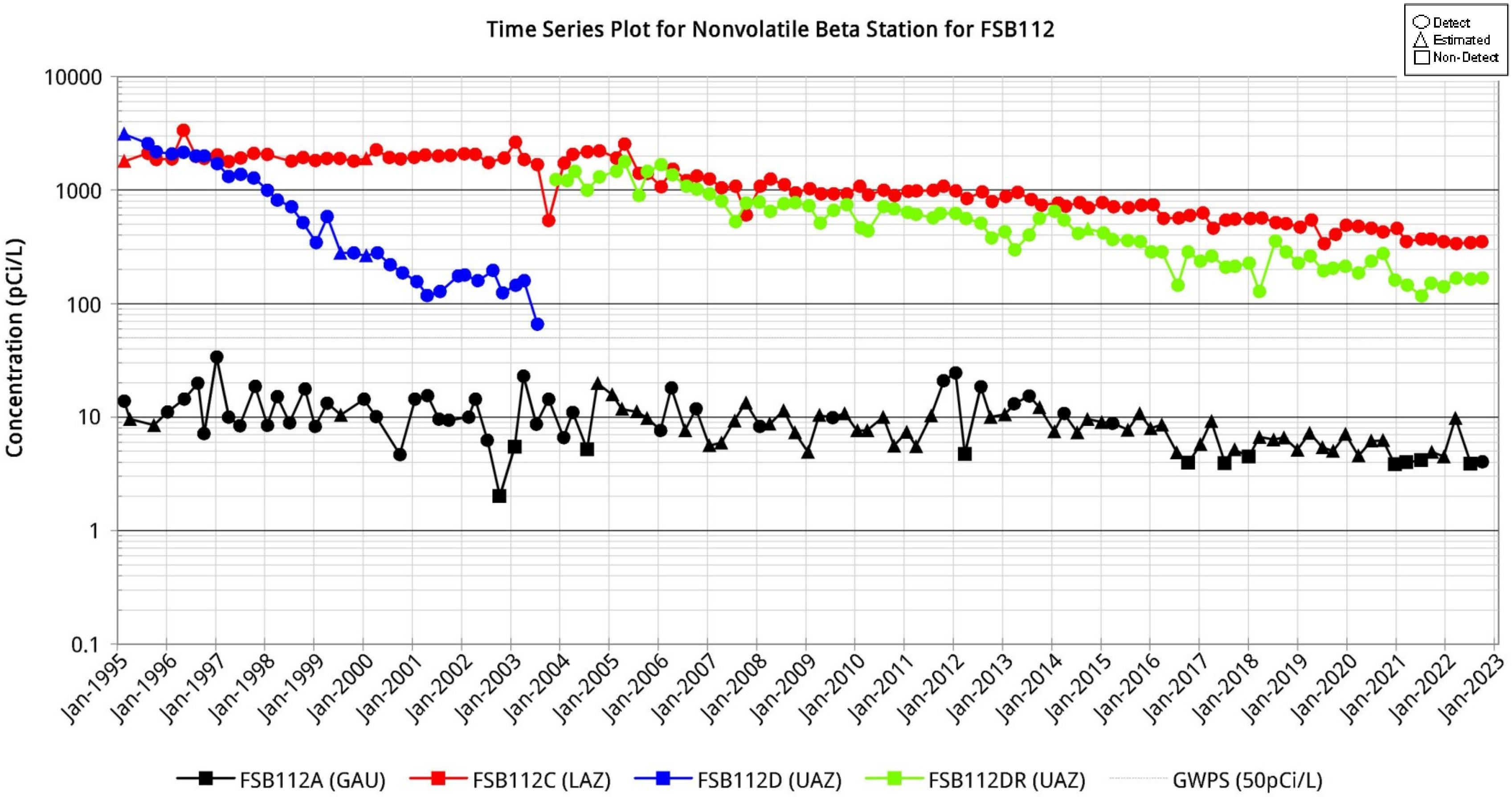
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB104C (LAZ)
FSB104D (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for FSB112
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
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Jan-1999
Jan-2000
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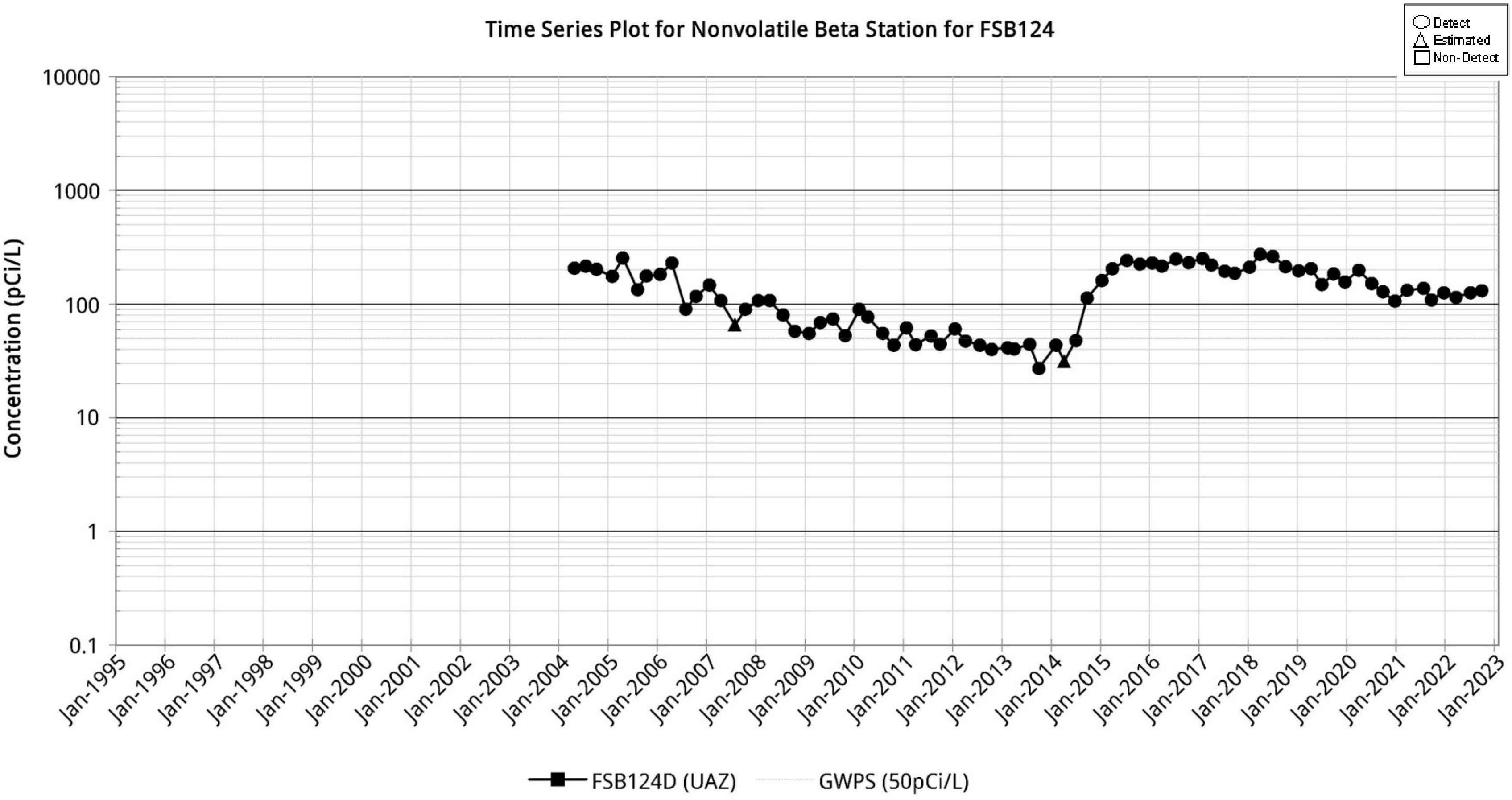
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB112A (GAU)
FSB112C (LAZ)
FSB112D (UAZ)
FSB112DR (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for FSB124
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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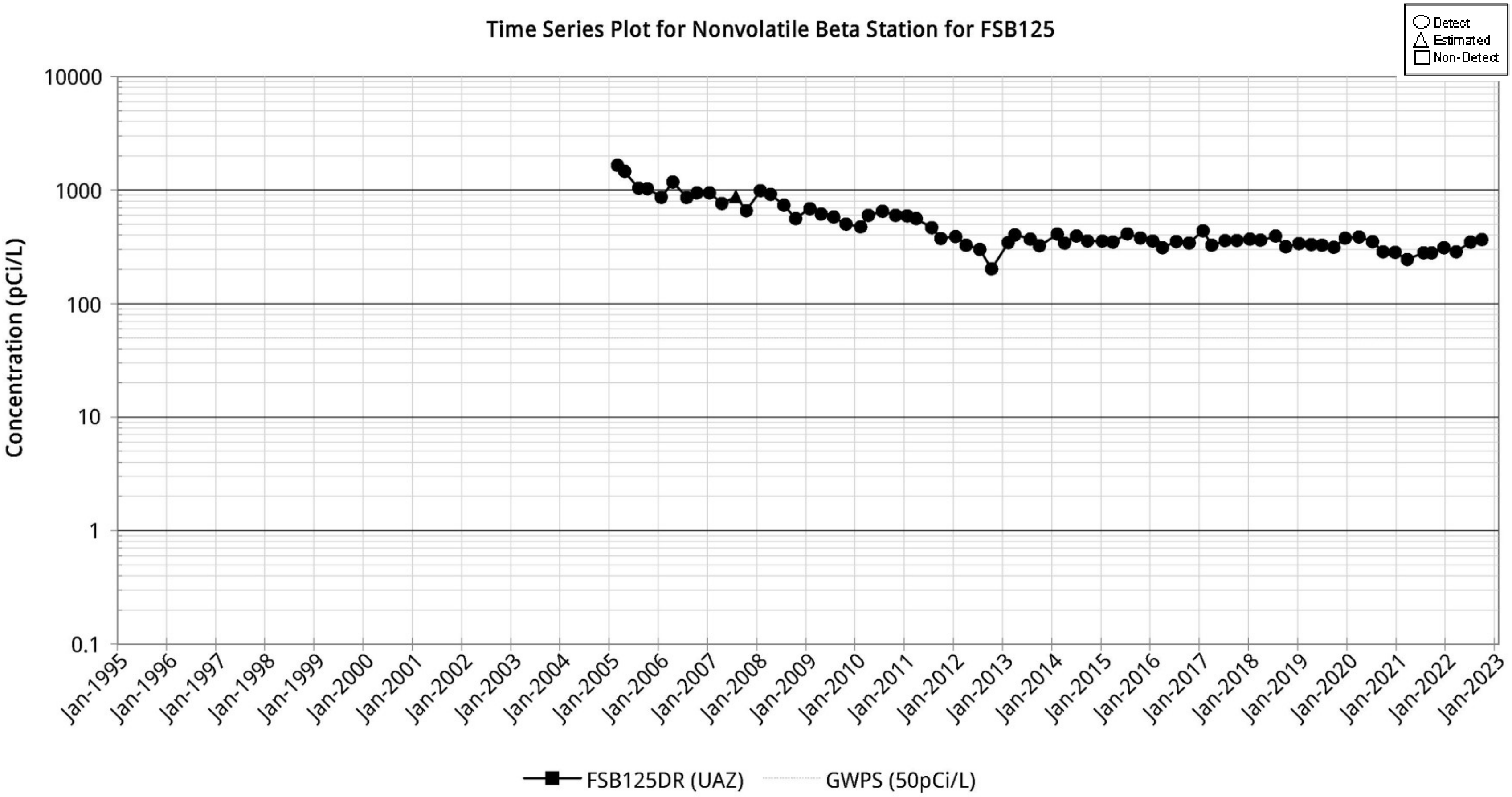
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB124D (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for FSB125
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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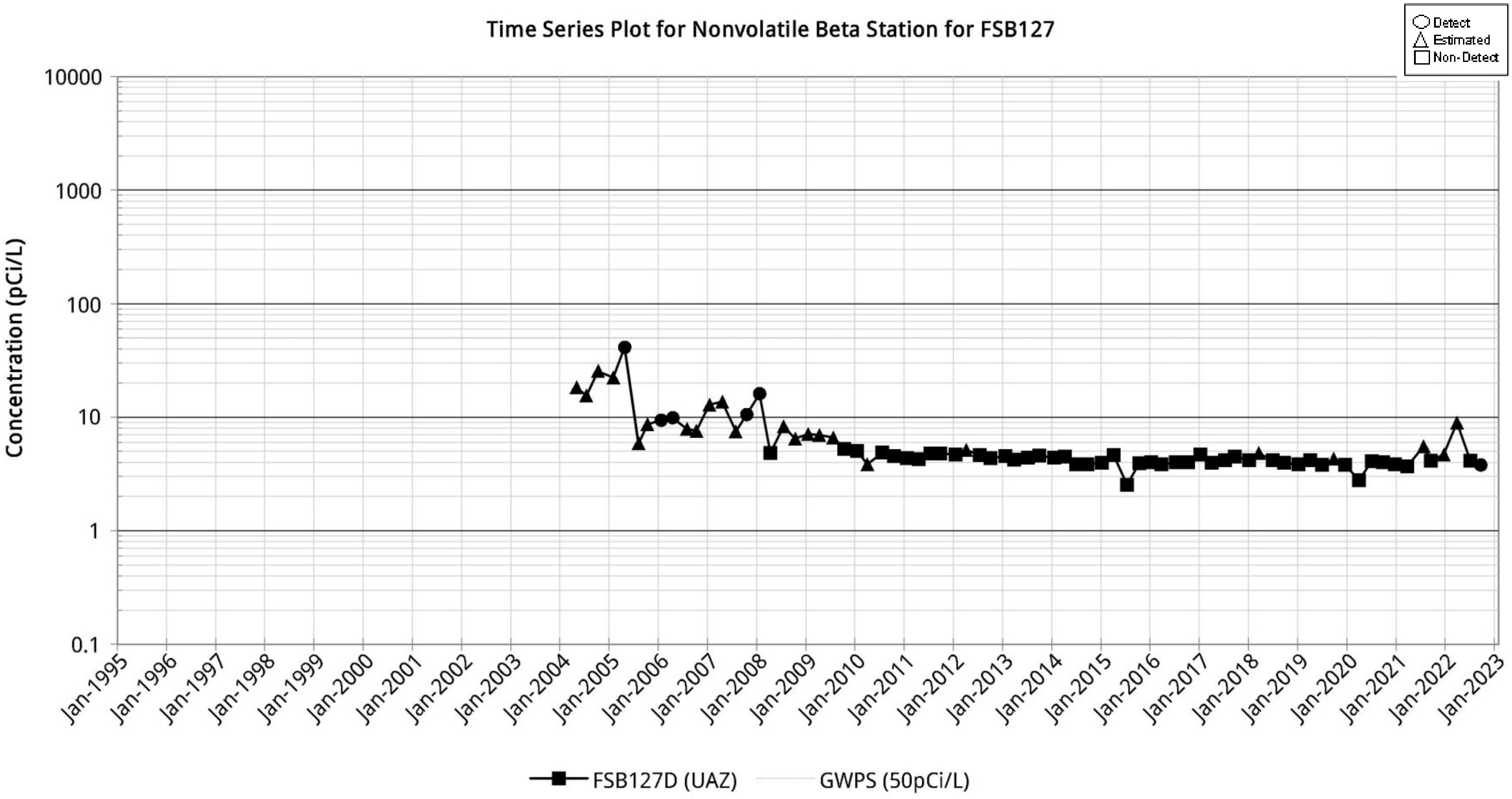
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB125DR (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for FSB127
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
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Jan-2000
Jan-2001
Jan-2002
Jan-2003
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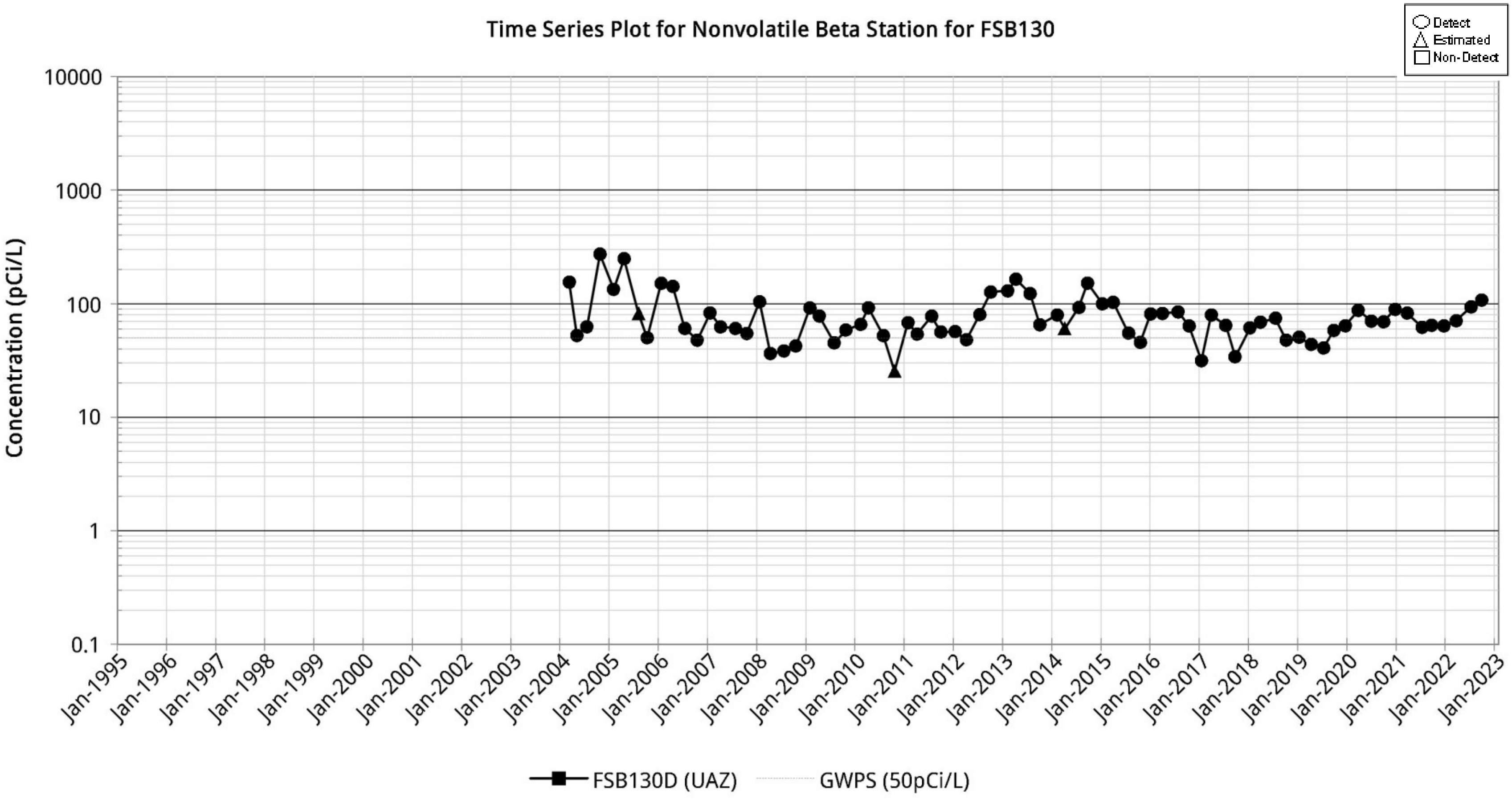
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB127D (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for FSB130
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
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Jan-2000
Jan-2001
Jan-2002
Jan-2003
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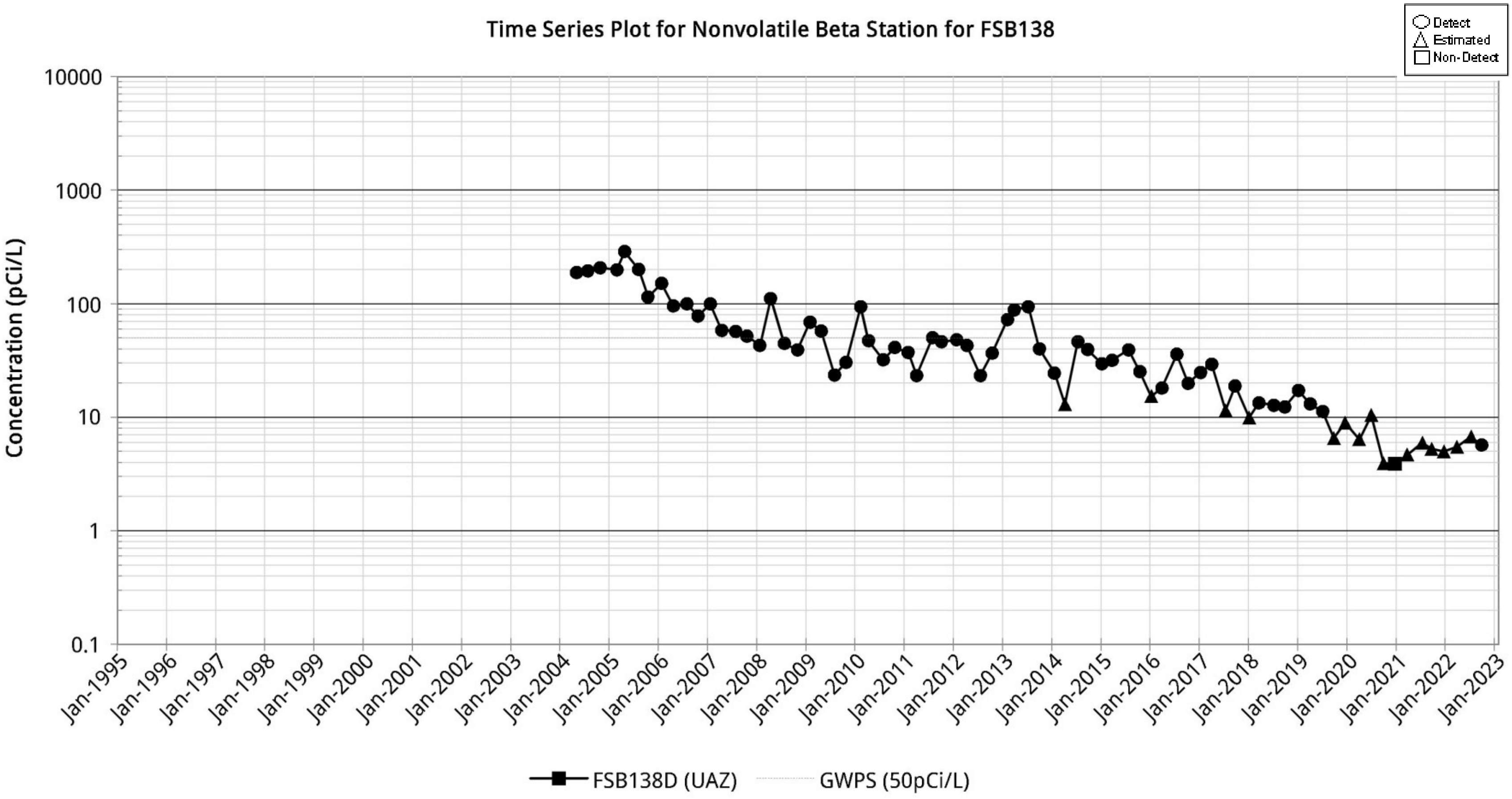
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB130D (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for FSB138
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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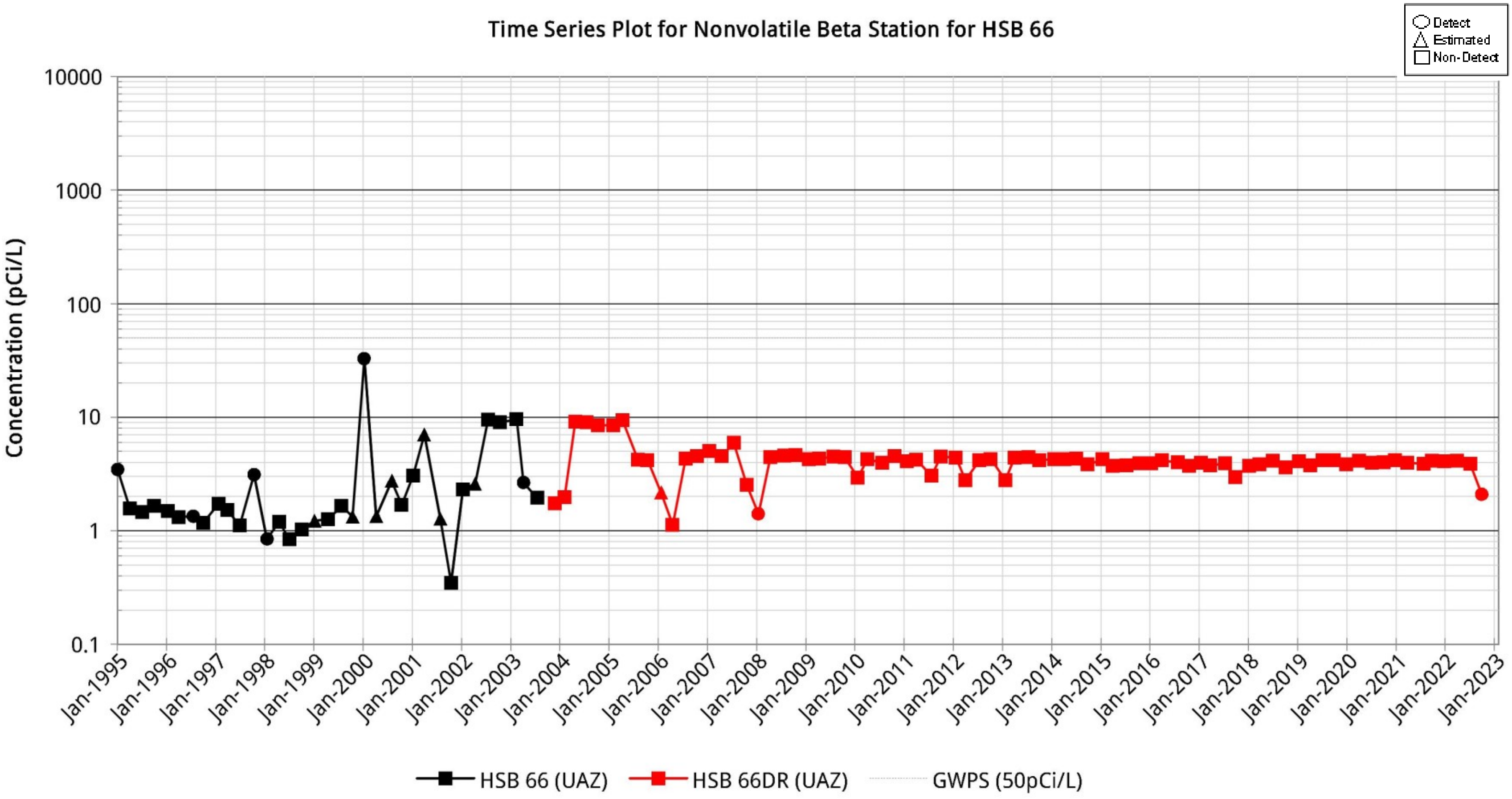
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB138D (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for HSB 66
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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Jan-2002
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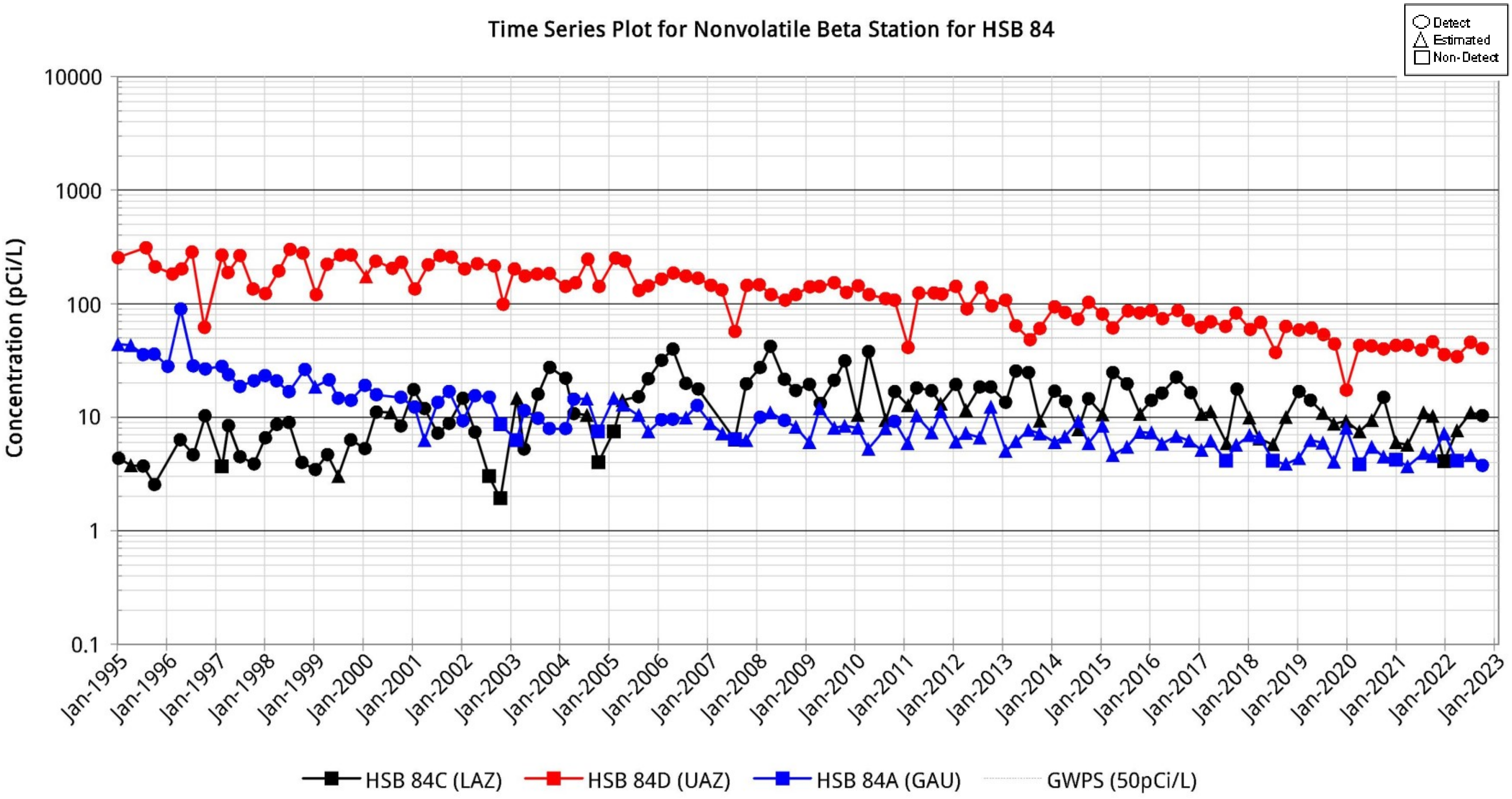
Jan-2021
Jan-2022
Jan-2023
HSB 66 (UAZ)
HSB 66DR (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for HSB 84
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
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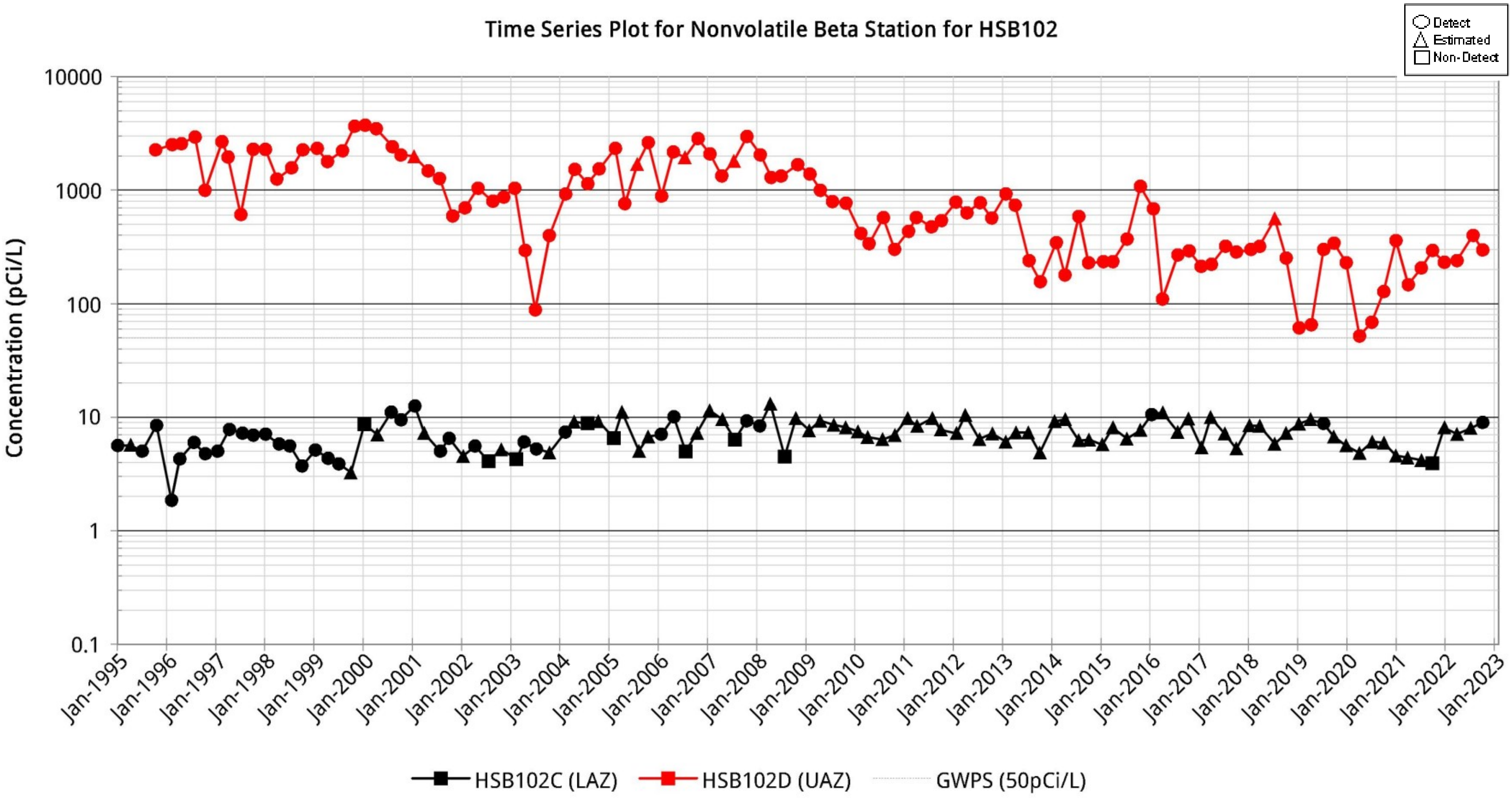
Jan-2021
Jan-2022
Jan-2023
HSB 84C (LAZ)
HSB 84D (UAZ)
HSB 84A (GAU)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for HSB102
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
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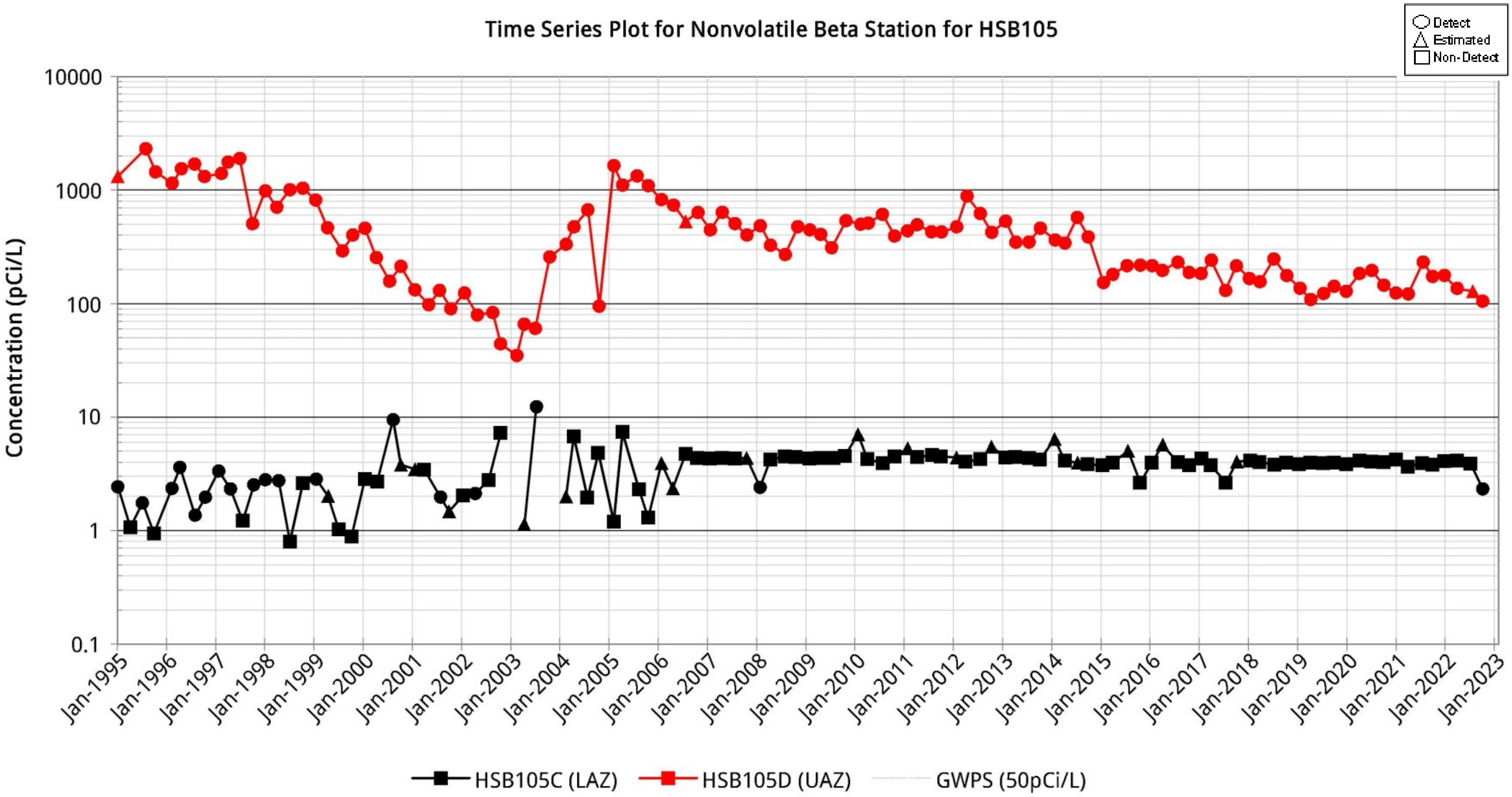
Jan-2021
Jan-2022
Jan-2023
HSB102C (LAZ)
HSB102D (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for HSB105
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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Jan-2016
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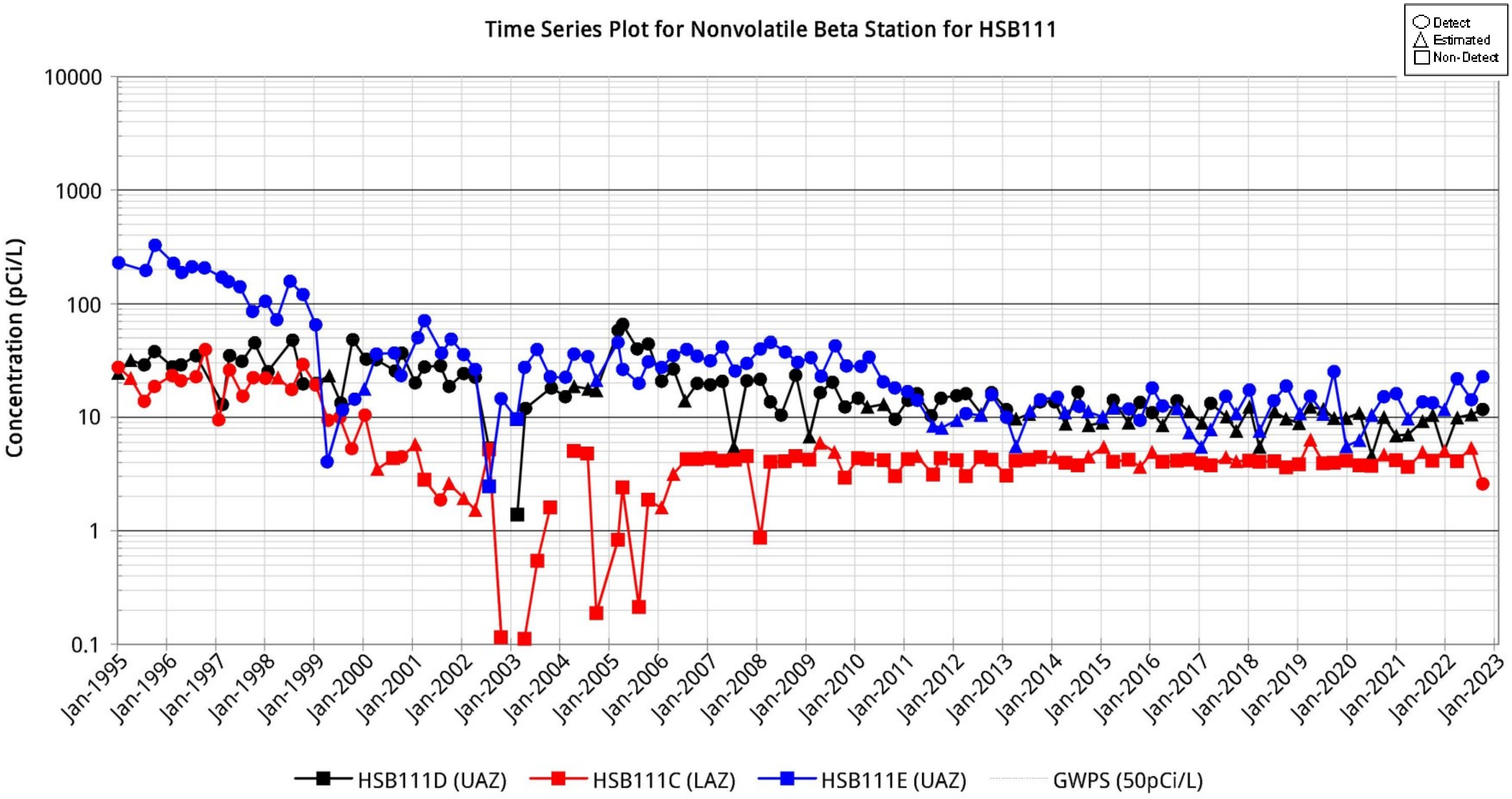
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB105C (LAZ)
HSB105D (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for HSB111
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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Jan-2007
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Jan-2016
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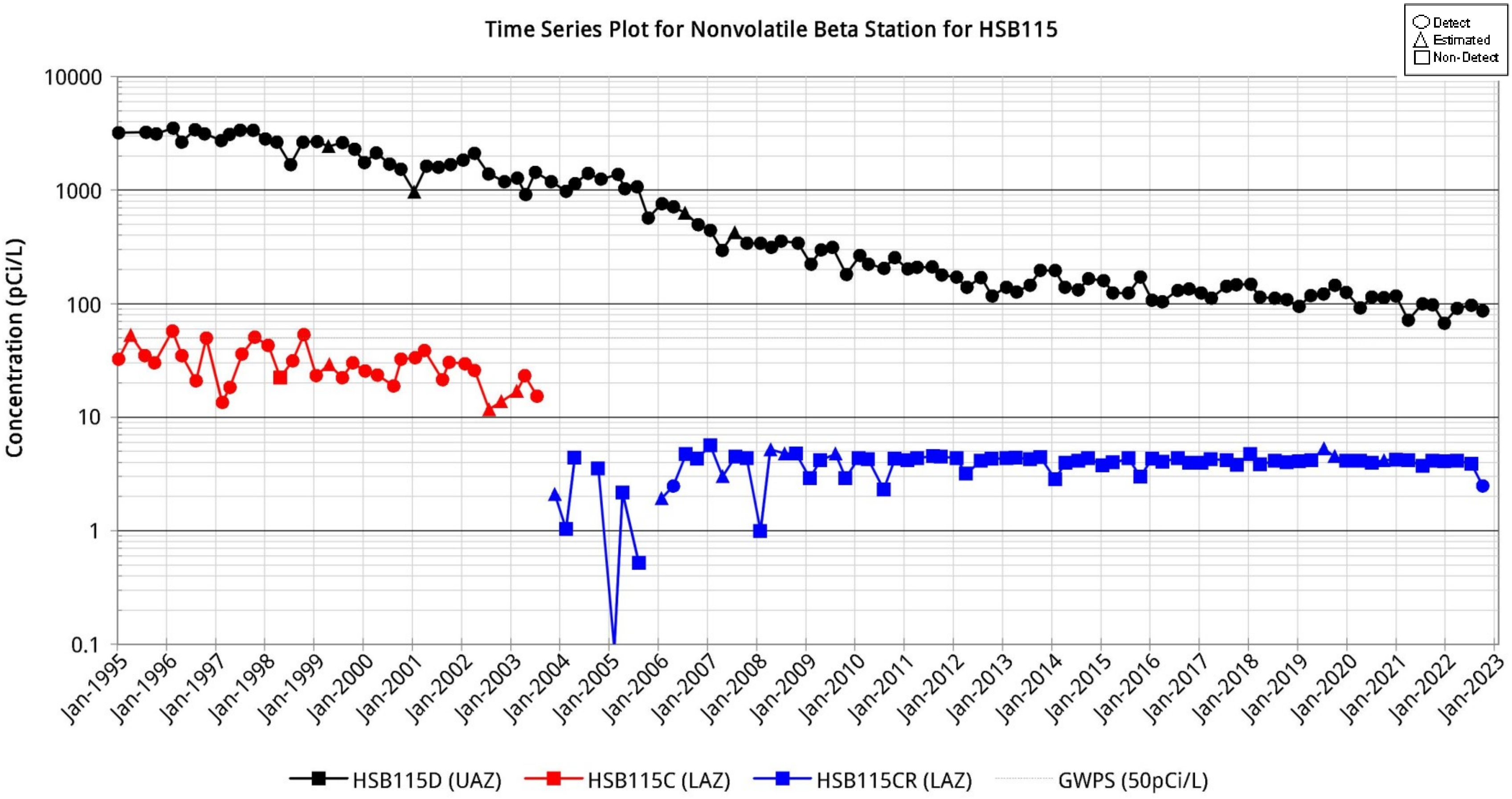
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB111D (UAZ)
HSB111C (LAZ)
HSB111E (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for HSB115
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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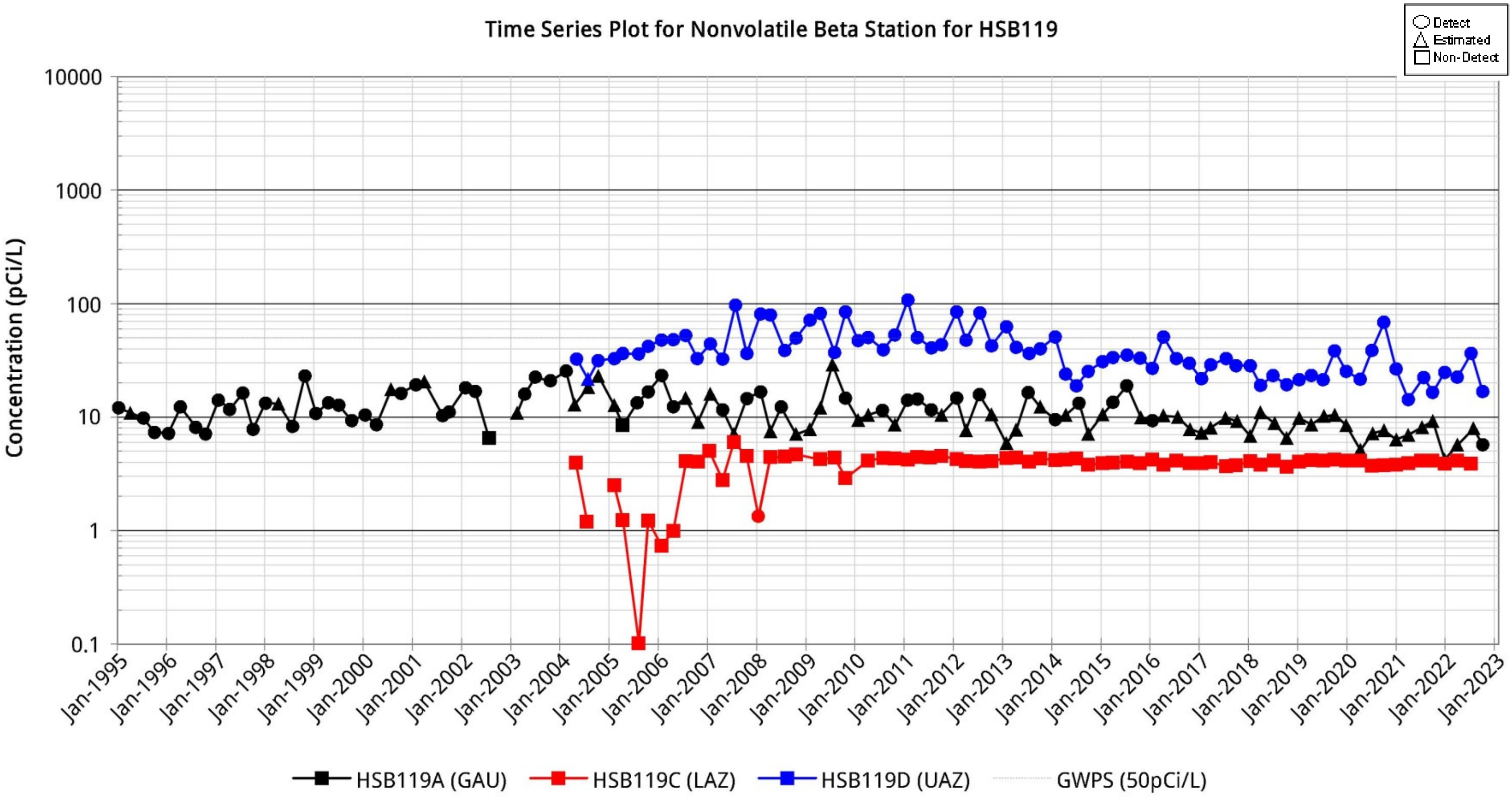
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB115D (UAZ)
HSB115C (LAZ)
HSB115CR (LAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for HSB119
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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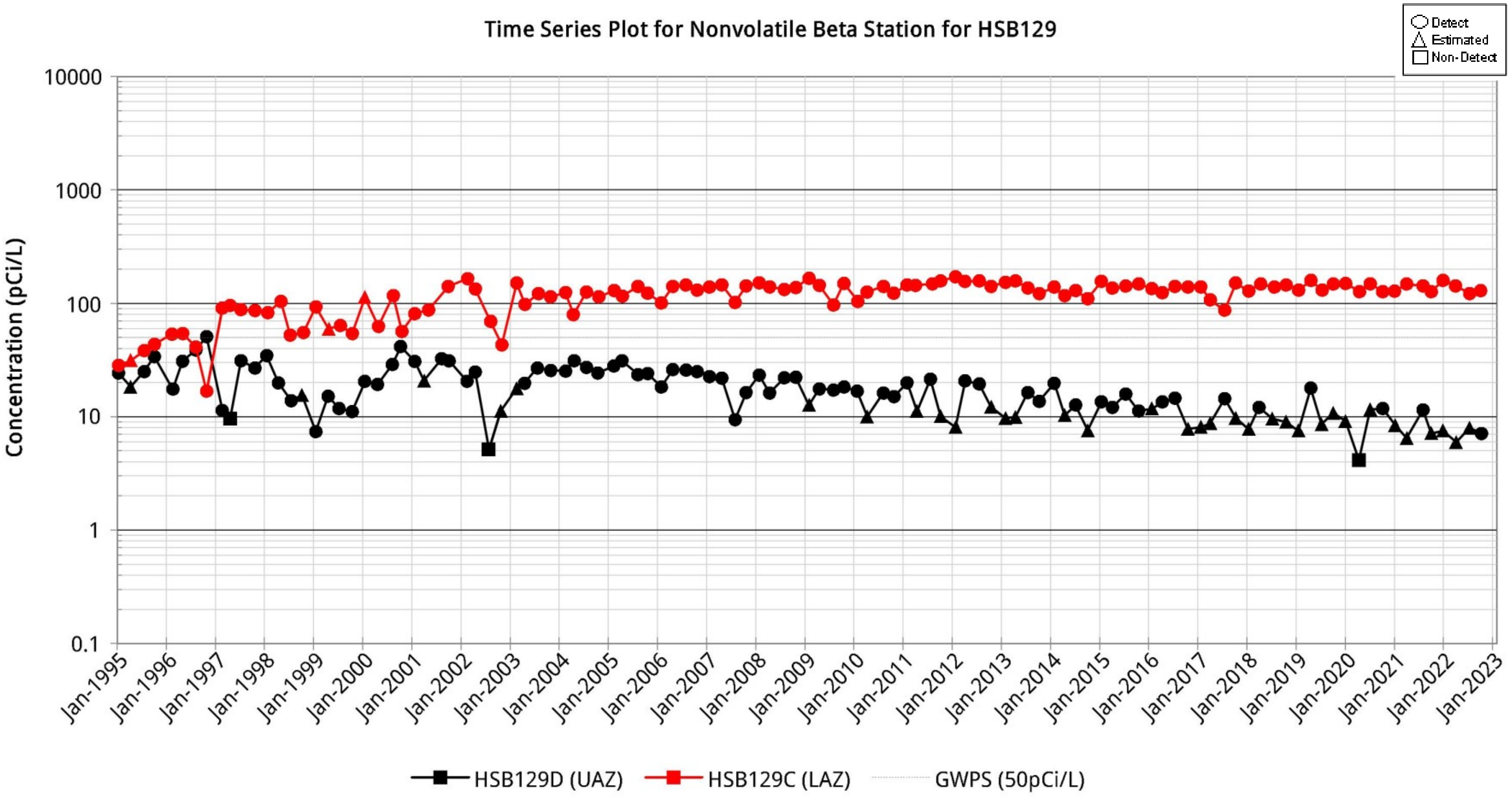
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB119A (GAU)
HSB119C (LAZ)
HSB119D (UAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for HSB129
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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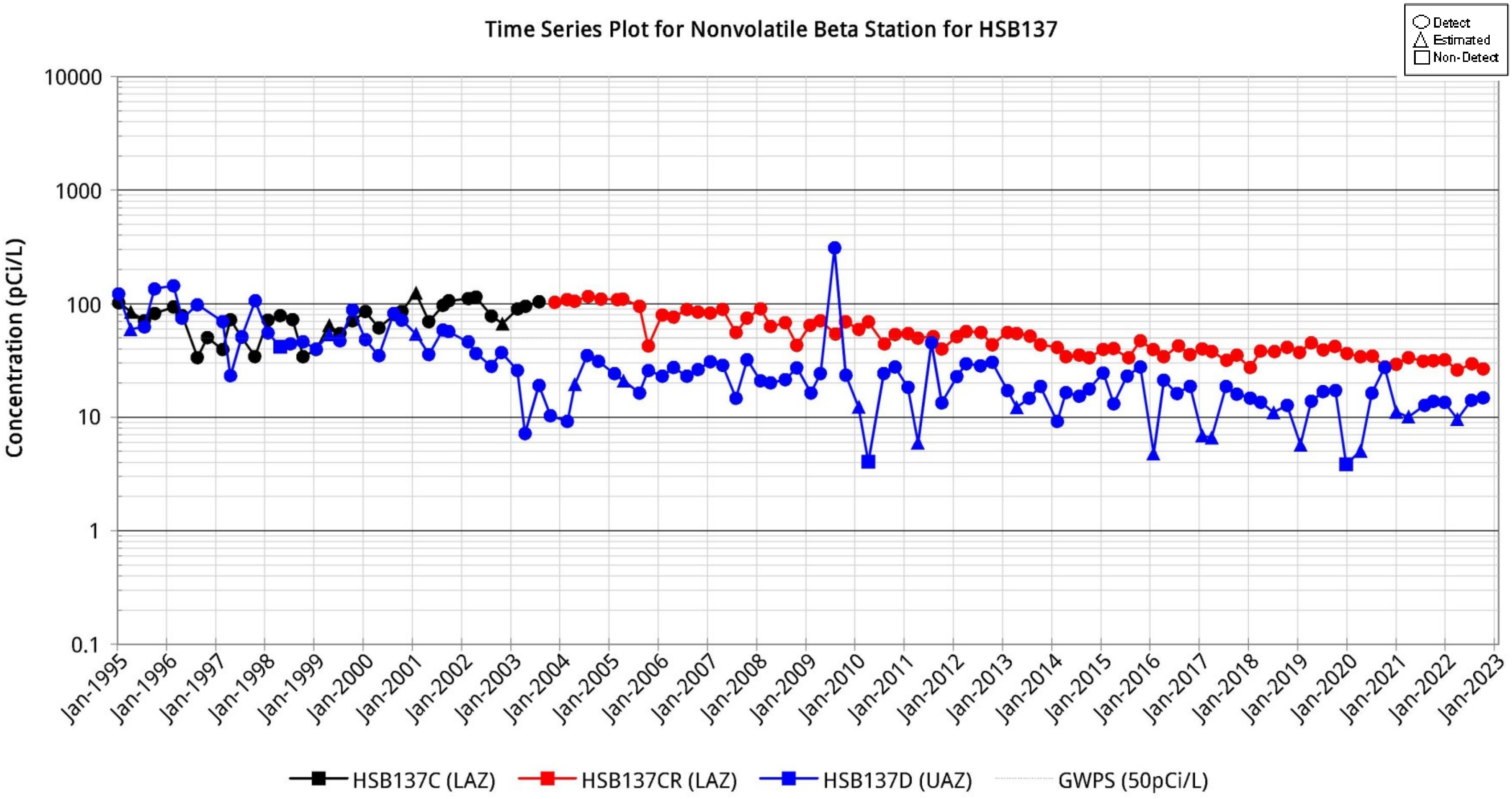
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB129D (UAZ)
HSB129C (LAZ)
GWPS (50pCi/L)


Time Series Plot for Nonvolatile Beta Station for HSB137
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
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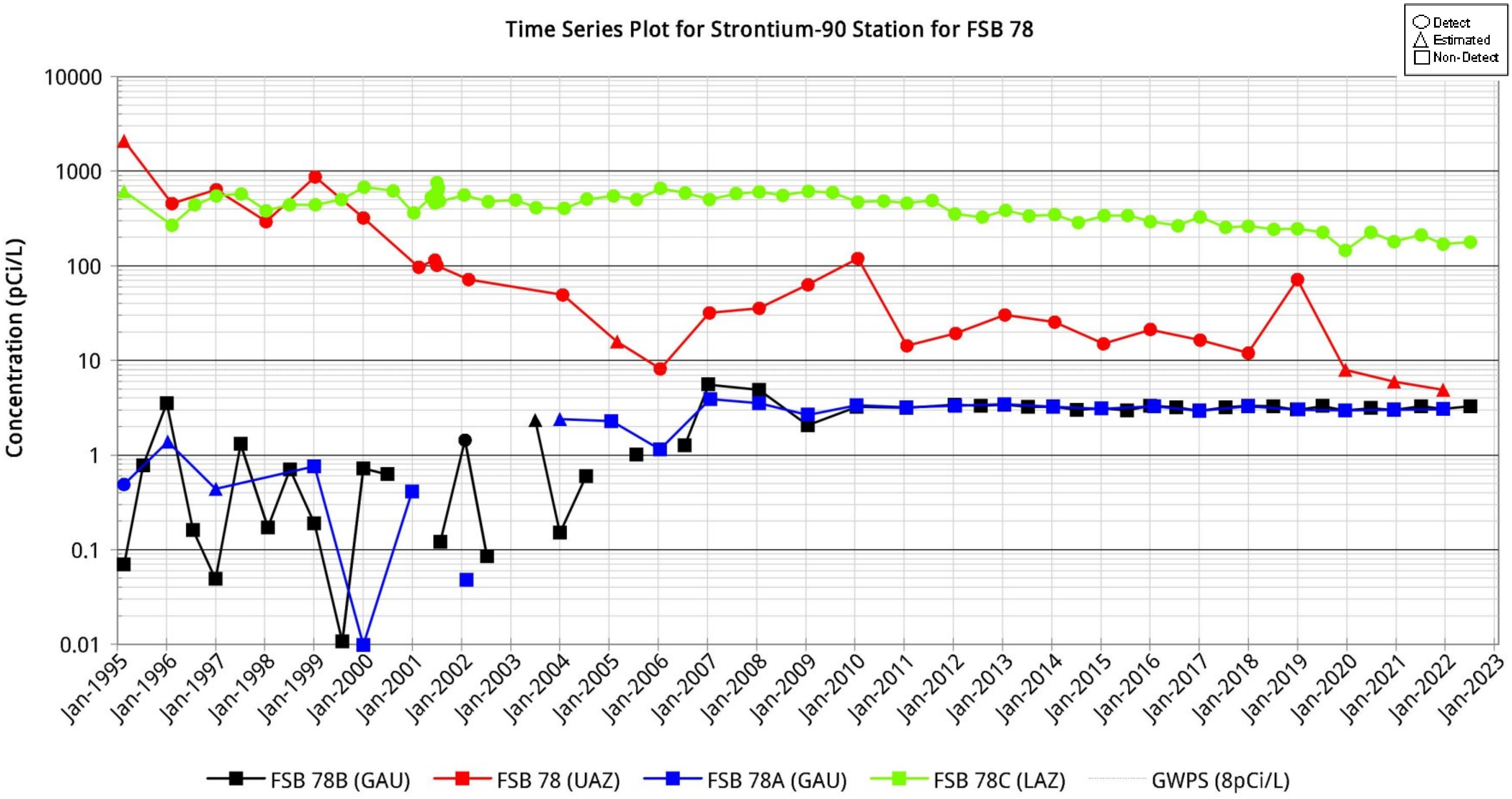
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB137C (LAZ)
HSB137CR (LAZ)
HSB137D (UAZ)
GWPS (50pCi/L)


Time Series Plot for Strontium-90 Station for FSB 78
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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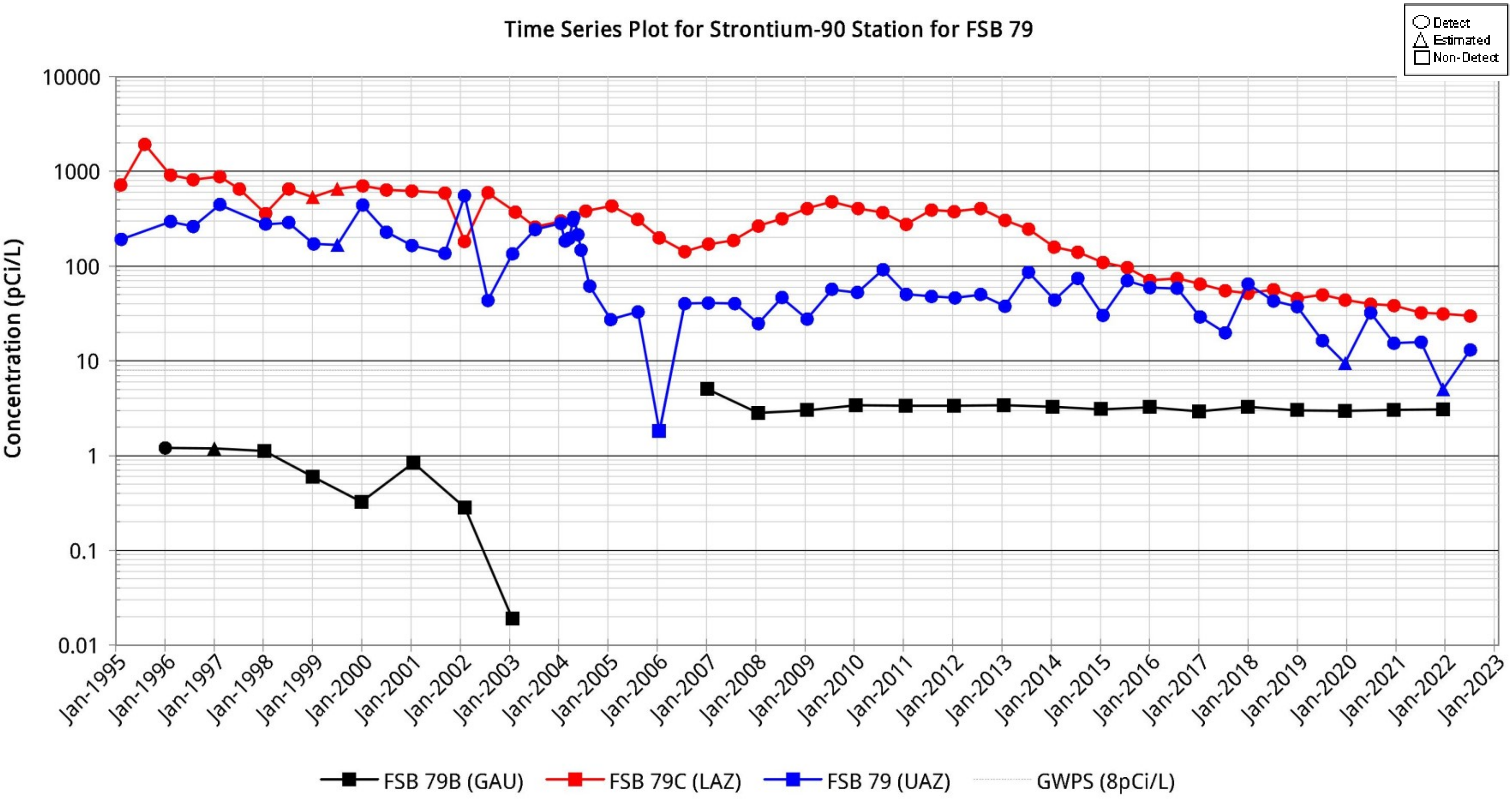
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 78B (GAU)
FSB 78 (UAZ)
FSB 78A (GAU)
FSB 78C (LAZ)
GWPS (8pCi/L)

]


Time Series Plot for Strontium-90 Station for FSB 79
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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Jan-2019
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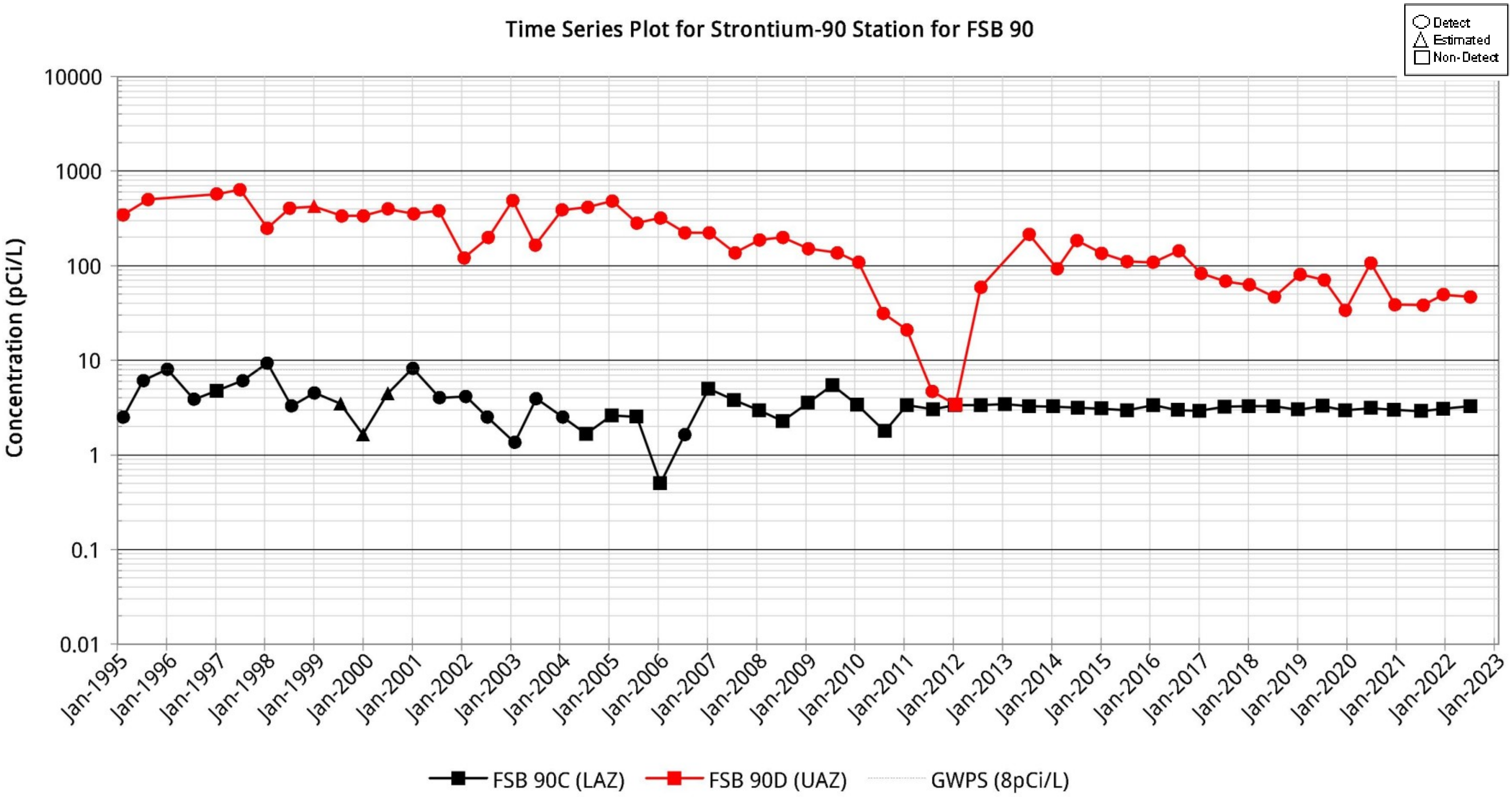
Jan-2023
FSB 79B (GAU)
FSB 79C (LAZ)
FSB 79 (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for FSB 90
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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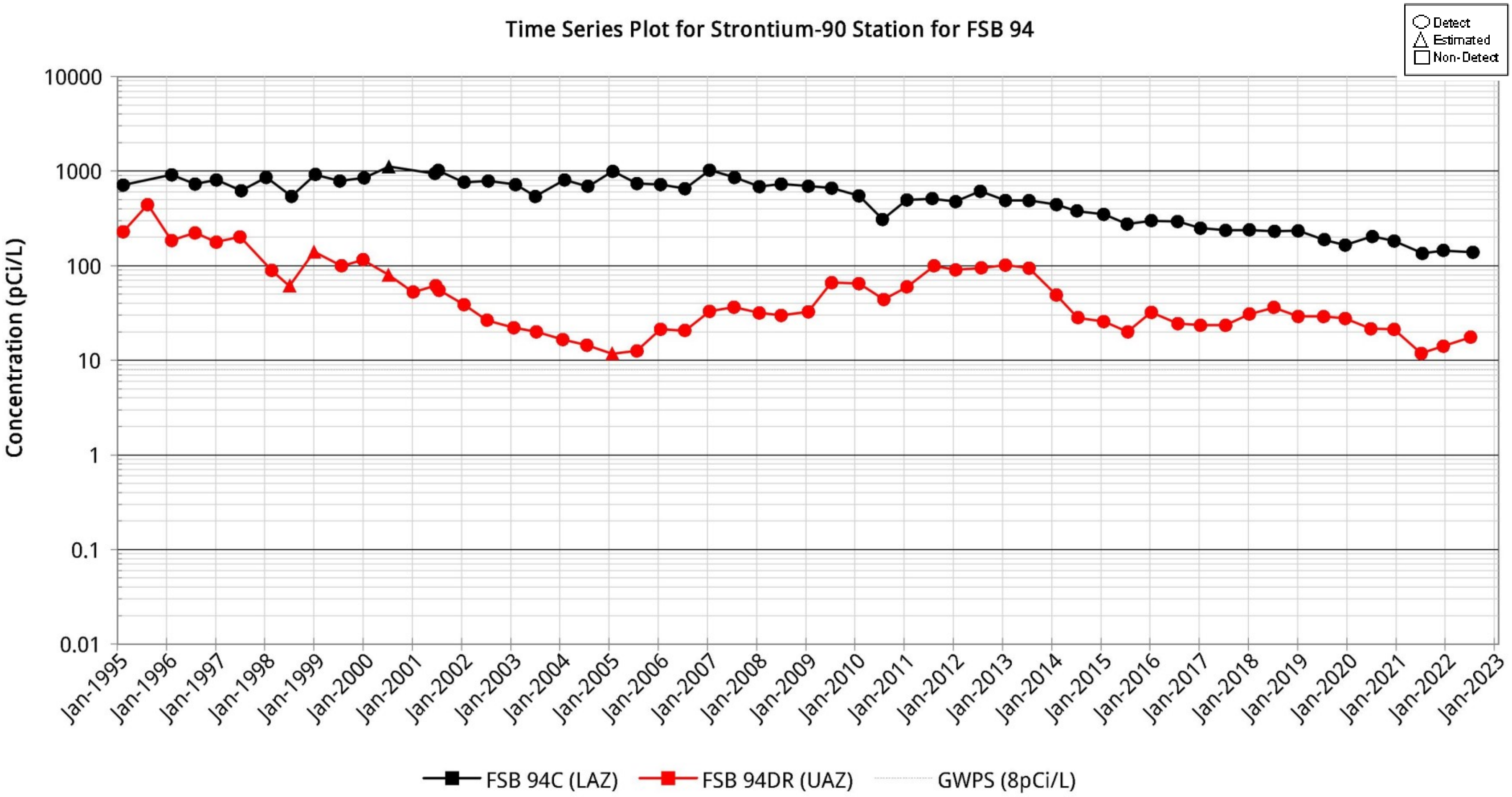
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 90C (LAZ)
FSB 90D (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for FSB 94
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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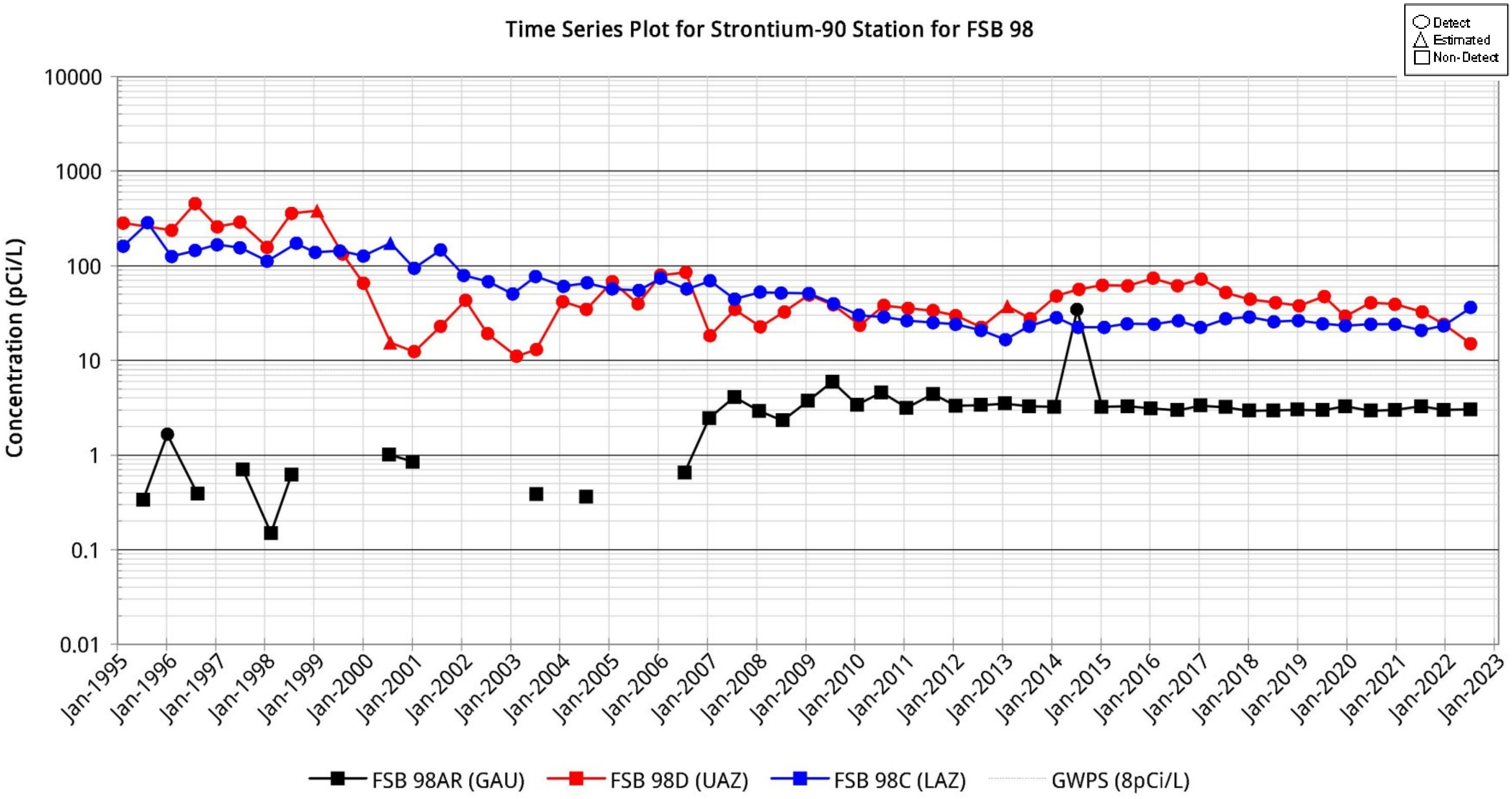
Jan-2021
Jan-2022
Jan-2023
FSB 94C (LAZ)
FSB 94DR (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for FSB 98
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
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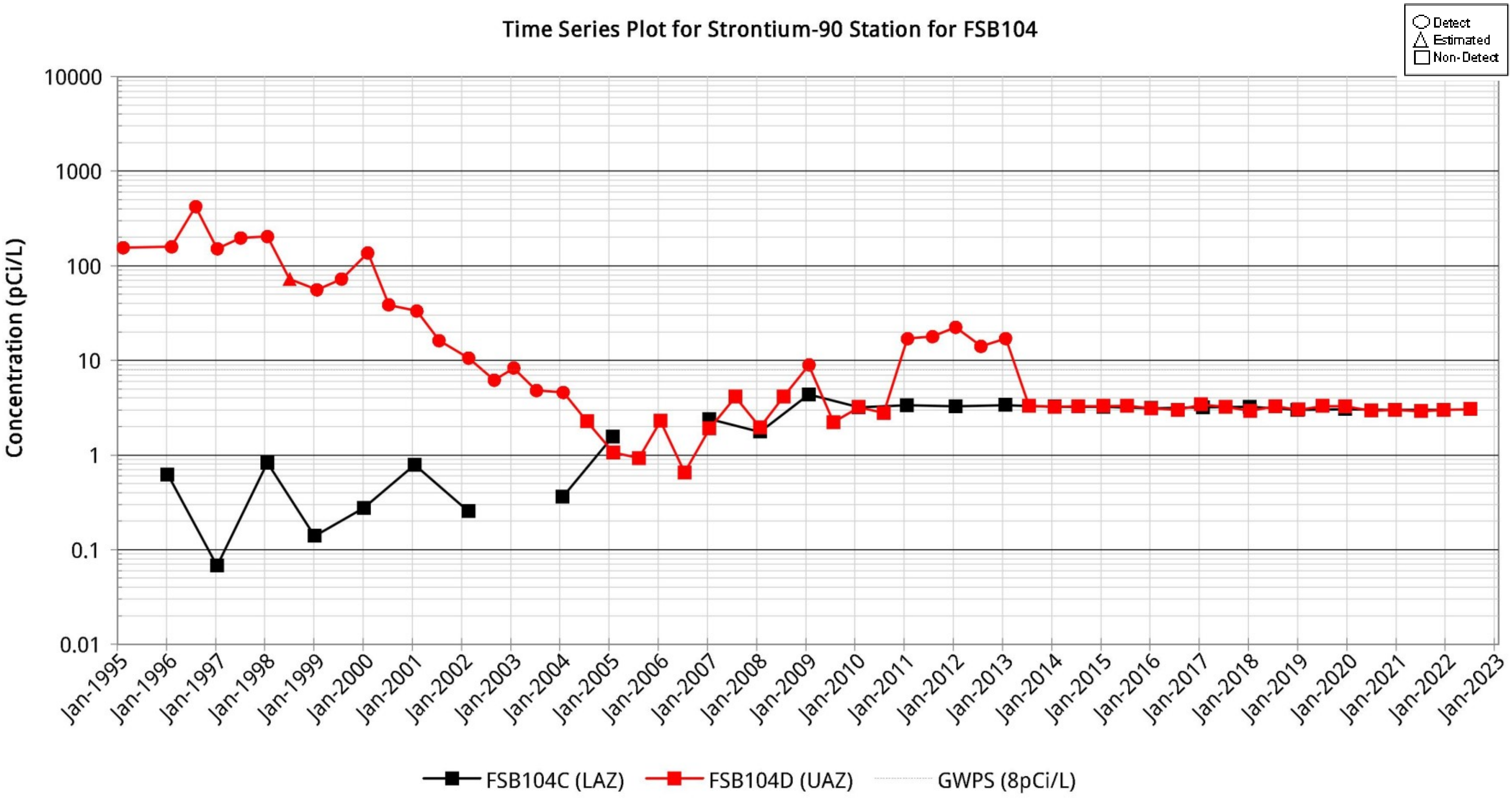
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 98AR (GAU)
FSB 98D (UAZ)
FSB 98C (LAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for FSB104
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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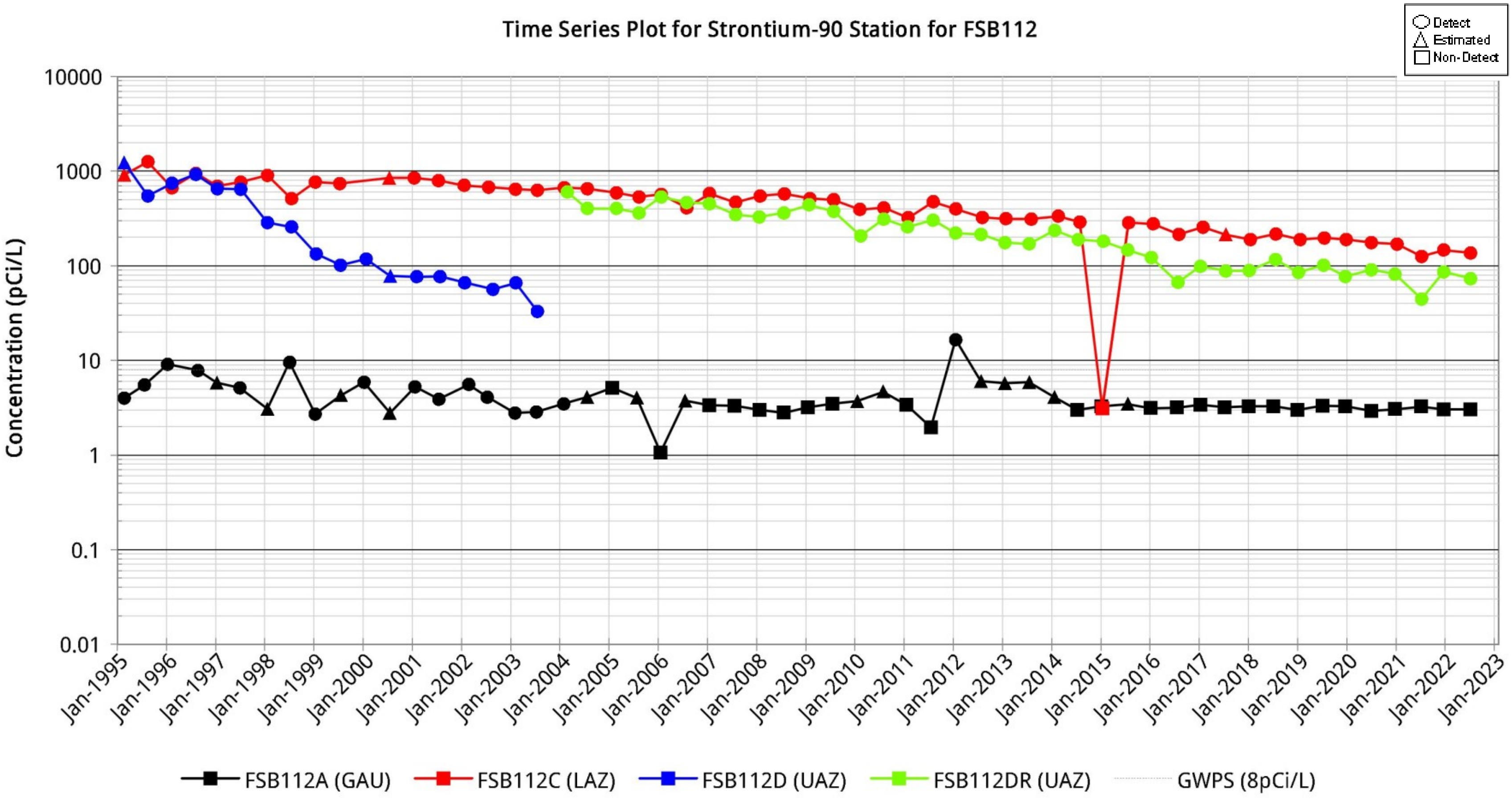
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB104C (LAZ)
FSB104D (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for FSB112
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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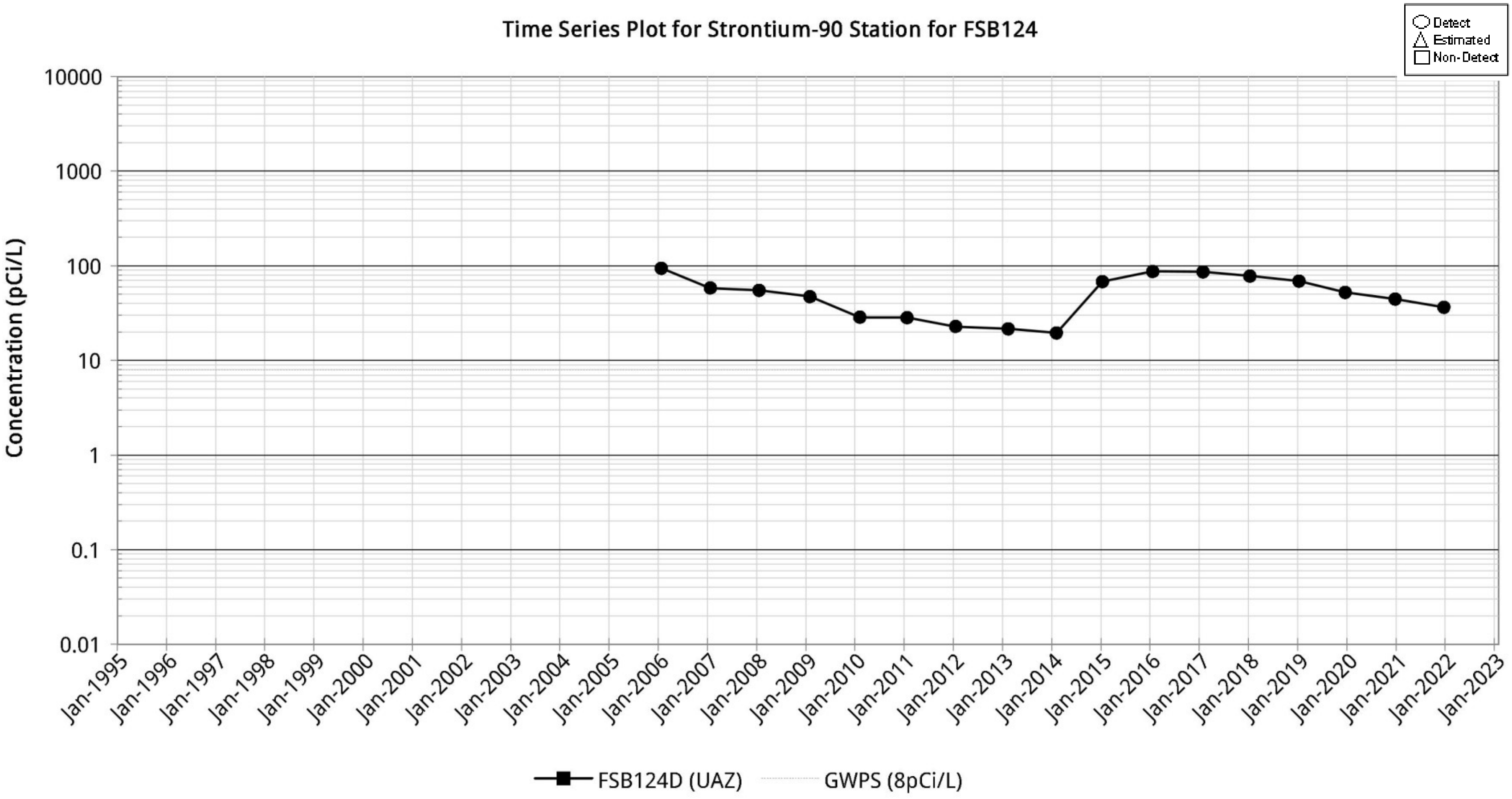
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB112A (GAU)
FSB112C (LAZ)
FSB112D (UAZ)
FSB112DR (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for FSB124
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
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Jan-1997
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Jan-2020
Jan-2021
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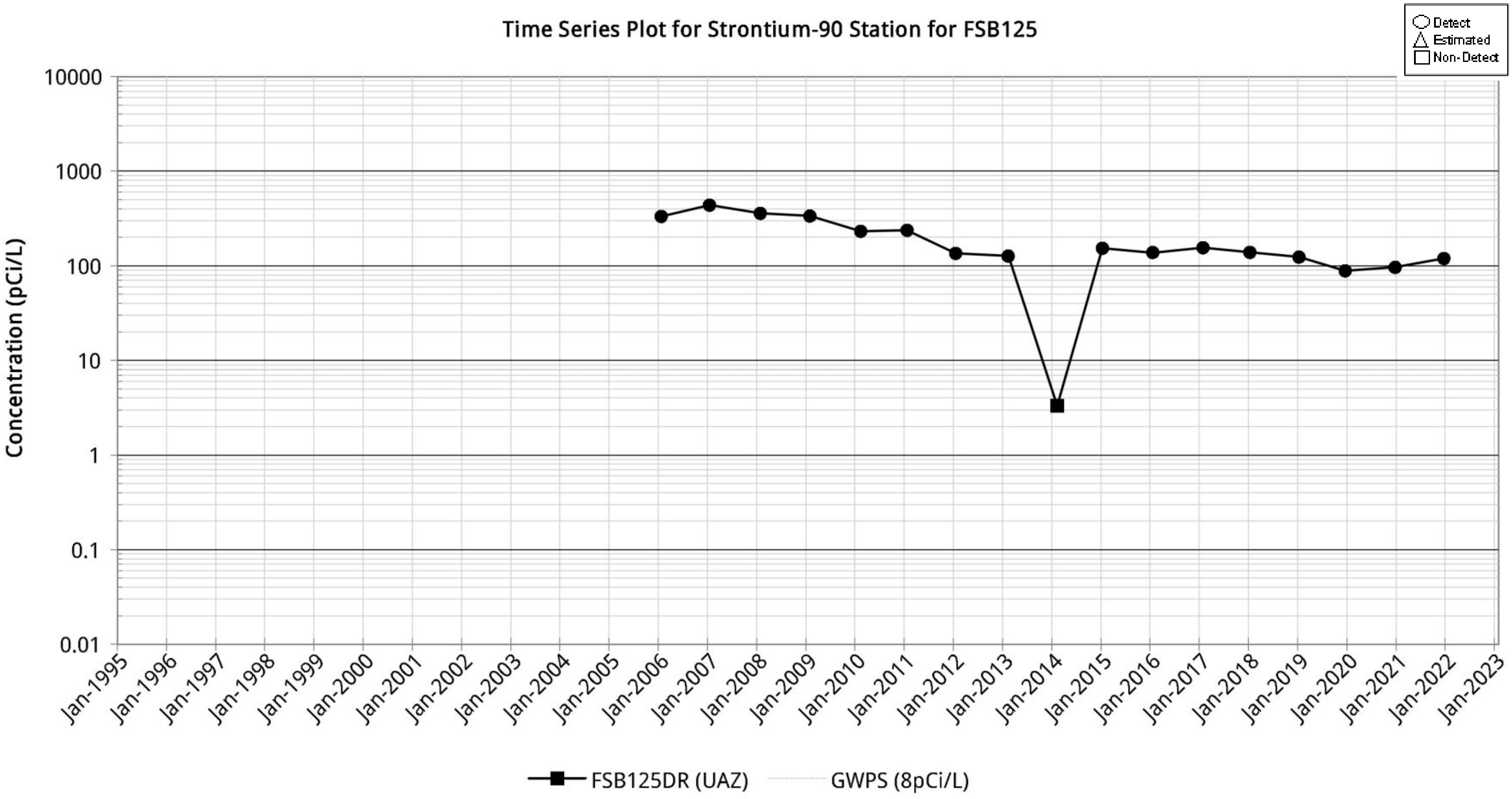
Jan-2023
FSB124D (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for FSB125
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
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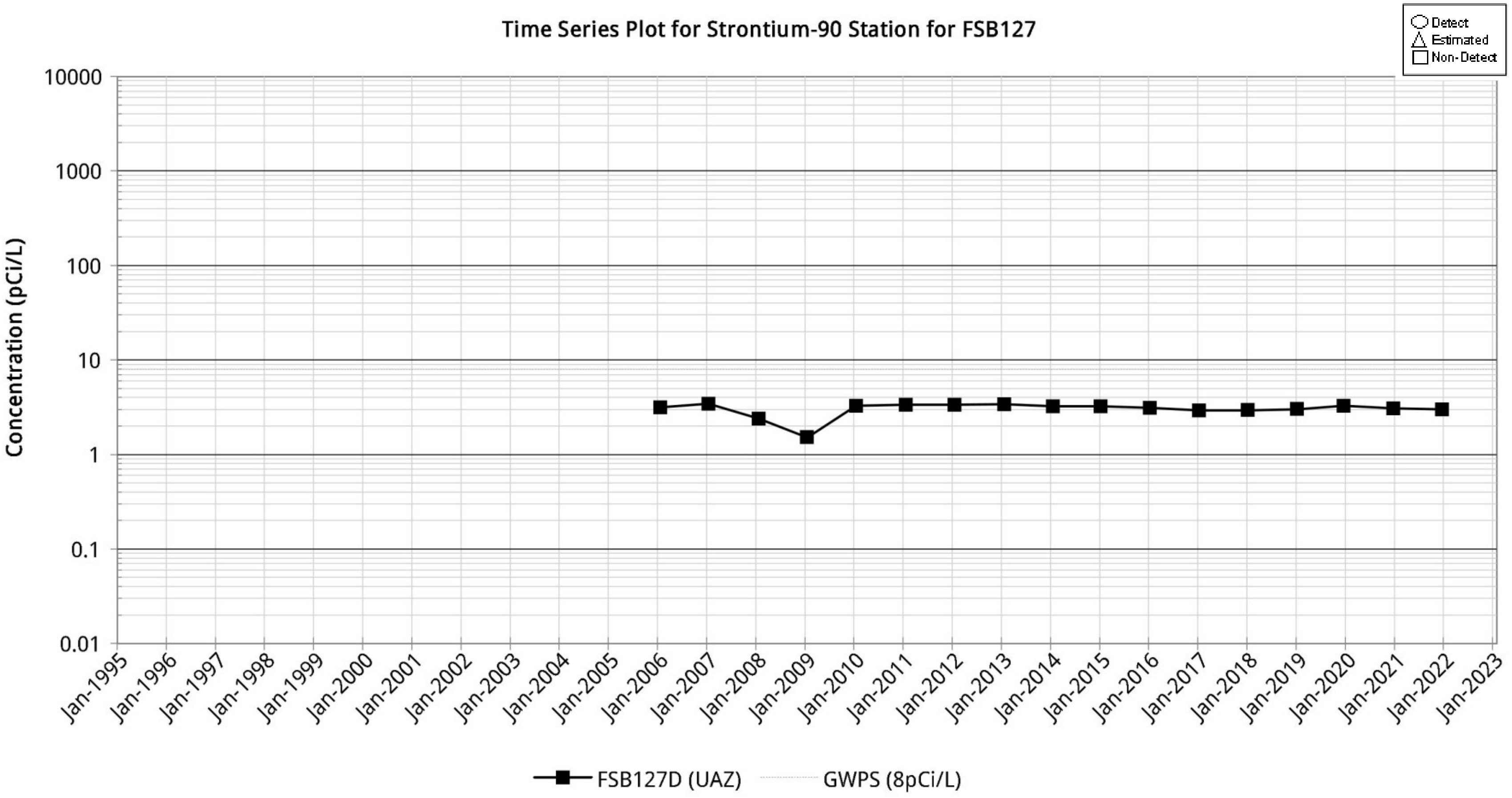
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB125DR (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for FSB127
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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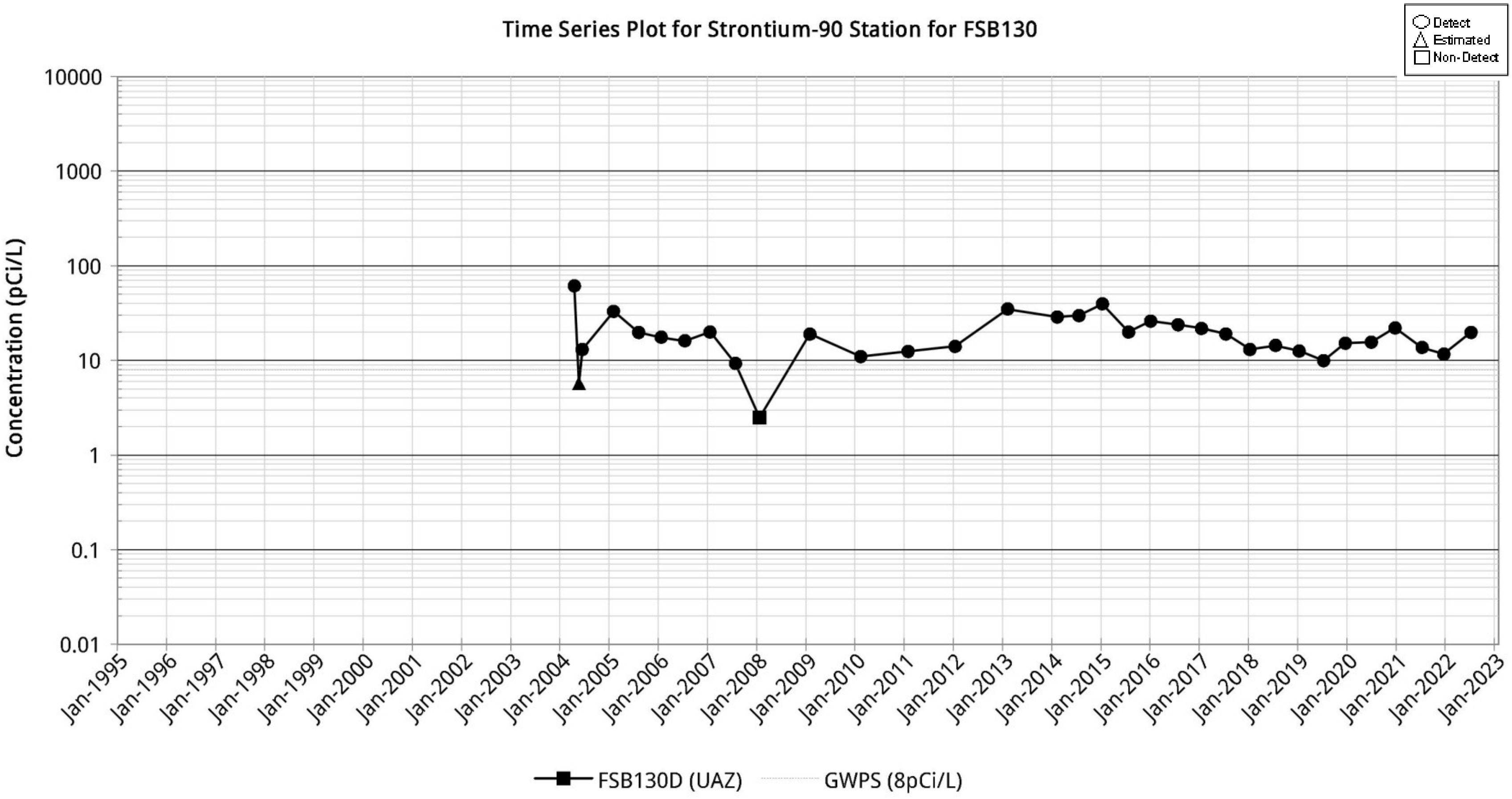
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB127D (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for FSB130
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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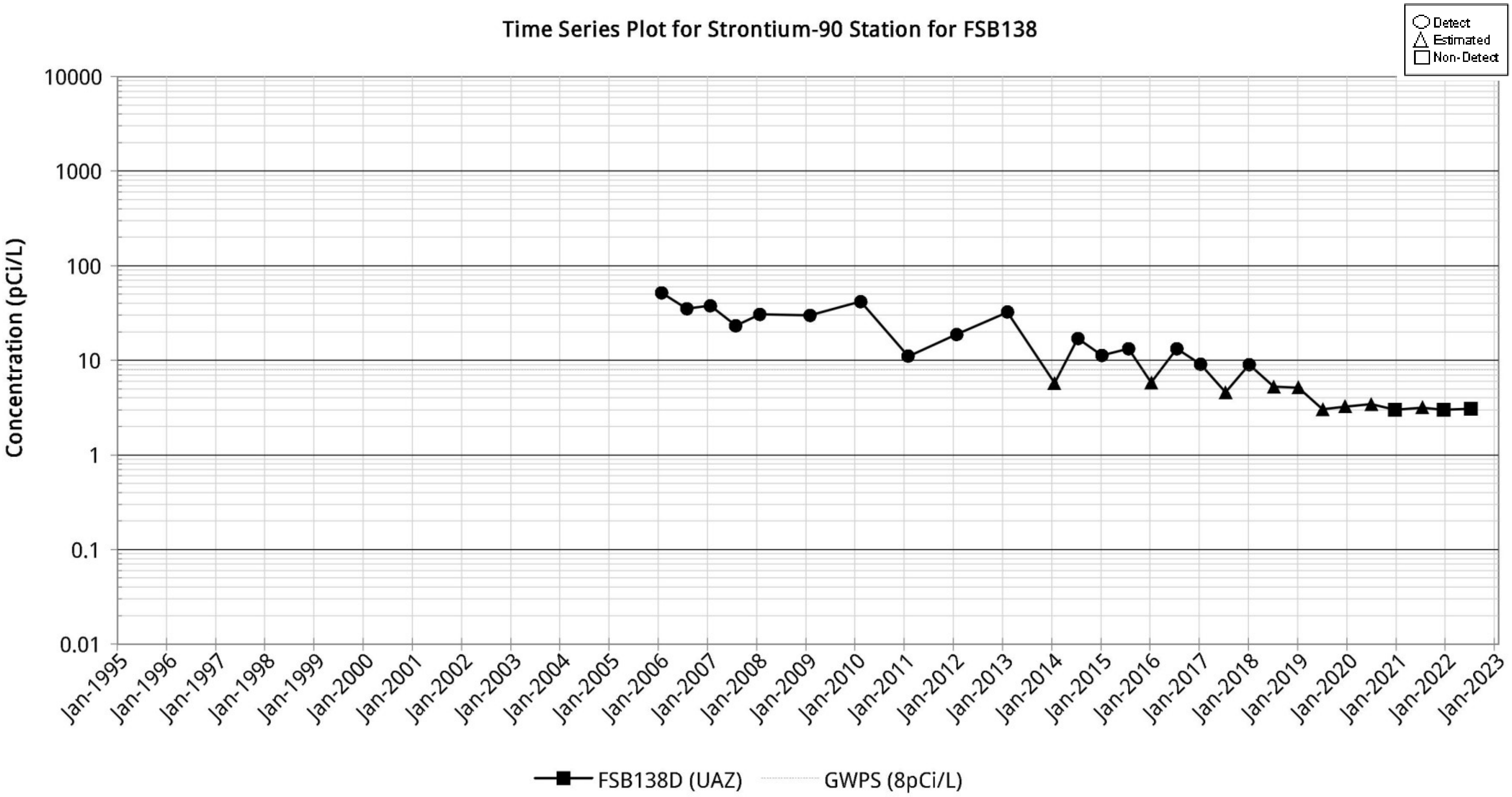
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB130D (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for FSB138
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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Jan-1999
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Jan-2005
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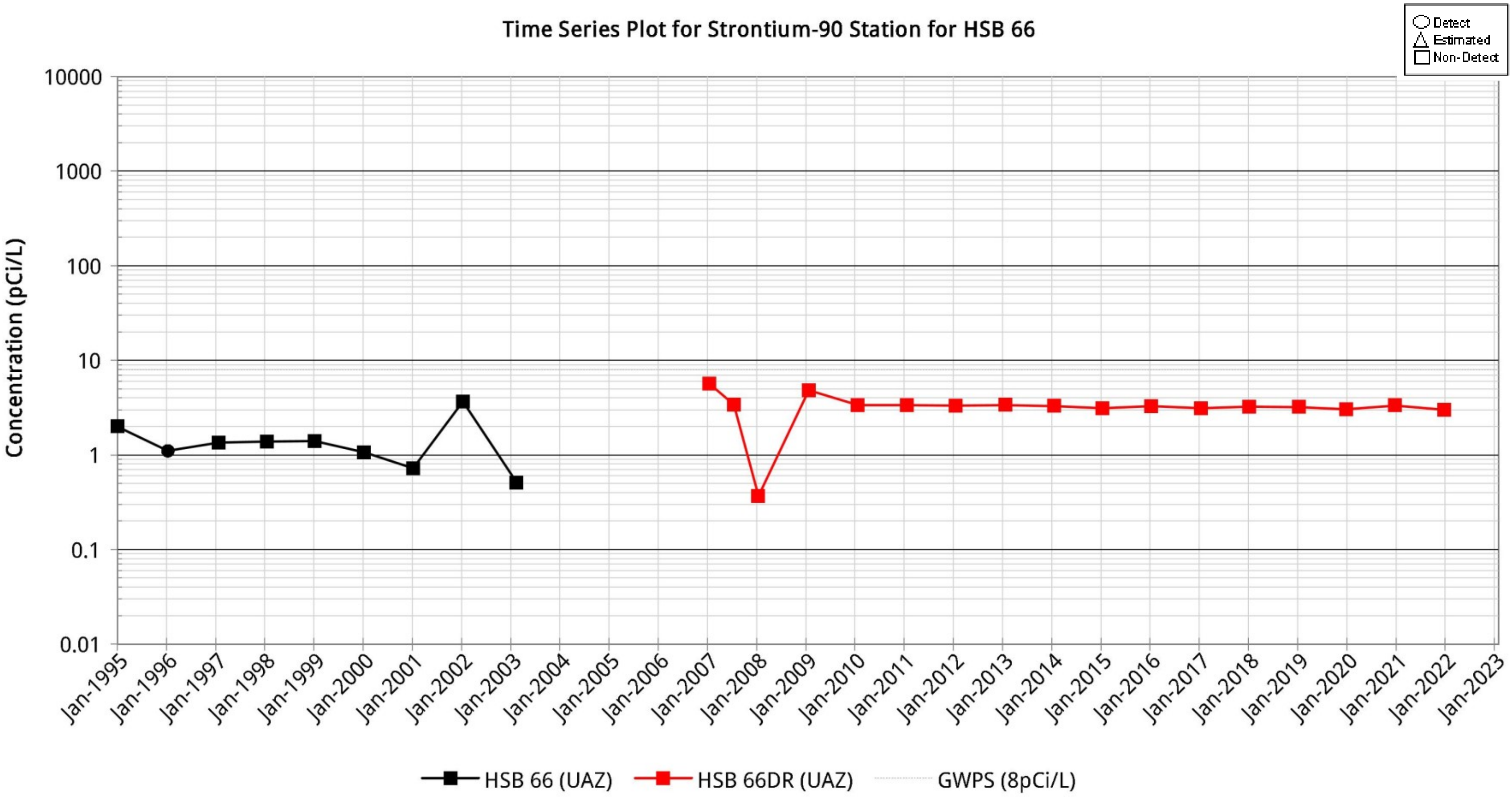
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB138D (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for HSB 66
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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Jan-1999
Jan-2000
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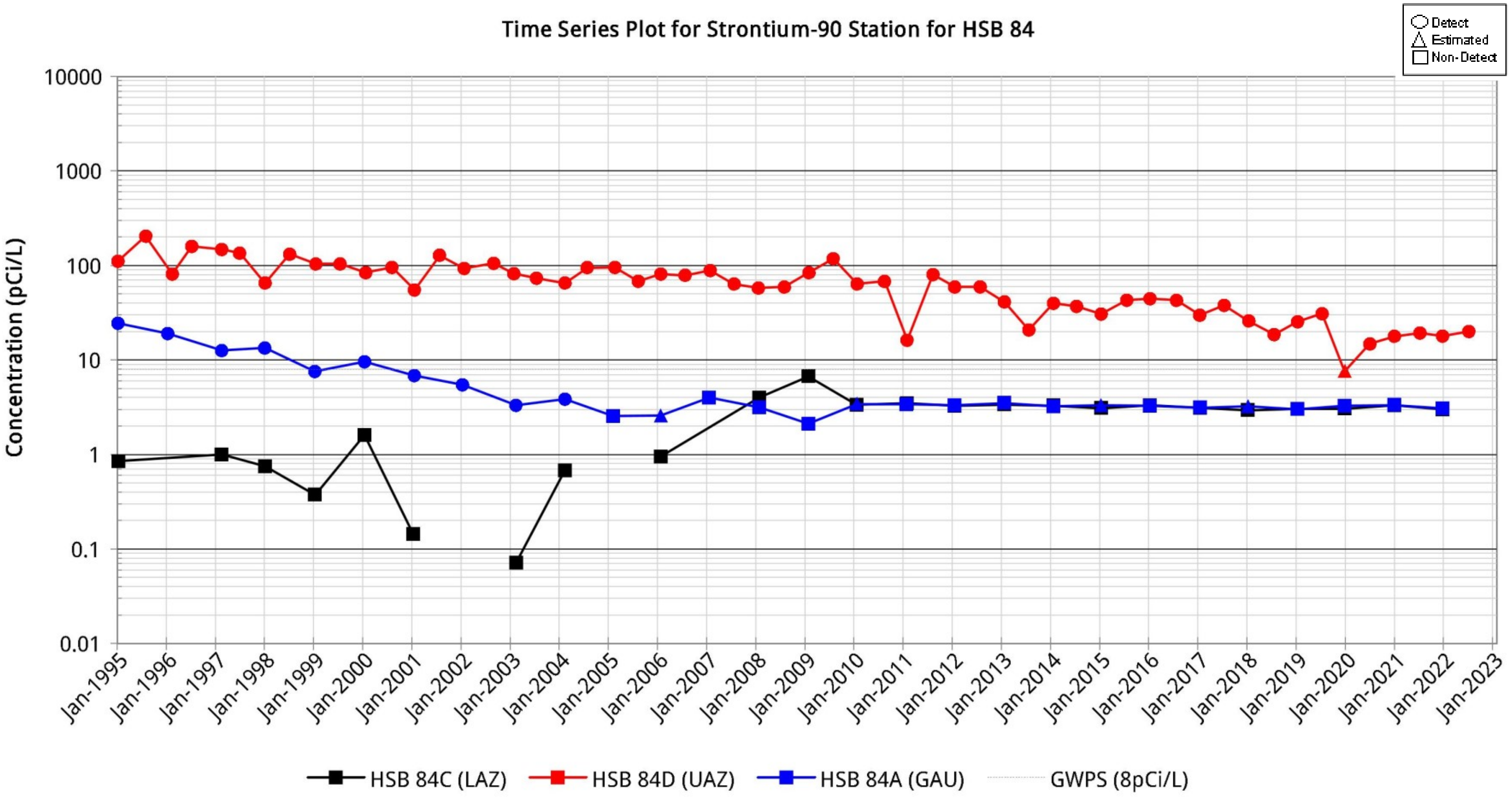
Jan-2021
Jan-2022
Jan-2023
HSB 66 (UAZ)
HSB 66DR (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for HSB 84
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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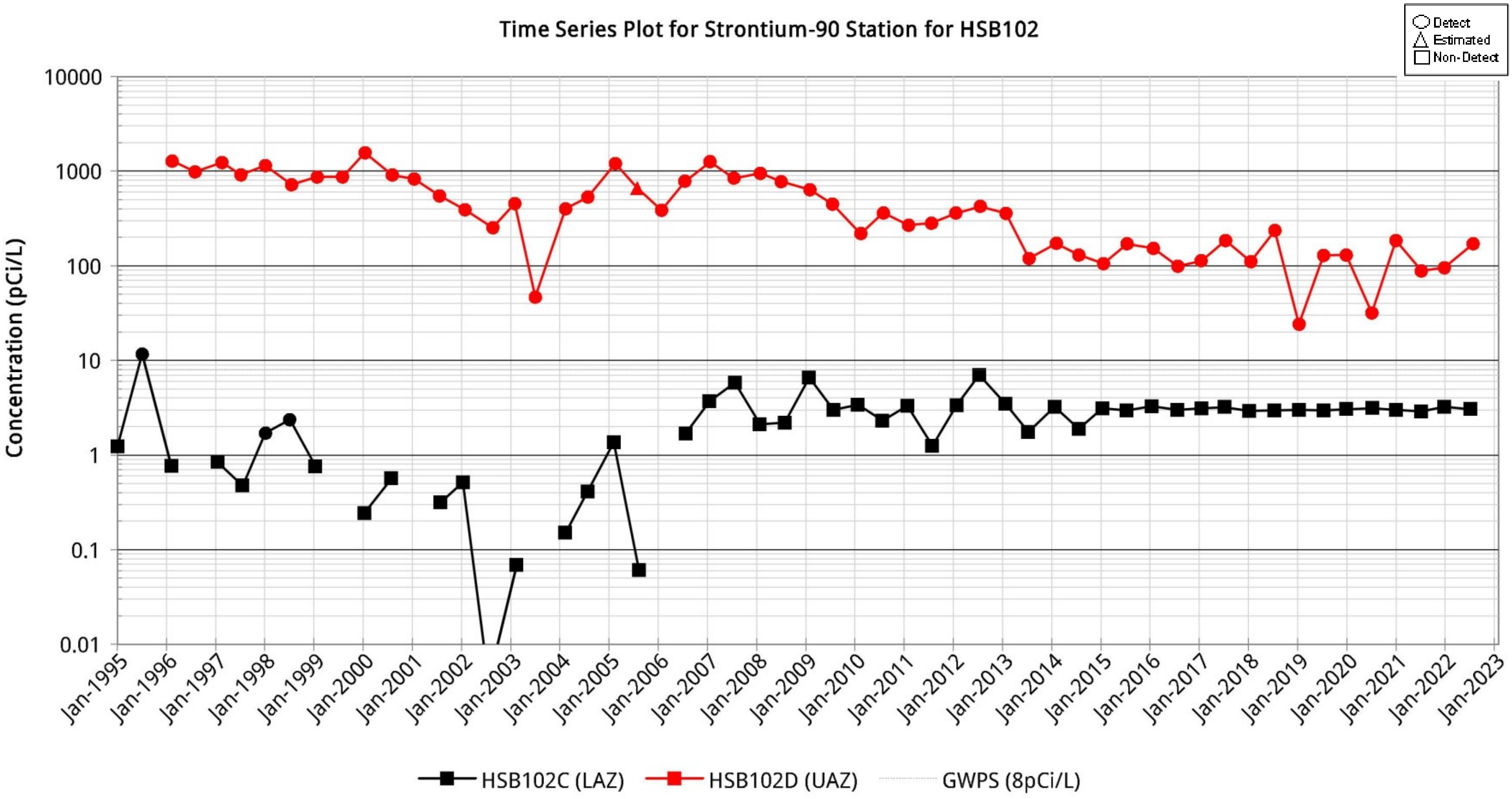
Jan-2023
HSB 84C (LAZ)
HSB 84D (UAZ)
HSB 84A (GAU)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for HSB102
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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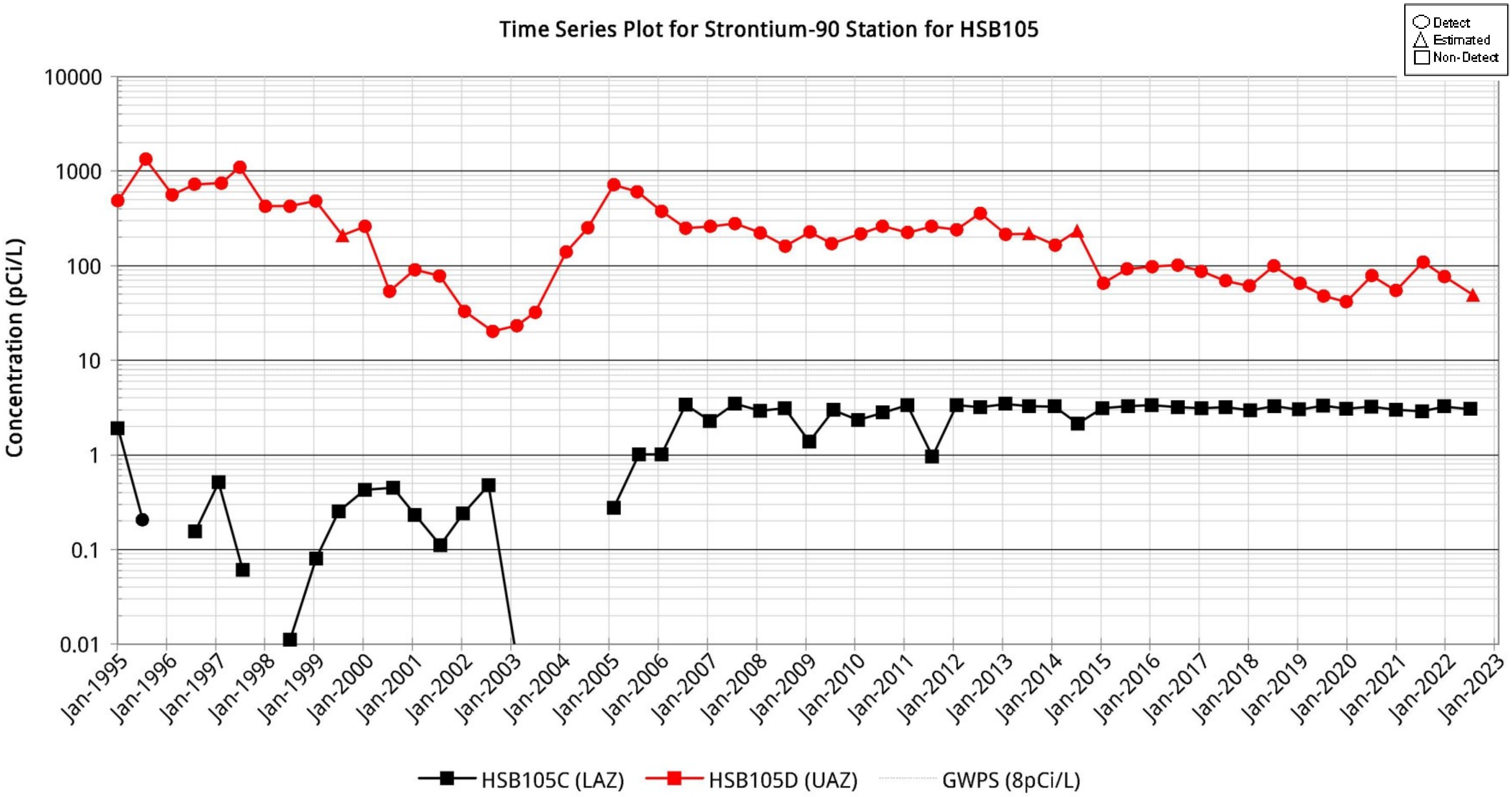
Jan-2021
Jan-2022
Jan-2023
HSB102C (LAZ)
HSB102D (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for HSB105
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
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Jan-1997
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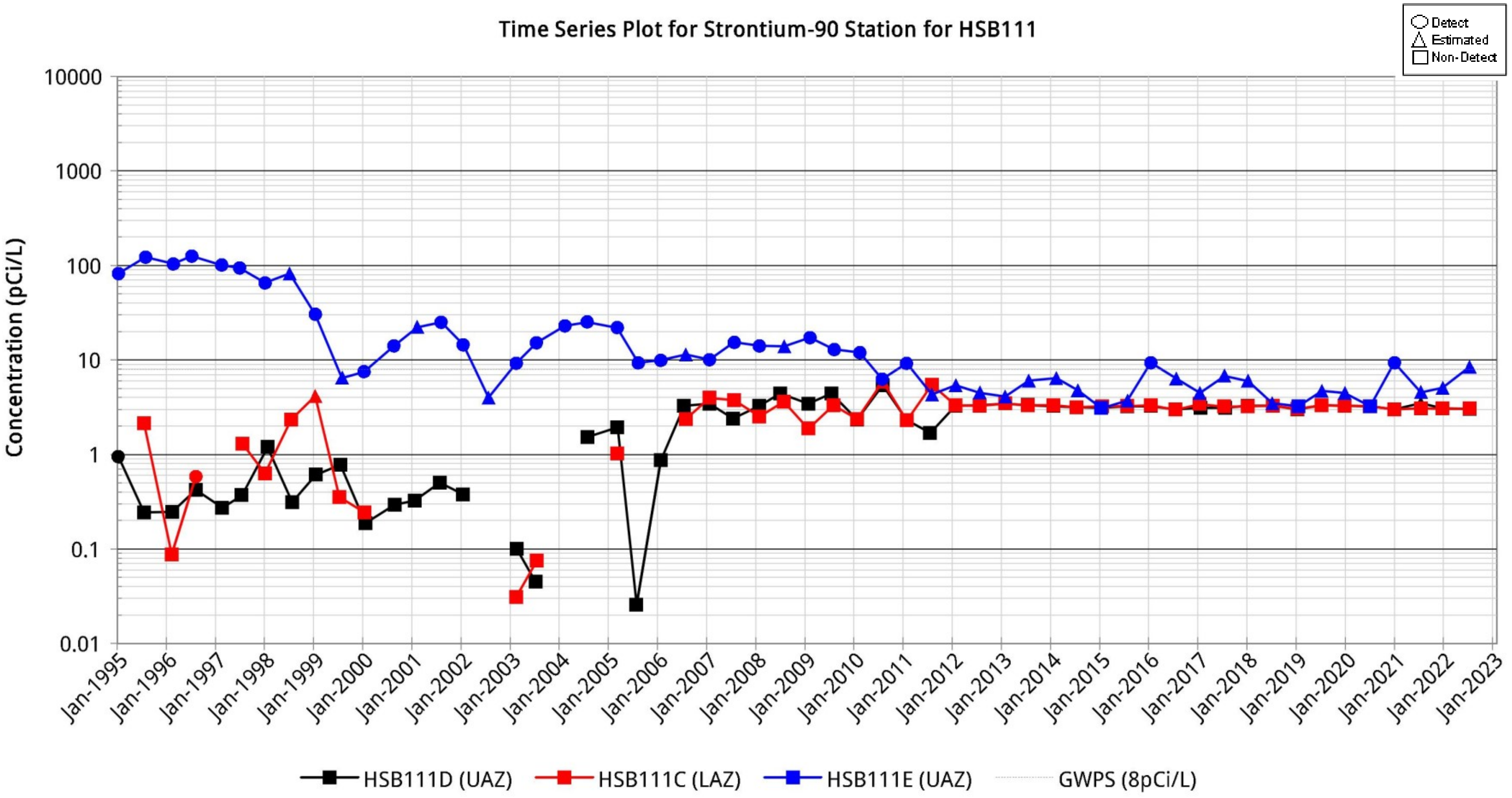
Jan-2021
Jan-2022
Jan-2023
HSB105C (LAZ)
HSB105D (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for HSB111
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
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100
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1
0.1
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Jan-1995
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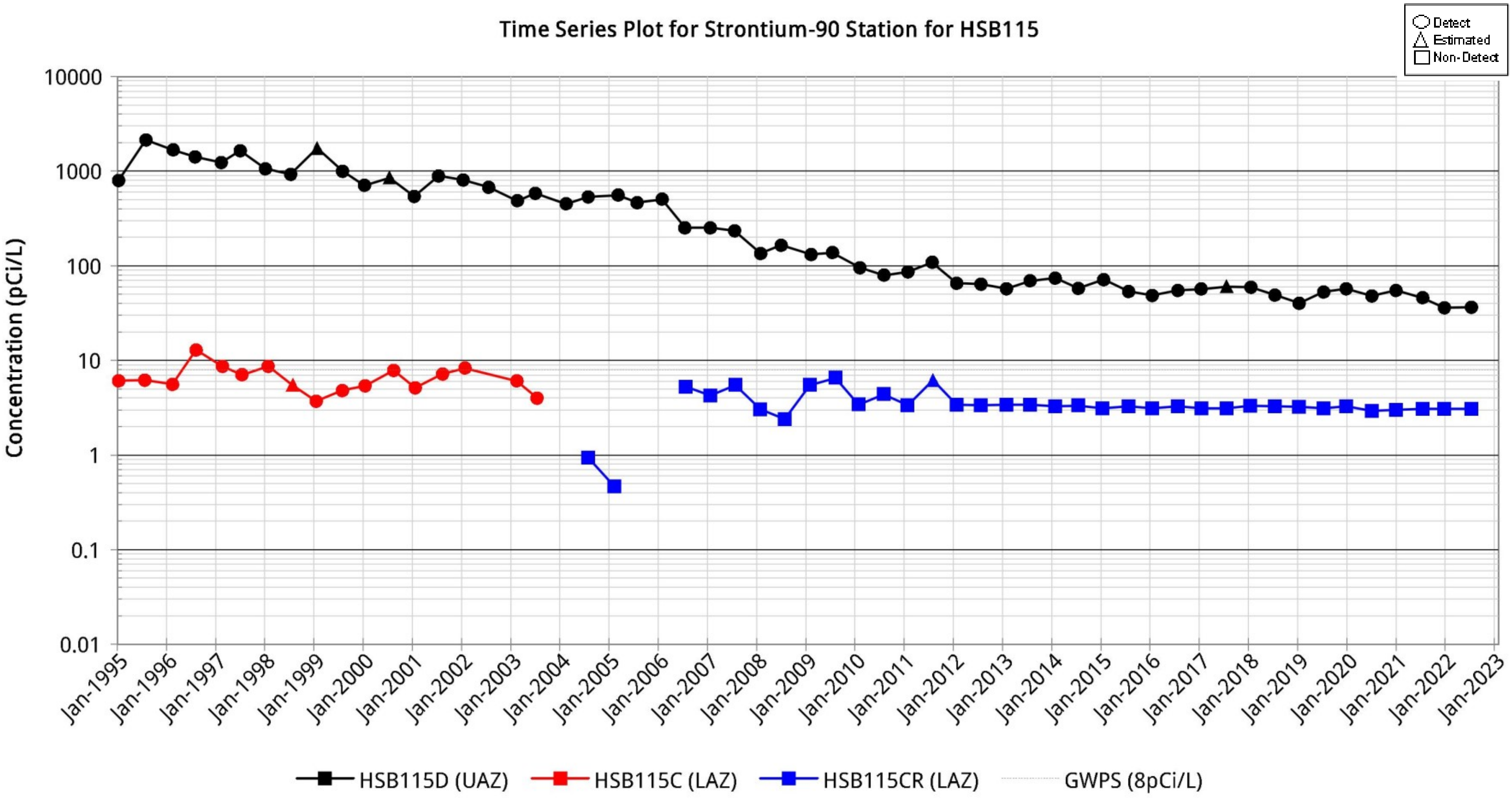
Jan-2022
Jan-2023
HSB111D (UAZ)
HSB111C (LAZ)
HSB111E (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for HSB115
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
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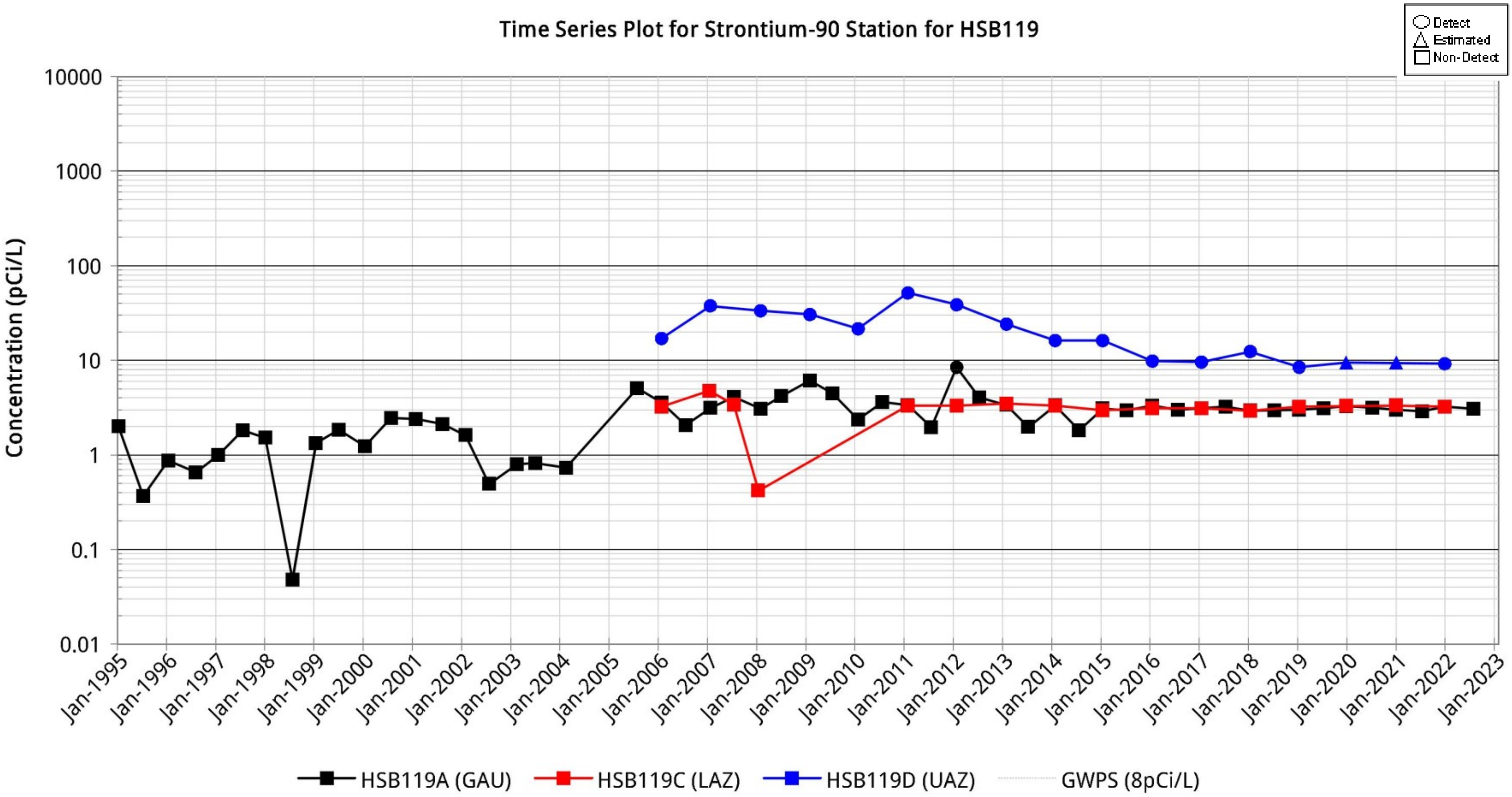
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB115D (UAZ)
HSB115C (LAZ)
HSB115CR (LAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for HSB119
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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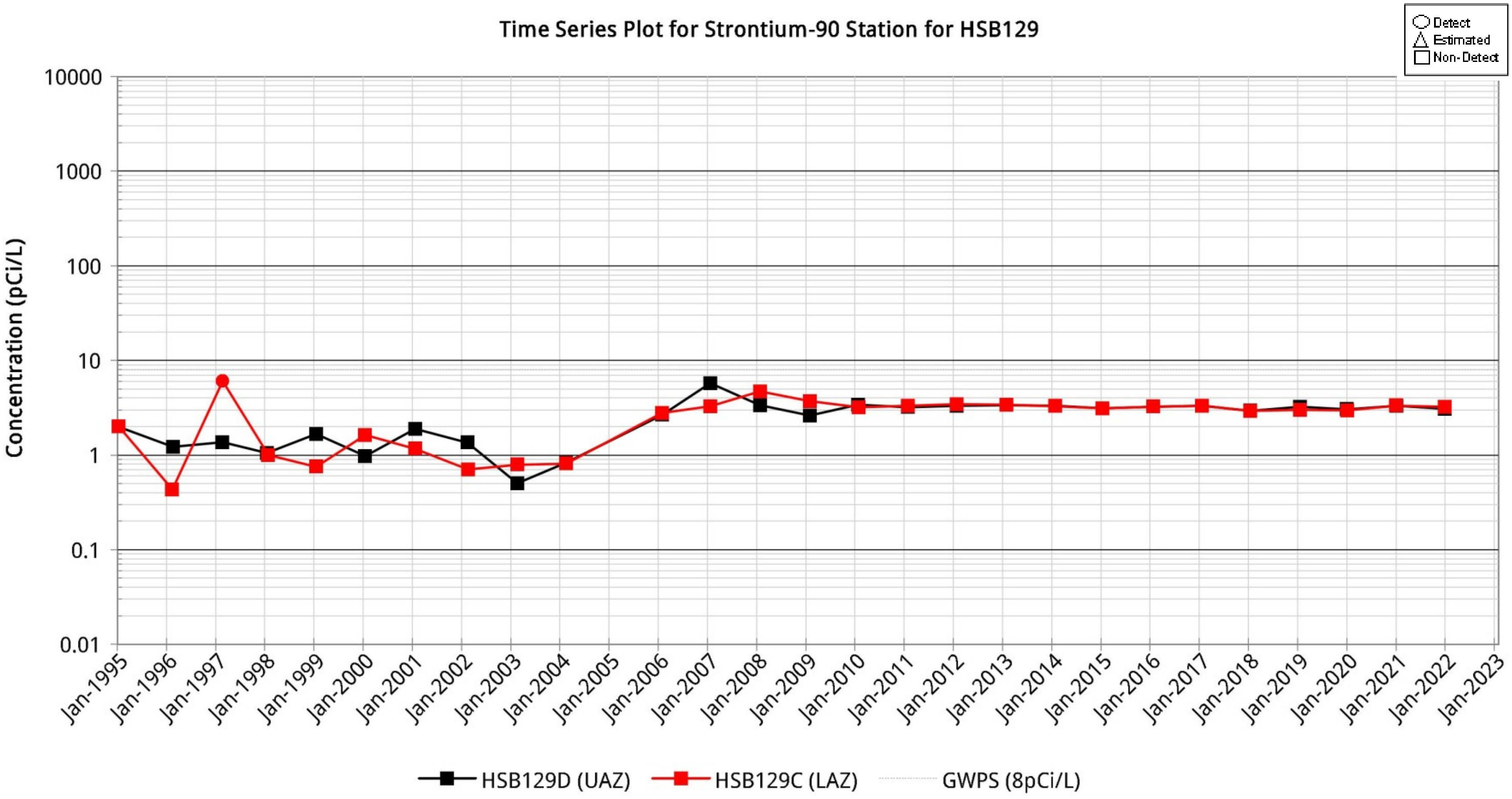
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB119A (GAU)
HSB119C (LAZ)
HSB119D (UAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for HSB129
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
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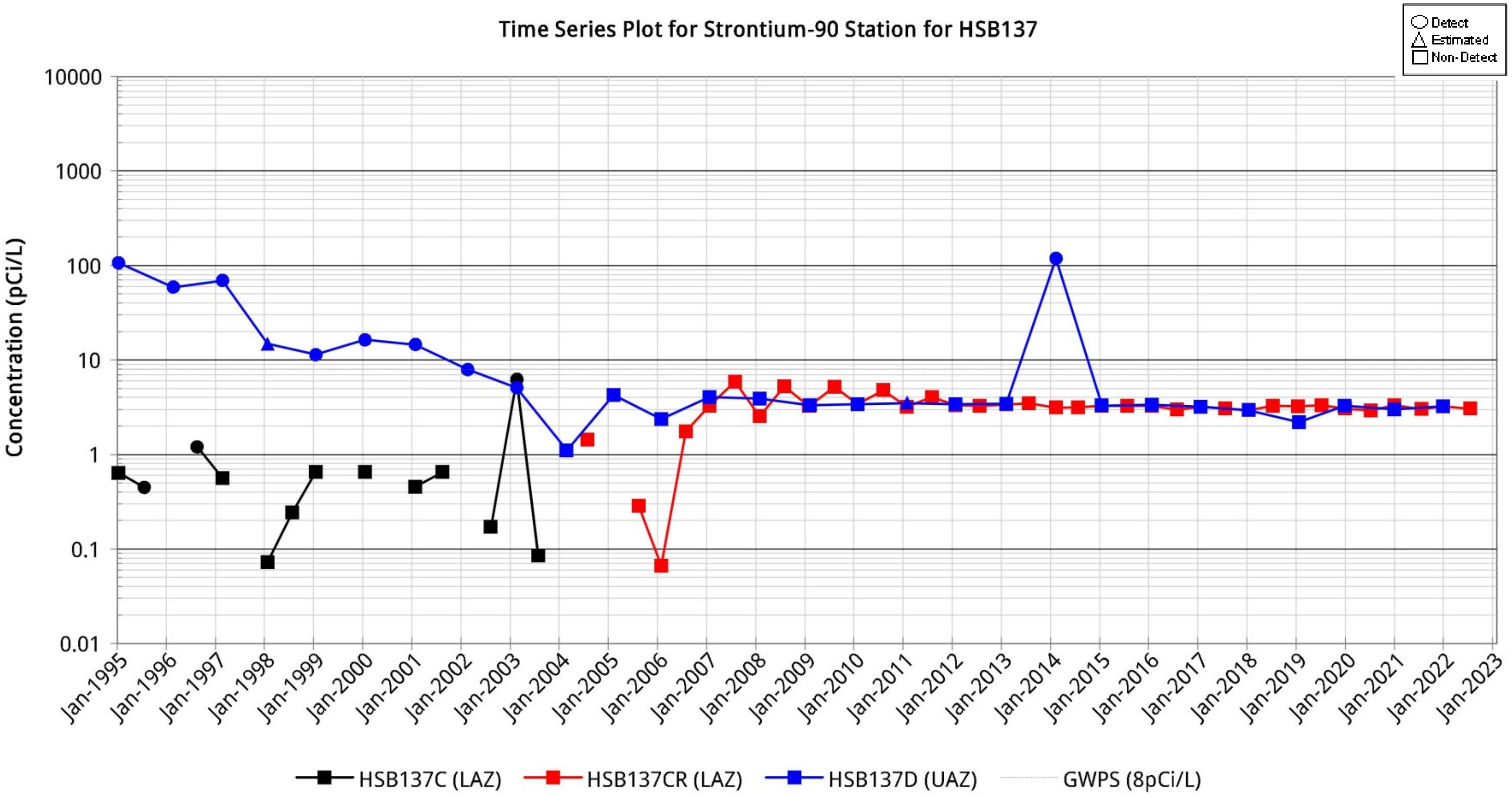
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB129D (UAZ)
HSB129C (LAZ)
GWPS (8pCi/L)


Time Series Plot for Strontium-90 Station for HSB137
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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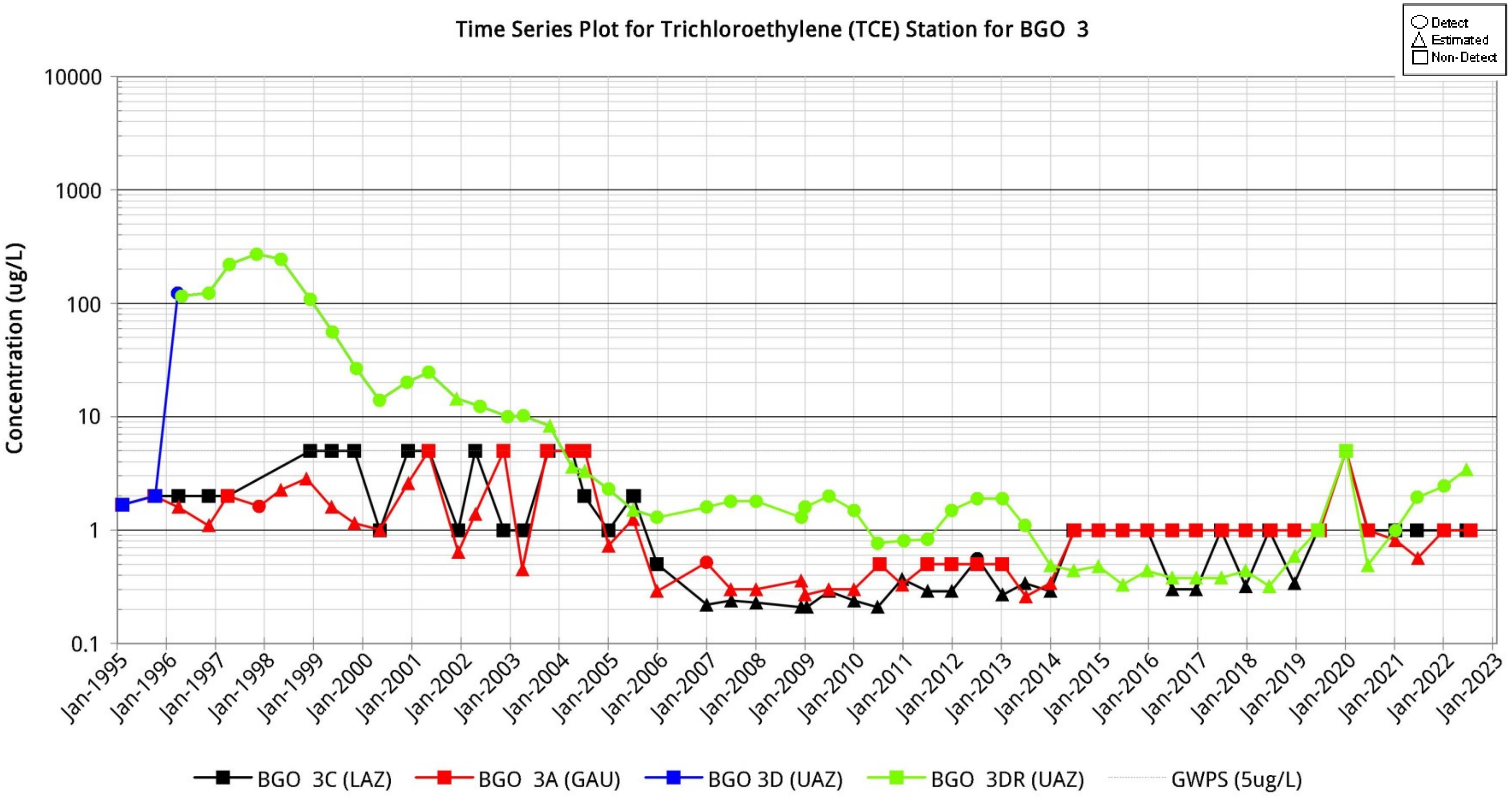
Jan-2021
Jan-2022
Jan-2023
HSB137C (LAZ)
HSB137CR (LAZ)
HSB137D (UAZ)
GWPS (8pCi/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGO 3
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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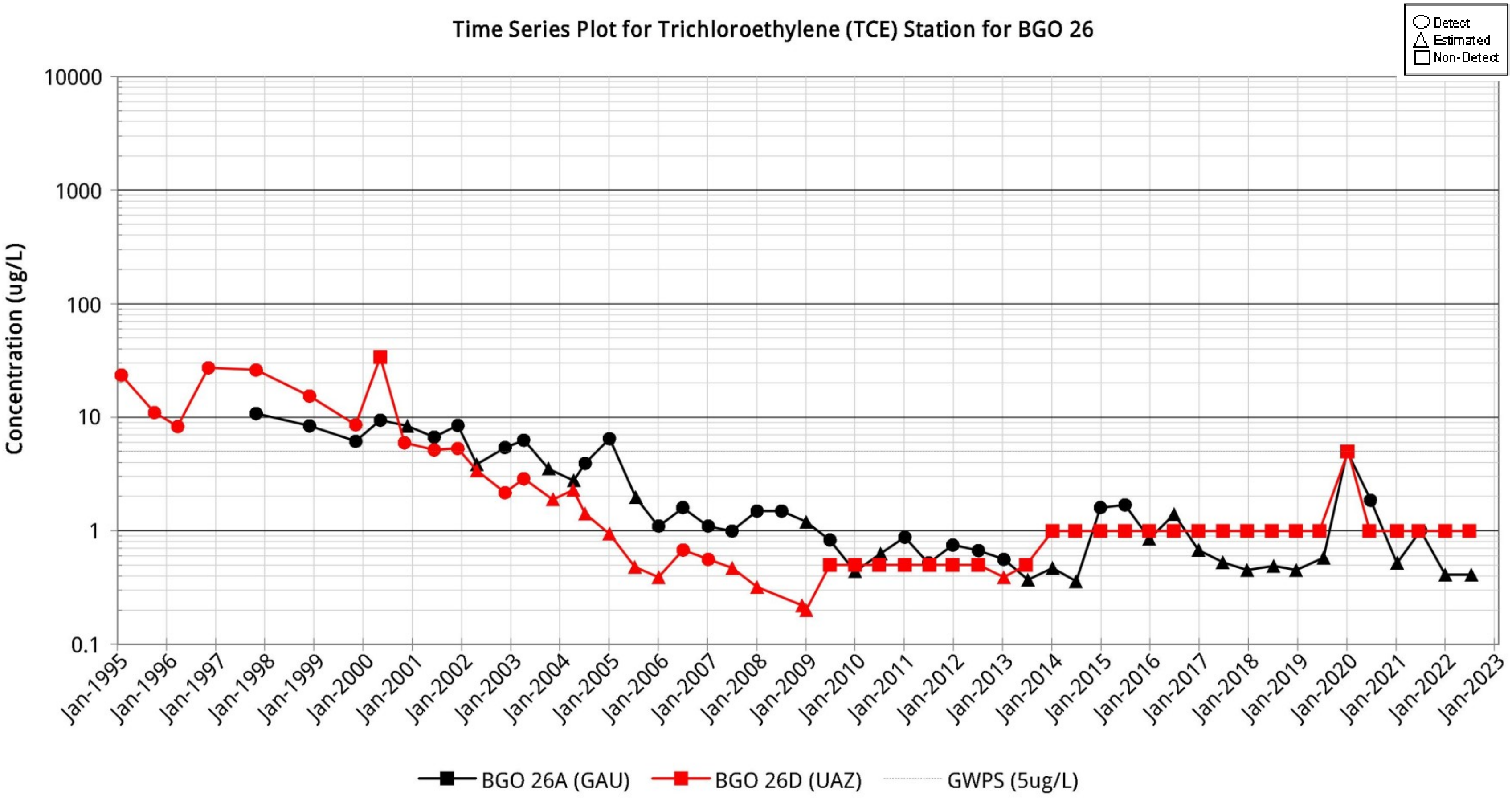
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGO 3C (LAZ)
BGO 3A (GAU)
BGO 3D (UAZ)
BGO 3DR (UAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGO 26
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
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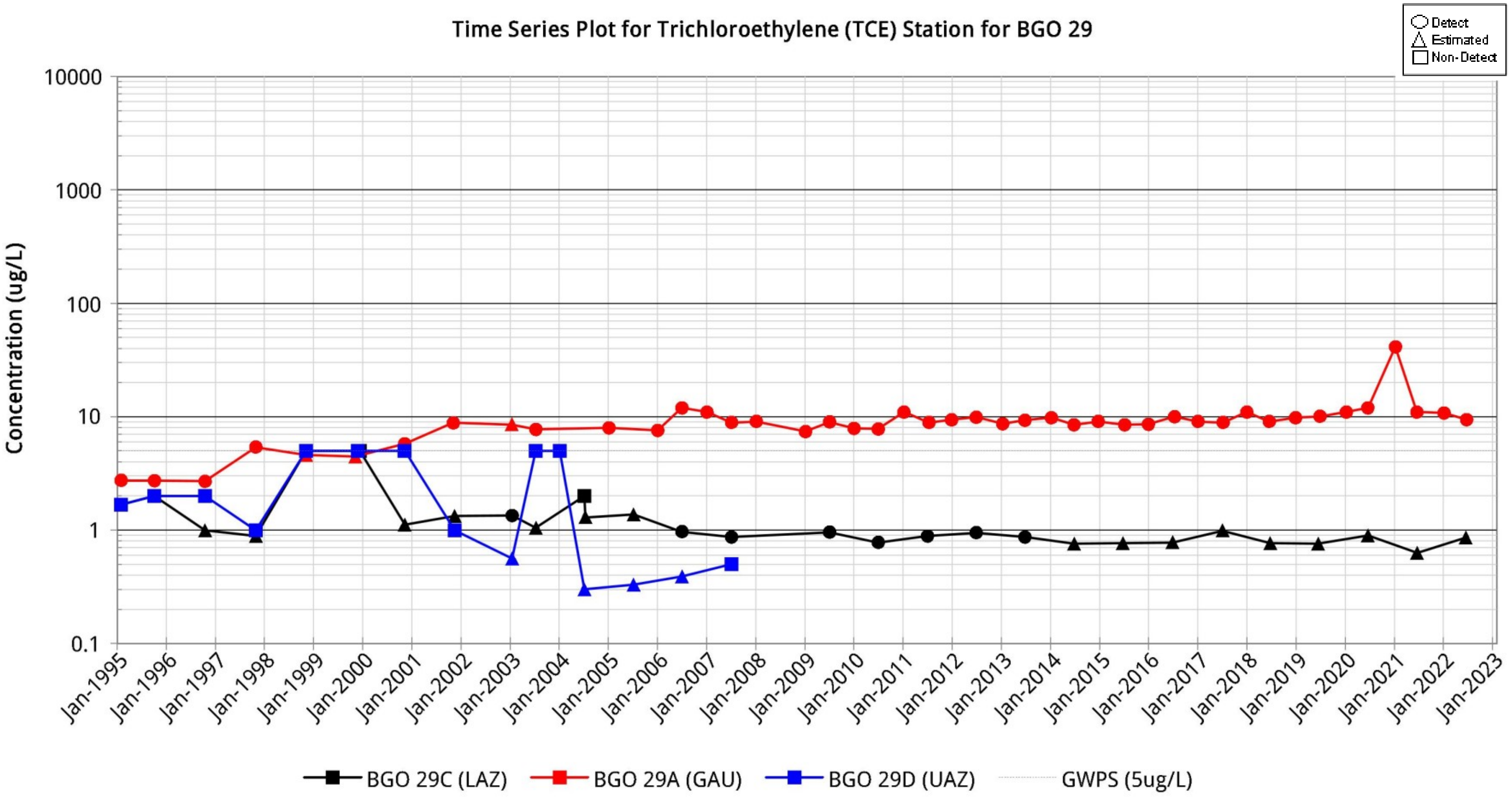
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGO 26A (GAU)
BGO 26D (UAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGO 29
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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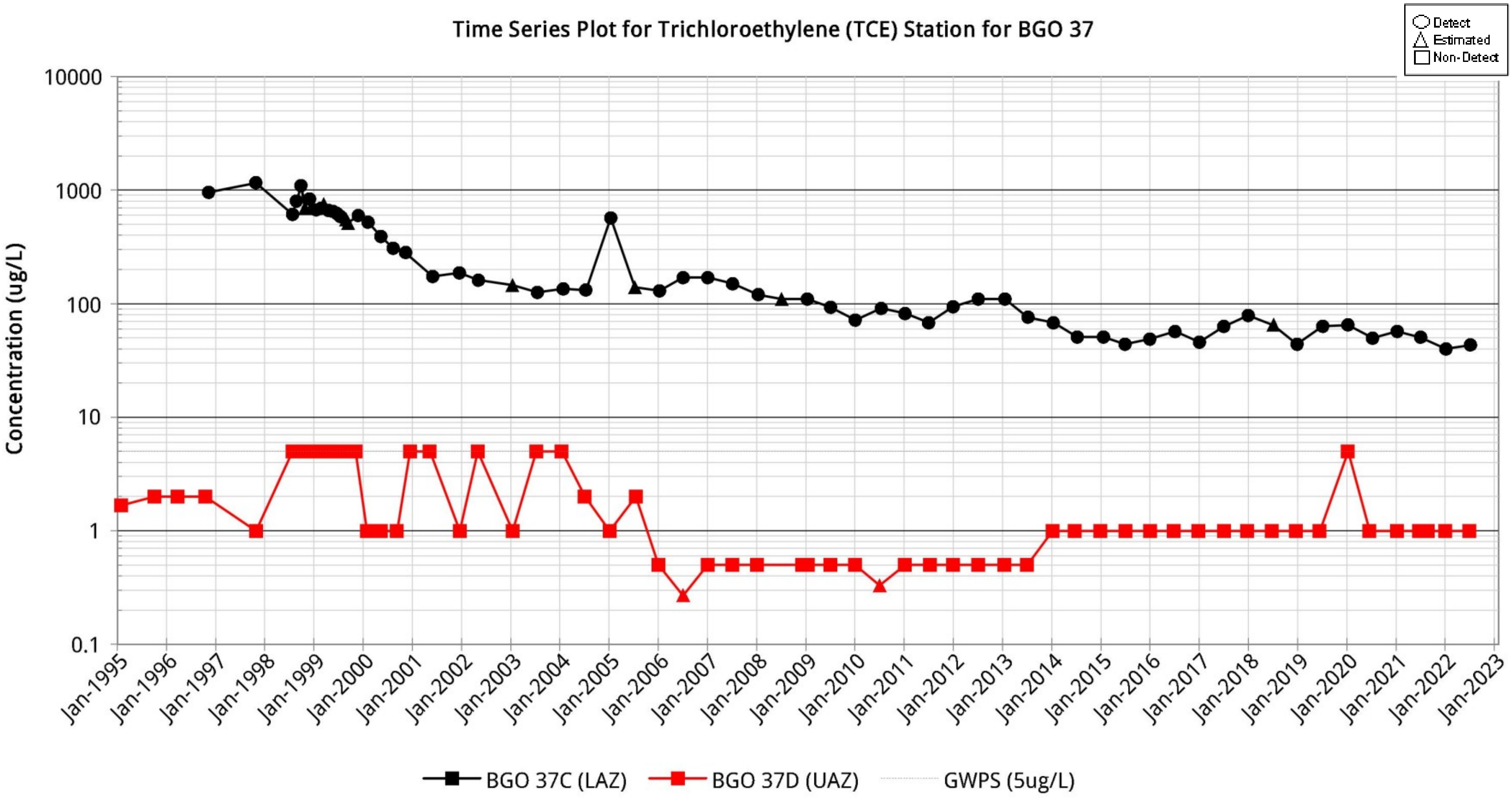
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGO 29C (LAZ)
BGO 29A (GAU)
BGO 29D (UAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGO 37
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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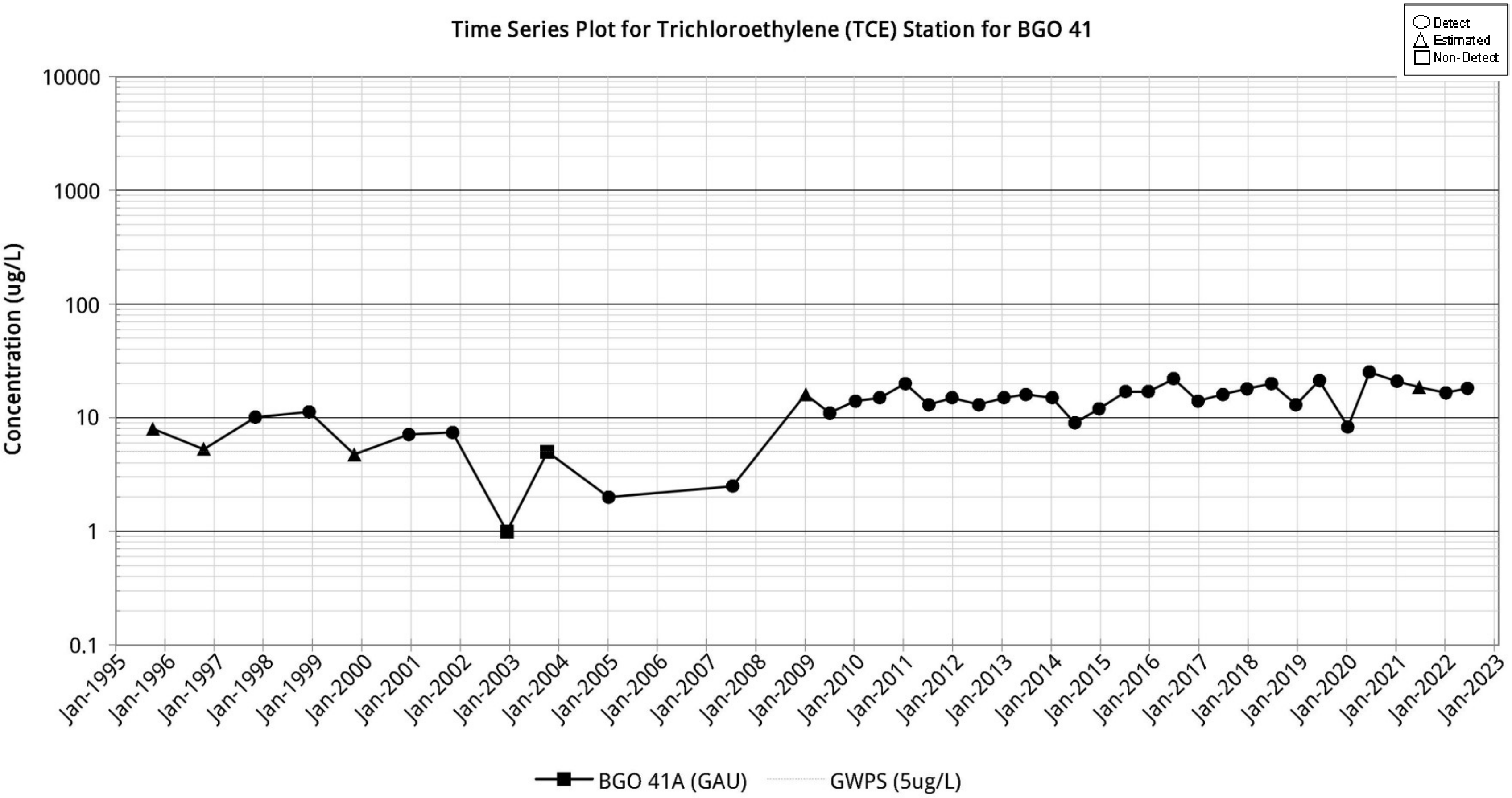
Jan-2021
Jan-2022
Jan-2023
BGO 37C (LAZ)
BGO 37D (UAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGO 41
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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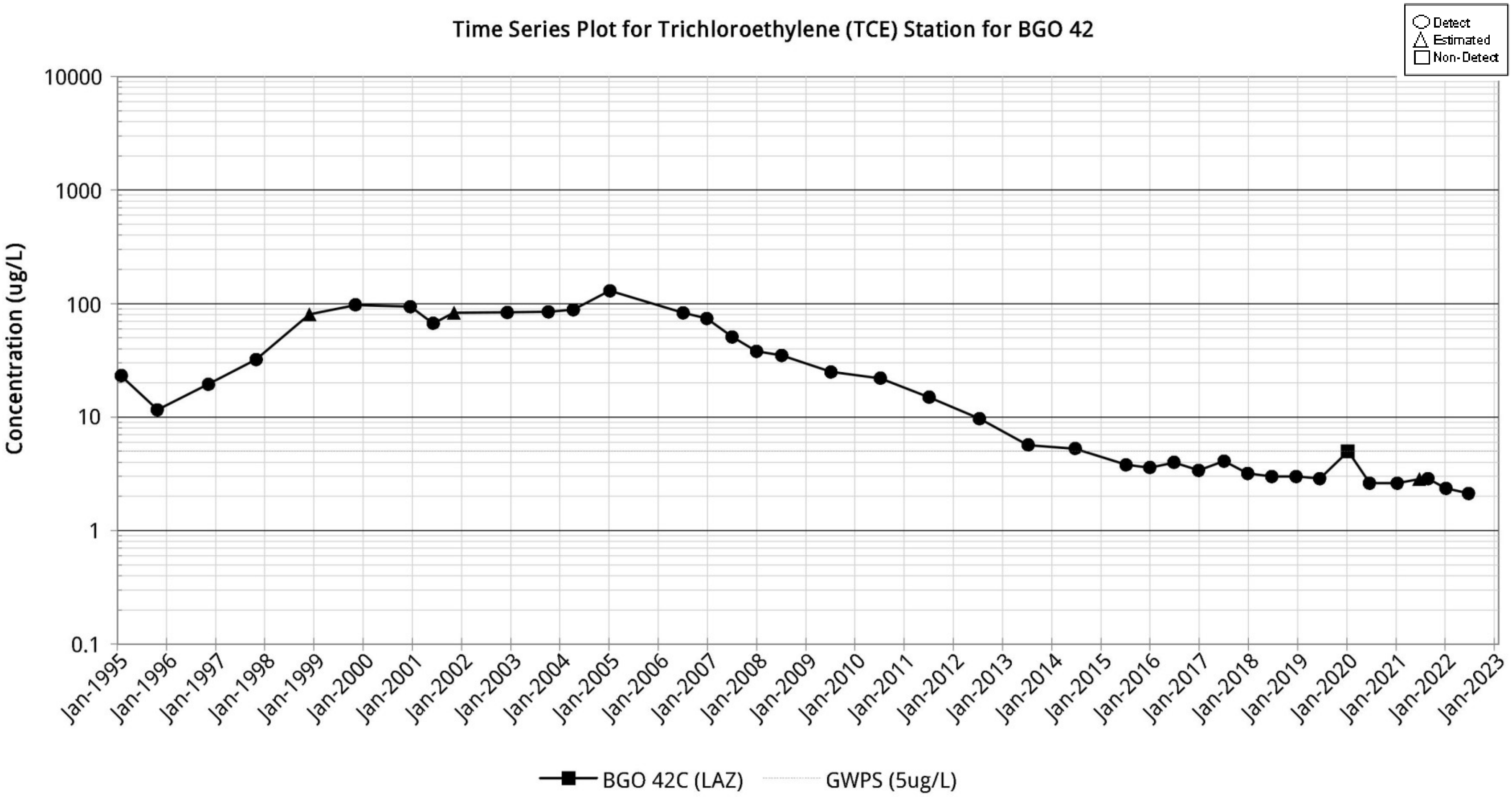
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGO 41A (GAU)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGO 42
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
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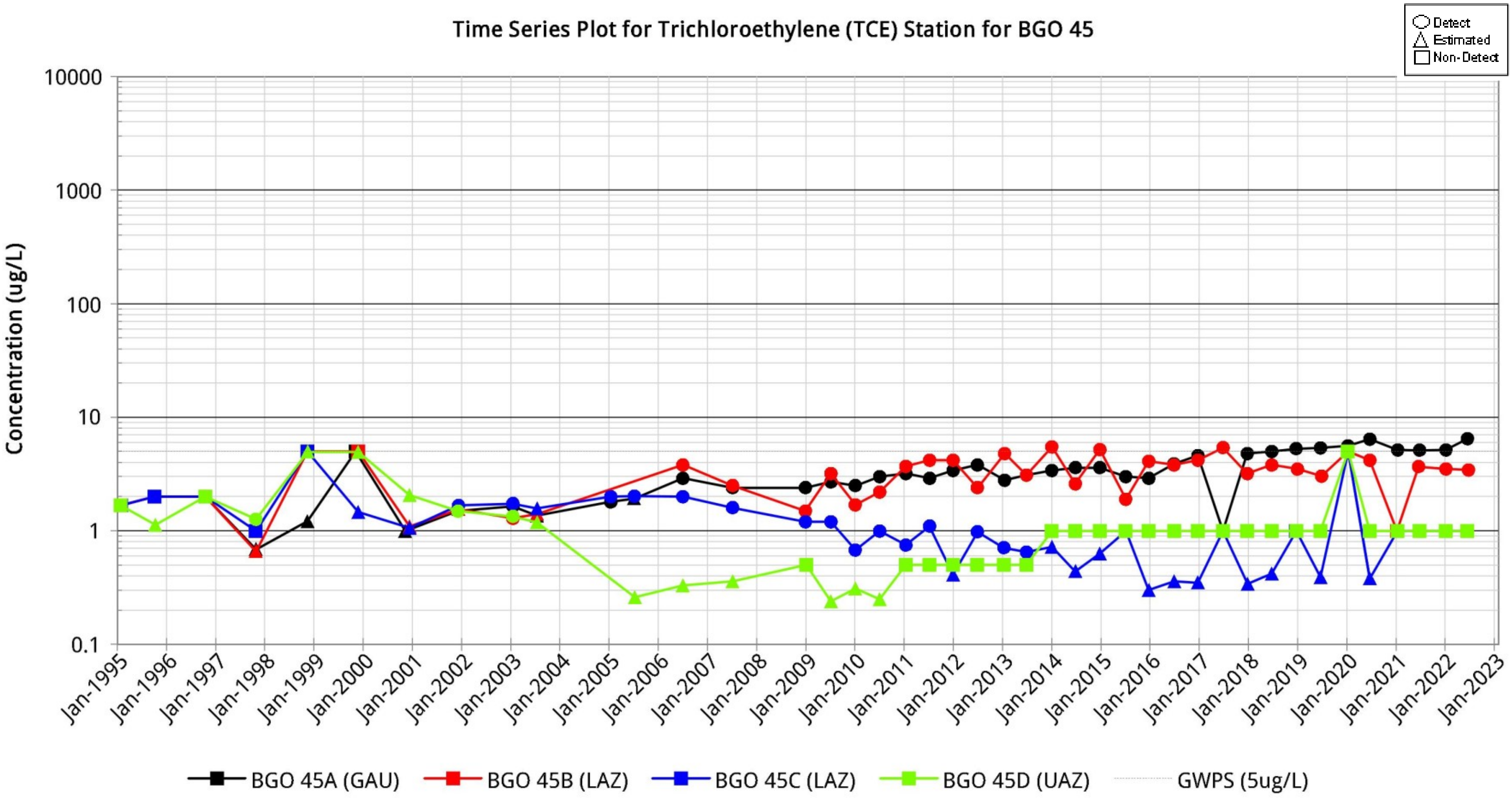
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGO 42C (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGO 45
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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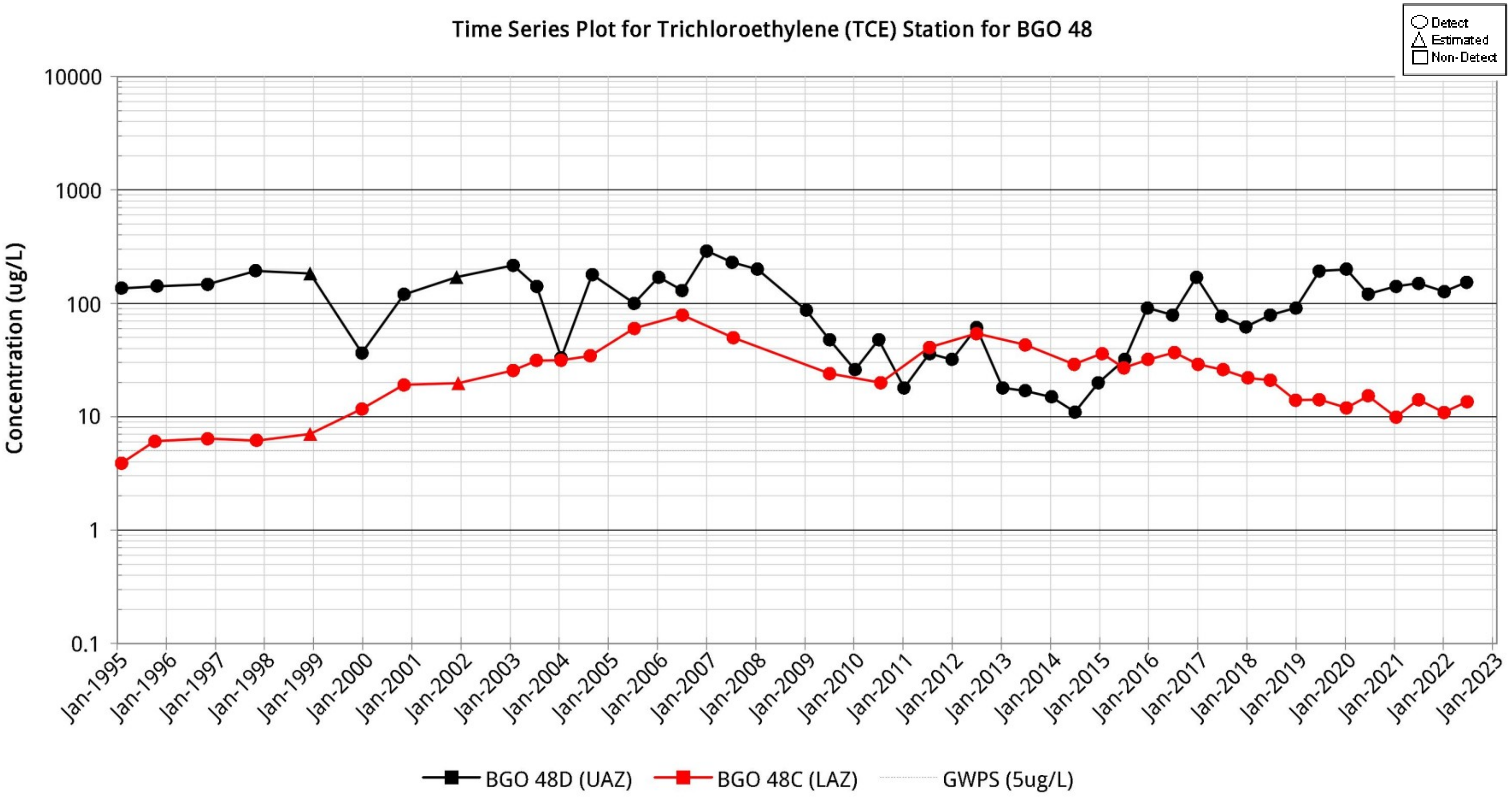
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGO 45A (GAU)
BGO 45B (LAZ)
BGO 45C (LAZ)
BGO 45D (UAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGO 48
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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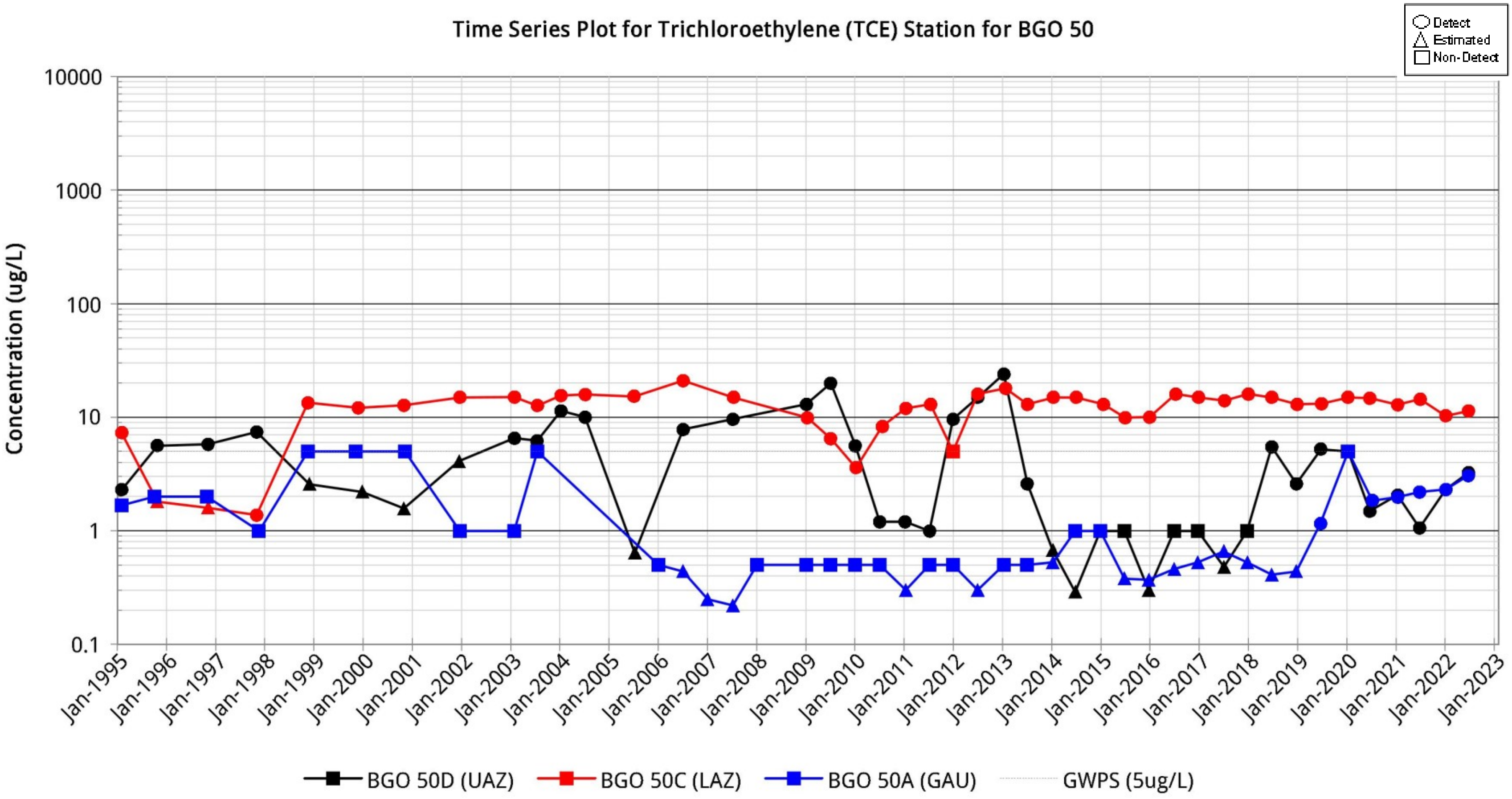
Jan-2022
Jan-2023
BGO 48D (UAZ)
BGO 48C (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGO 50
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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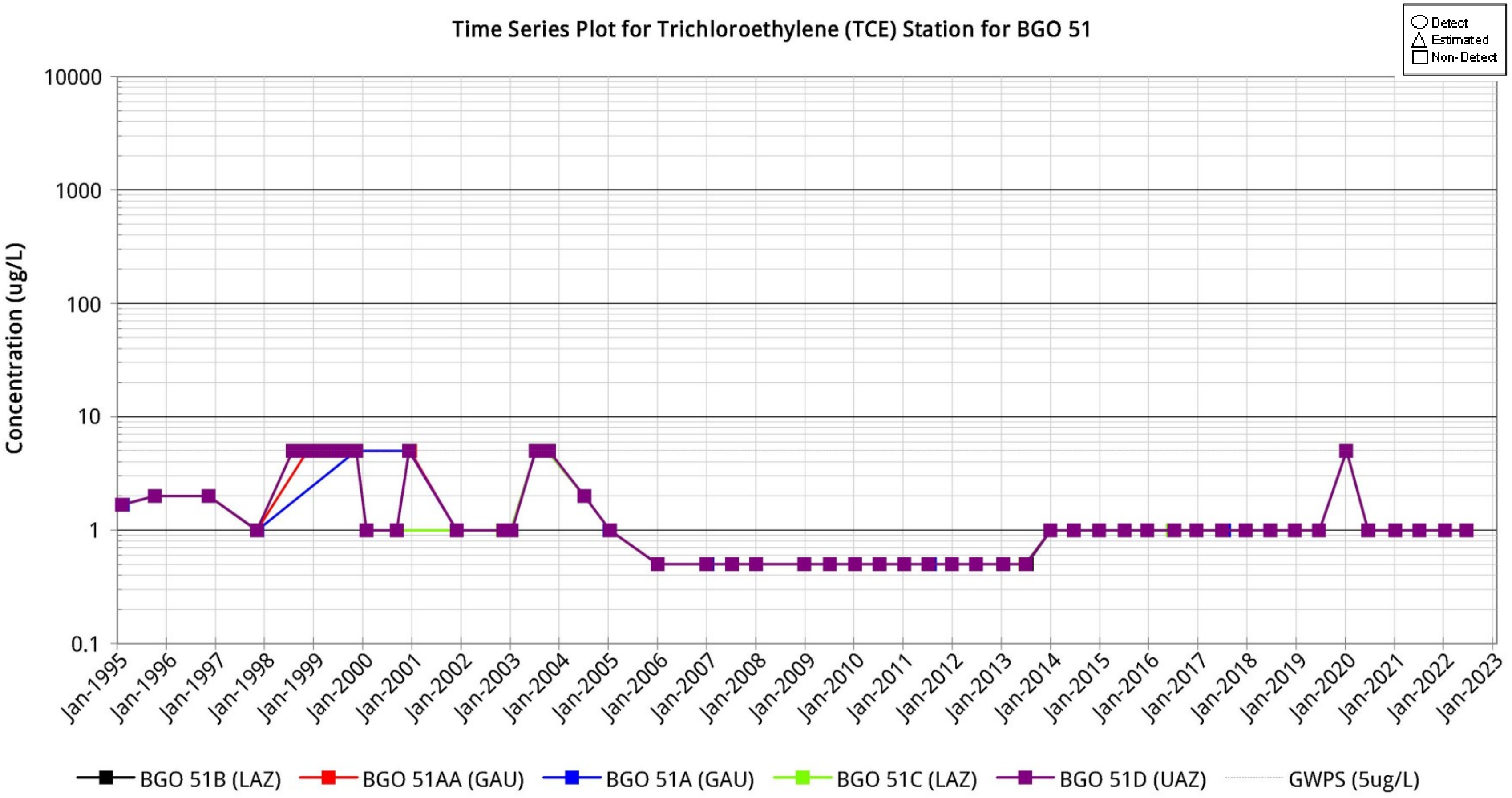
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGO 50D (UAZ)
BGO 50C (LAZ)
BGO 50A (GAU)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGO 51
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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Jan-2007
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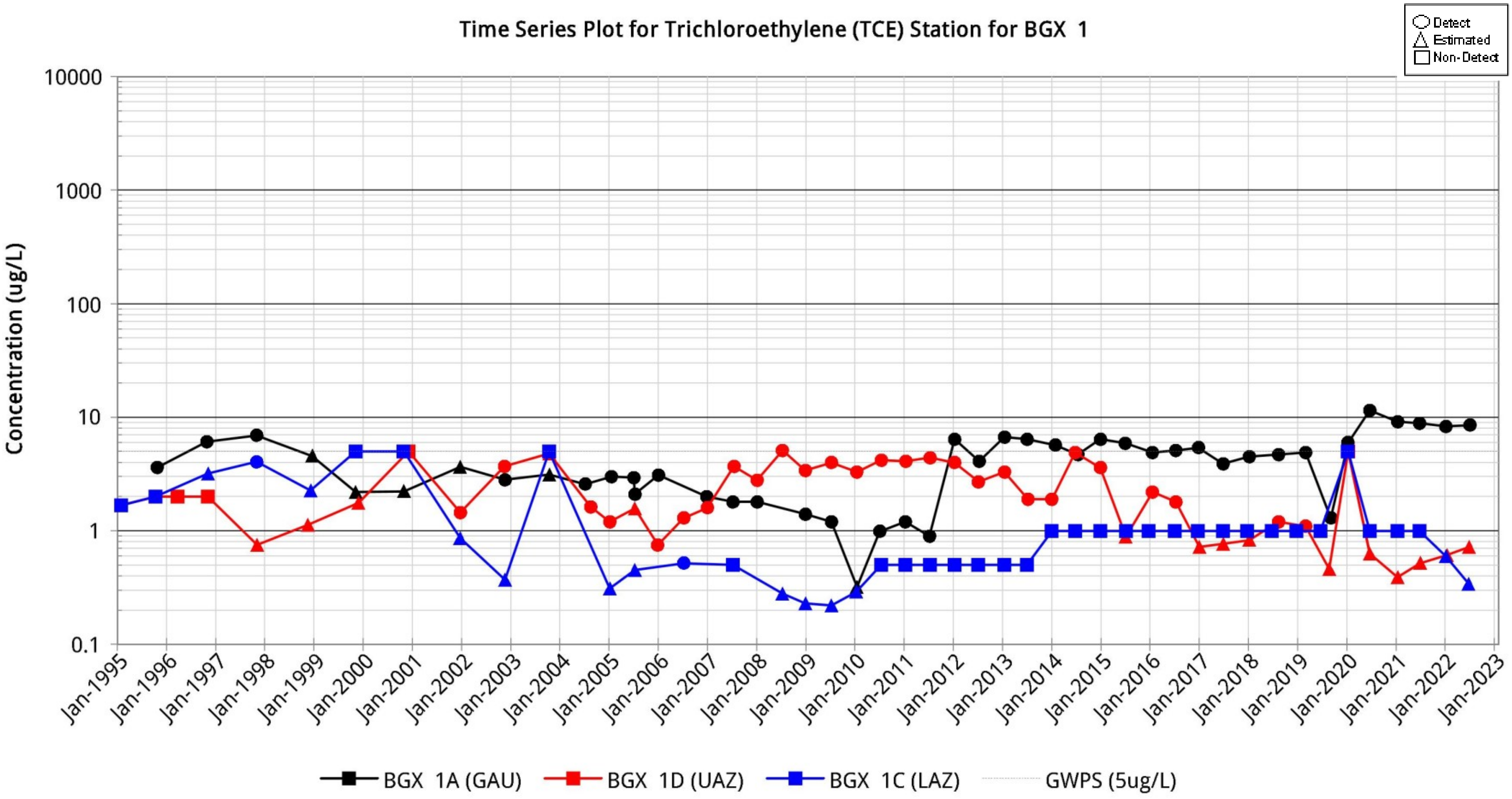
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGO 51B (LAZ)
BGO 51AA (GAU)
BGO 51A (GAU)
BGO 51C (LAZ)
BGO 51D (UAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGX 1
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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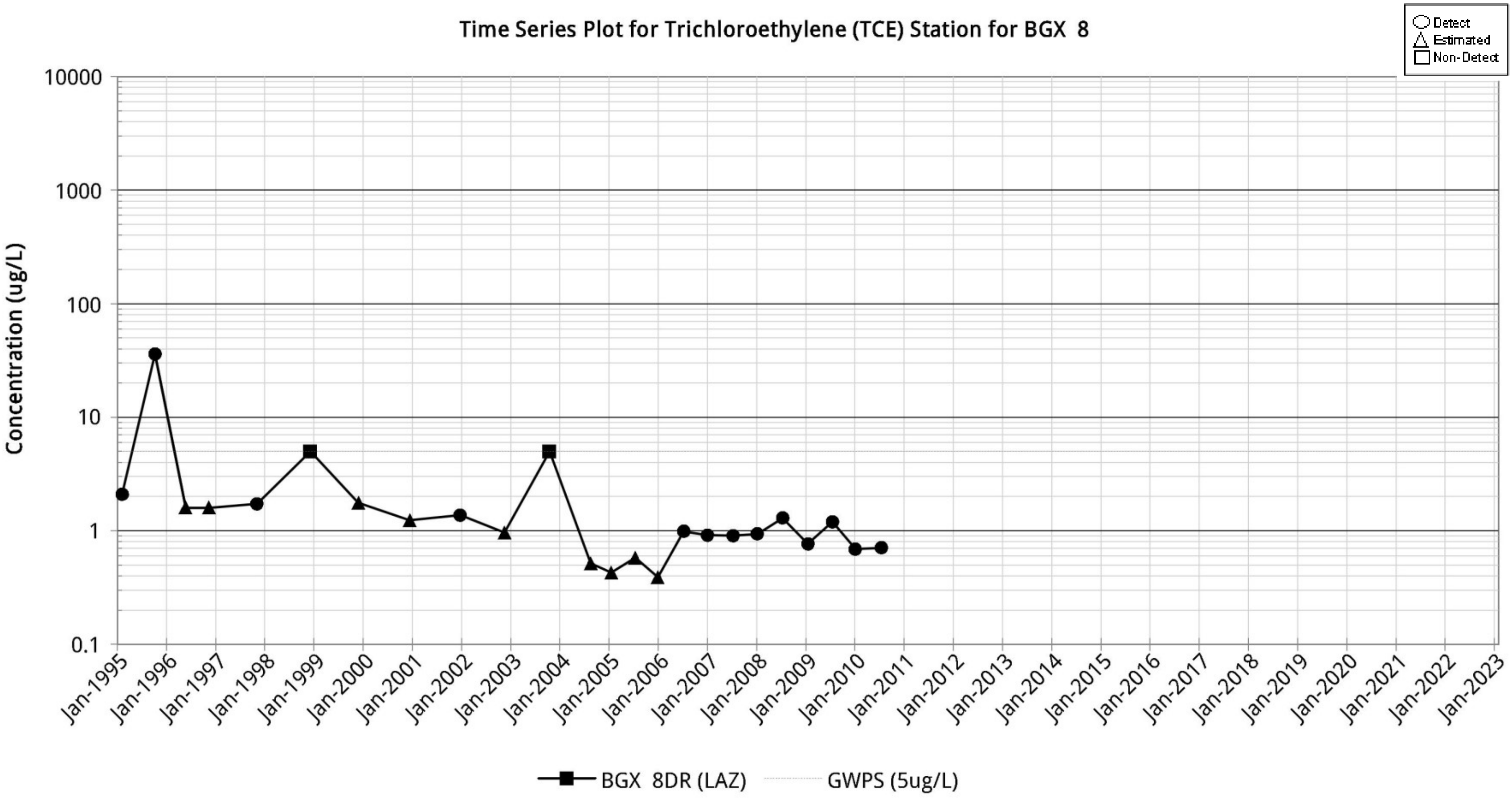
Jan-2023
BGX 1A (GAU)
BGX 1D (UAZ)
BGX 1C (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGX 8
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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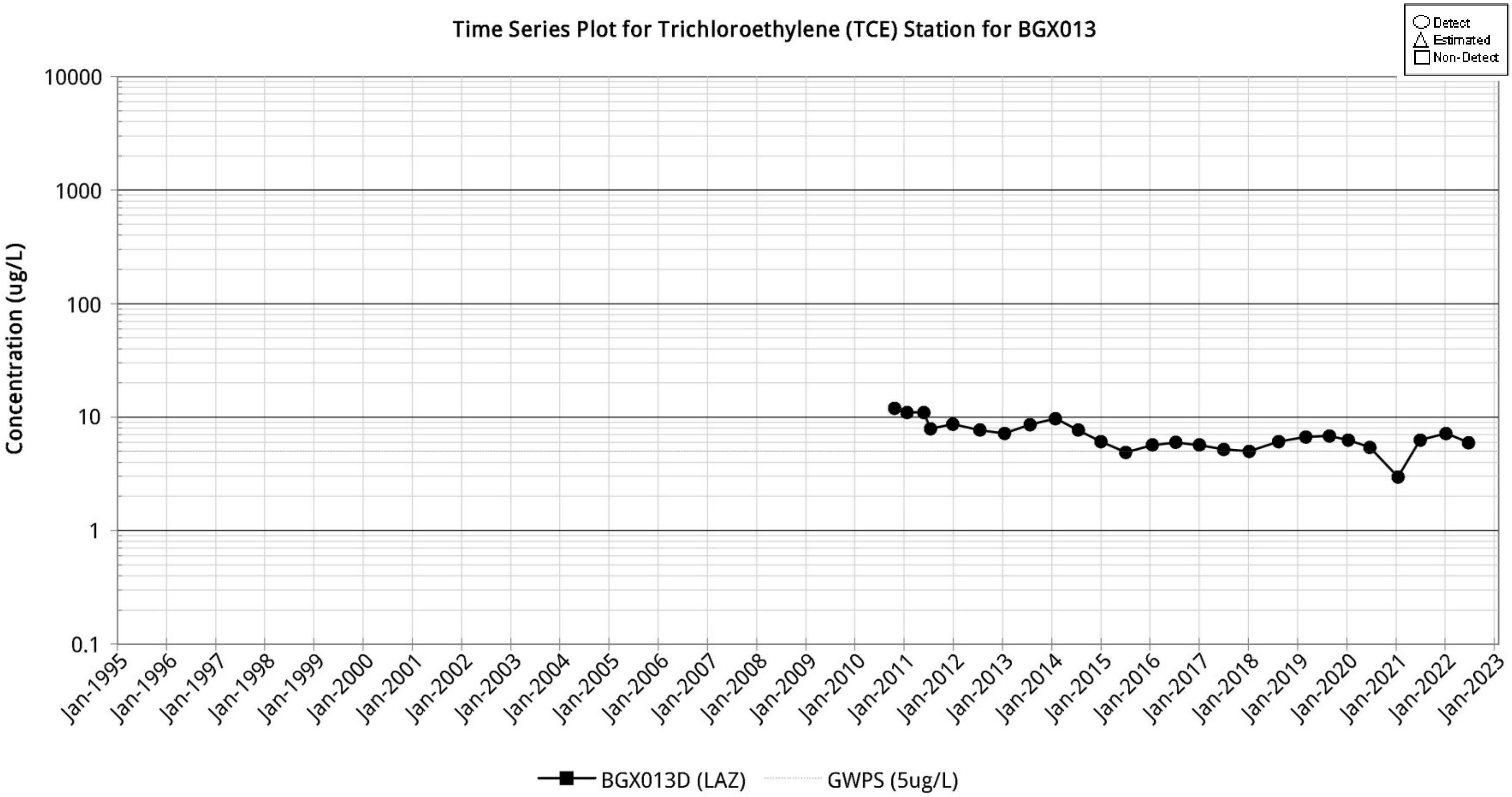
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGX 8DR (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BGX013
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
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Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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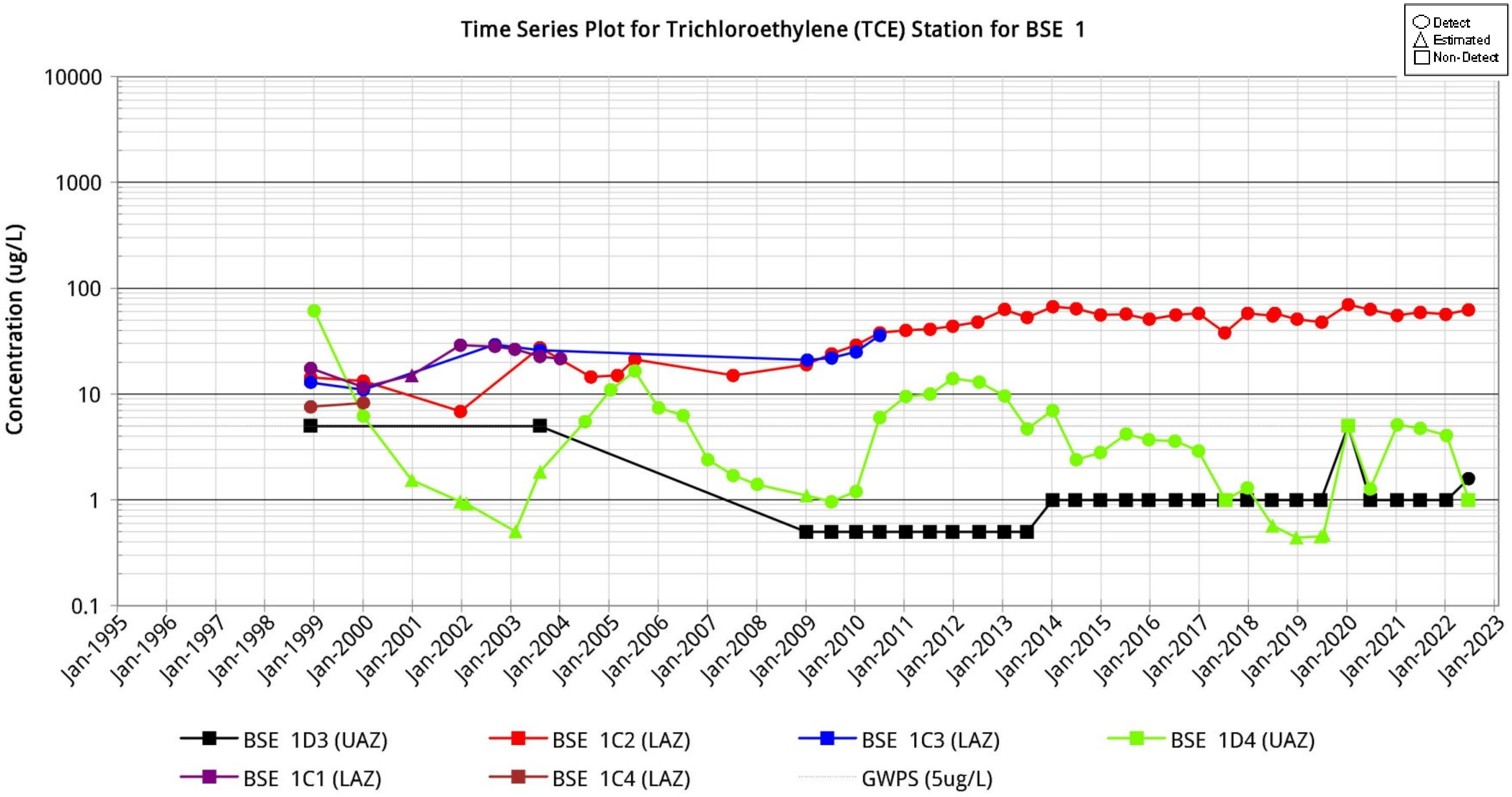
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGX013D (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BSE 1
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
Jan-2008
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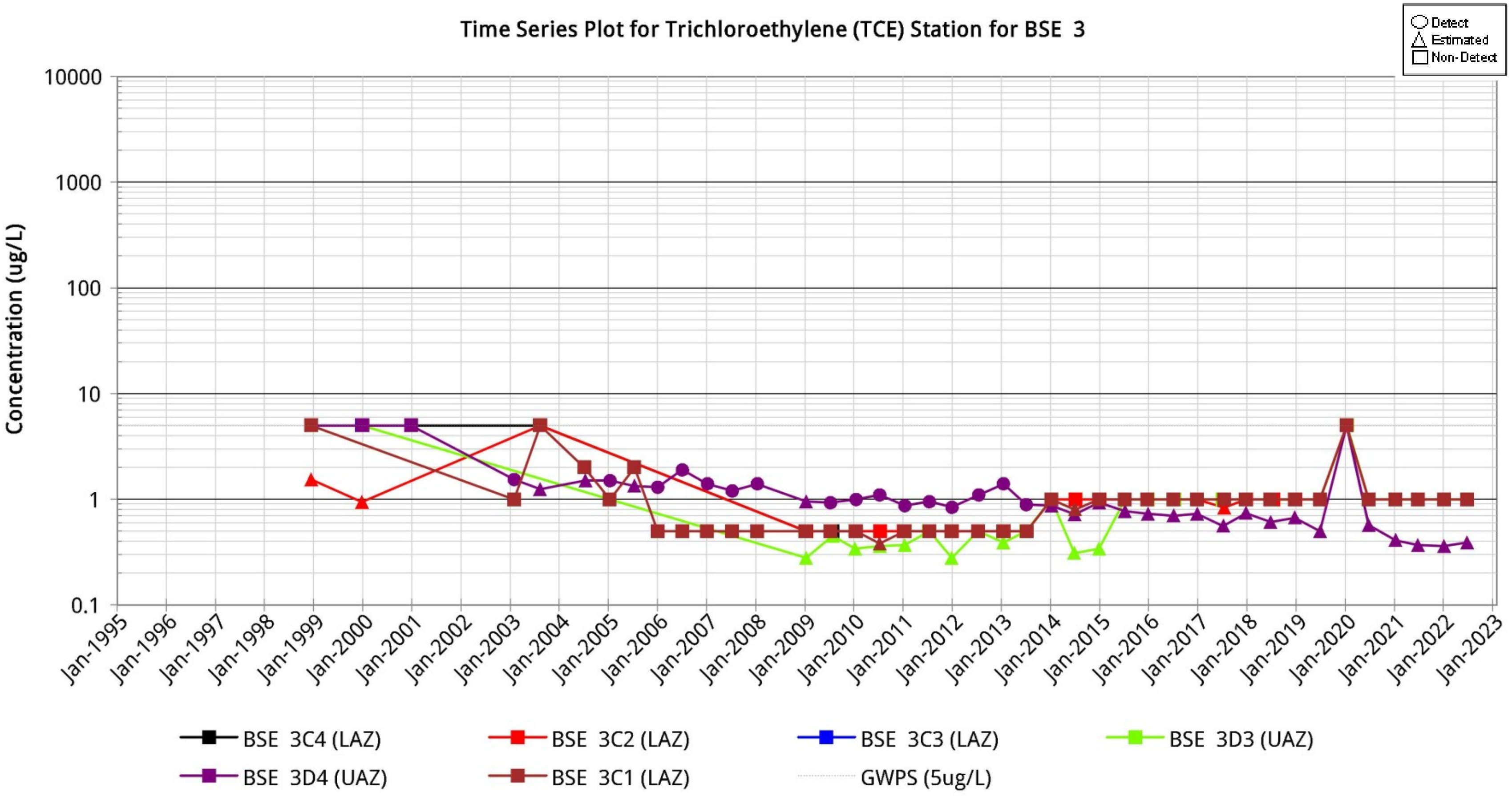
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BSE 1D3 (UAZ)
BSE 1C2 (LAZ)
BSE 1C3 (LAZ)
BSE 1D4 (UAZ)
BSE 1C1 (LAZ)
BSE 1C4 (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BSE 3
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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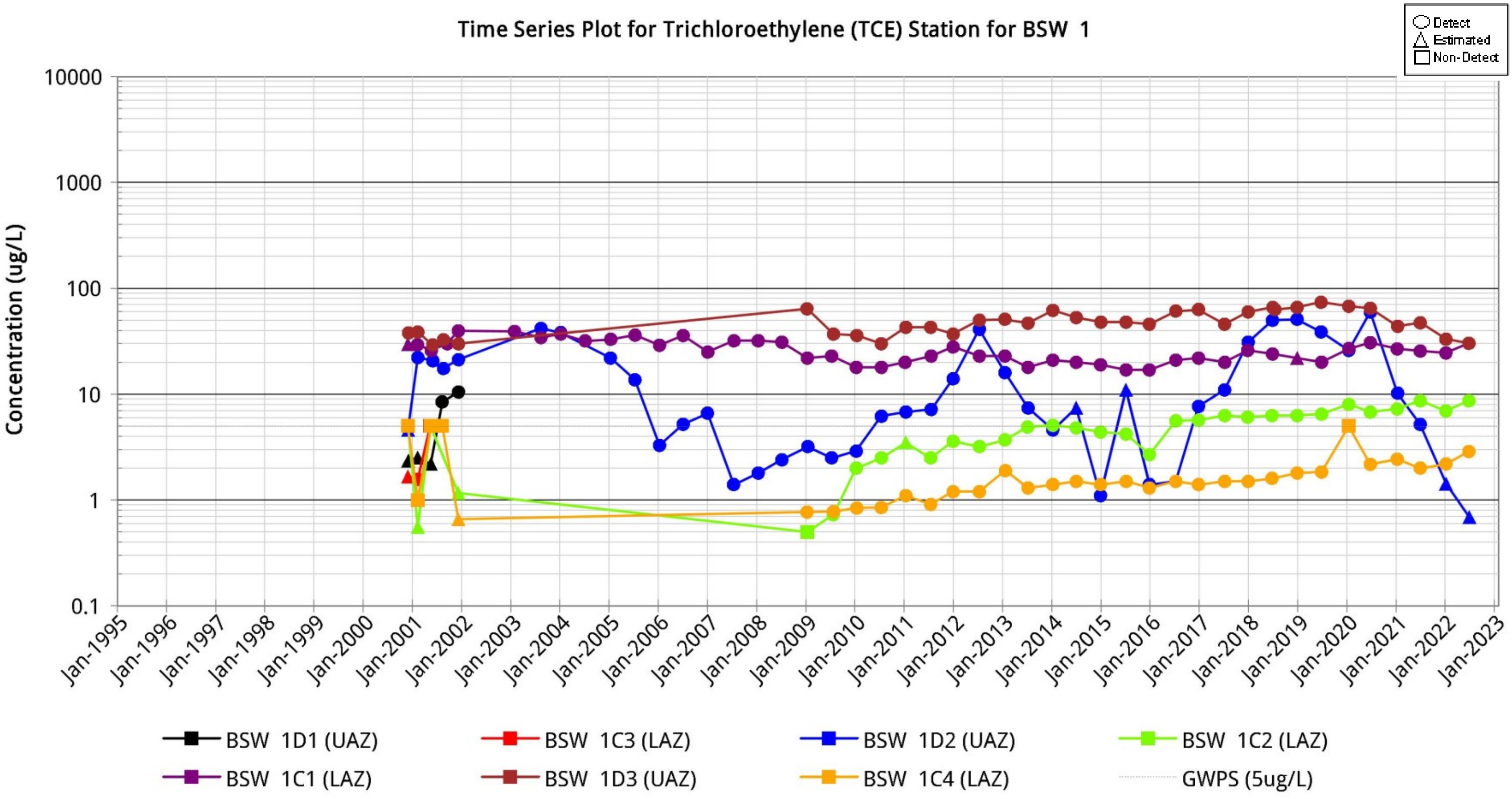
Jan-2021
Jan-2022
Jan-2023
BSE 3C4 (LAZ)
BSE 3C2 (LAZ)
BSE 3C3 (LAZ)
BSE 3D3 (UAZ)
BSE 3D4 (UAZ)
BSE 3C1 (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BSW 1
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
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Jan-1999
Jan-2000
Jan-2001
Jan-2002
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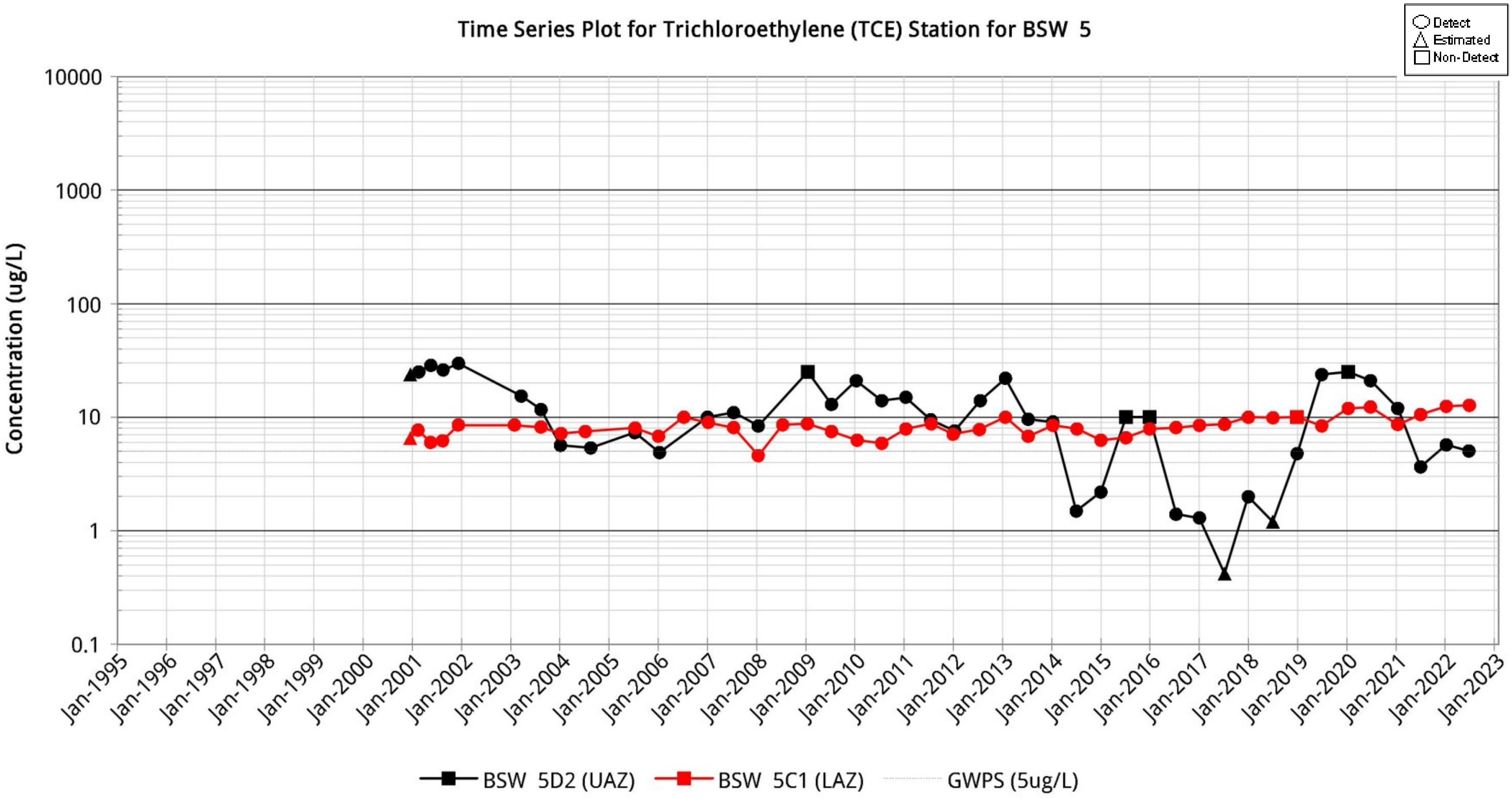
Jan-2021
Jan-2022
Jan-2023
BSW 1D1 (UAZ)
BSW 1C3 (LAZ)
BSW 1D2 (UAZ)
BSW 1C2 (LAZ)
BSW 1C1 (LAZ)
BSW 1D3 (UAZ)
BSW 1C4 (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BSW 5
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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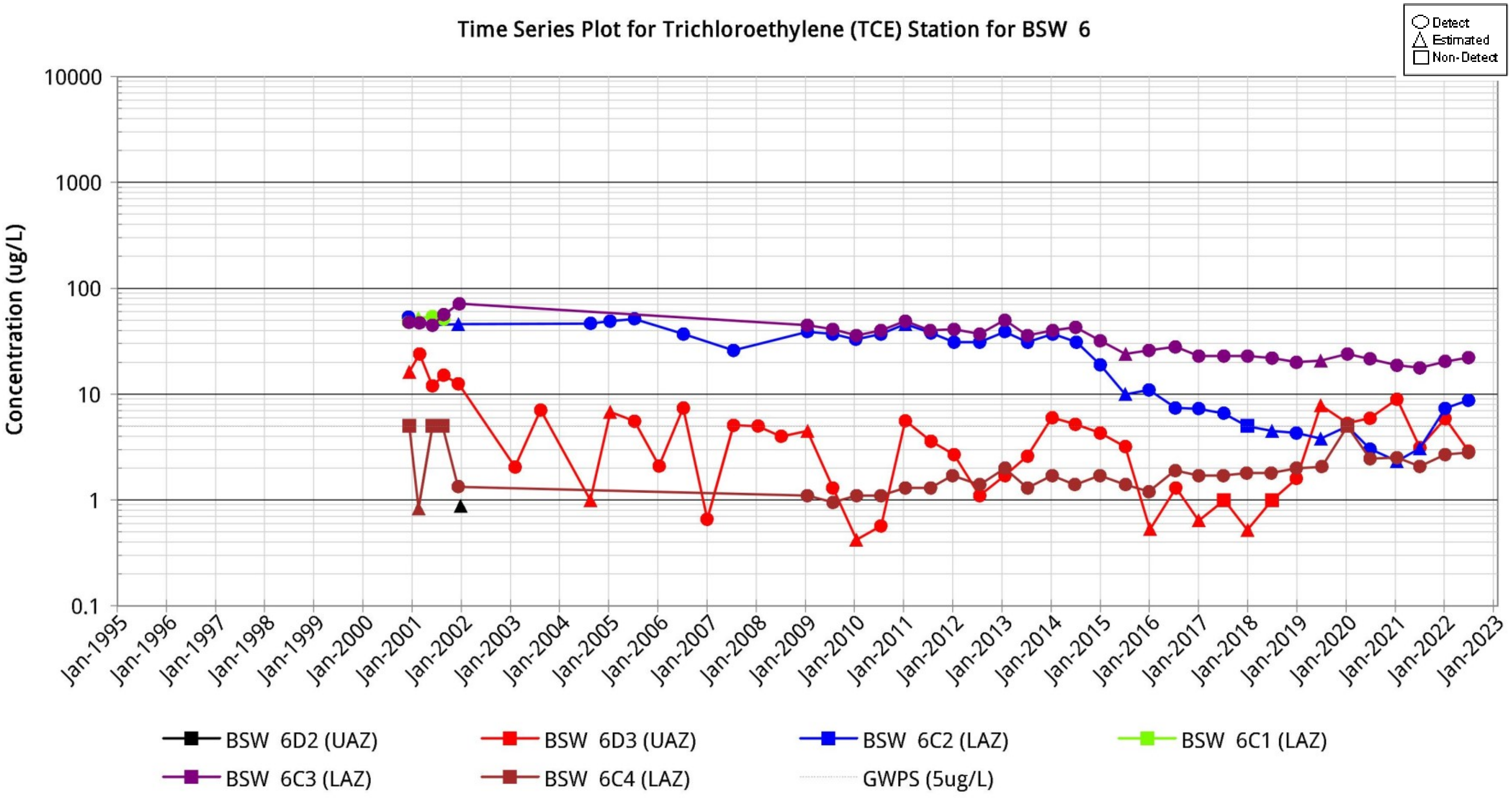
Jan-2021
Jan-2022
Jan-2023
BSW 5D2 (UAZ)
BSW 5C1 (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BSW 6
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
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Jan-2001
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Jan-2004
Jan-2005
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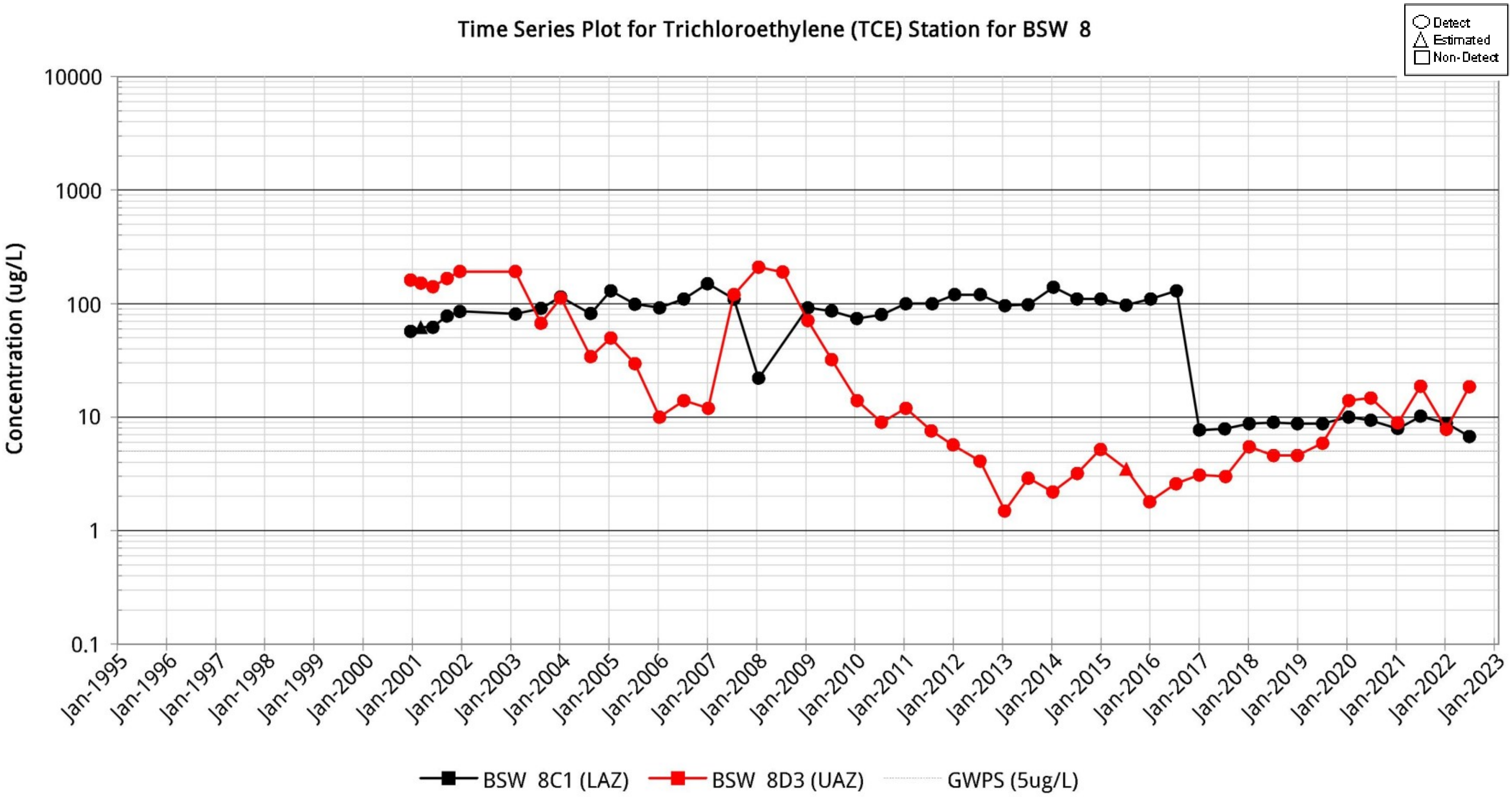
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BSW 6D2 (UAZ)
BSW 6D3 (UAZ)
BSW 6C2 (LAZ)
BSW 6C1 (LAZ)
BSW 6C3 (LAZ)
BSW 6C4 (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for BSW 8
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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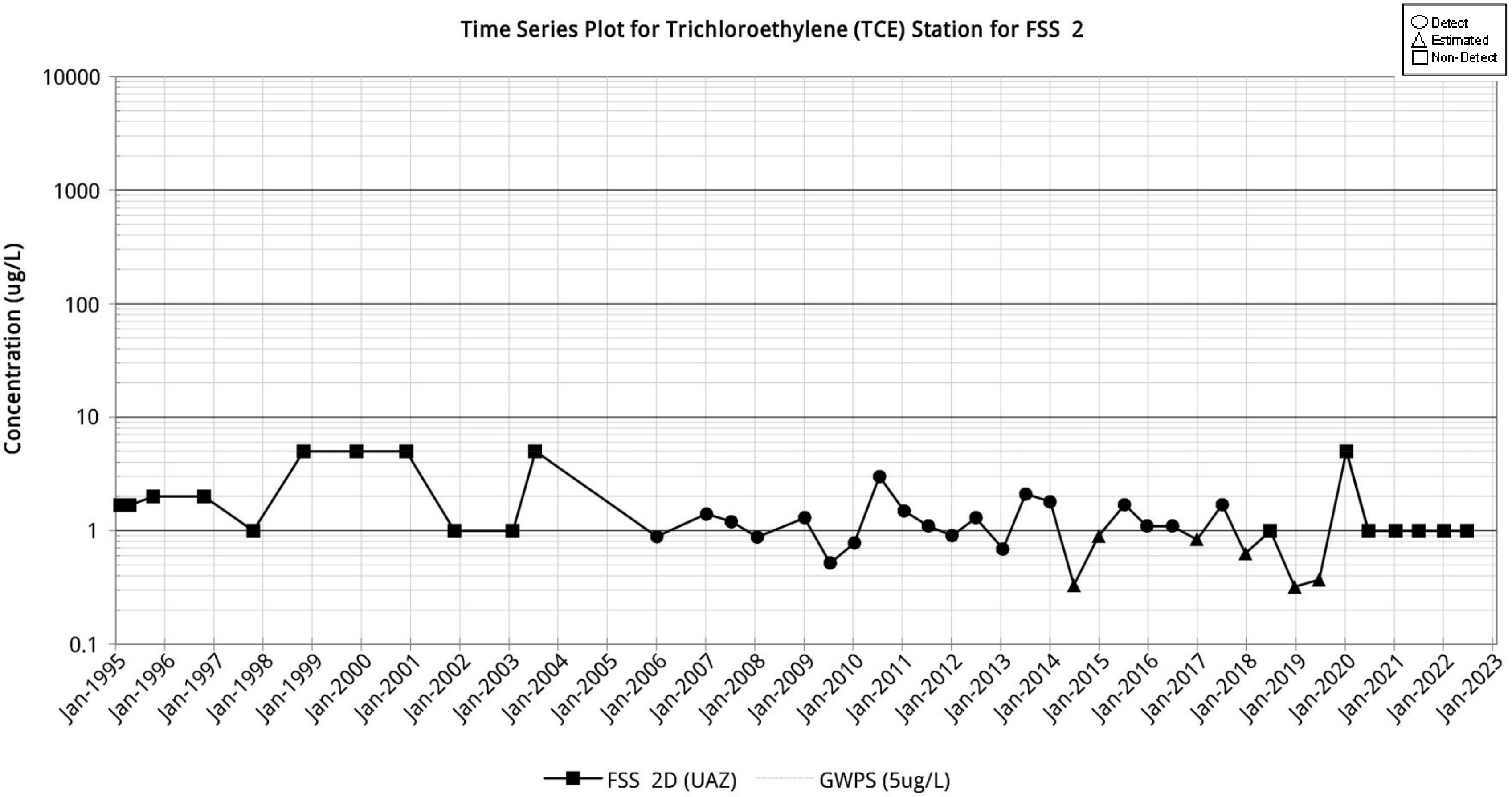
Jan-2022
Jan-2023
BSW 8C1 (LAZ)
BSW 8D3 (UAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for FSS 2
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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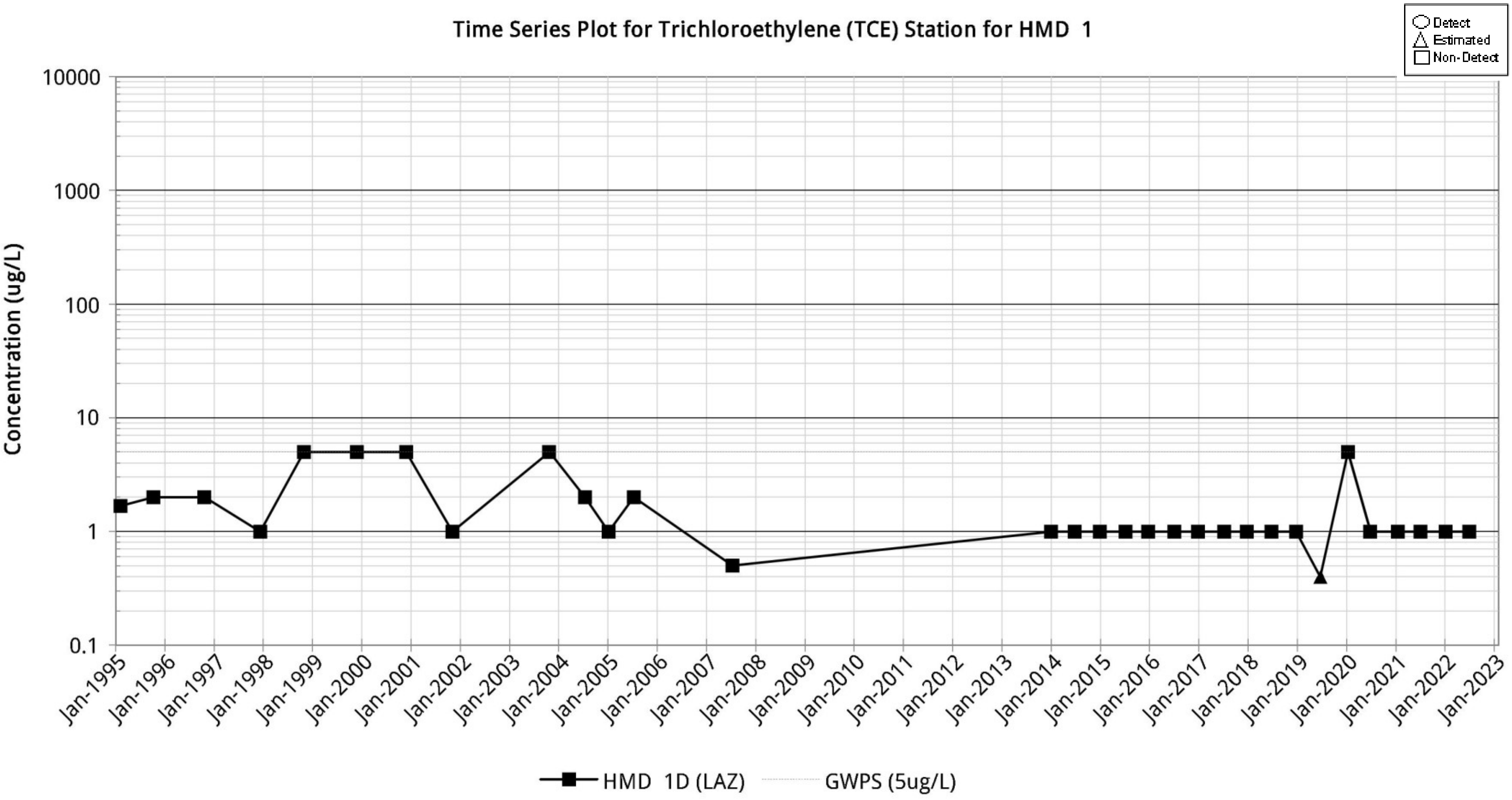
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSS 2D (UAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for HMD 1
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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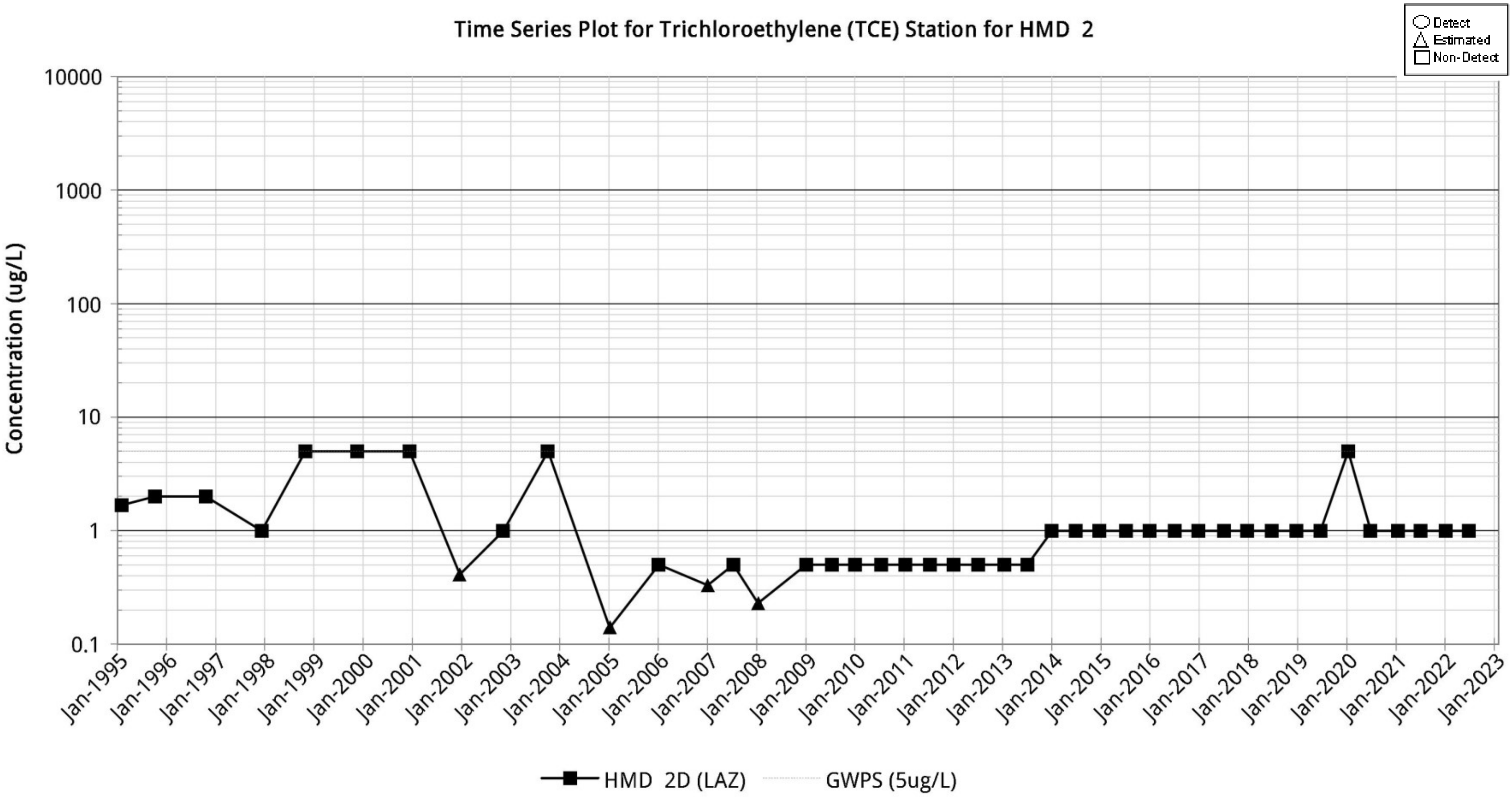
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HMD 1D (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for HMD 2
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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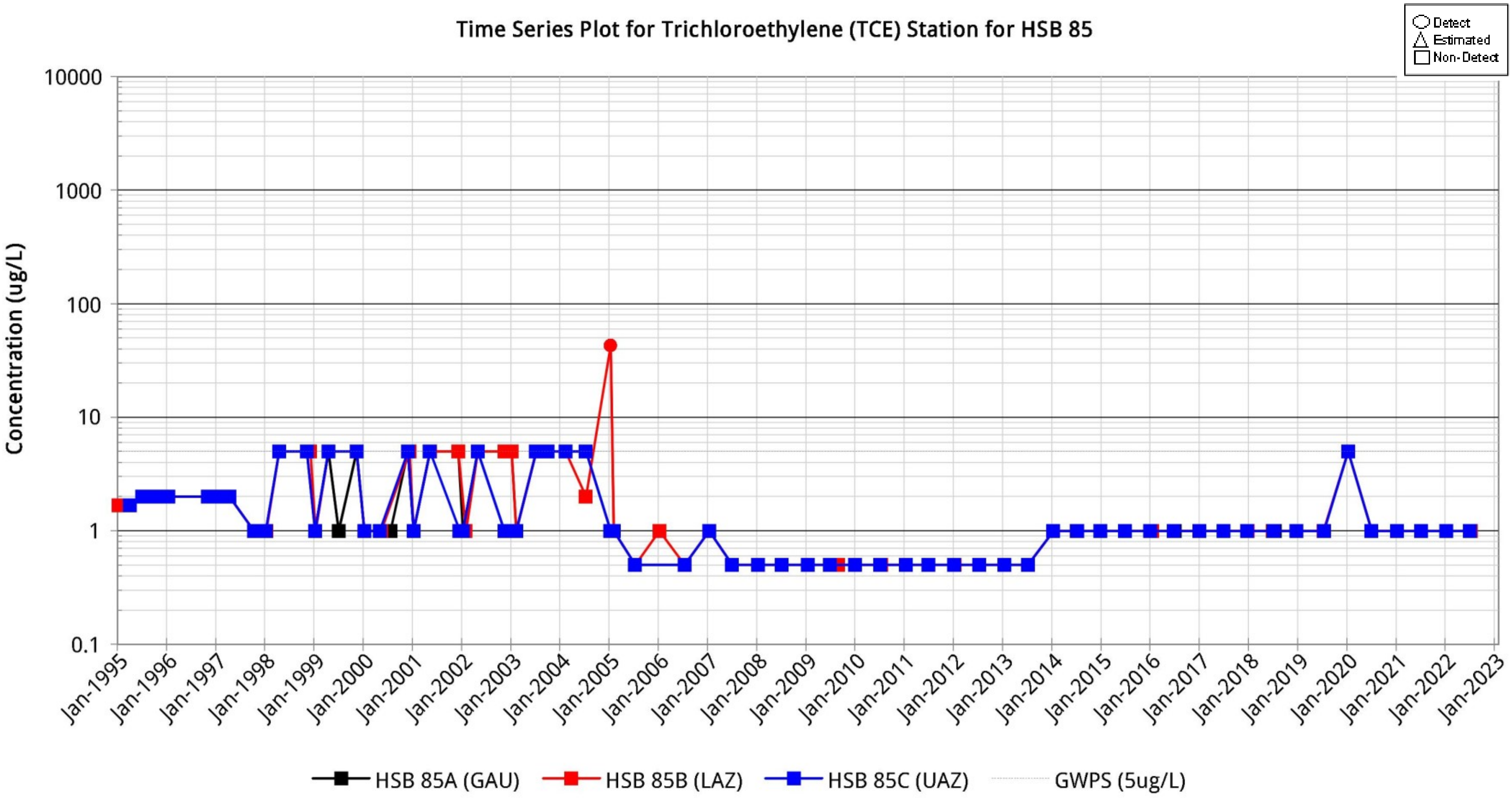
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HMD 2D (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for HSB 85
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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Jan-2020
Jan-2021
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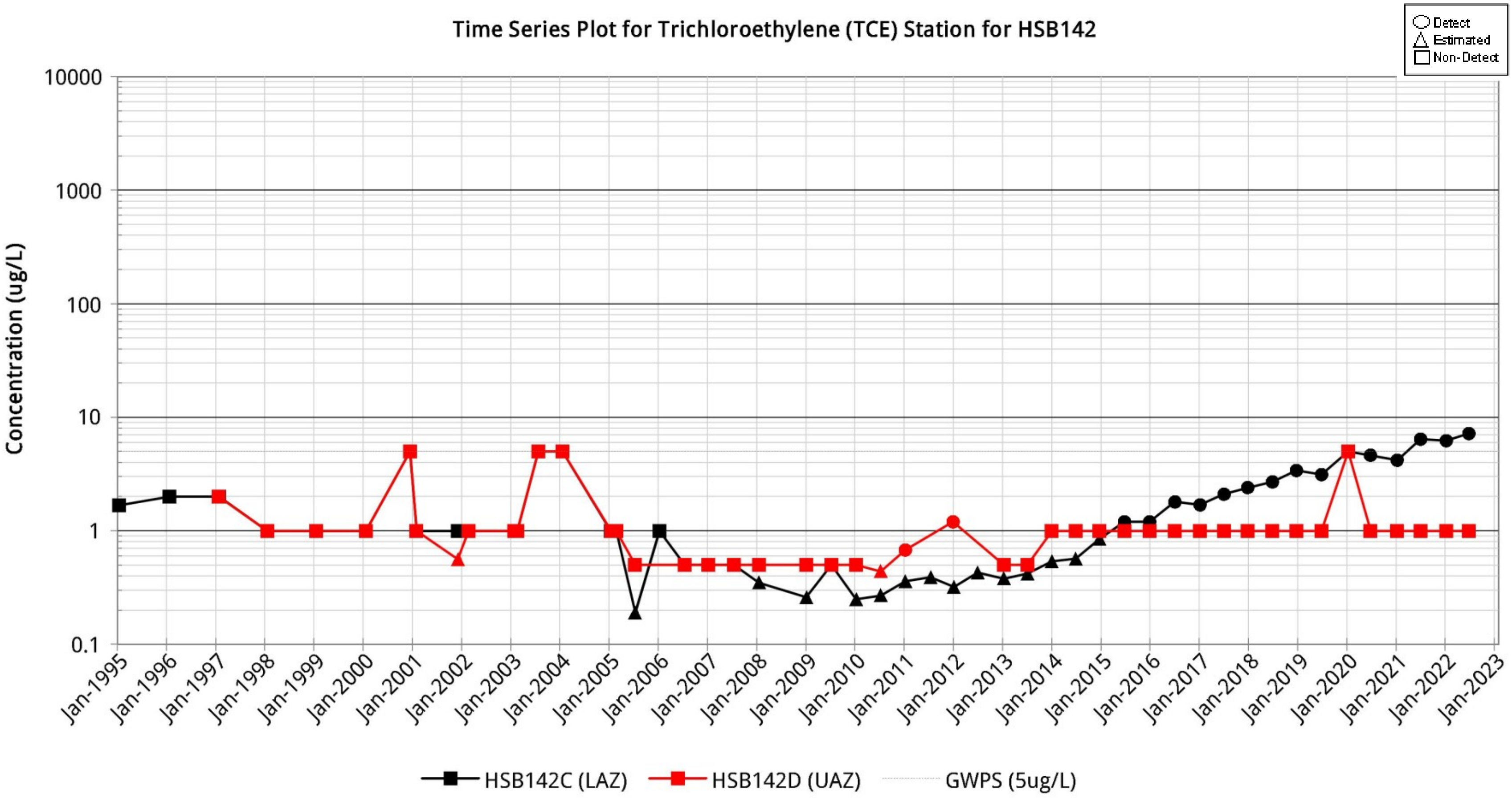
Jan-2023
HSB 85A (GAU)
HSB 85B (LAZ)
HSB 85C (UAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for HSB142
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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Jan-2002
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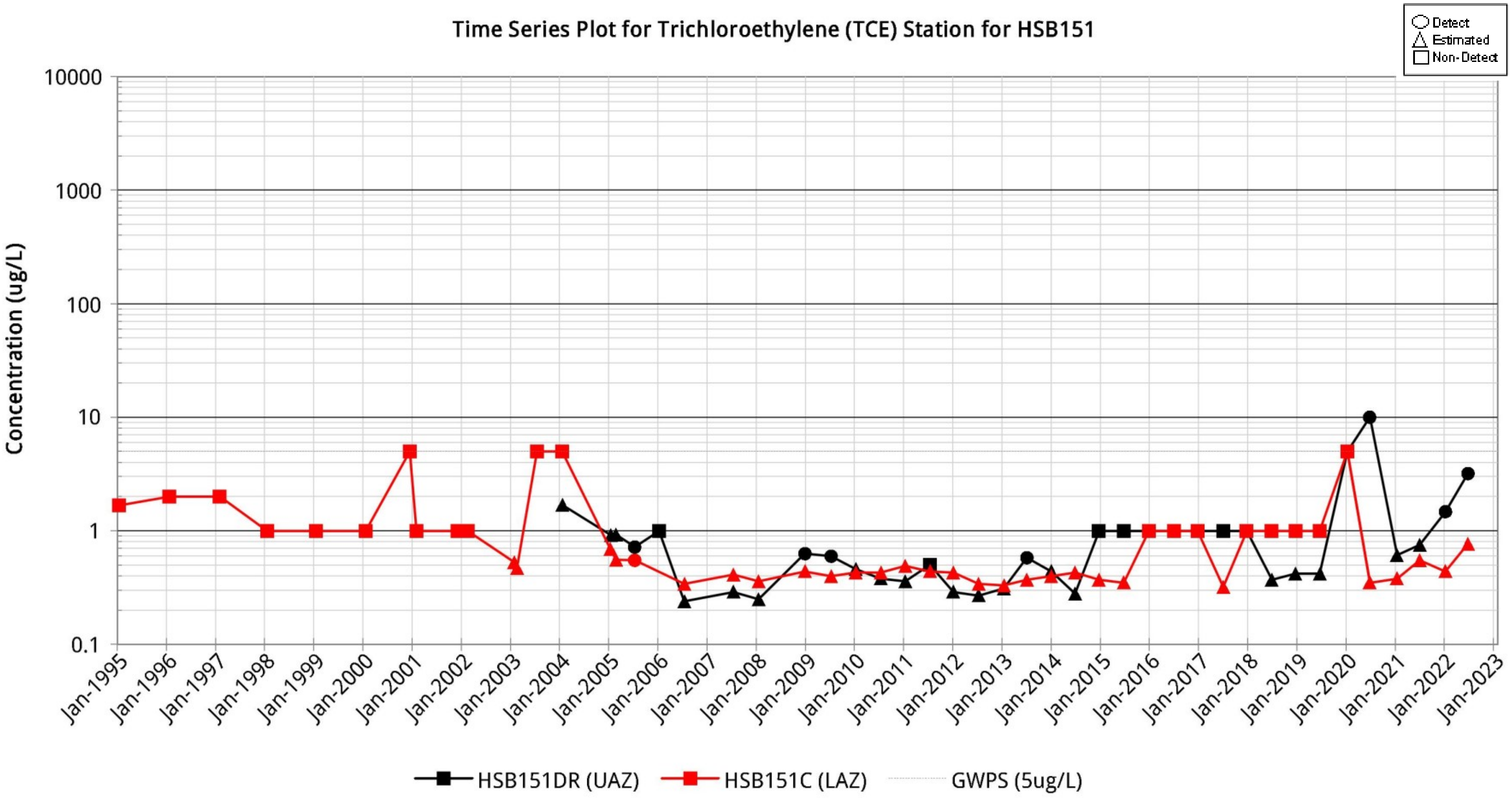
Jan-2021
Jan-2022
Jan-2023
HSB142C (LAZ)
HSB142D (UAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for HSB151
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
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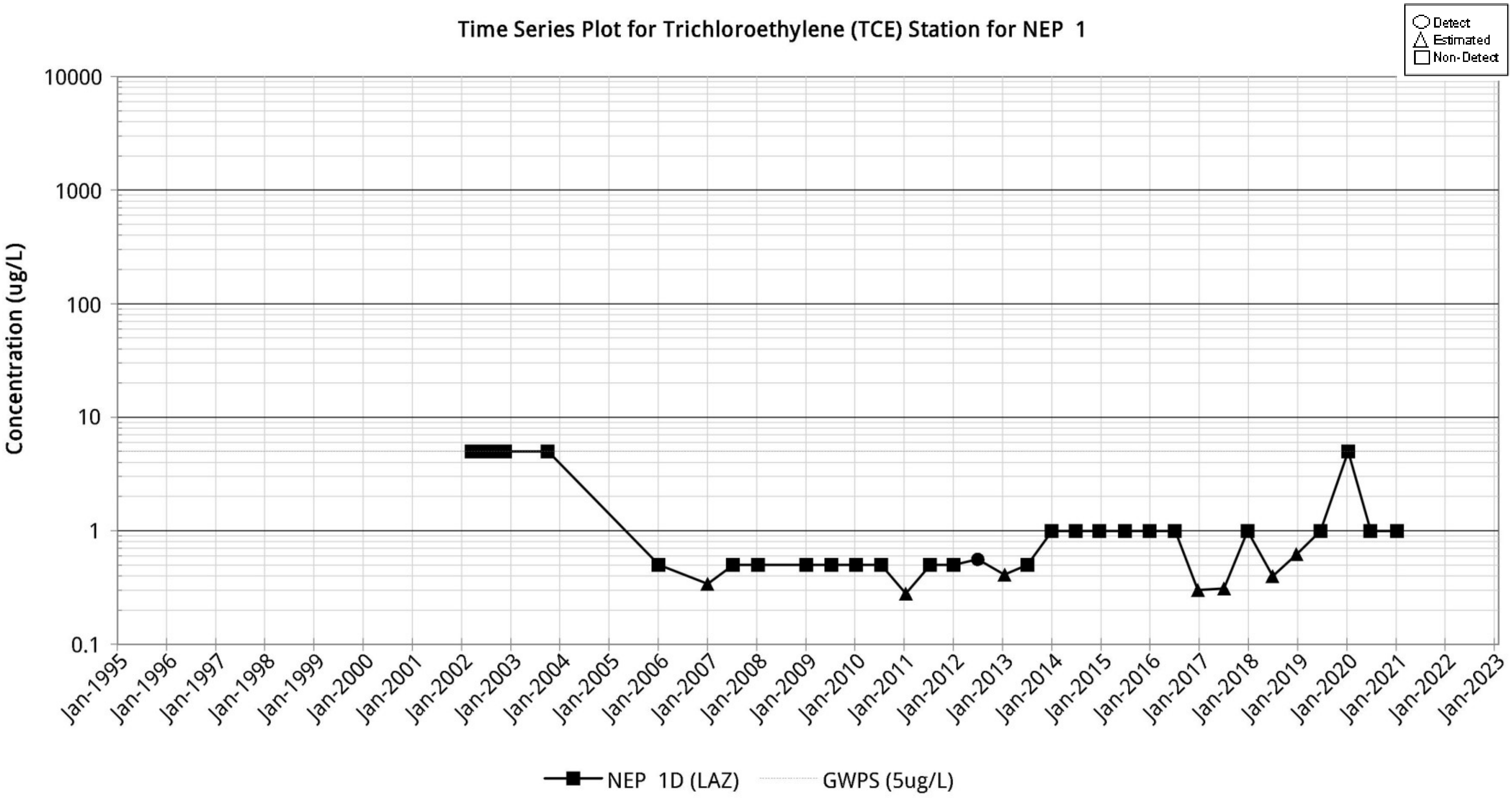
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB151DR (UAZ)
HSB151C (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for NEP 1
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
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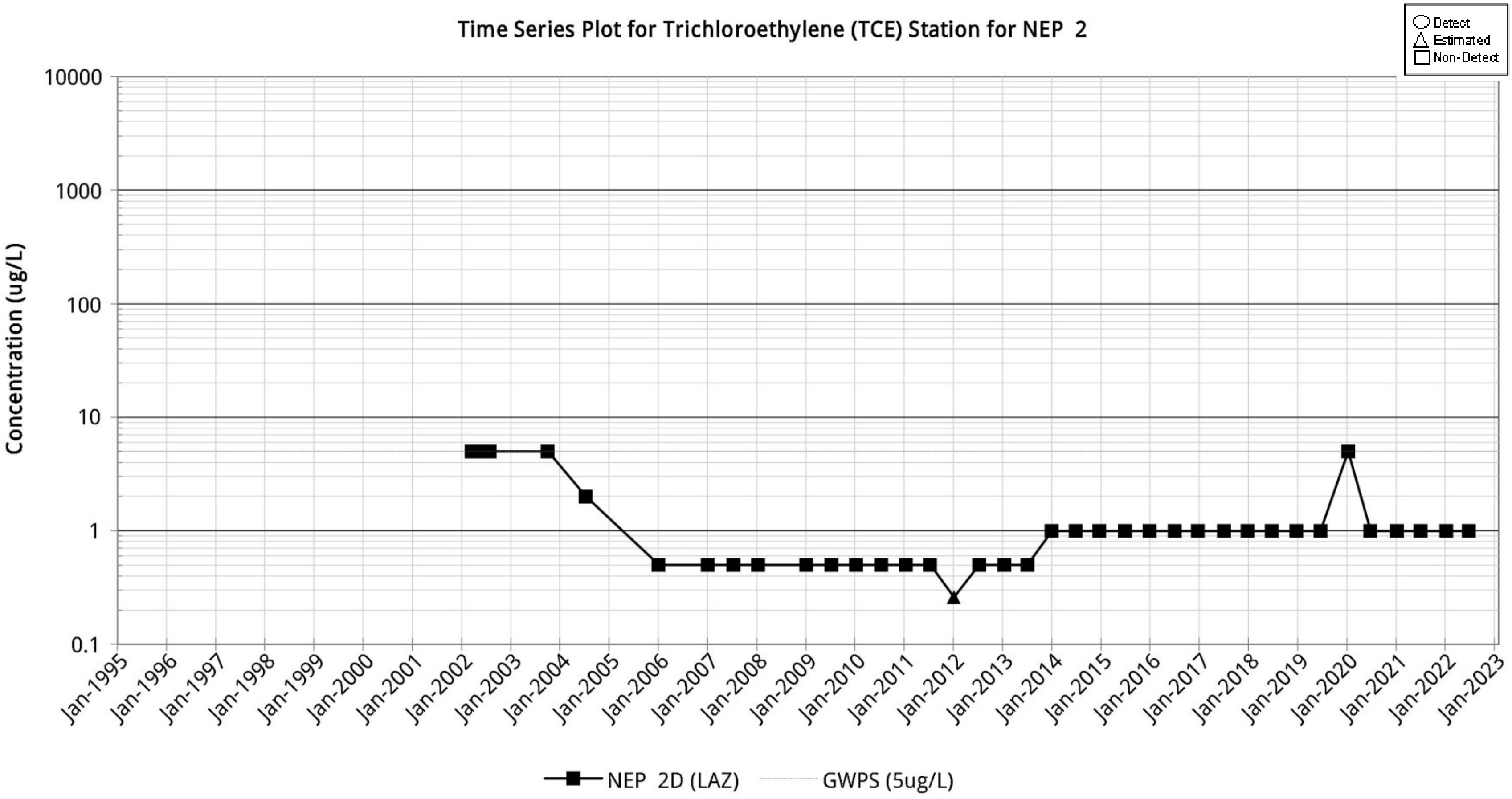
Jan-2021
Jan-2022
Jan-2023
NEP 1D (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for NEP 2
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
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Jan-2002
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Jan-2021
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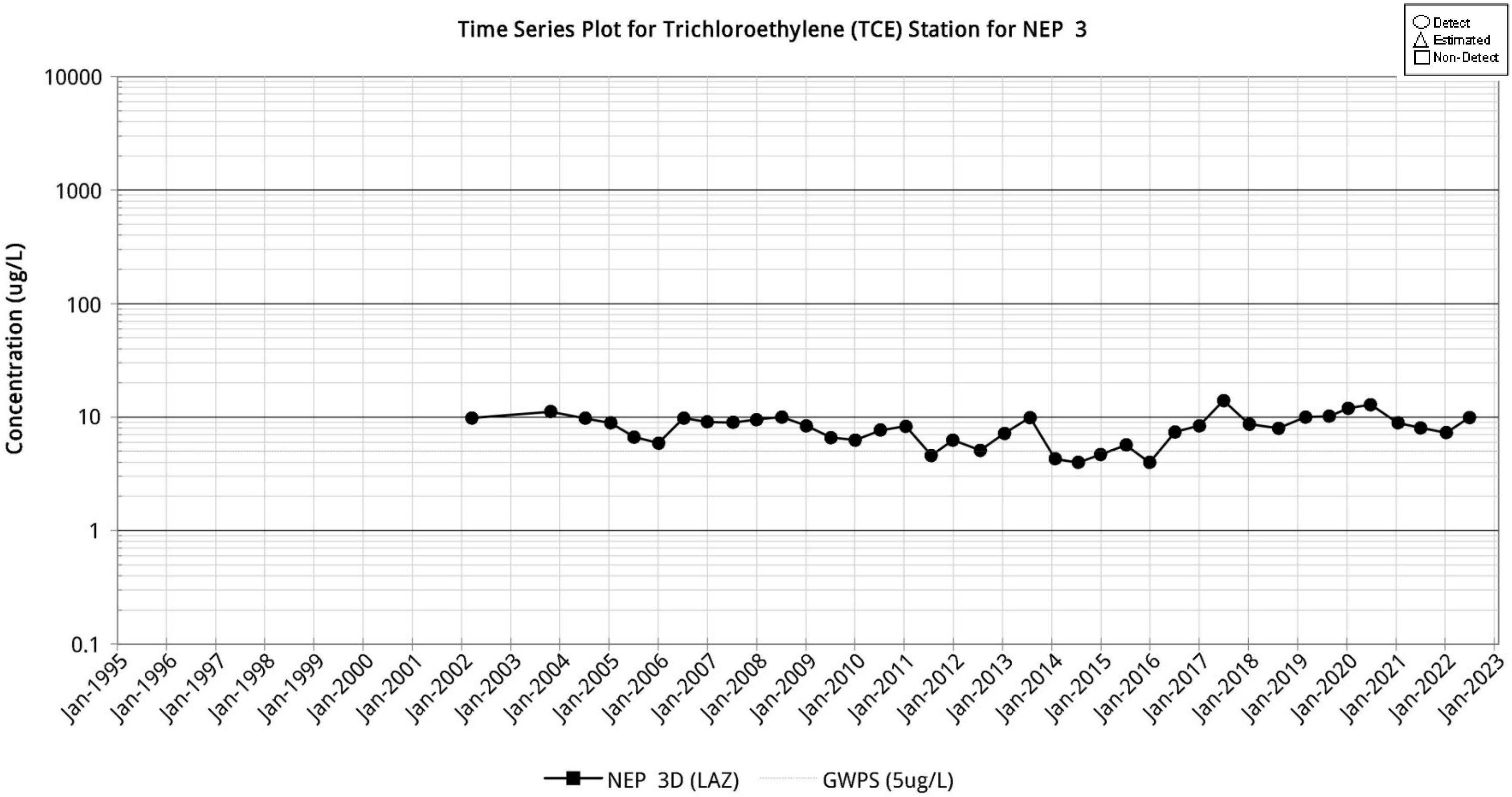
Jan-2023
NEP 2D (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for NEP 3
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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Jan-2021
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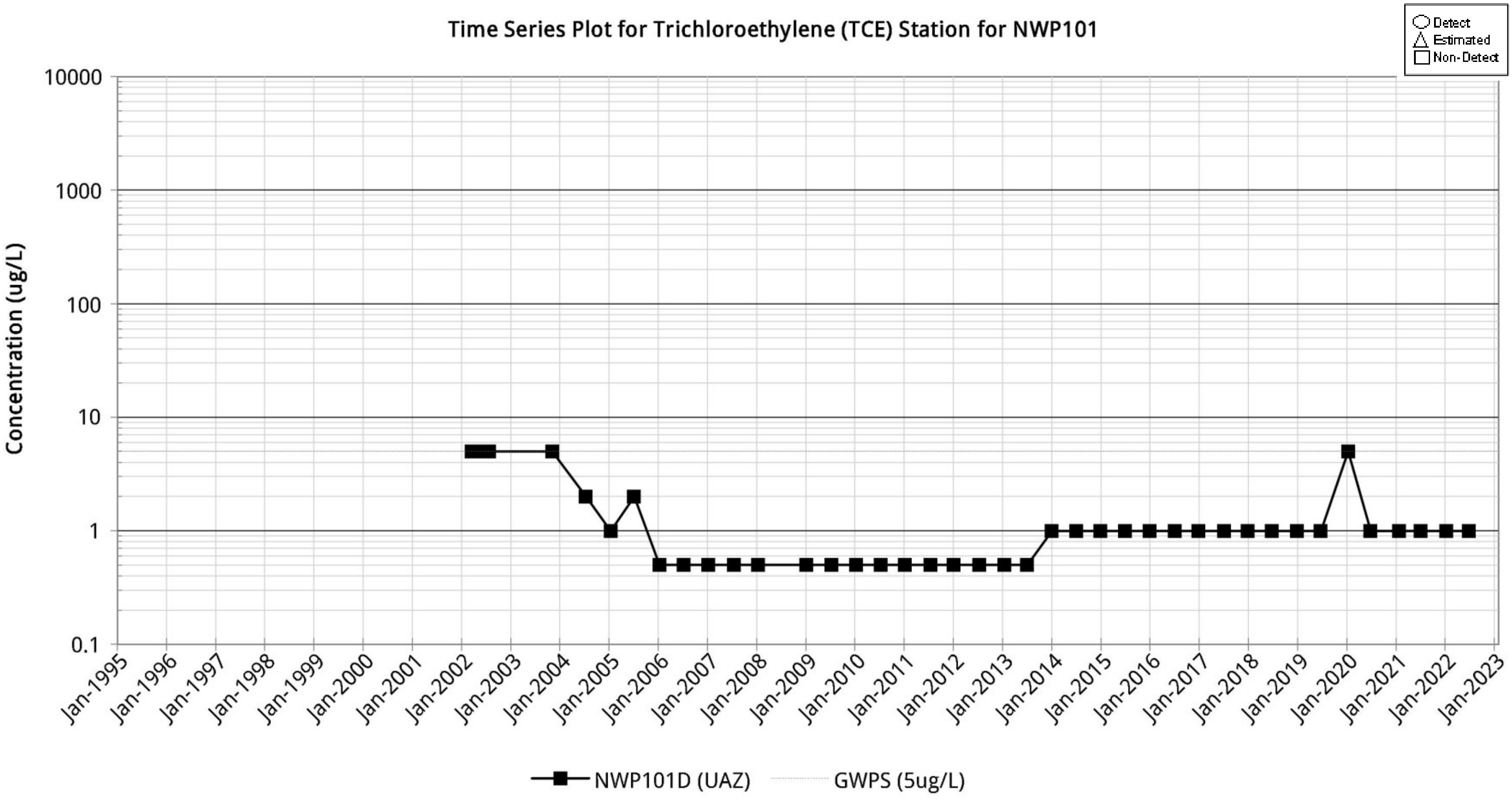
Jan-2023
NEP 3D (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for NWP101
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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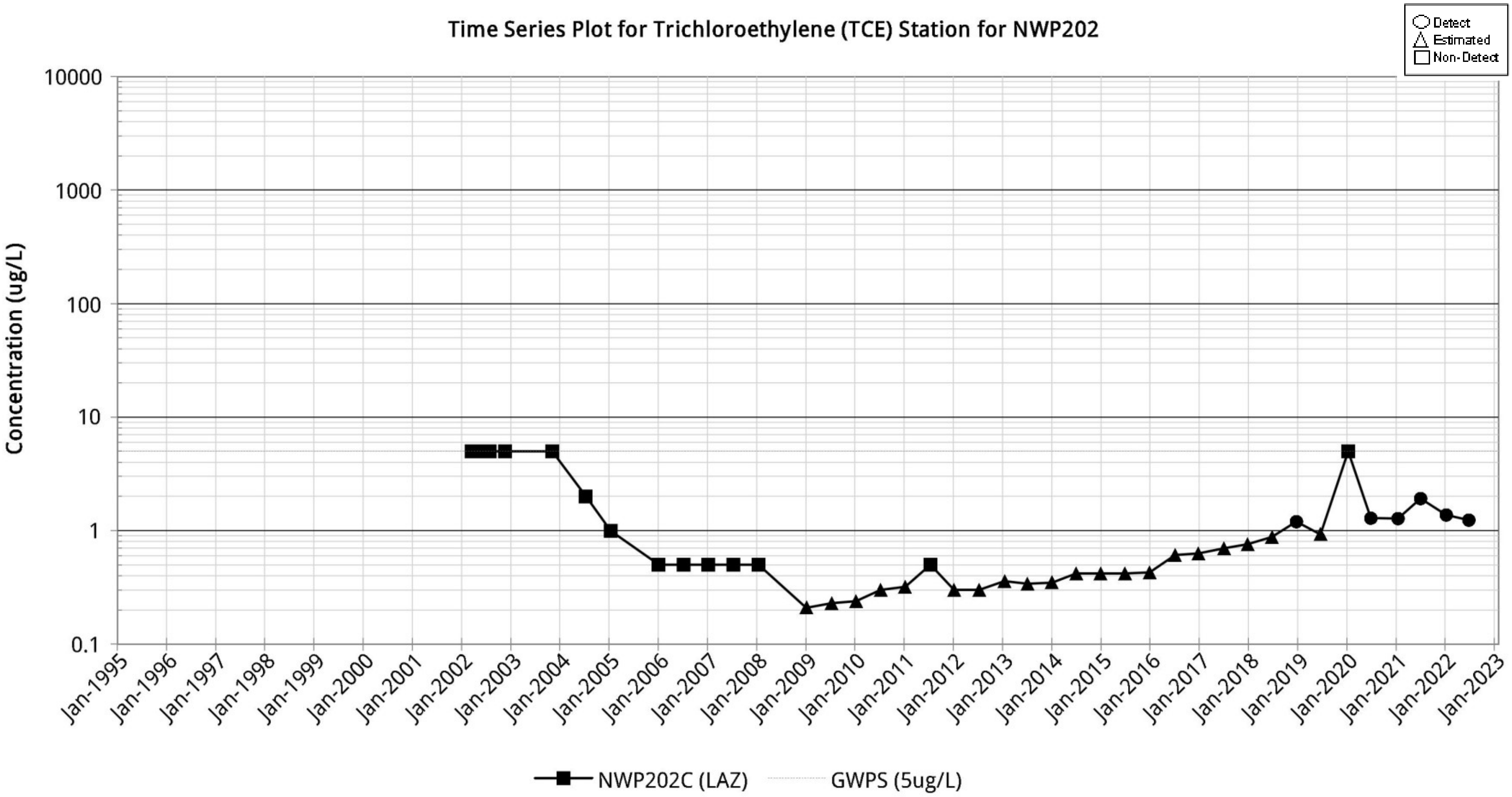
Jan-2023
NWP101D (UAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for NWP202
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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Jan-2021
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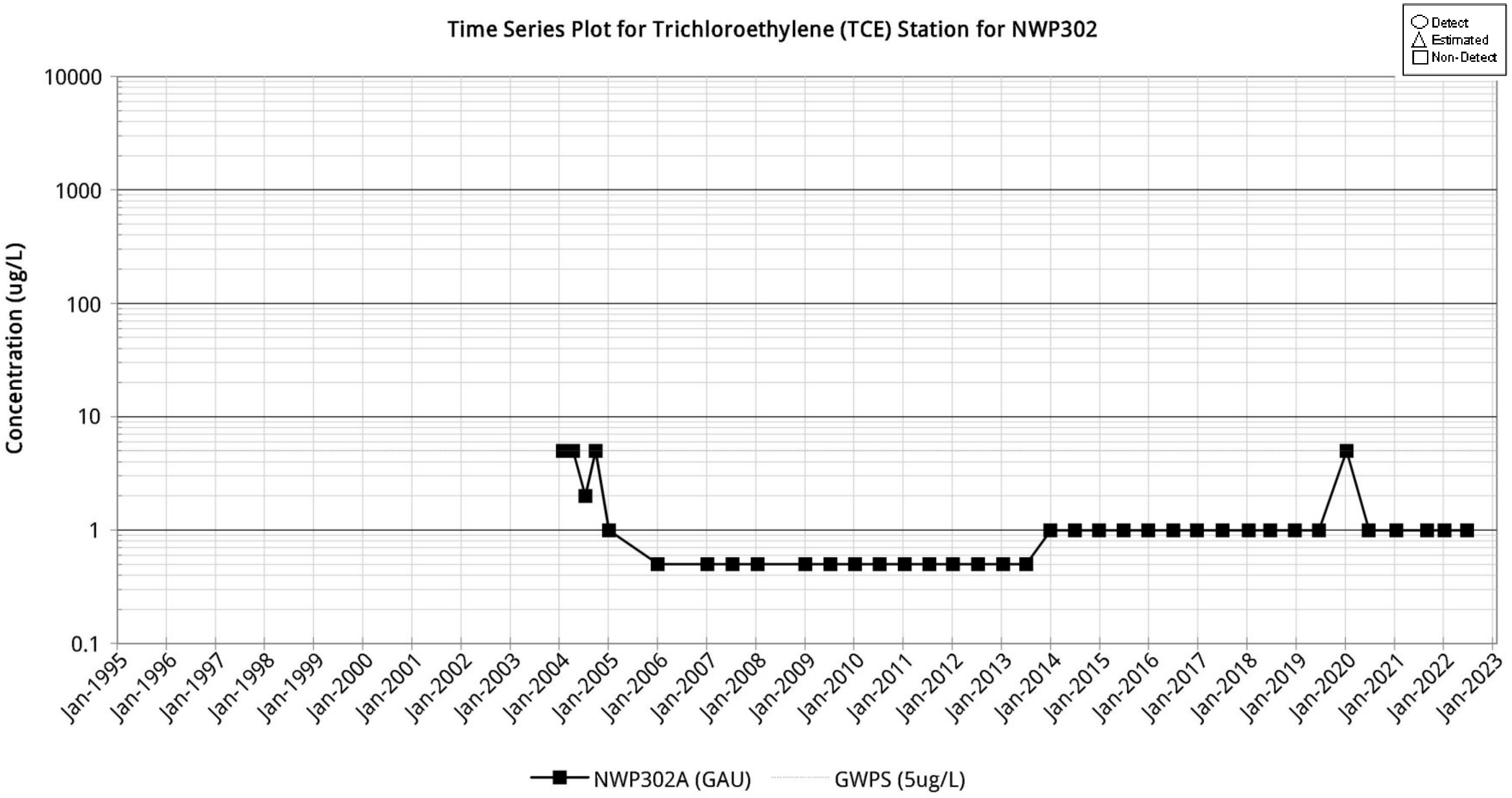
Jan-2023
NWP202C (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for NWP302
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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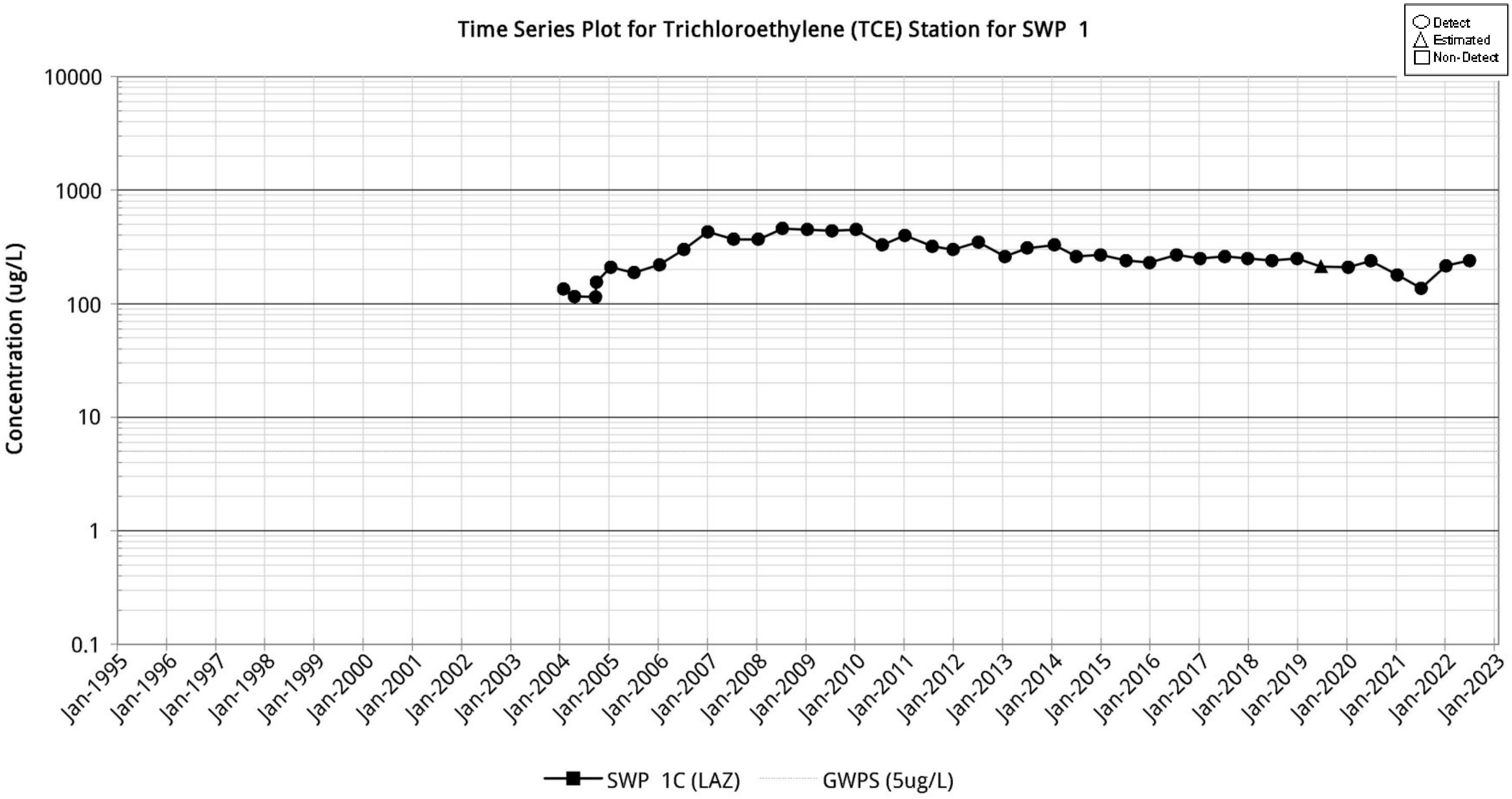
Jan-2023
NWP302A (GAU)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for SWP 1
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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Jan-2020
Jan-2021
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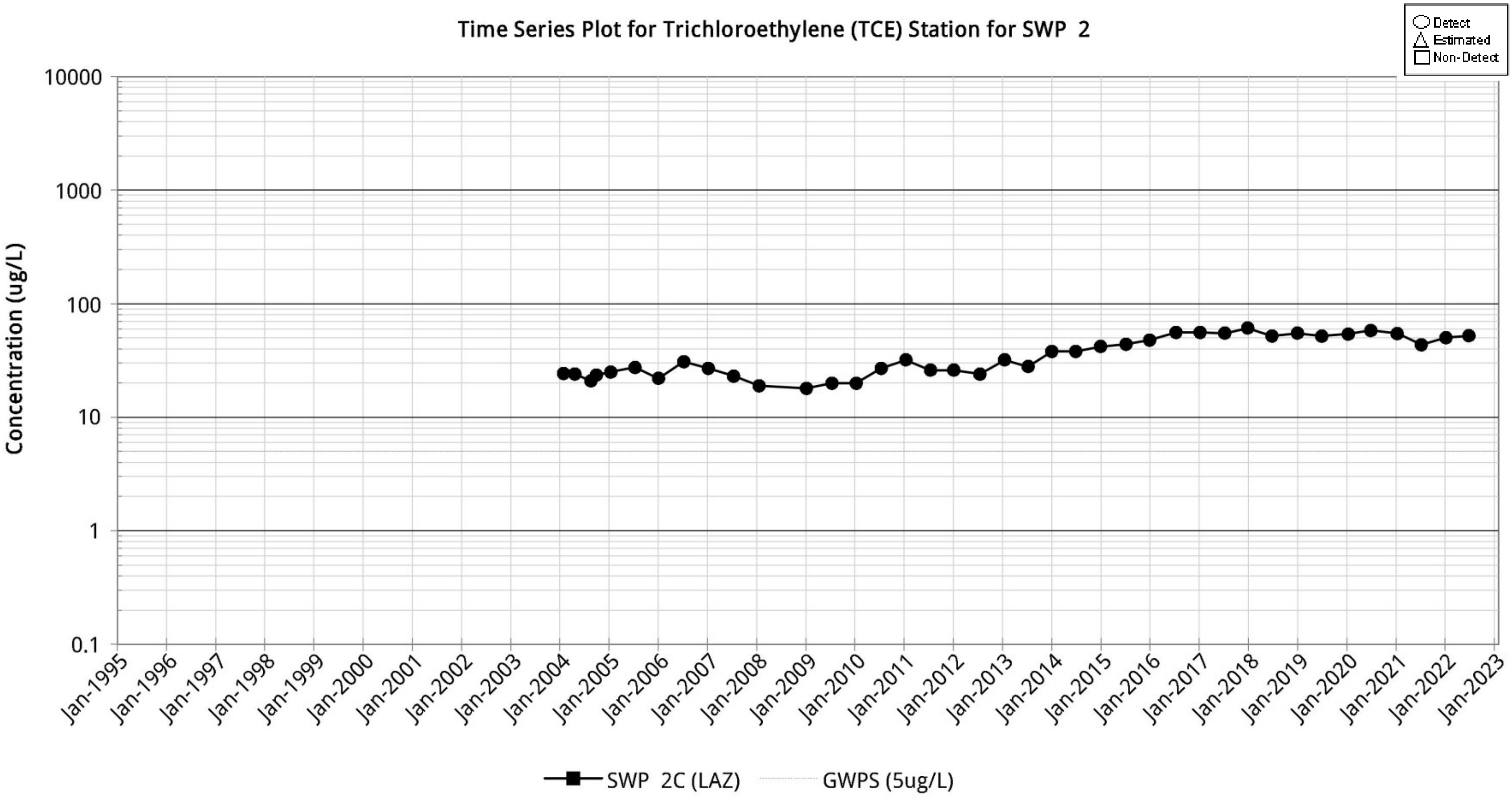
Jan-2023
SWP 1C (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for SWP 2
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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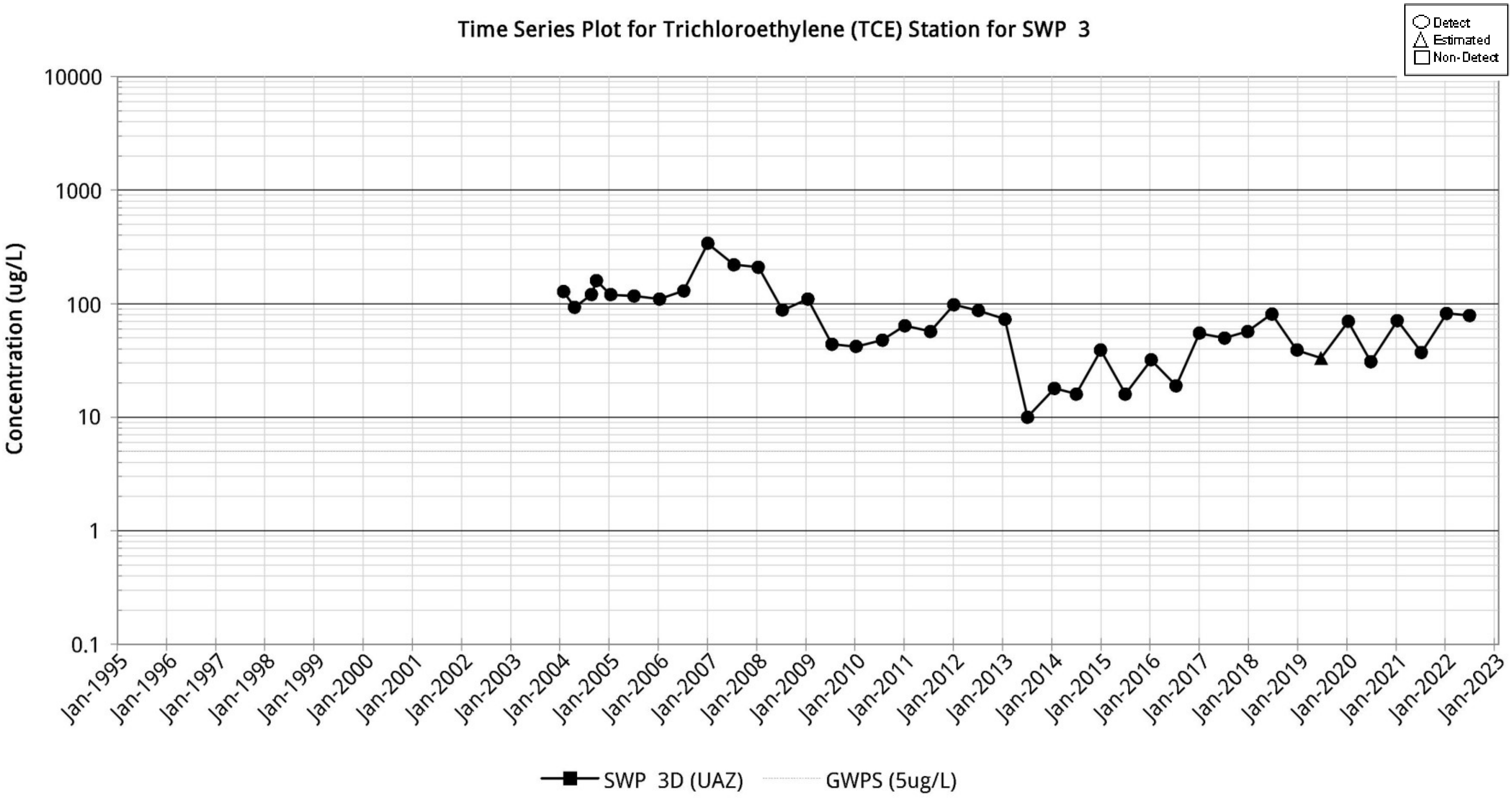
Jan-2023
SWP 2C (LAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for SWP 3
Detect
Estimated
Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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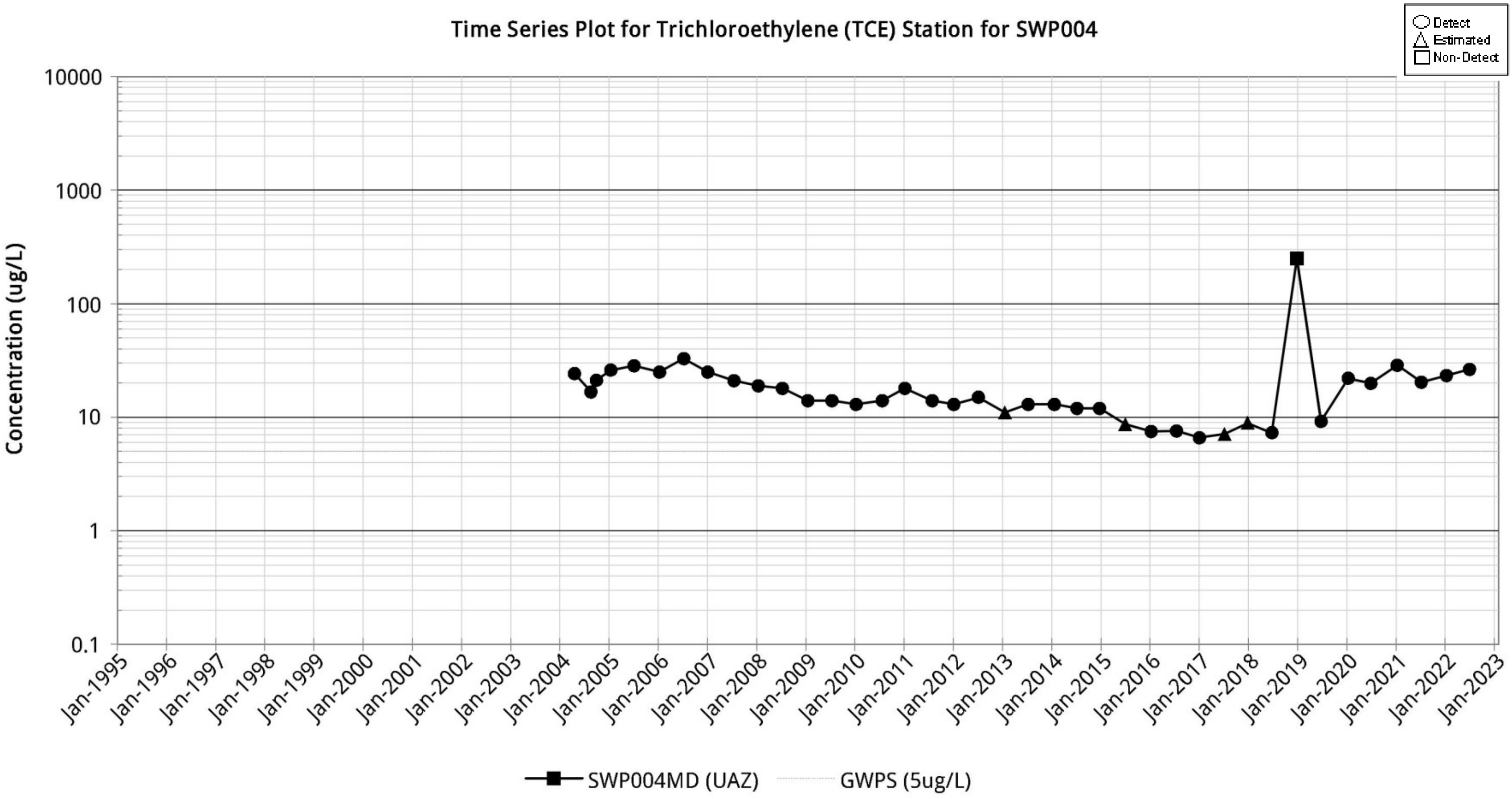
Jan-2023
SWP 3D (UAZ)
GWPS (5ug/L)


Time Series Plot for Trichloroethylene (TCE) Station for SWP004
○ Detect
△ Estimated
☐ Non-Detect
Concentration (ug/L)
10000
1000
100
10
1
0.1
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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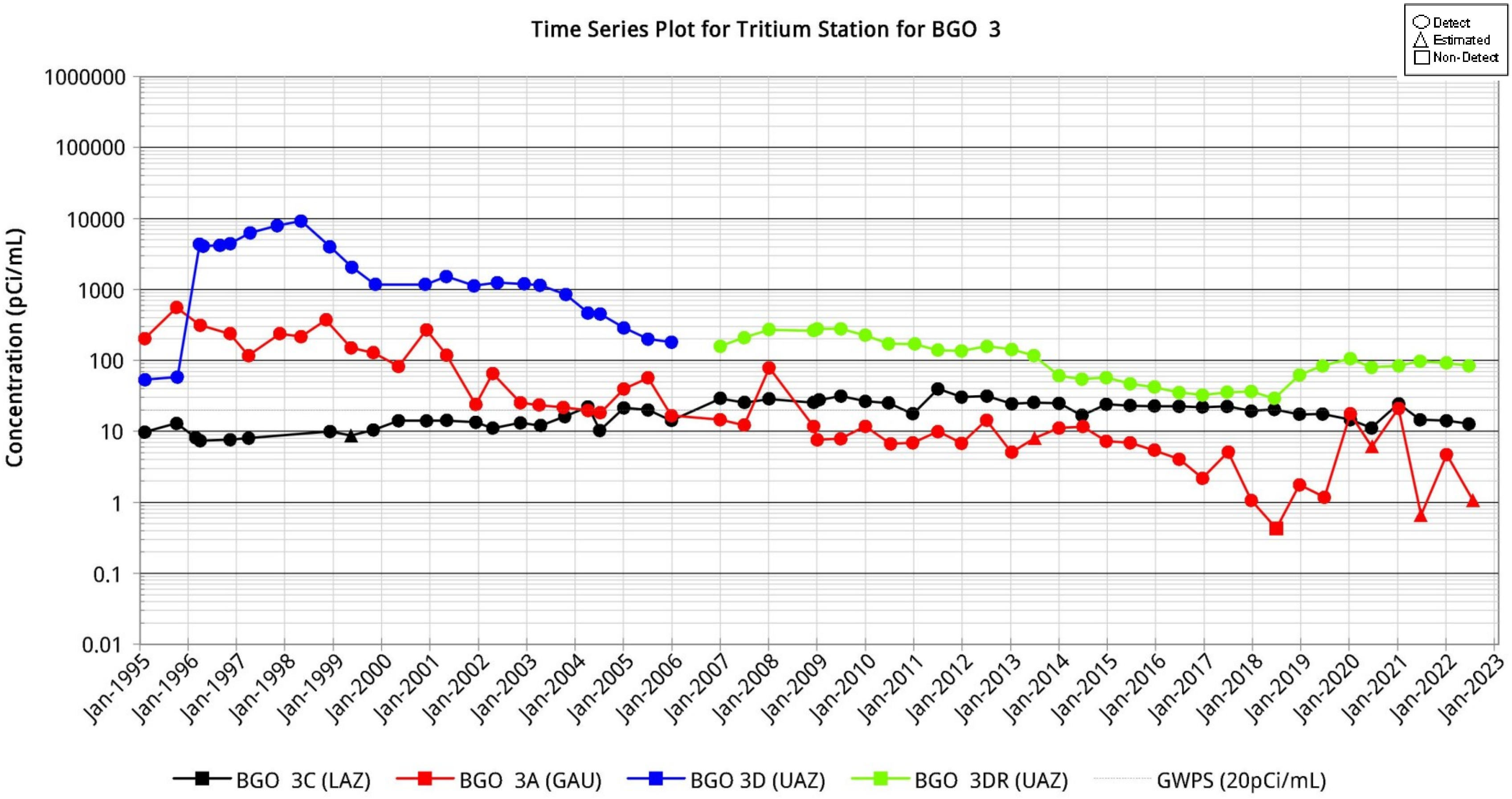
SWP004MD (UAZ)
GWPS (5ug/L)


Time Series Plot for Tritium Station for BGO 3
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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Jan-2006
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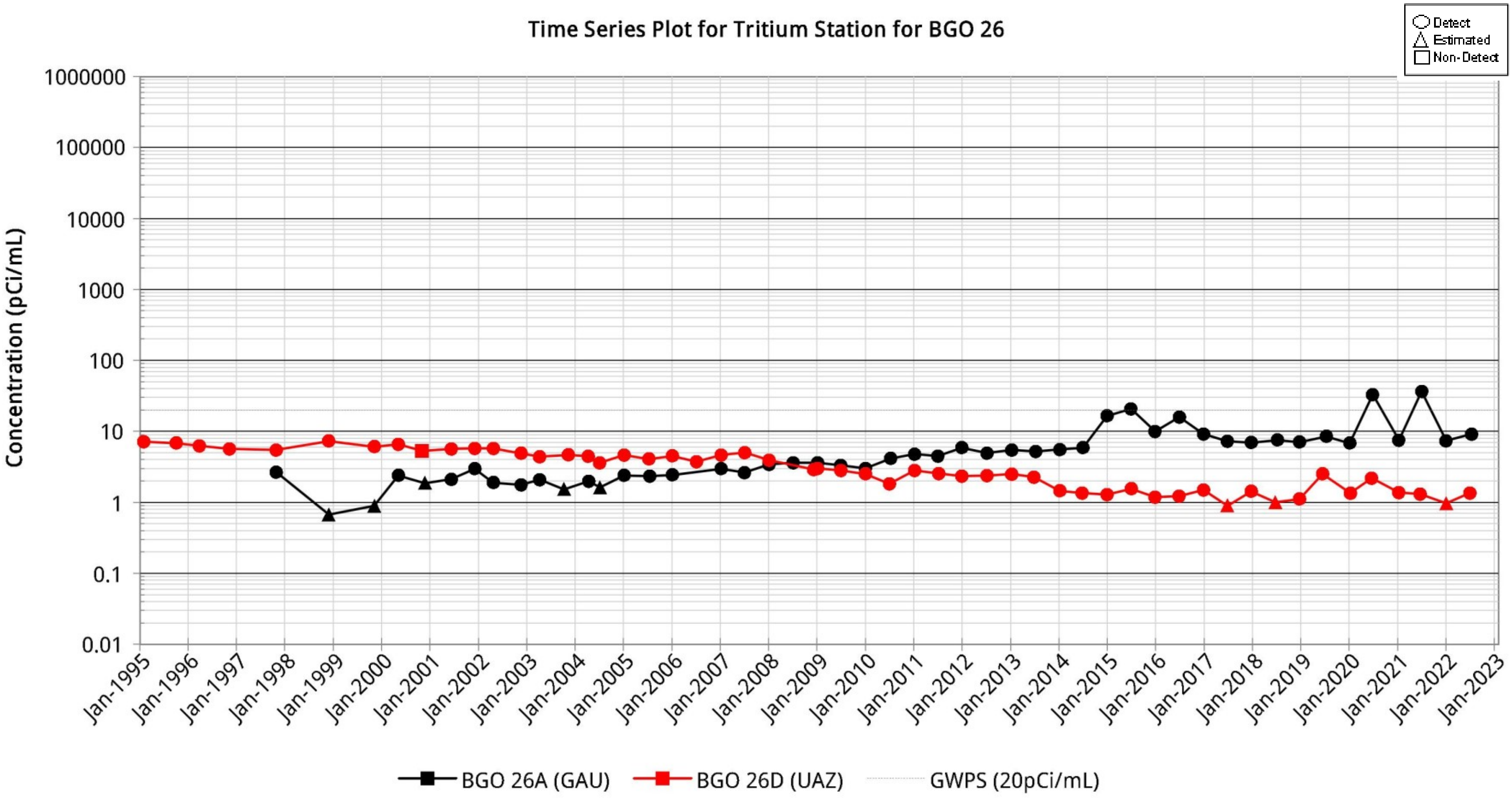
Jan-2023
BGO 3C (LAZ)
BGO 3A (GAU)
BGO 3D (UAZ)
BGO 3DR (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BGO 26
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
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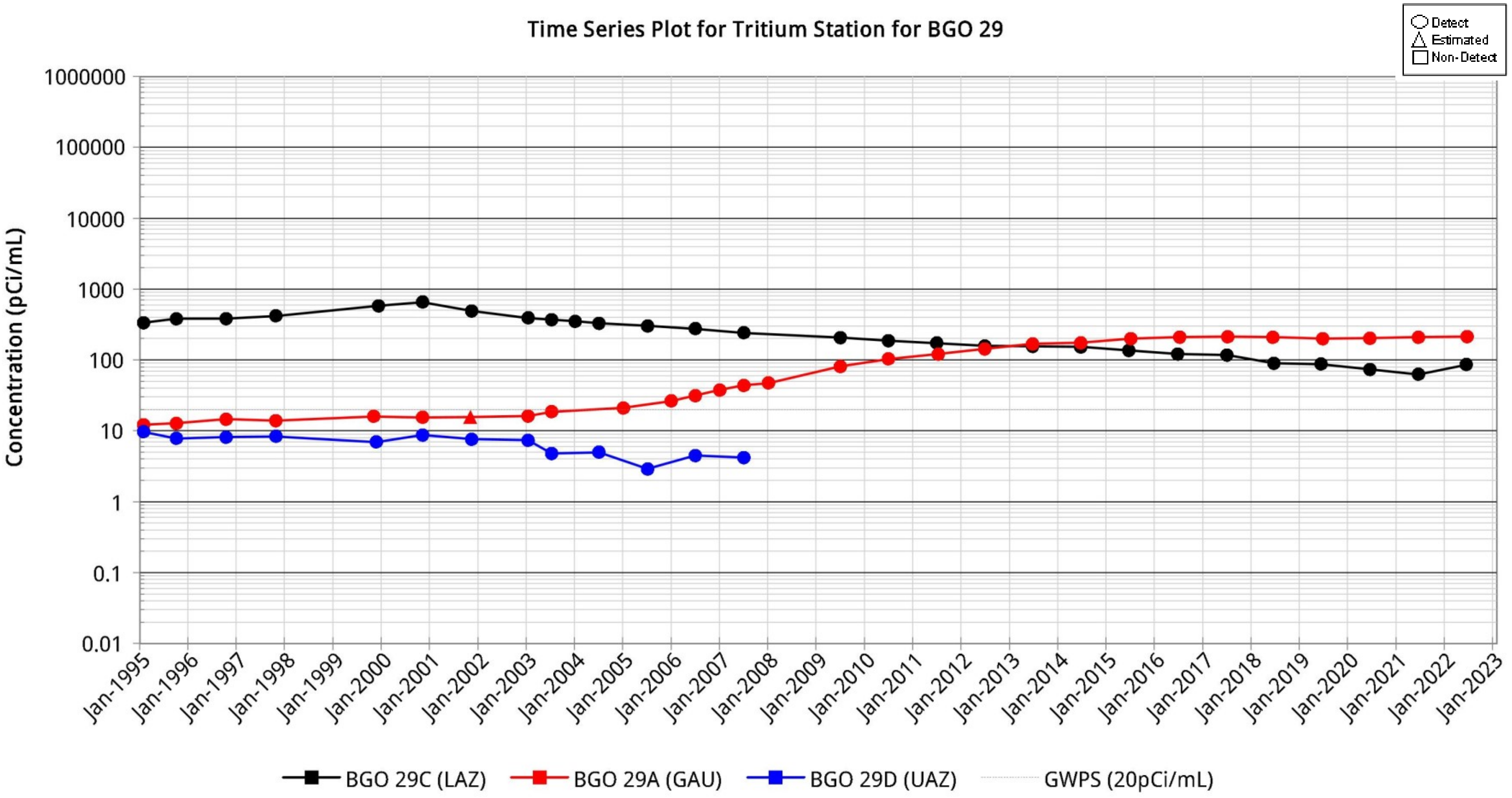
Jan-2021
Jan-2022
Jan-2023
BGO 26A (GAU)
BGO 26D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BGO 29
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
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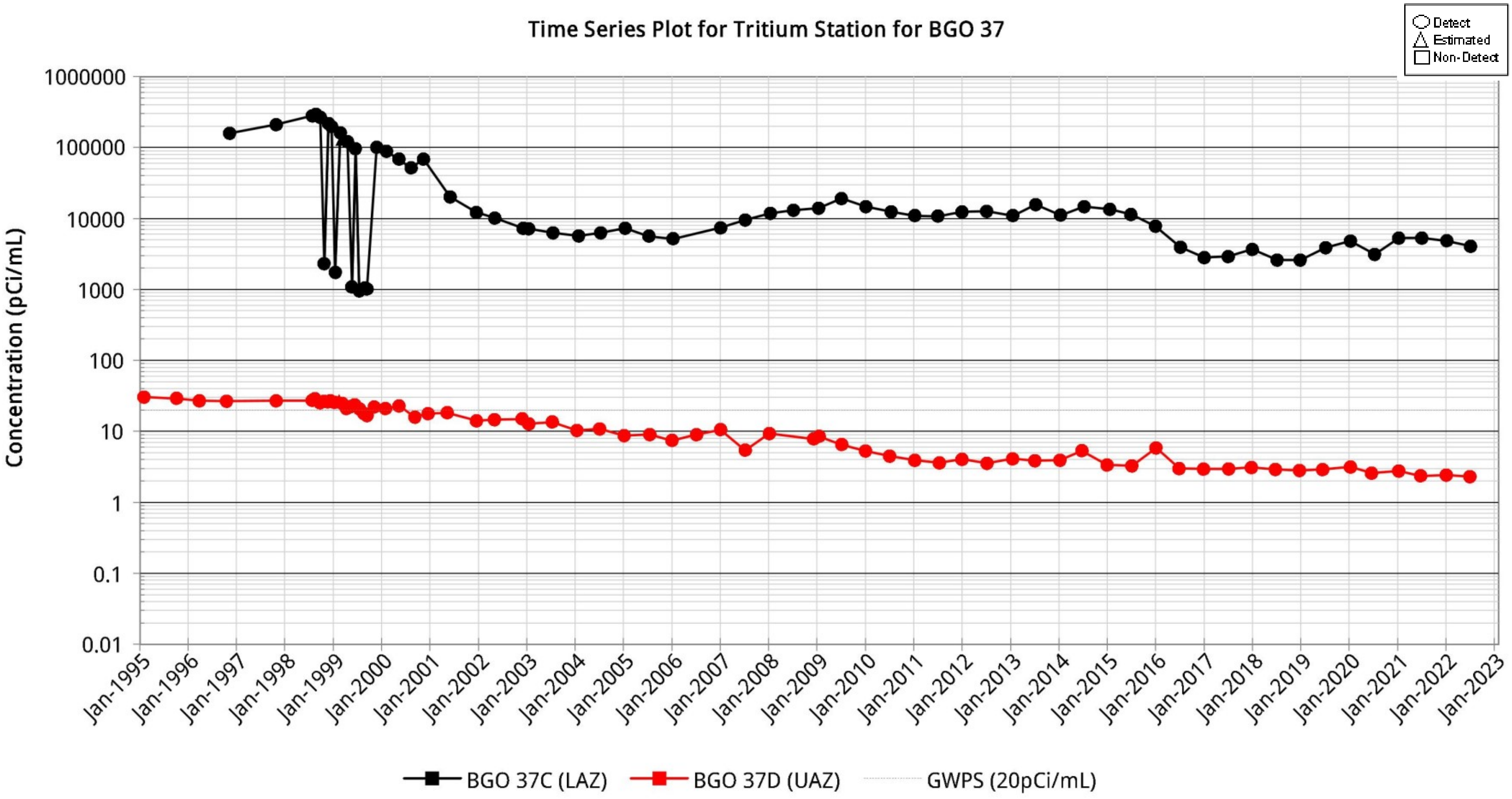
Jan-2021
Jan-2022
Jan-2023
BGO 29C (LAZ)
BGO 29A (GAU)
BGO 29D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BGO 37
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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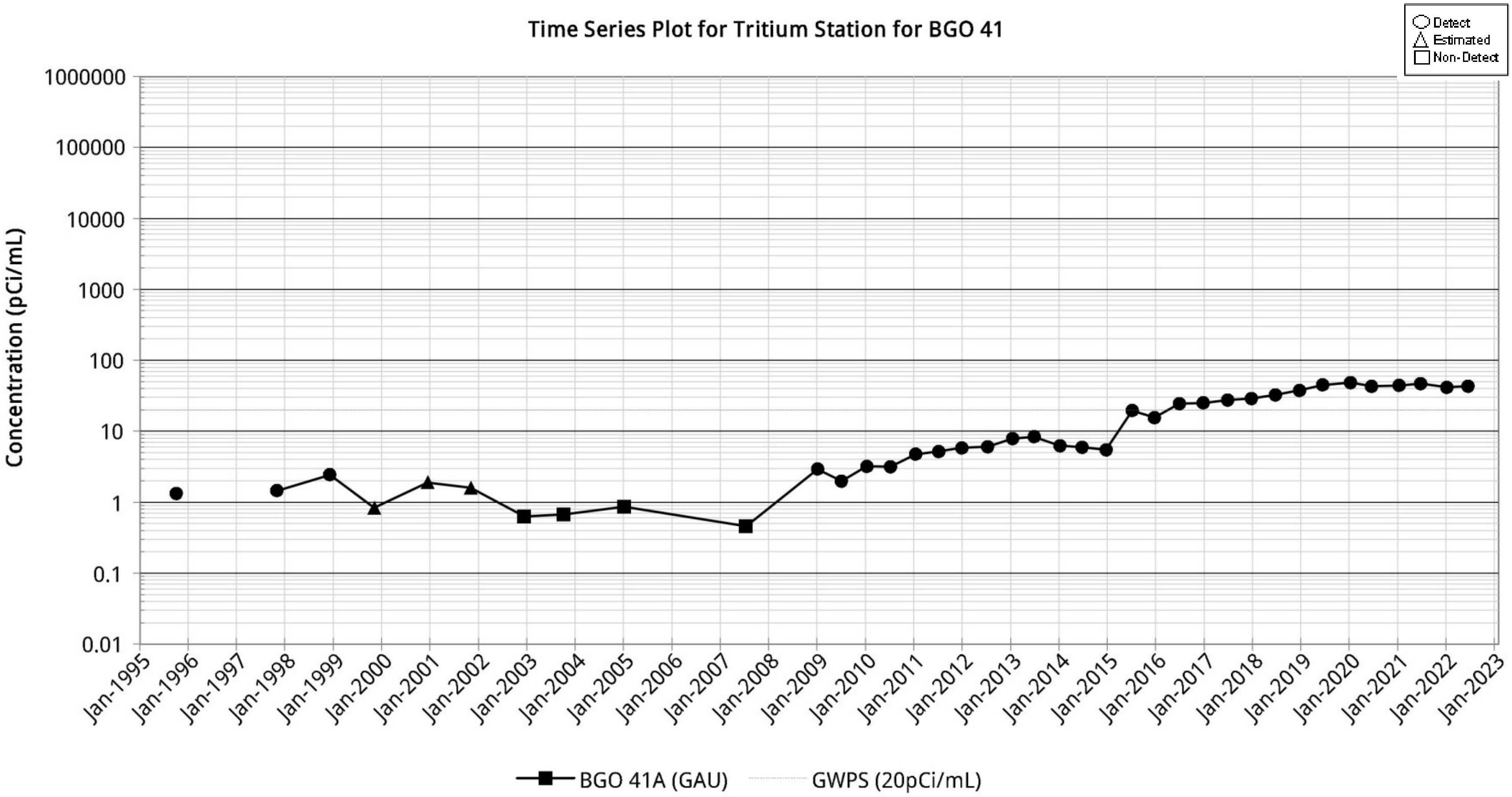
Jan-2022
Jan-2023
BGO 37C (LAZ)
BGO 37D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BGO 41
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
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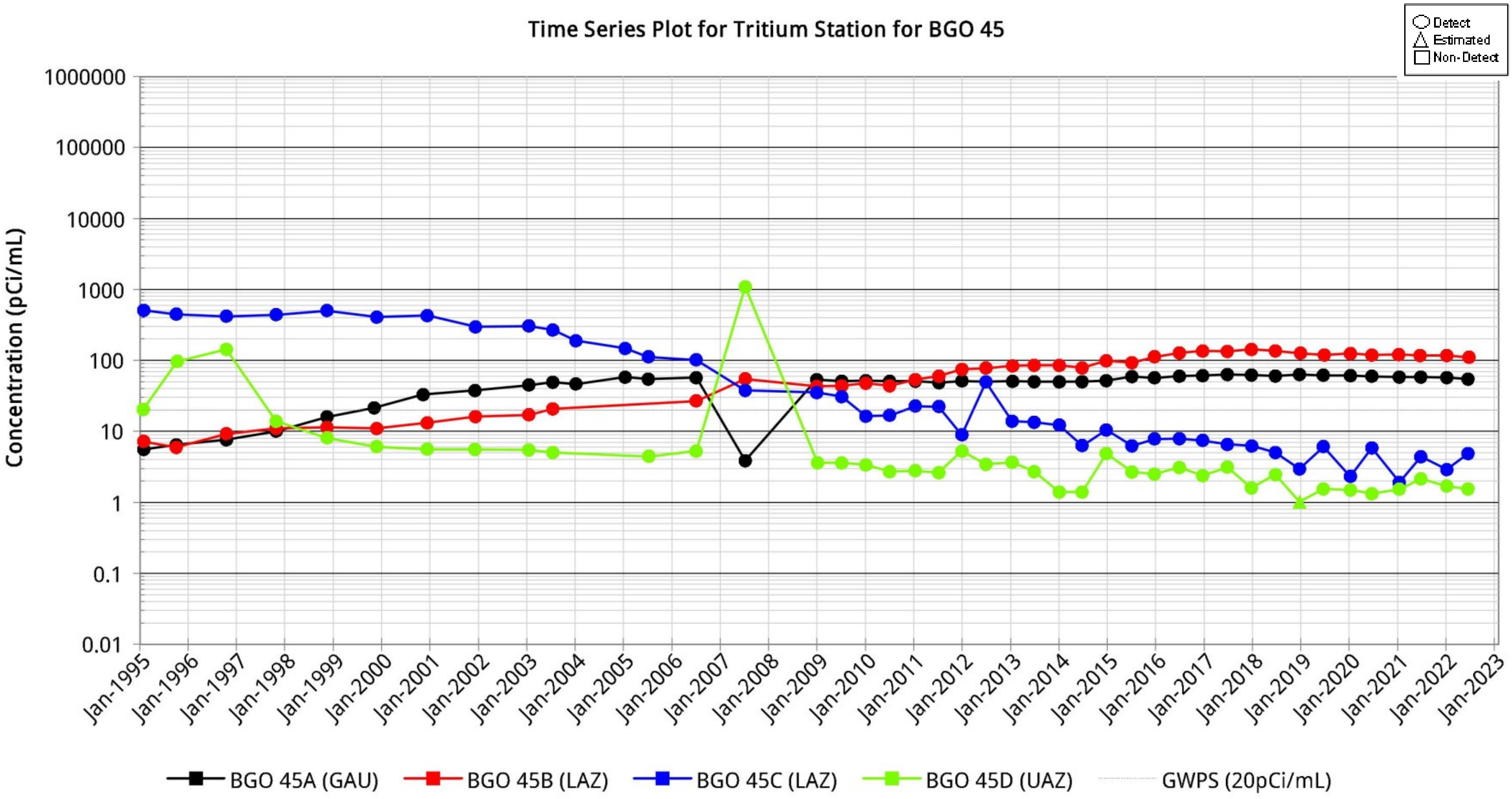
Jan-2023
BGO 41A (GAU)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BGO 45
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
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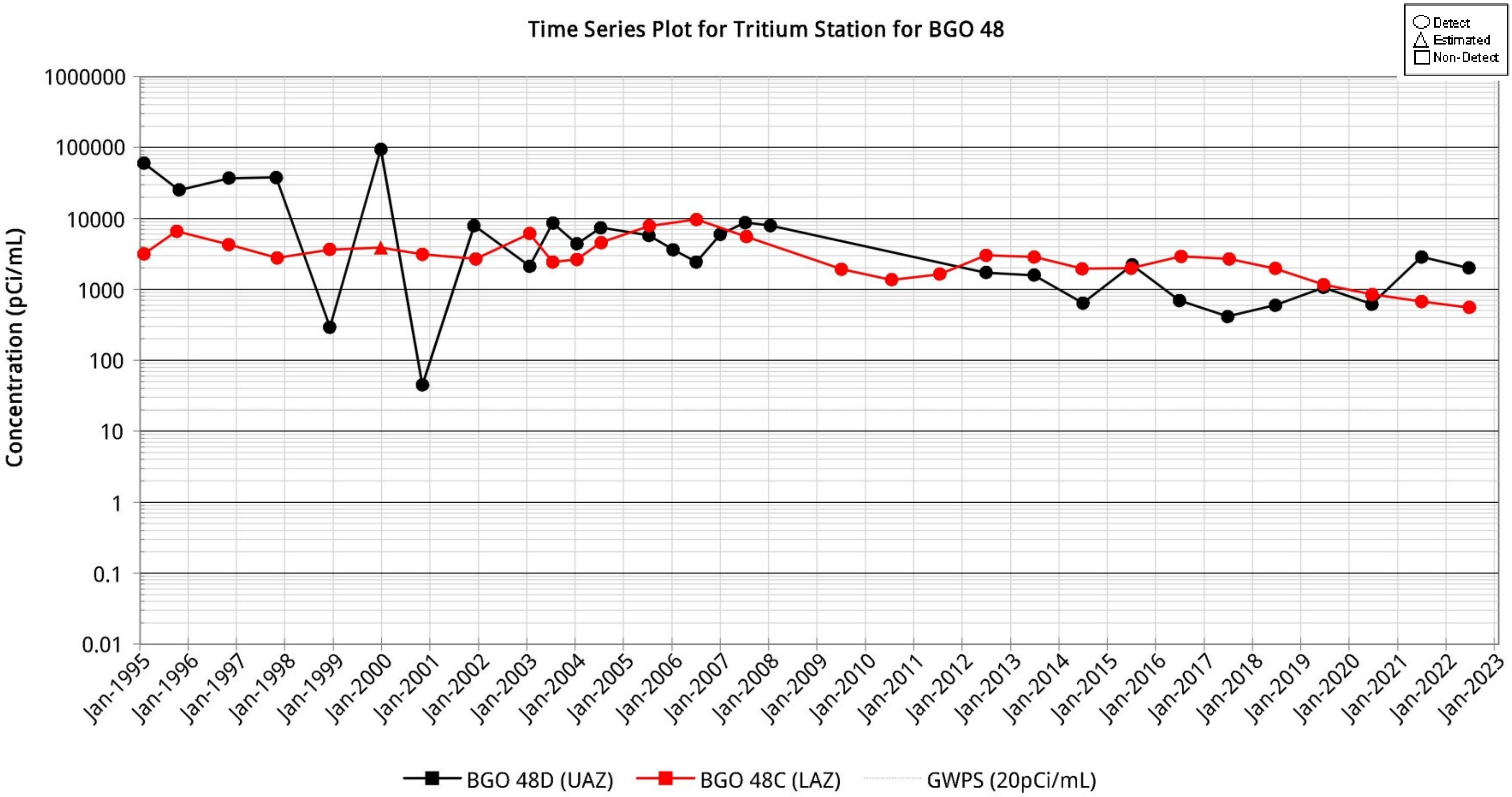
Jan-2023
BGO 45A (GAU)
BGO 45B (LAZ)
BGO 45C (LAZ)
BGO 45D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BGO 48
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
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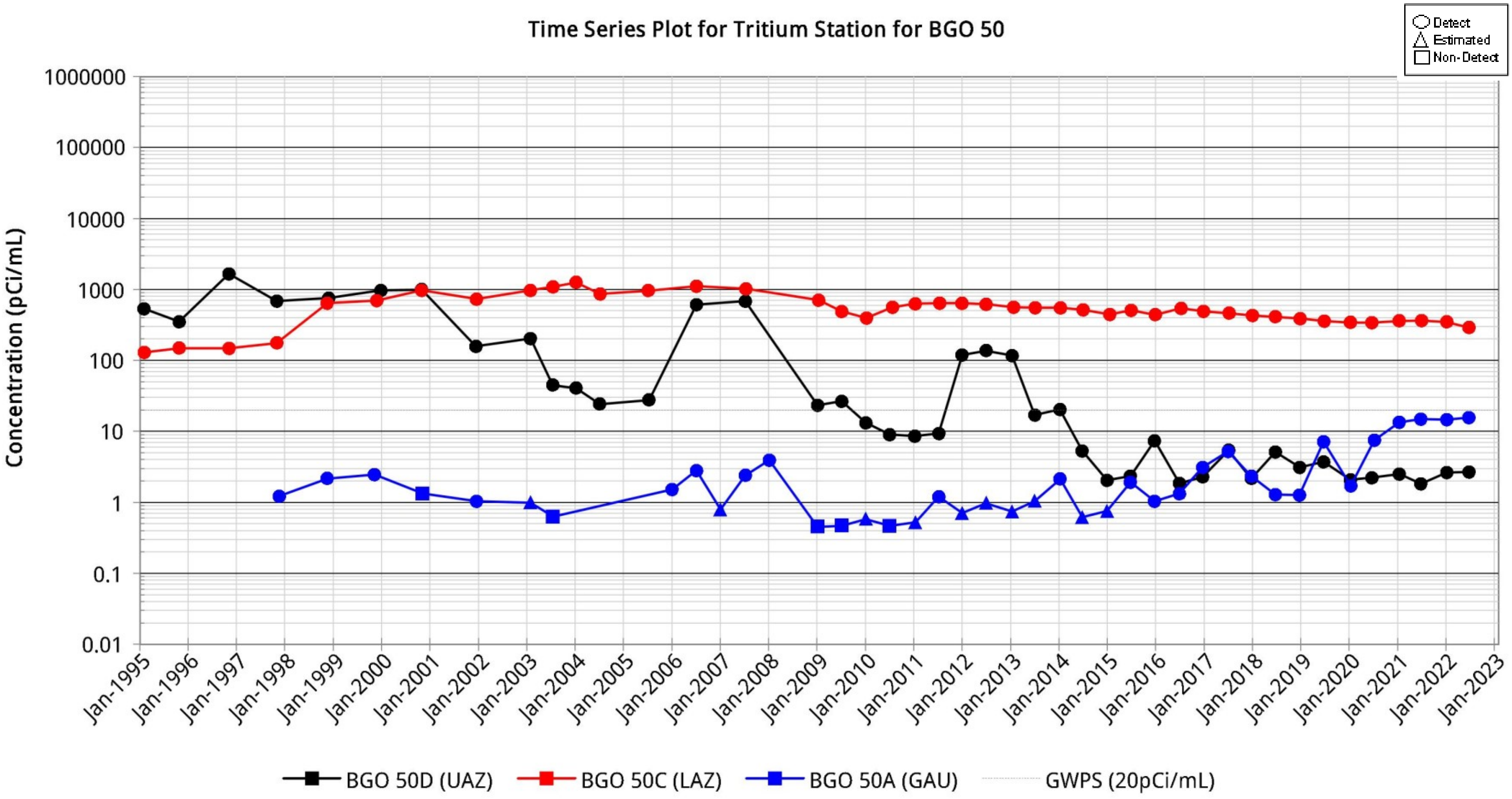
Jan-2022
Jan-2023
BGO 48D (UAZ)
BGO 48C (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BGO 50
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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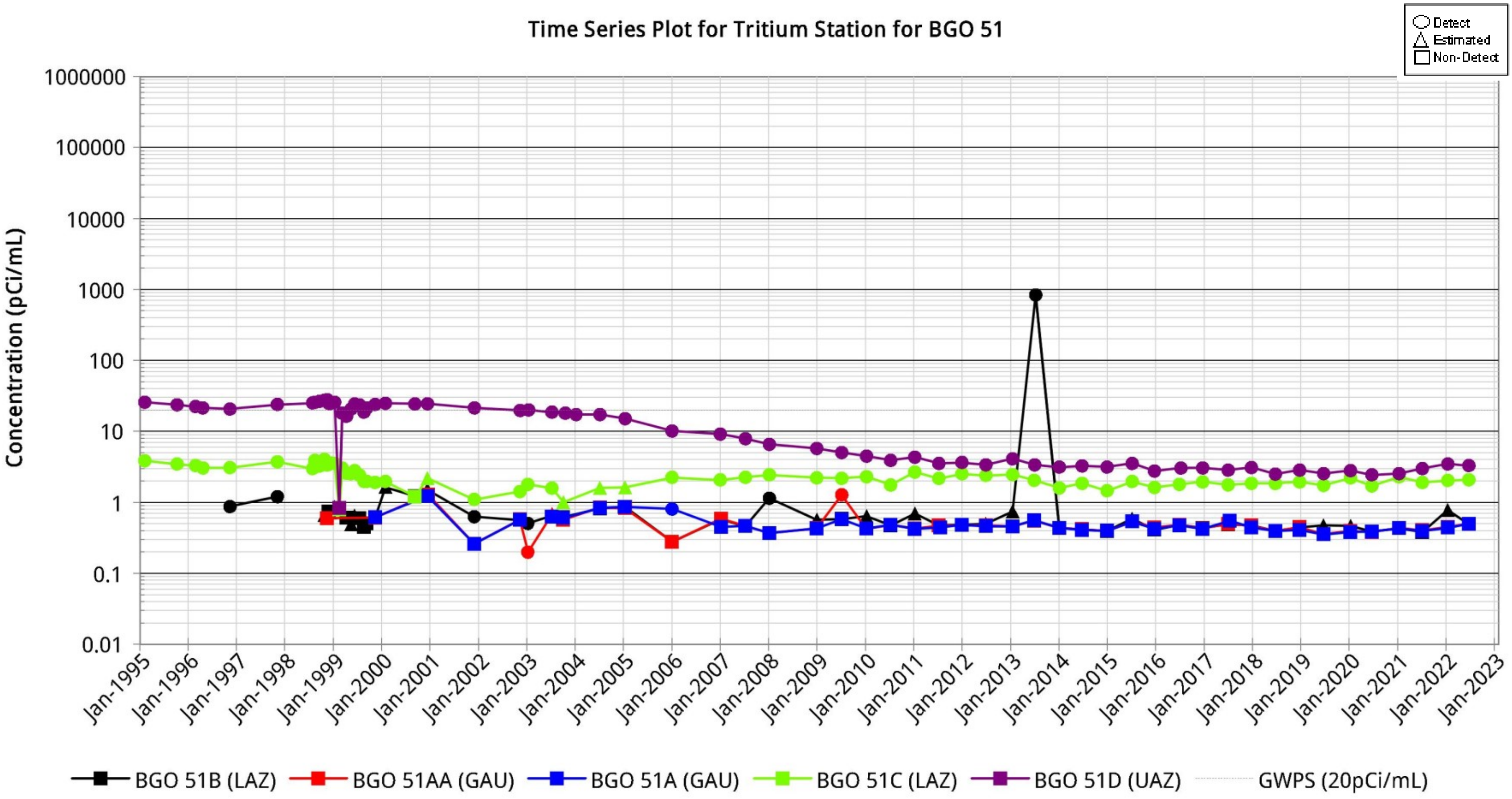
Jan-2015
Jan-2016
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGO 50D (UAZ)
BGO 50C (LAZ)
BGO 50A (GAU)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BGO 51
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
Jan-2008
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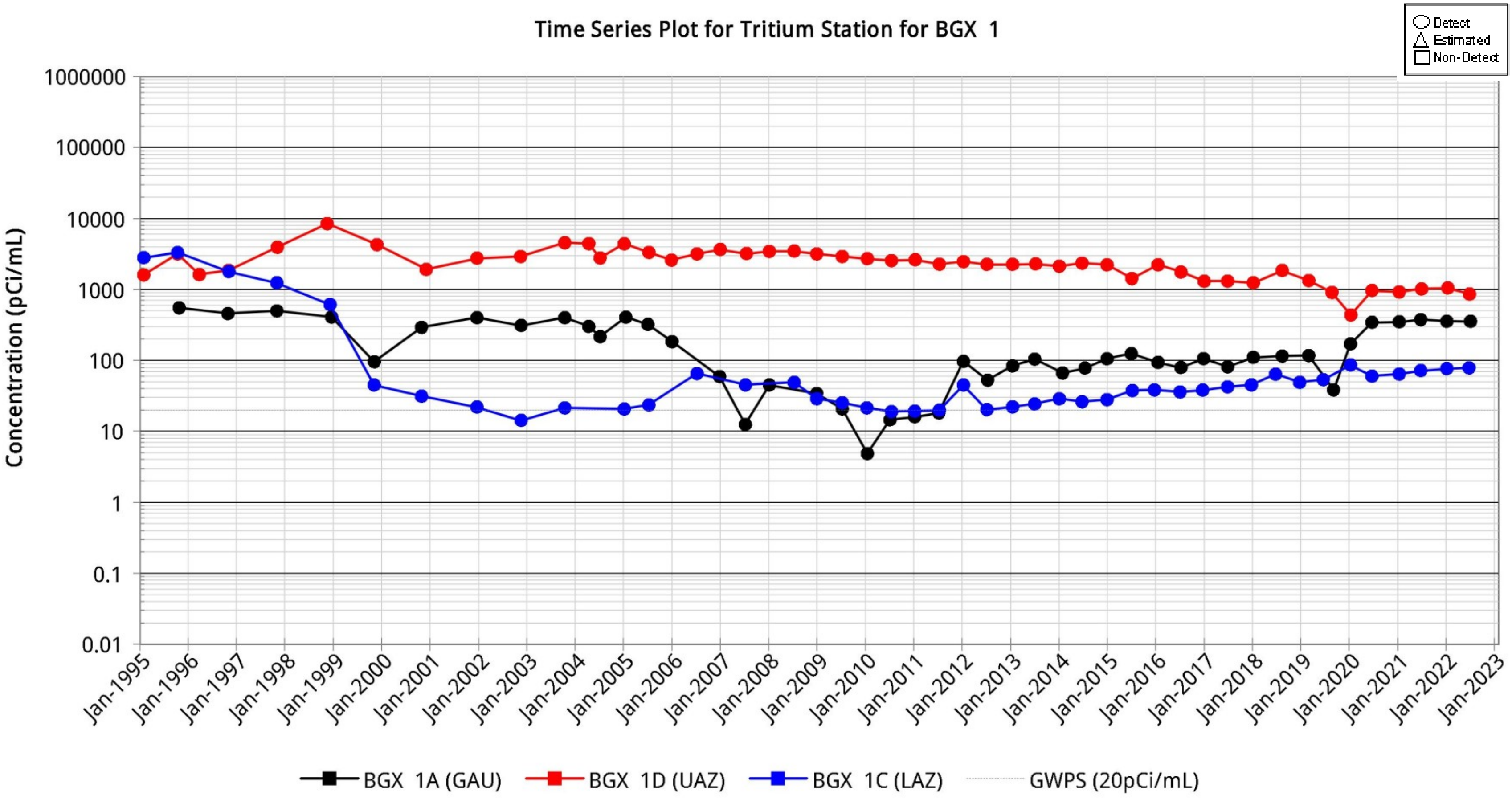
Jan-2014
Jan-2015
Jan-2016
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGO 51B (LAZ)
BGO 51AA (GAU)
BGO 51A (GAU)
BGO 51C (LAZ)
BGO 51D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BGX 1
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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Jan-2014
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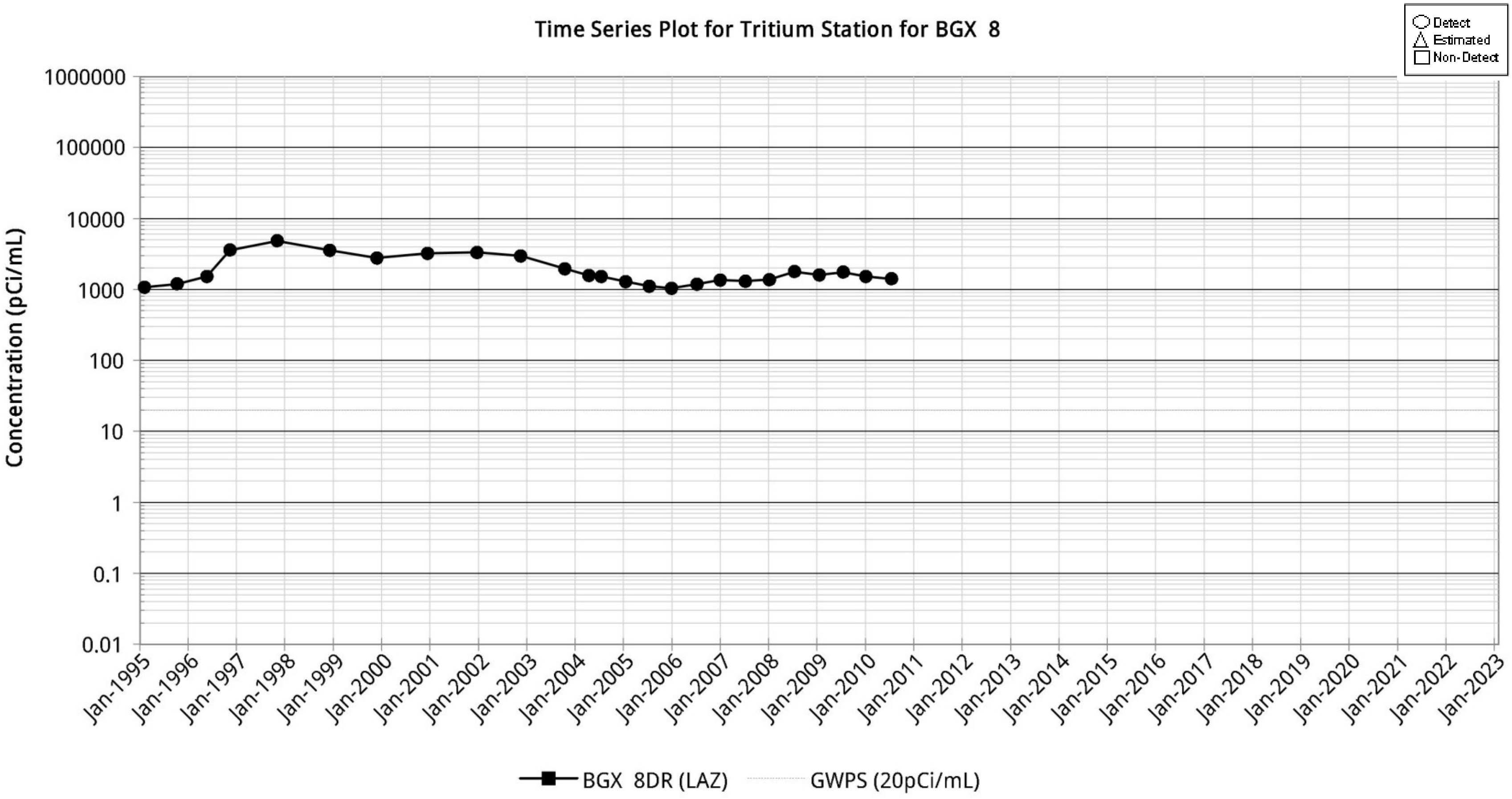
Jan-2016
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGX 1A (GAU)
BGX 1D (UAZ)
BGX 1C (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BGX 8
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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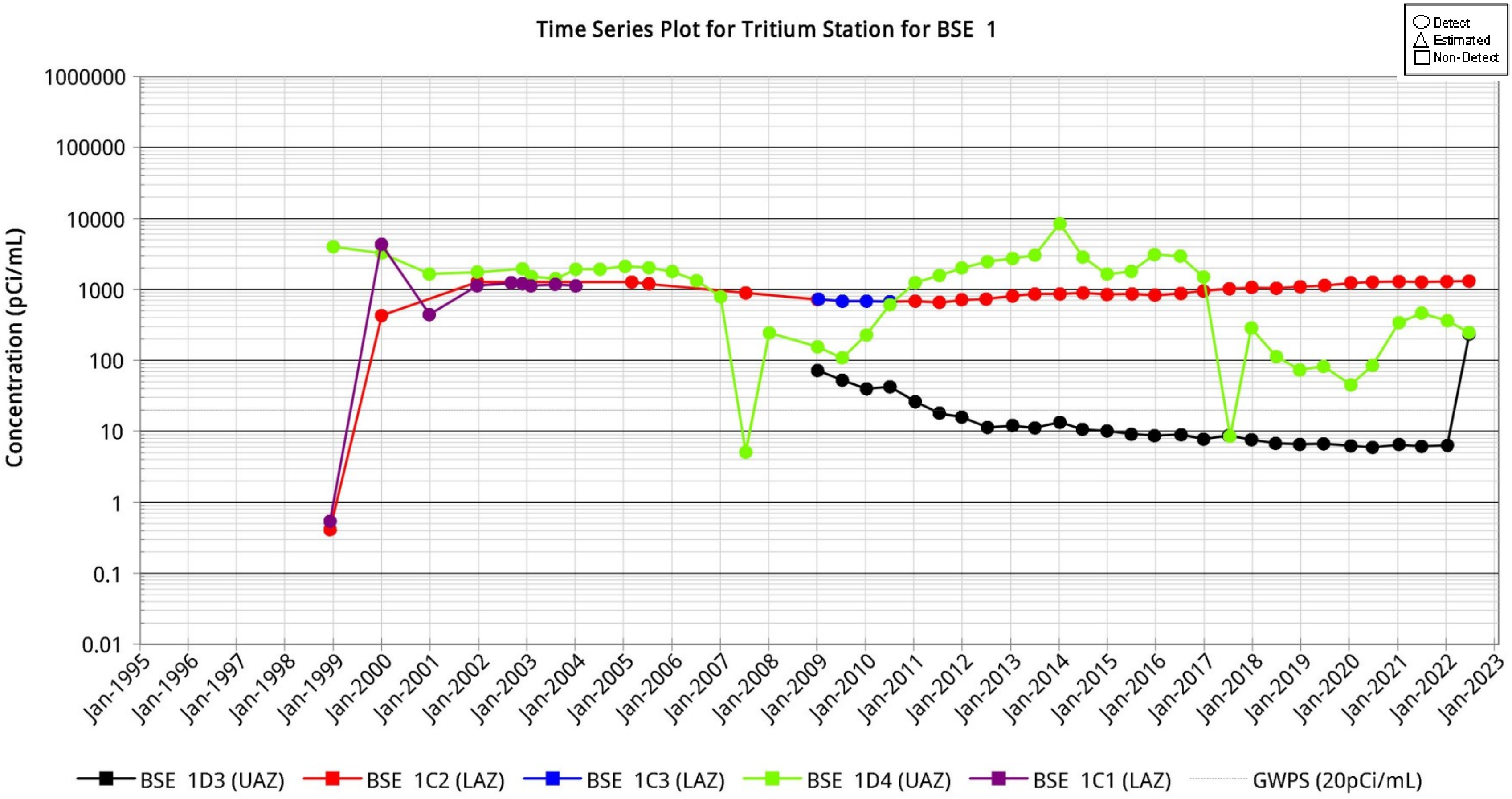
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BGX 8DR (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BSE 1
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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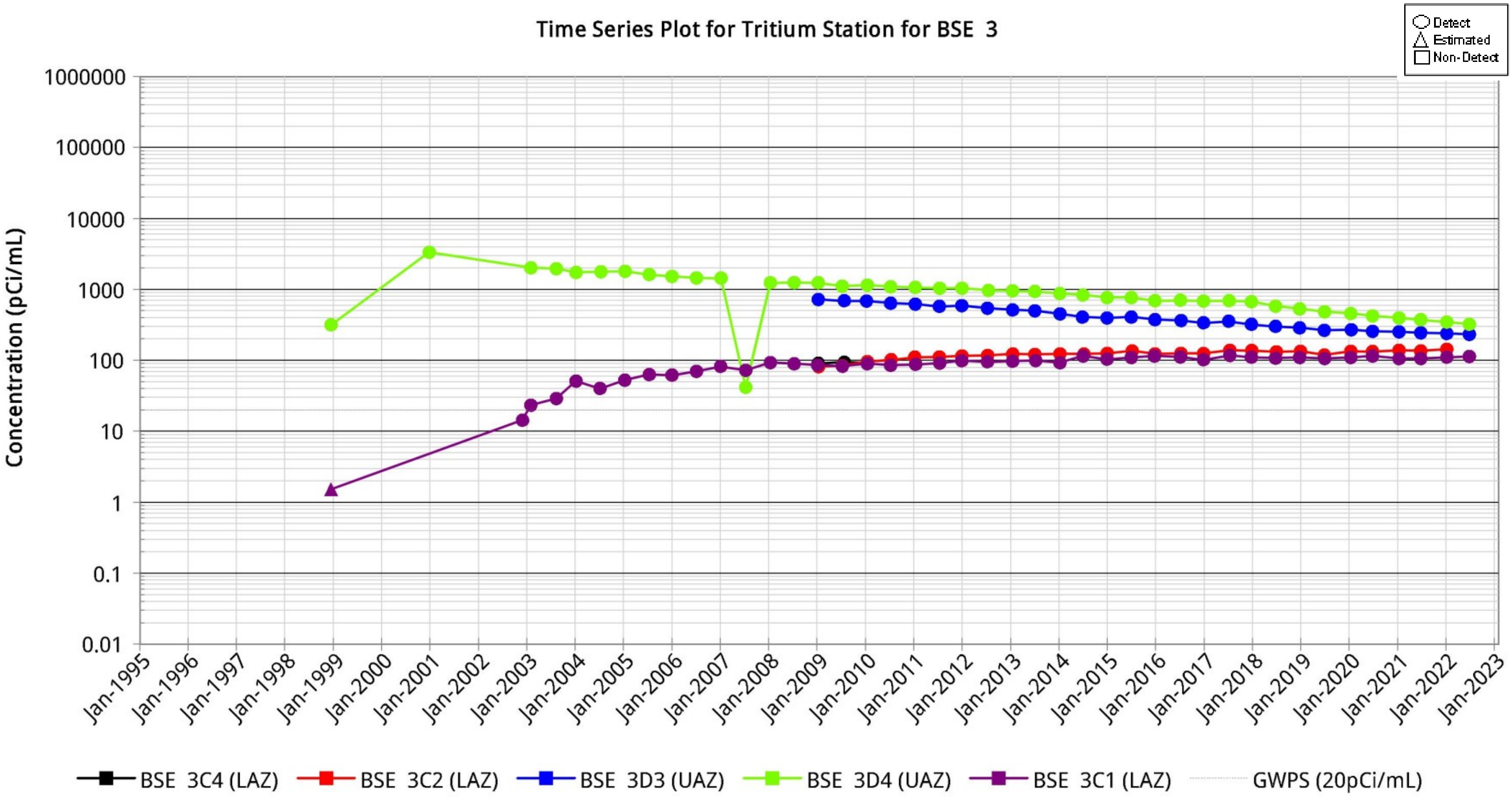
Jan-2014
Jan-2015
Jan-2016
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BSE 1D3 (UAZ)
BSE 1C2 (LAZ)
BSE 1C3 (LAZ)
BSE 1D4 (UAZ)
BSE 1C1 (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BSE 3
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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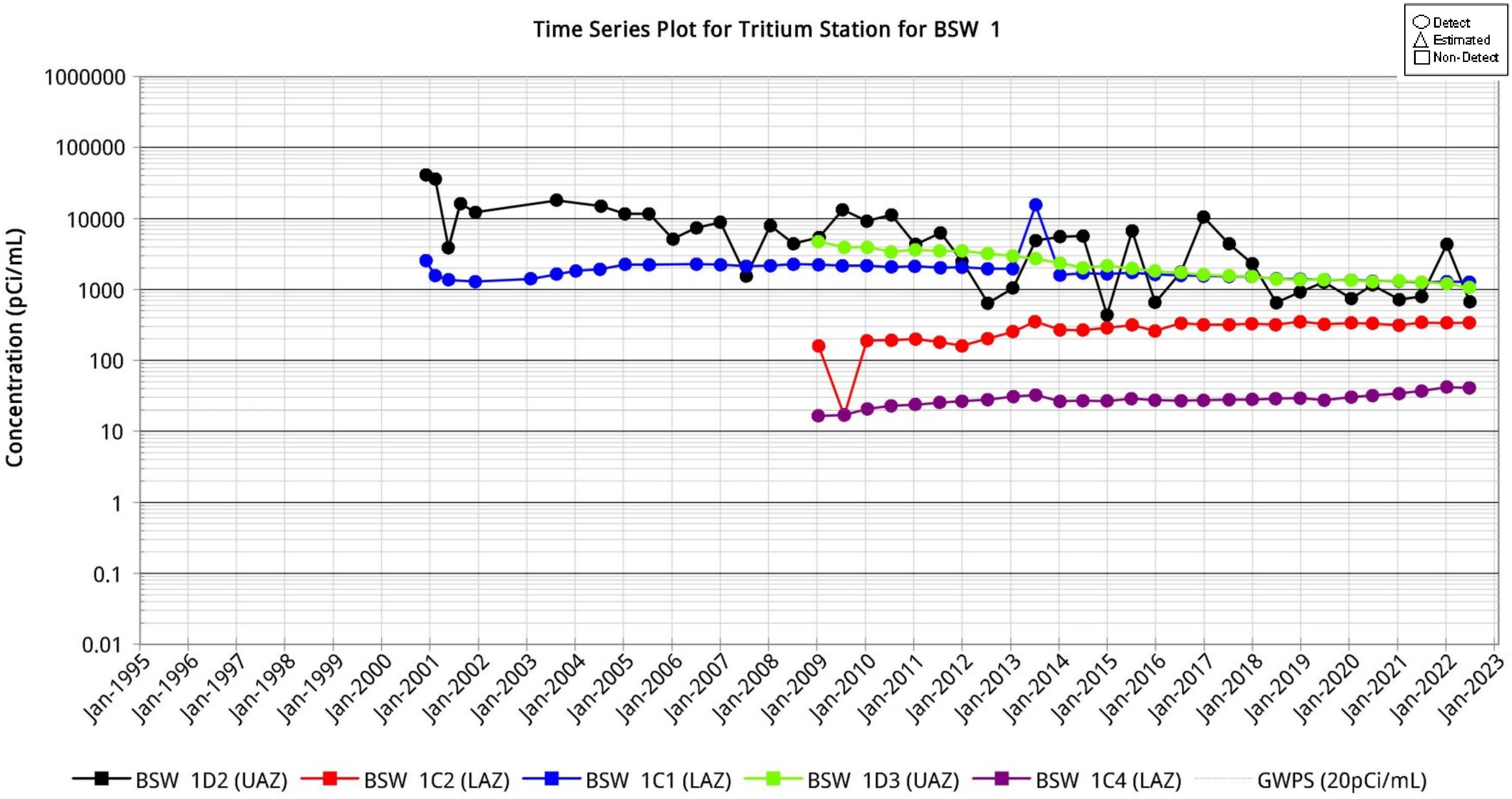
Jan-2014
Jan-2015
Jan-2016
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BSE 3C4 (LAZ)
BSE 3C2 (LAZ)
BSE 3D3 (UAZ)
BSE 3D4 (UAZ)
BSE 3C1 (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BSW 1
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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Jan-2015
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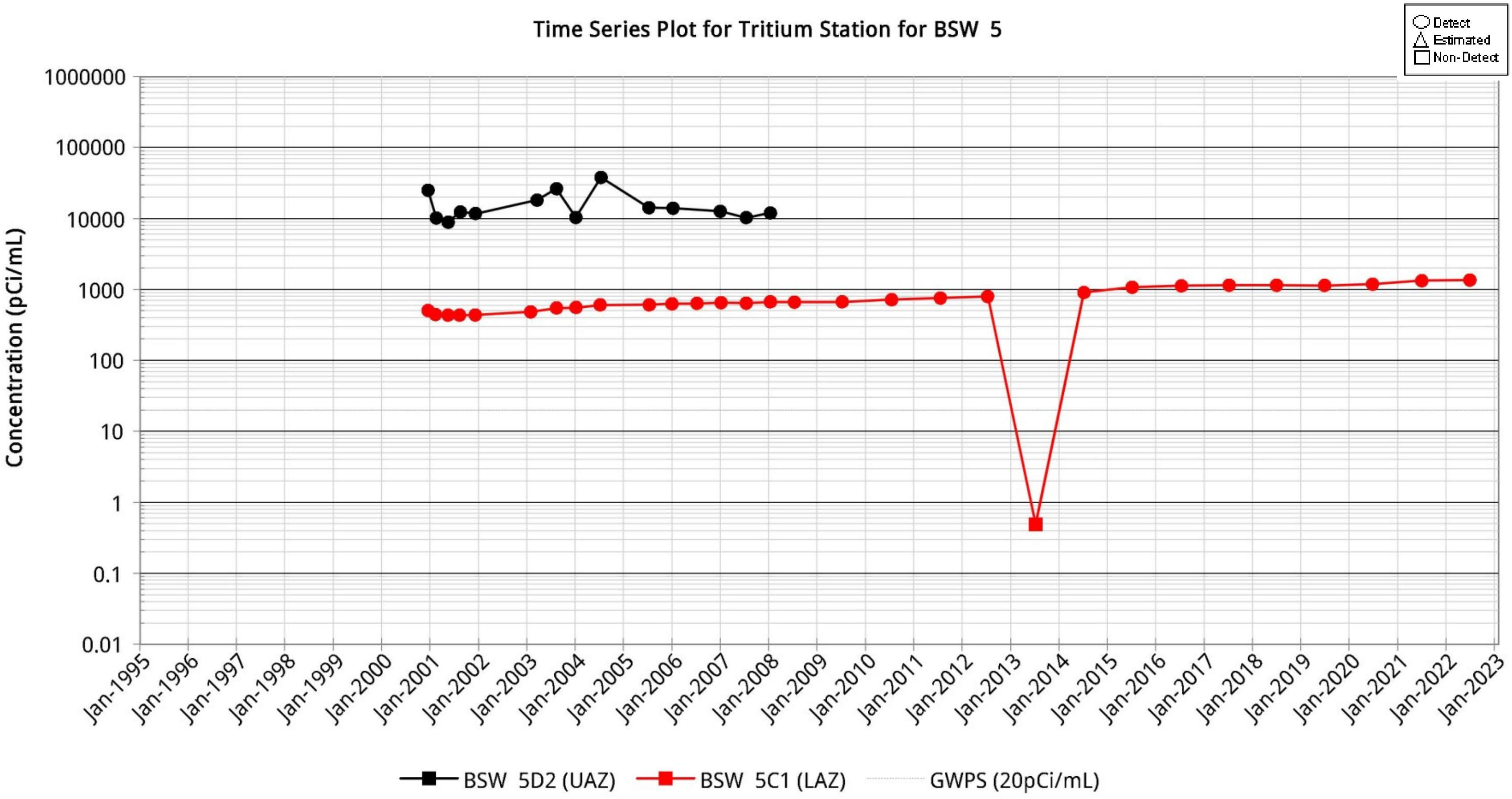
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BSW 1D2 (UAZ)
BSW 1C2 (LAZ)
BSW 1C1 (LAZ)
BSW 1D3 (UAZ)
BSW 1C4 (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BSW 5
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
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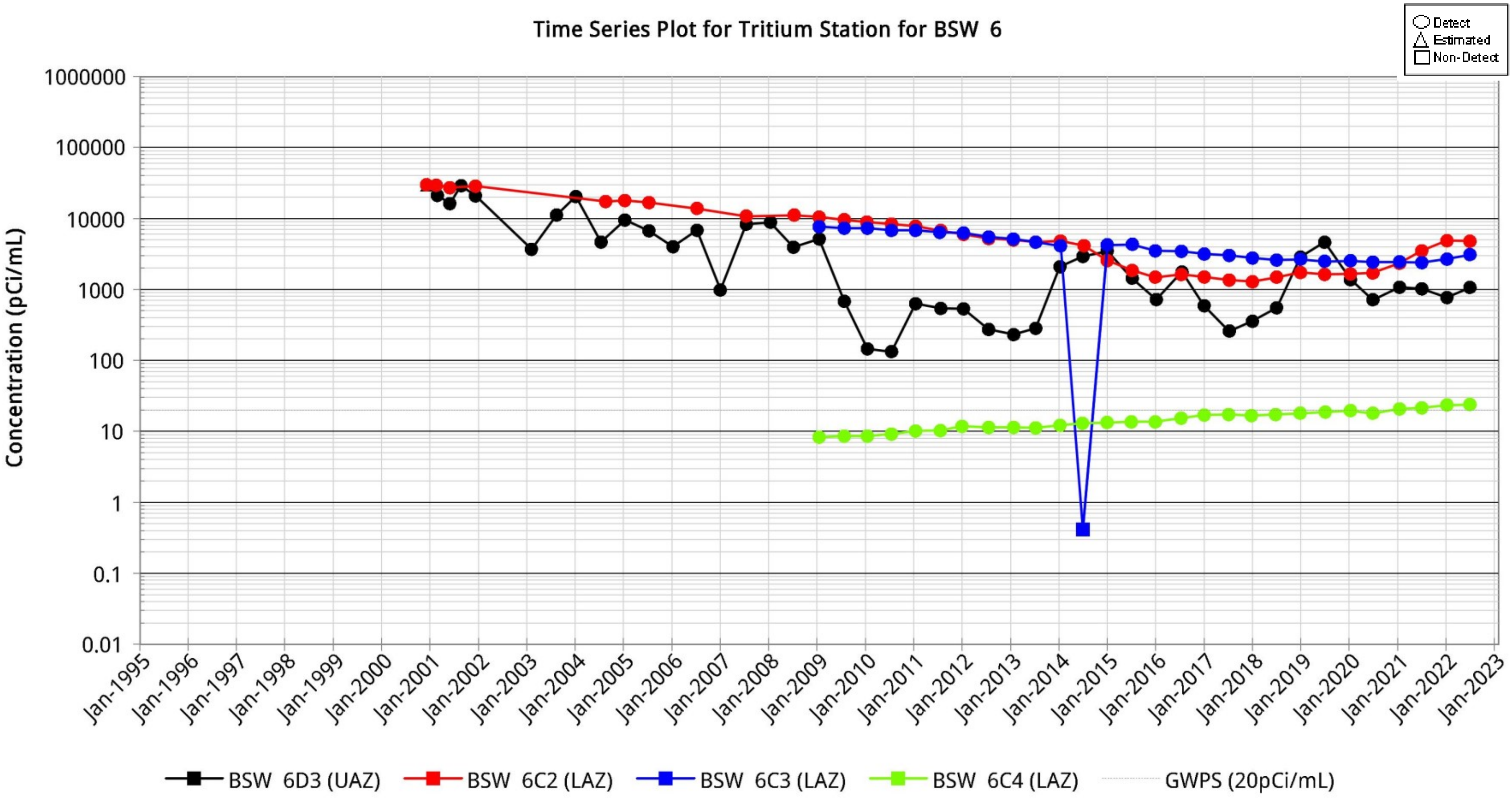
Jan-2015
Jan-2016
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BSW 5D2 (UAZ)
BSW 5C1 (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BSW 6
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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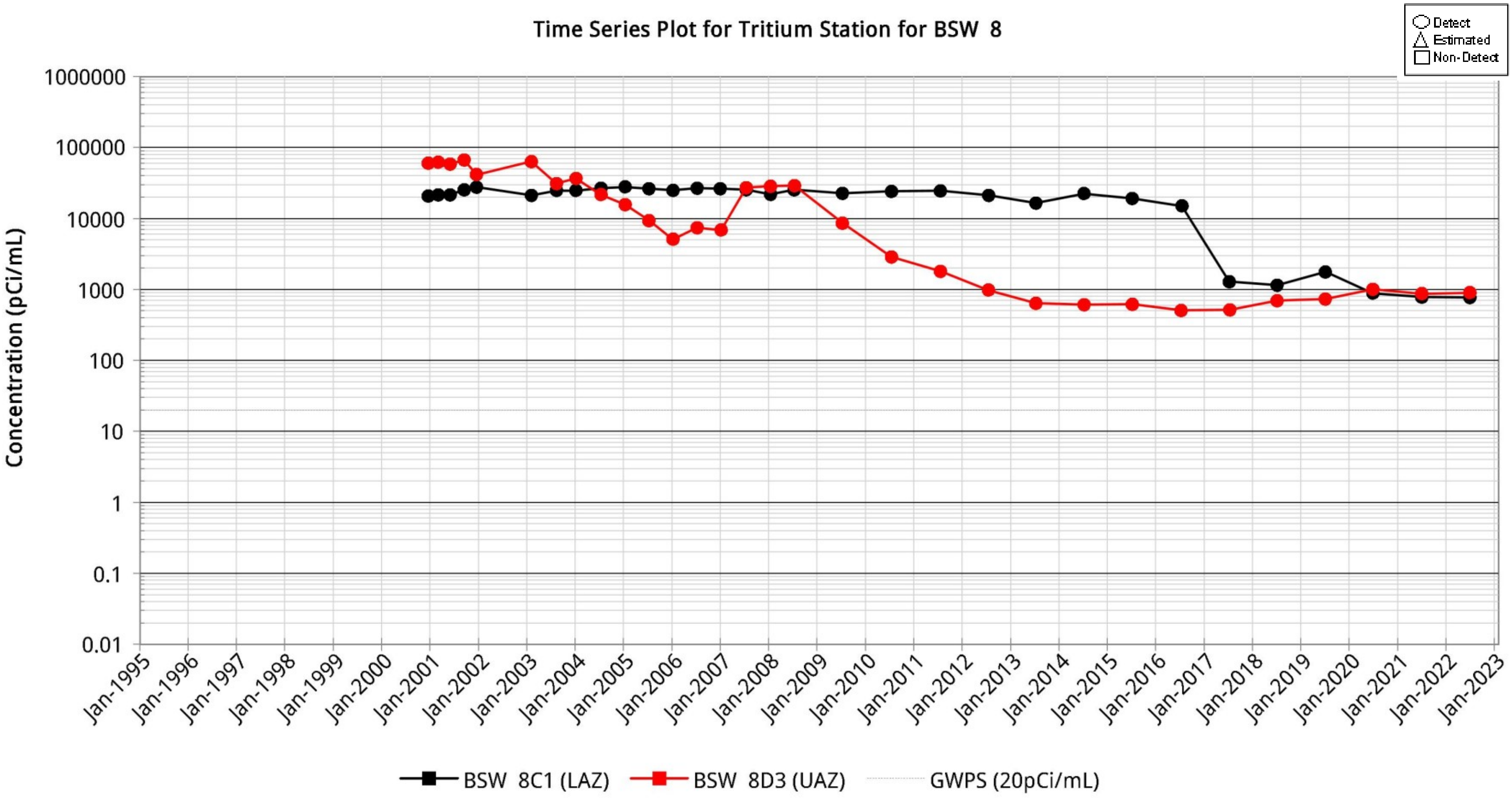
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BSW 6D3 (UAZ)
BSW 6C2 (LAZ)
BSW 6C3 (LAZ)
BSW 6C4 (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for BSW 8
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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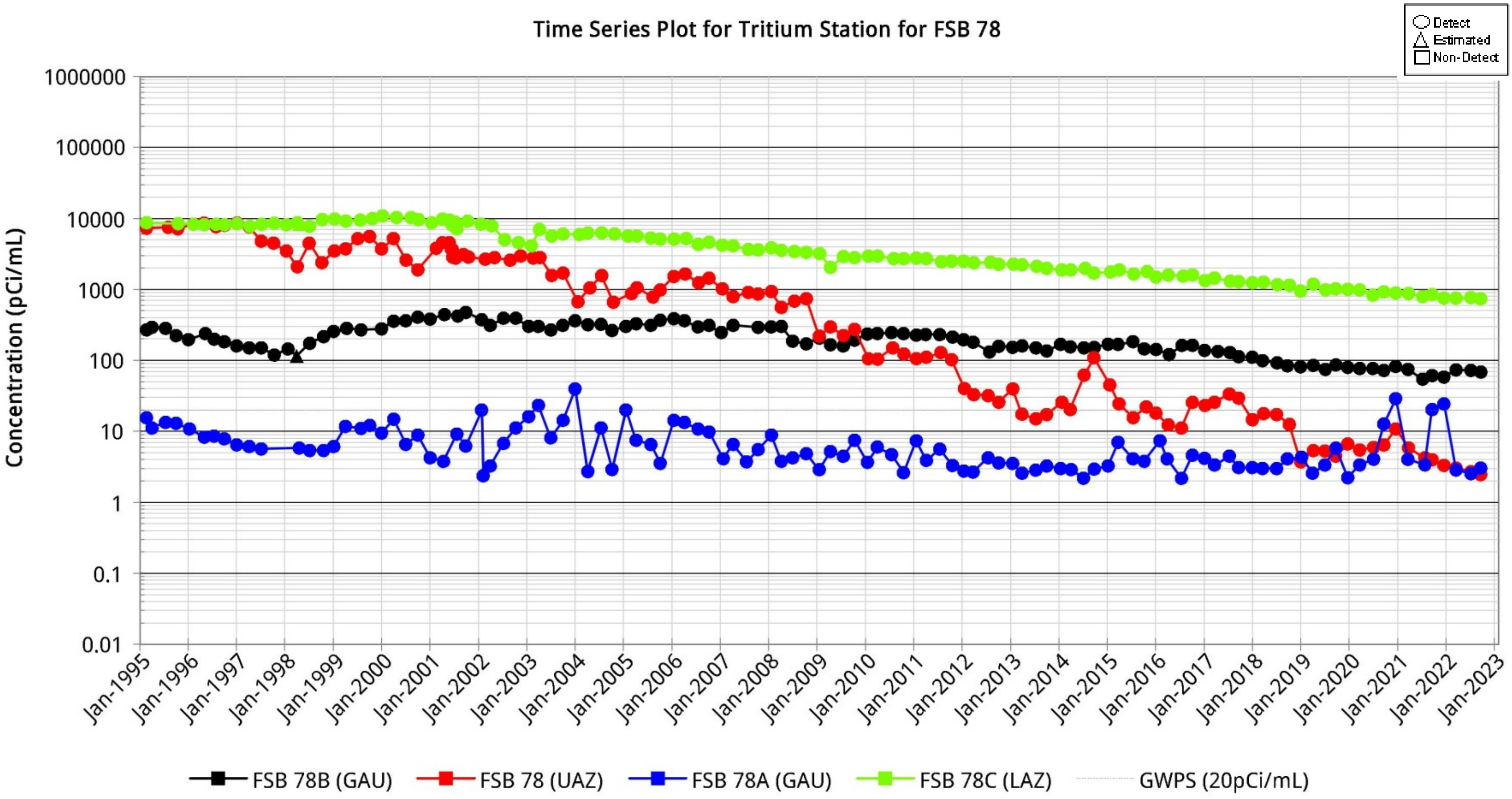
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
BSW 8C1 (LAZ)
BSW 8D3 (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSB 78
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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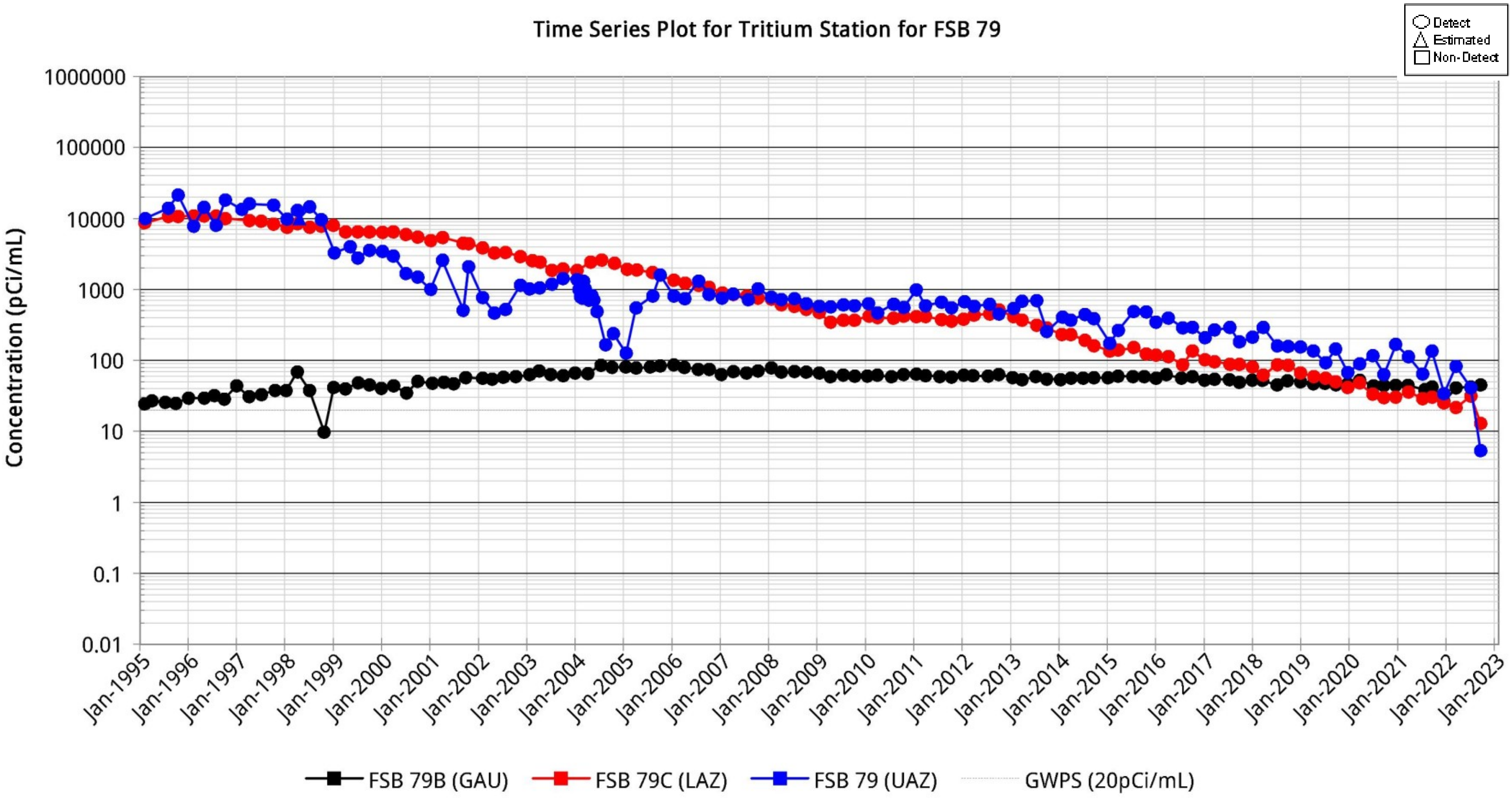
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 78B (GAU)
FSB 78 (UAZ)
FSB 78A (GAU)
FSB 78C (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSB 79
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
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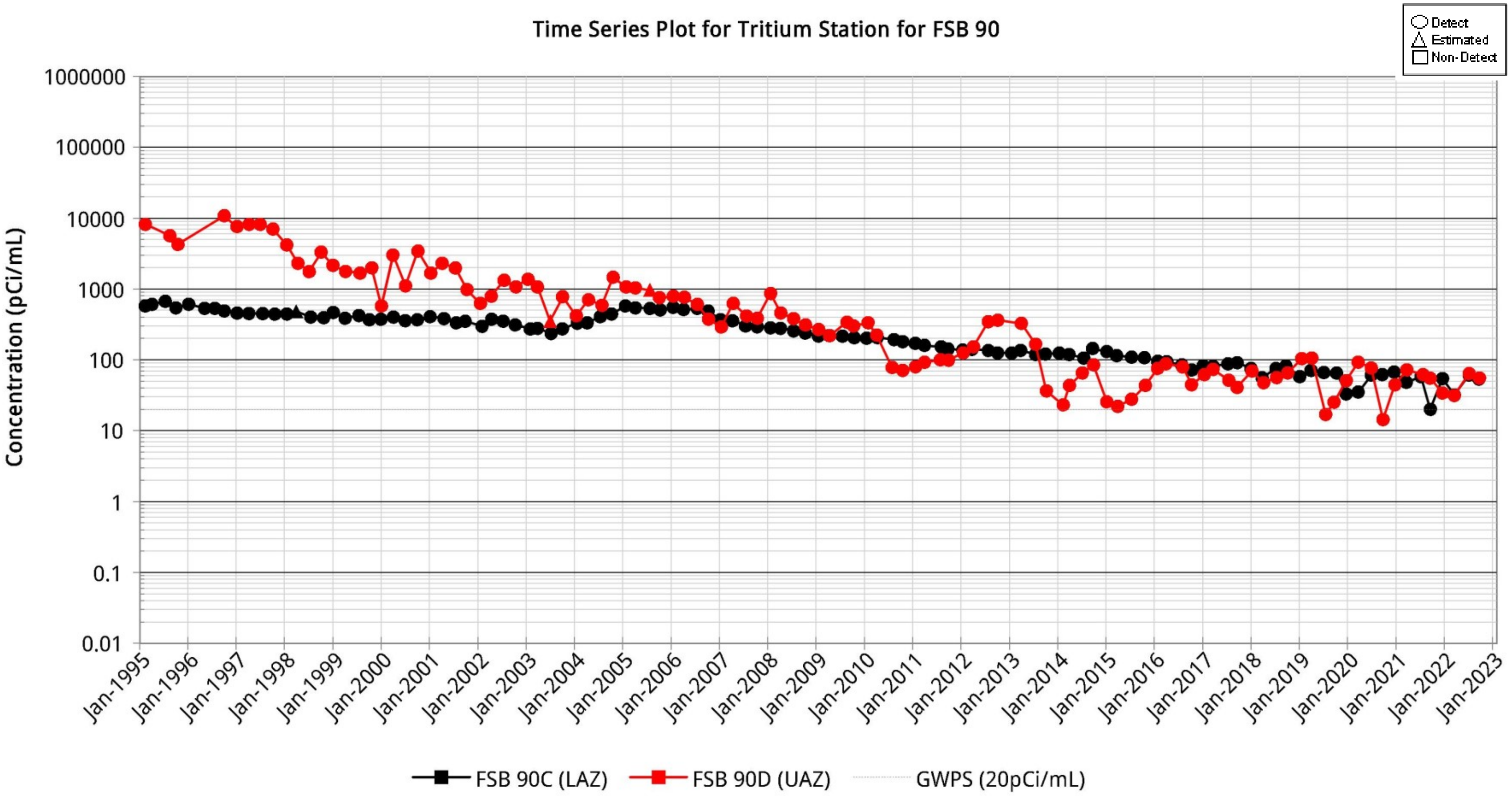
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 79B (GAU)
FSB 79C (LAZ)
FSB 79 (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSB 90
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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Jan-2016
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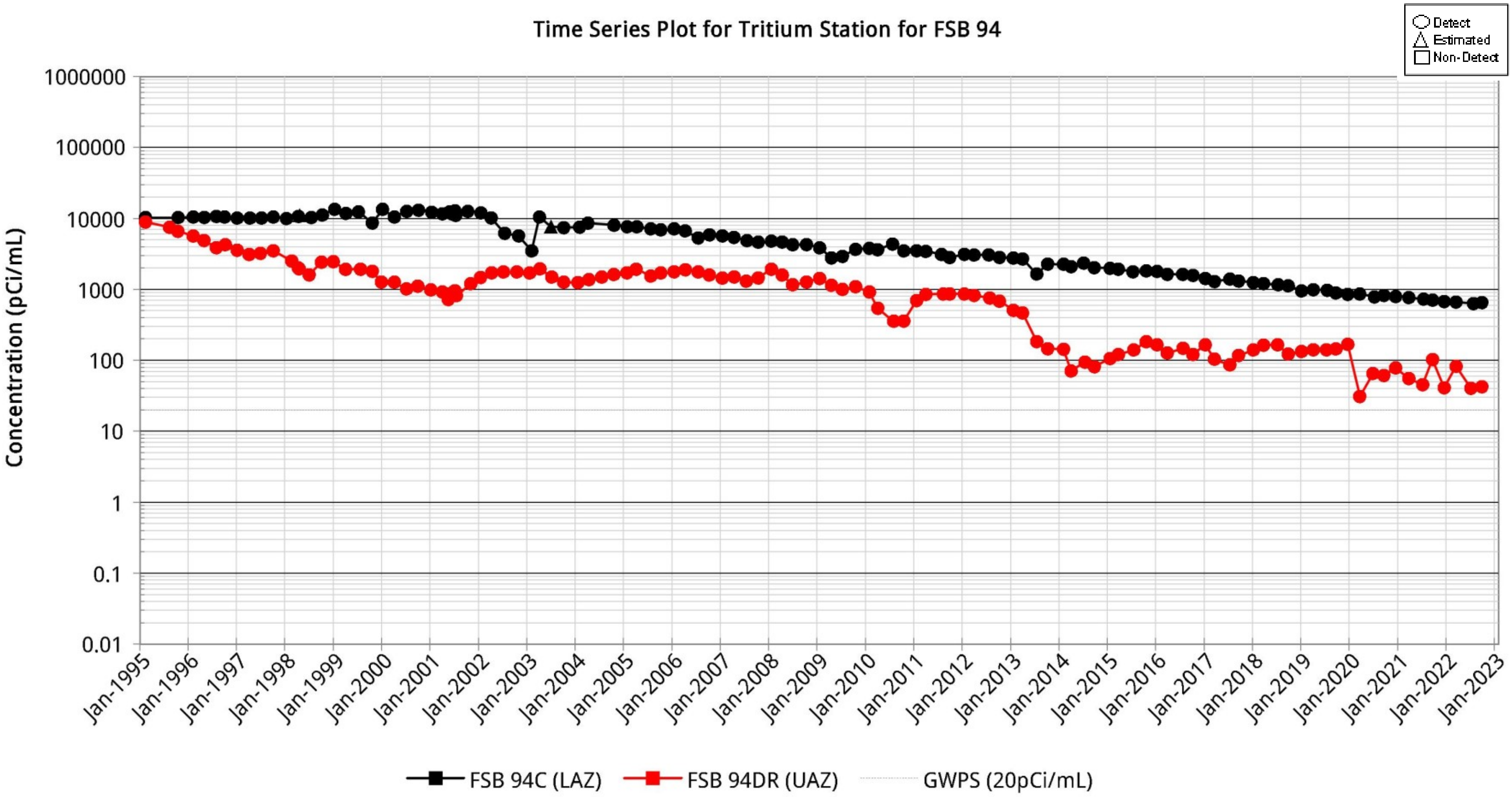
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 90C (LAZ)
FSB 90D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSB 94
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
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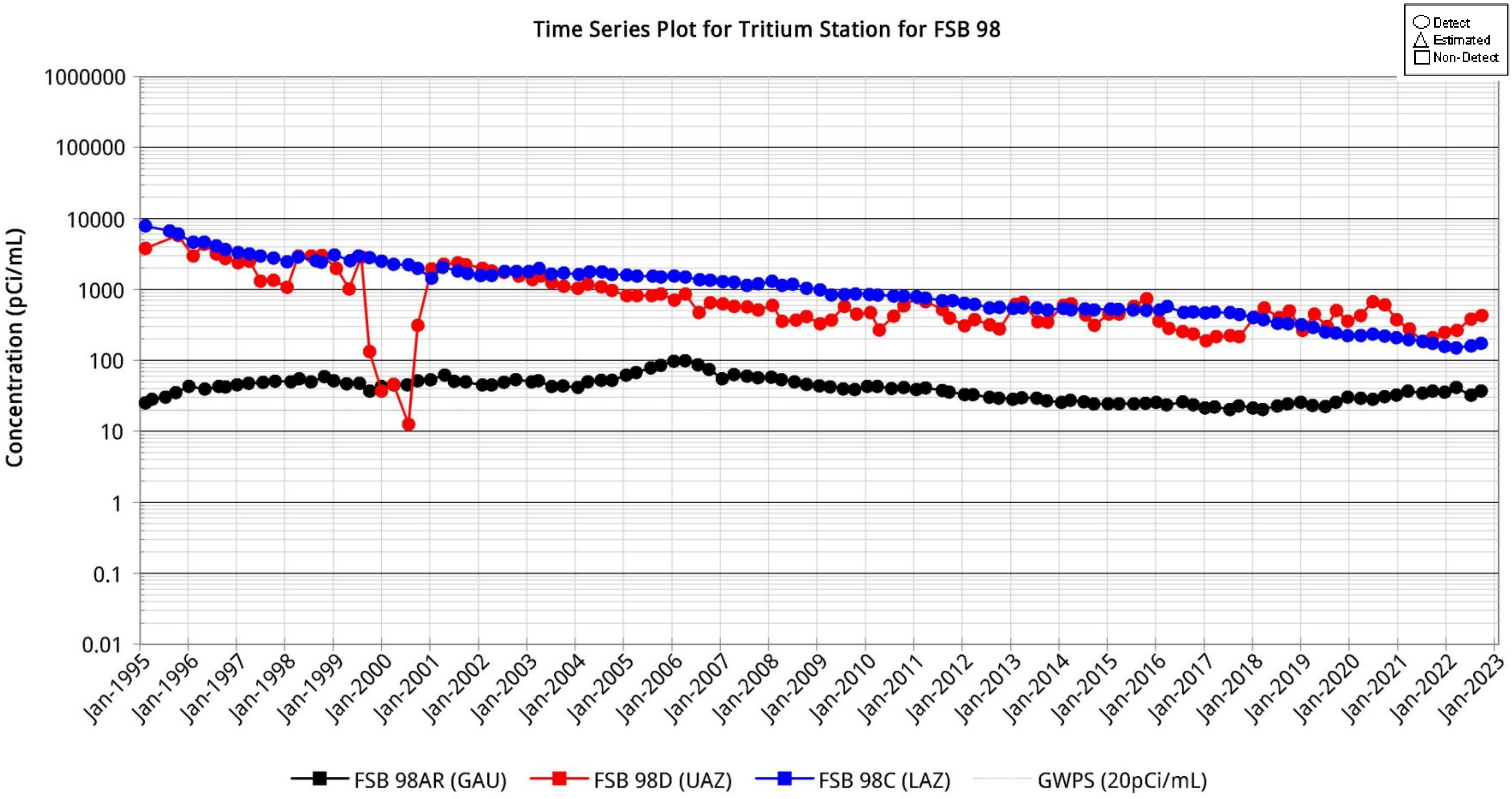
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 94C (LAZ)
FSB 94DR (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSB 98
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
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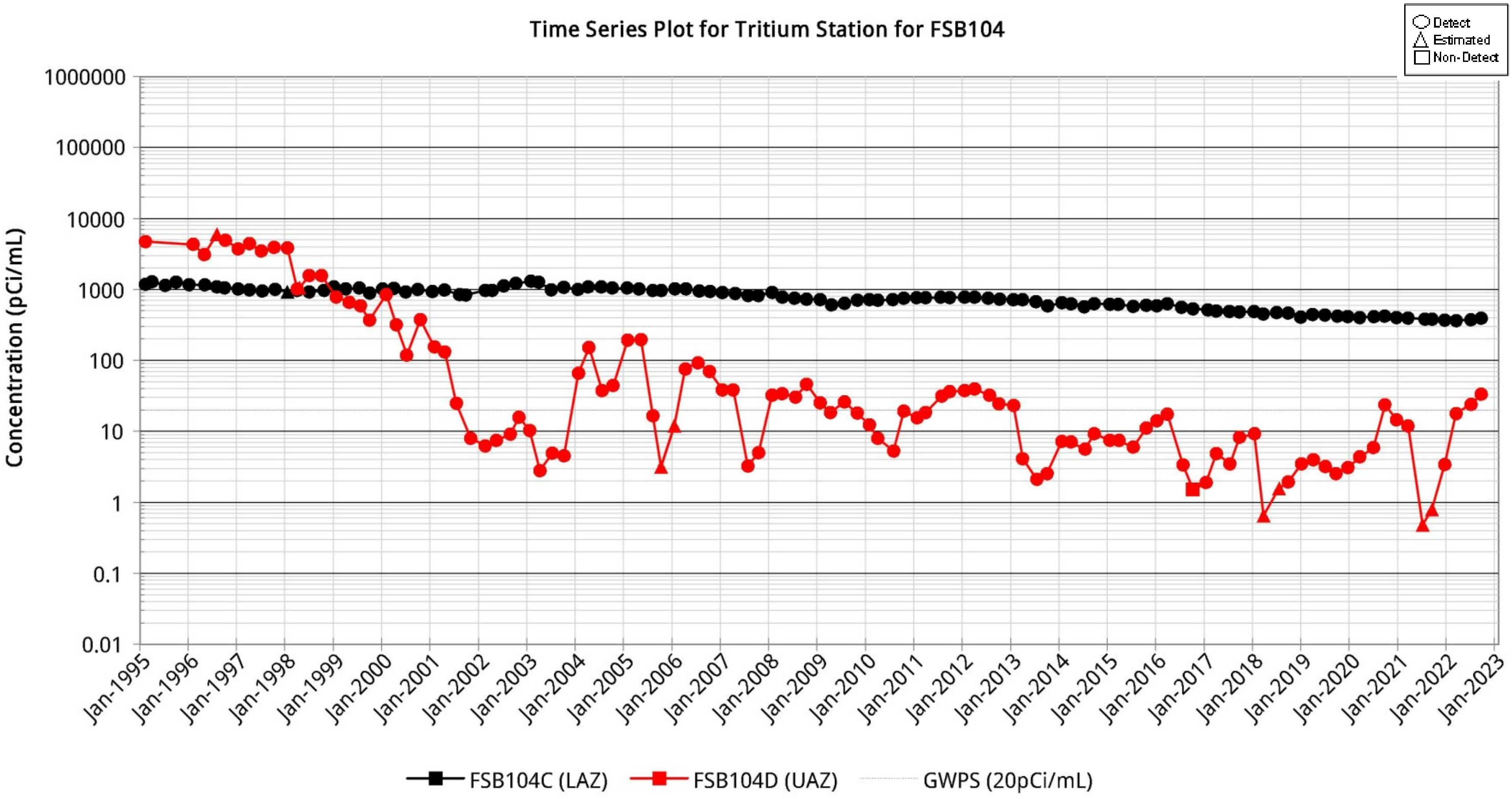
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB 98AR (GAU)
FSB 98D (UAZ)
FSB 98C (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSB104
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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Jan-2008
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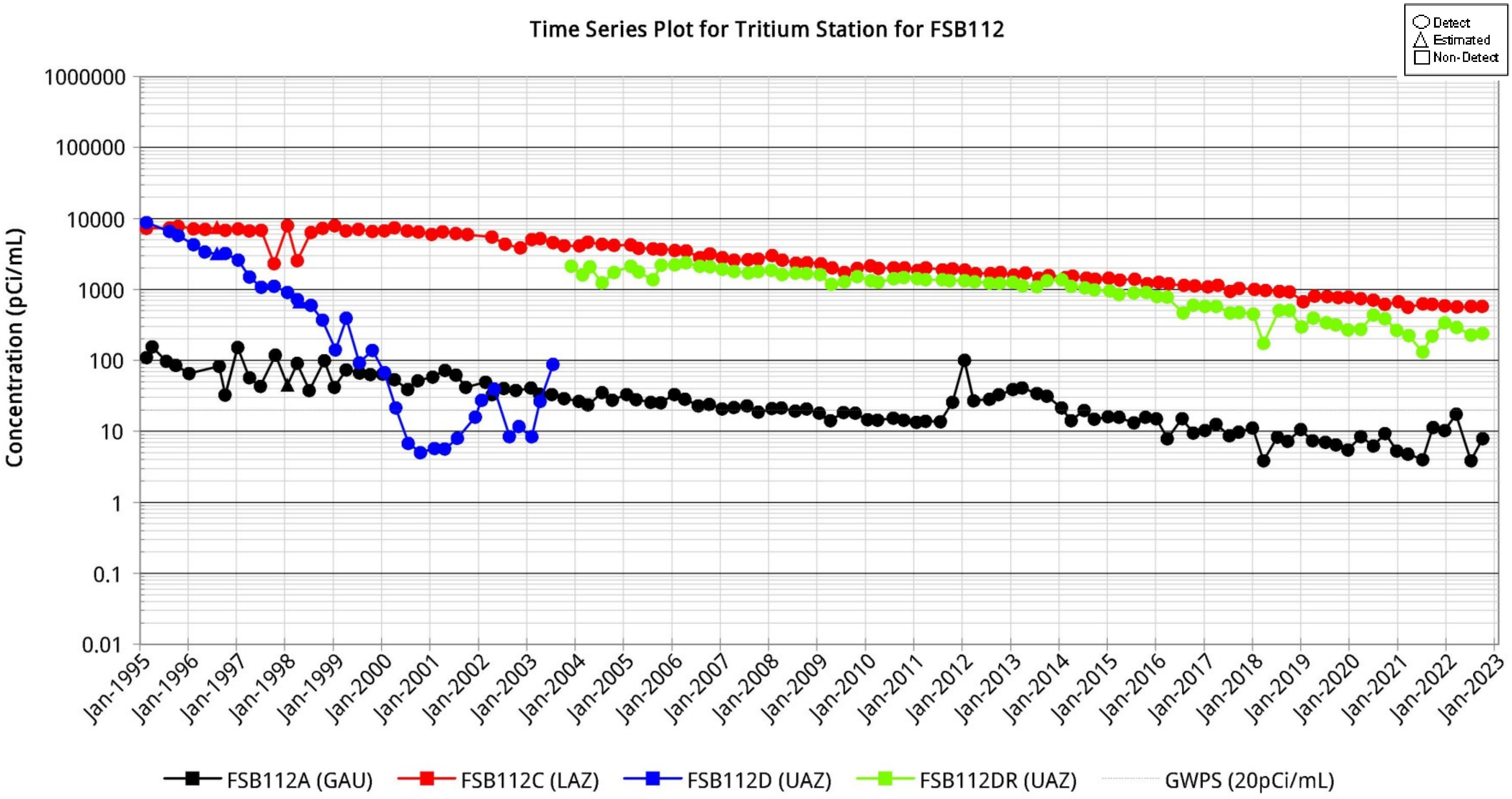
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB104C (LAZ)
FSB104D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSB112
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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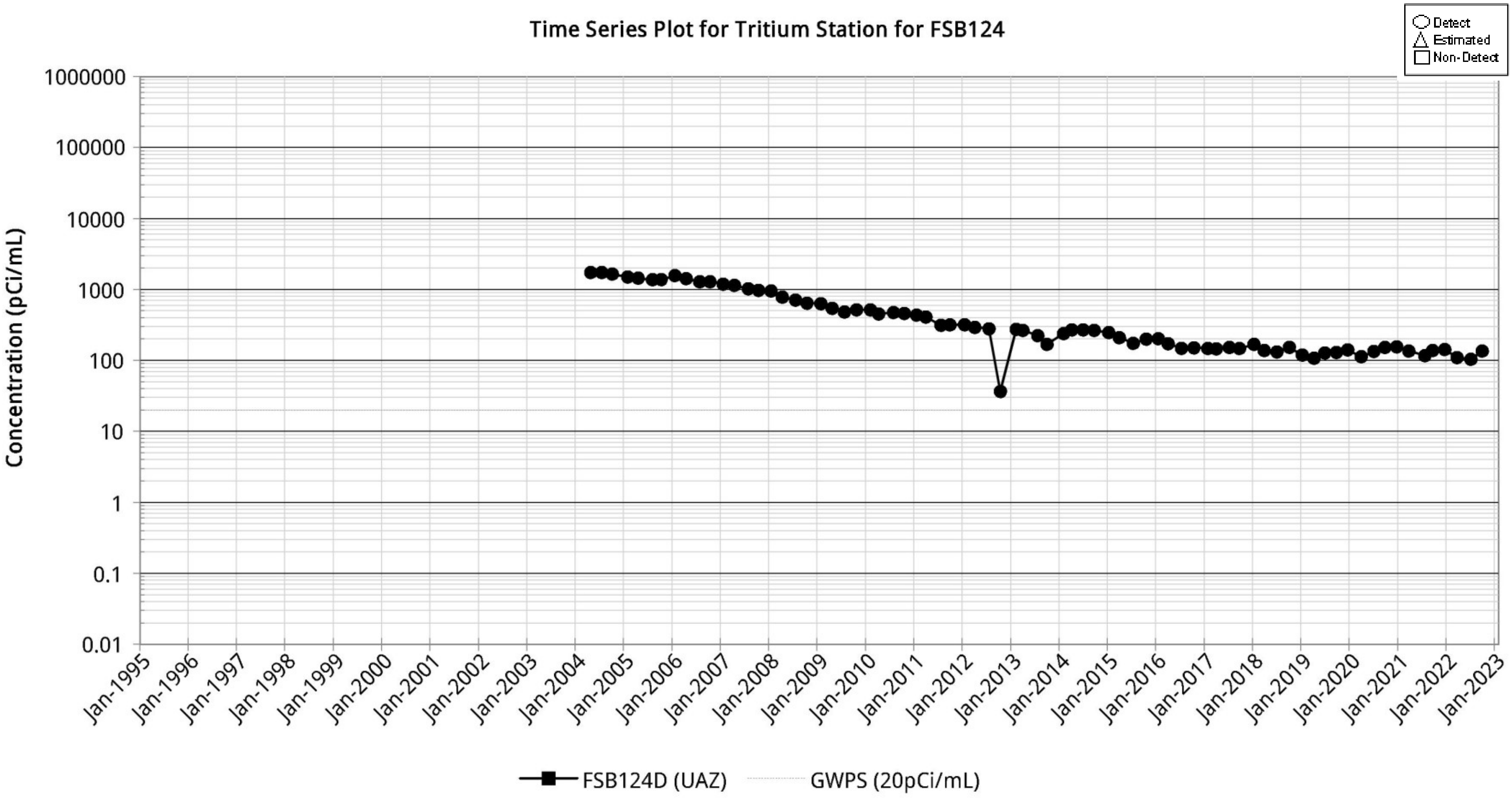
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB112A (GAU)
FSB112C (LAZ)
FSB112D (UAZ)
FSB112DR (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSB124
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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Jan-2004
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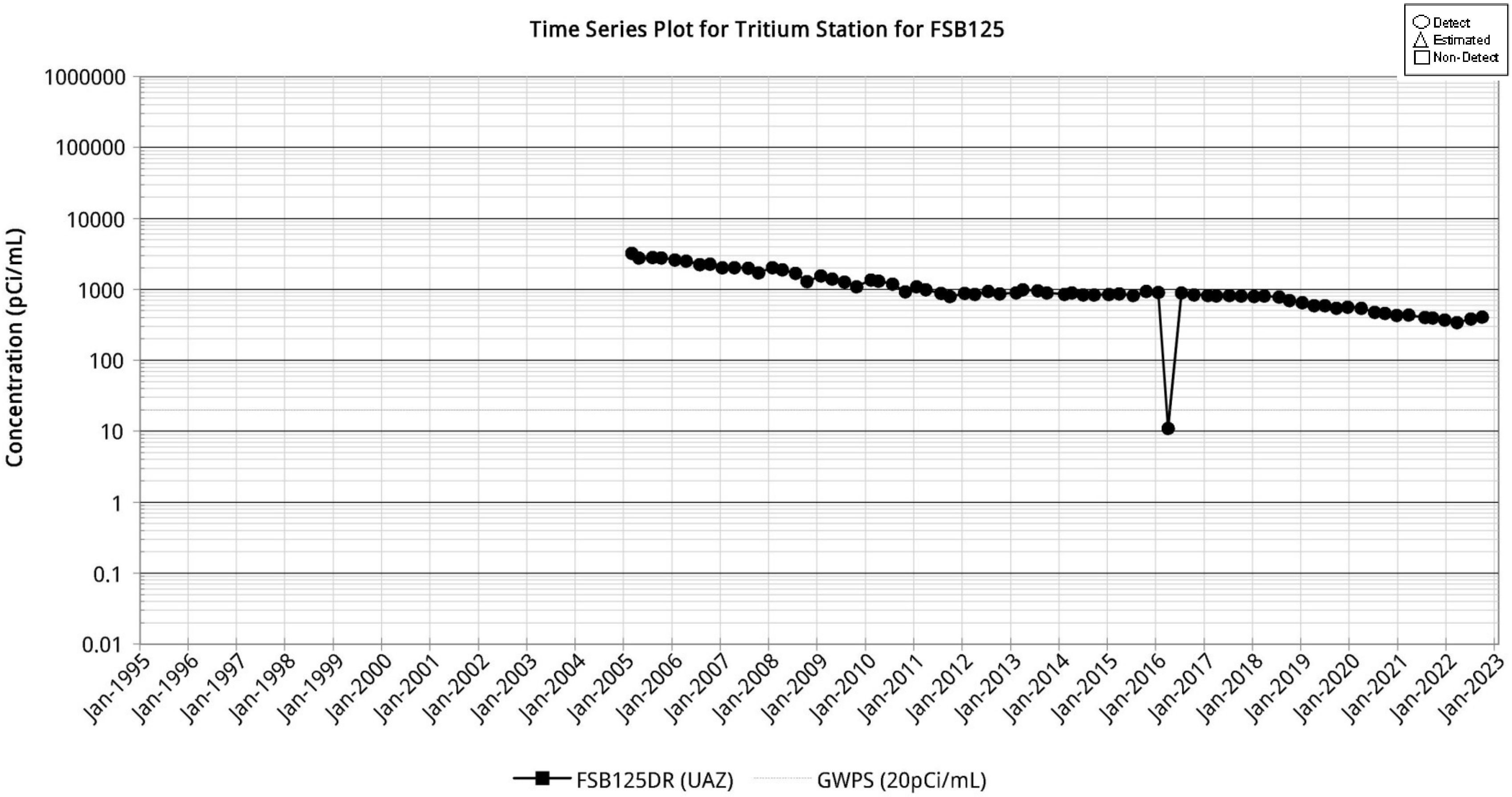
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB124D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSB125
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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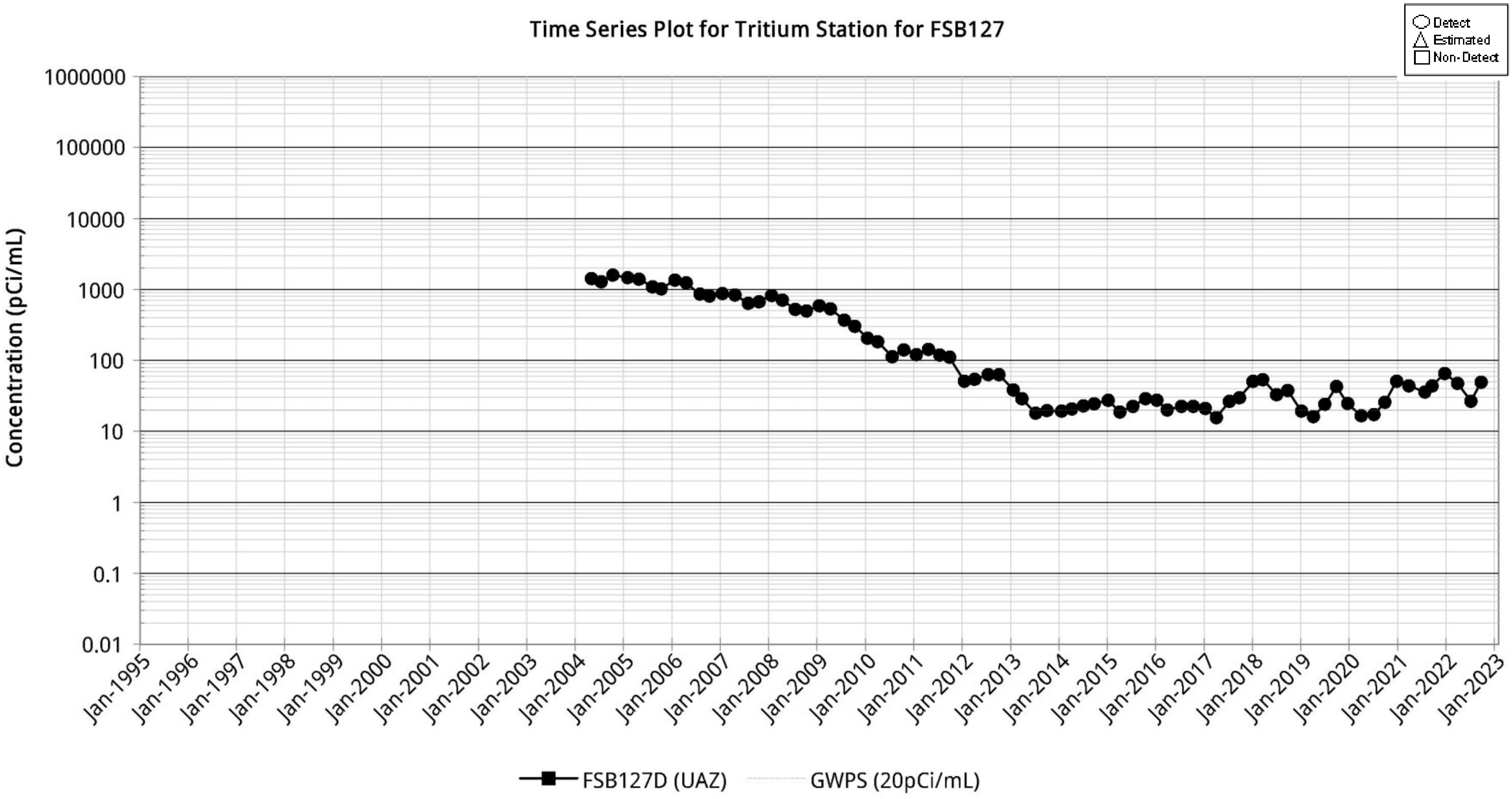
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB125DR (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSB127
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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Jan-2007
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Jan-2016
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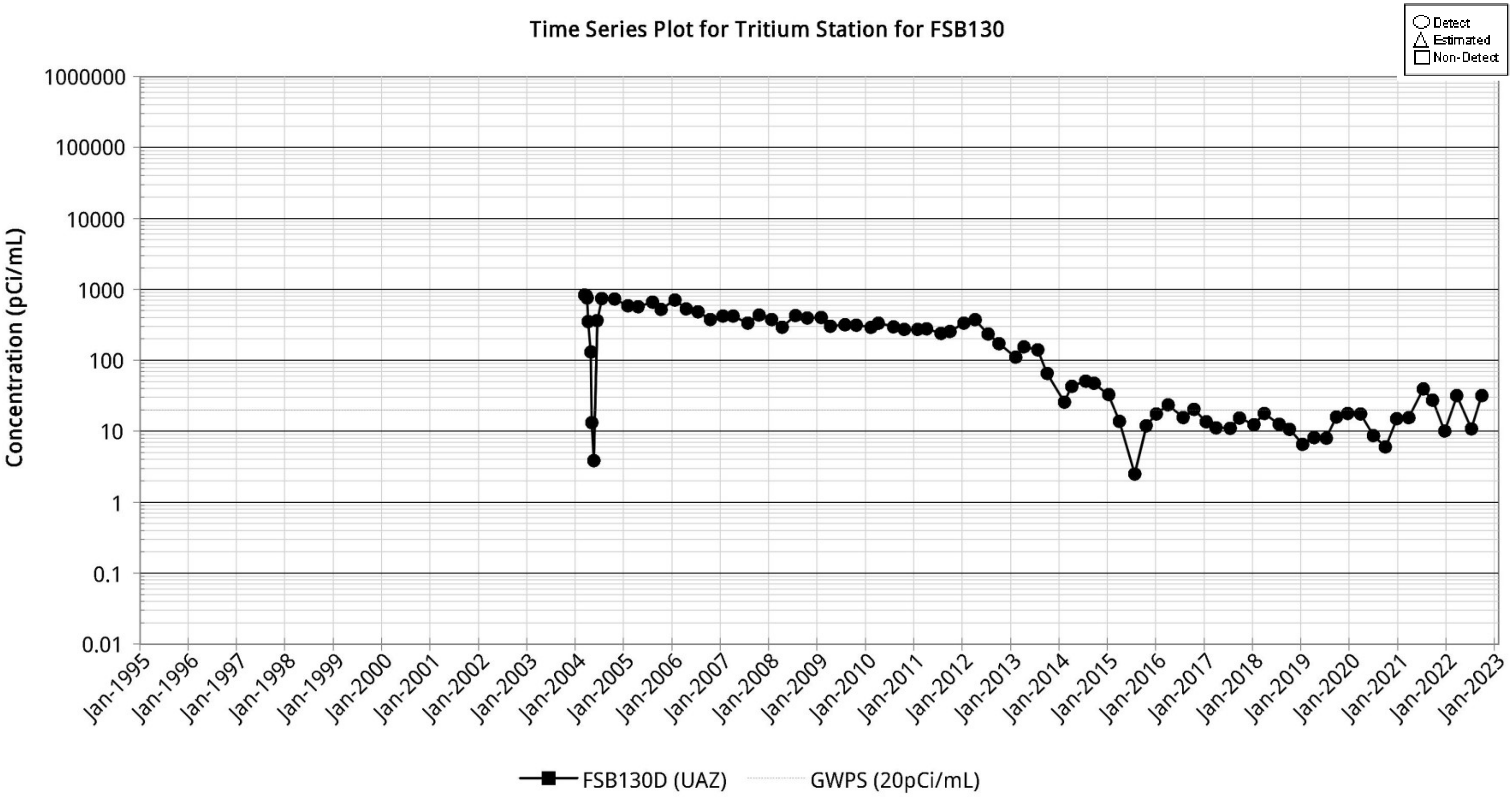
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB127D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSB130
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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Jan-2016
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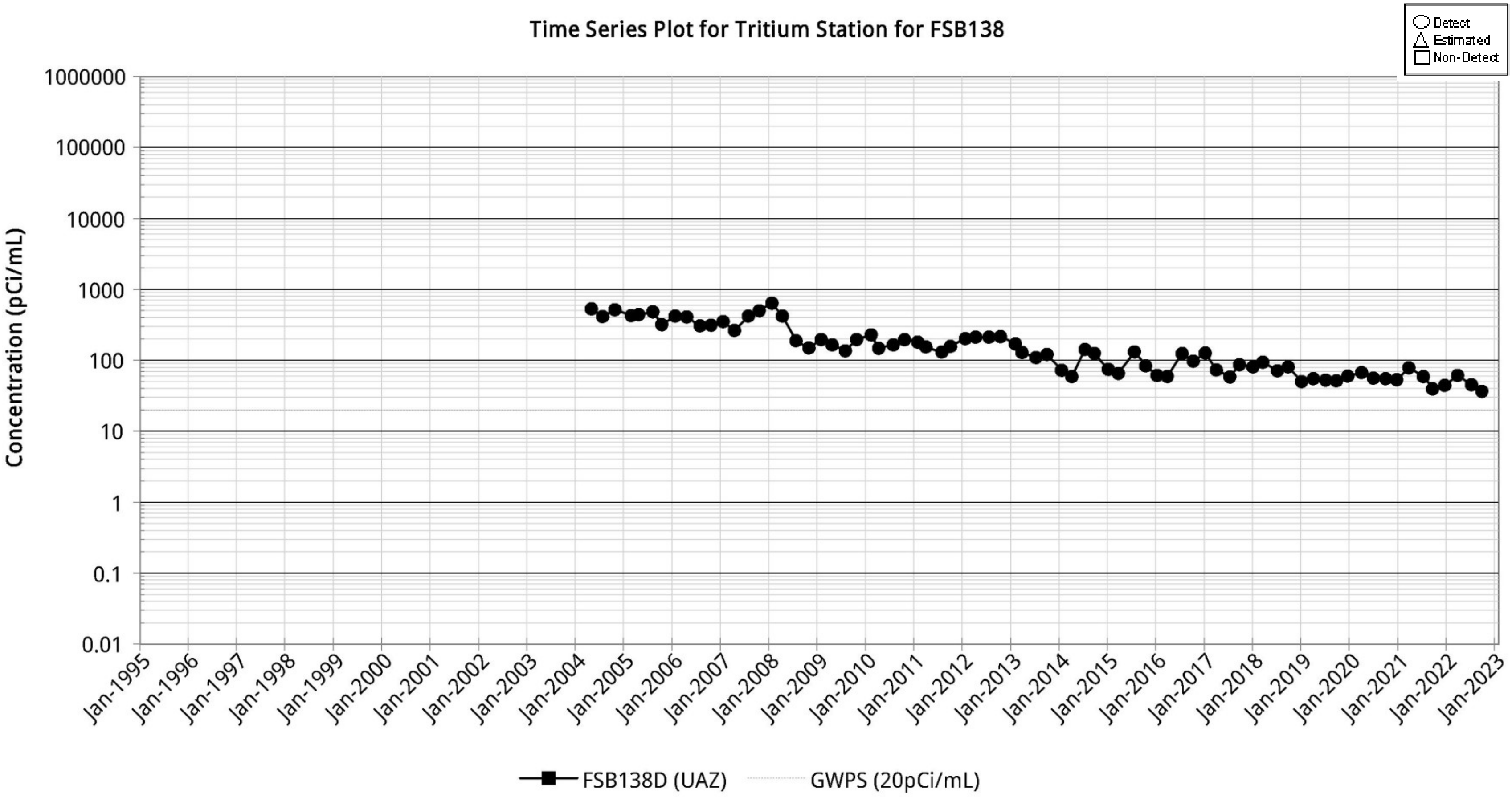
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB130D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSB138
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
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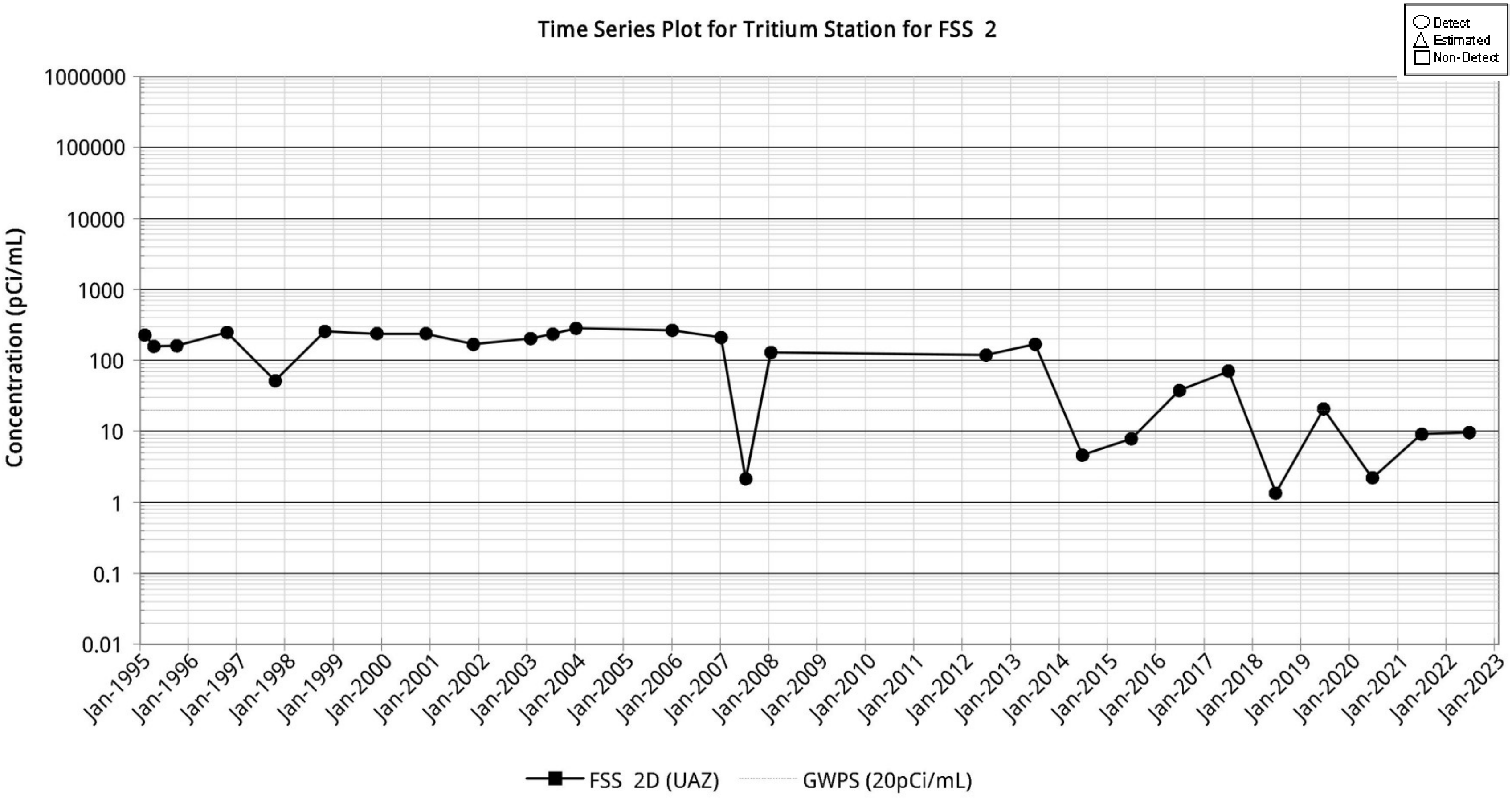
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSB138D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for FSS 2
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
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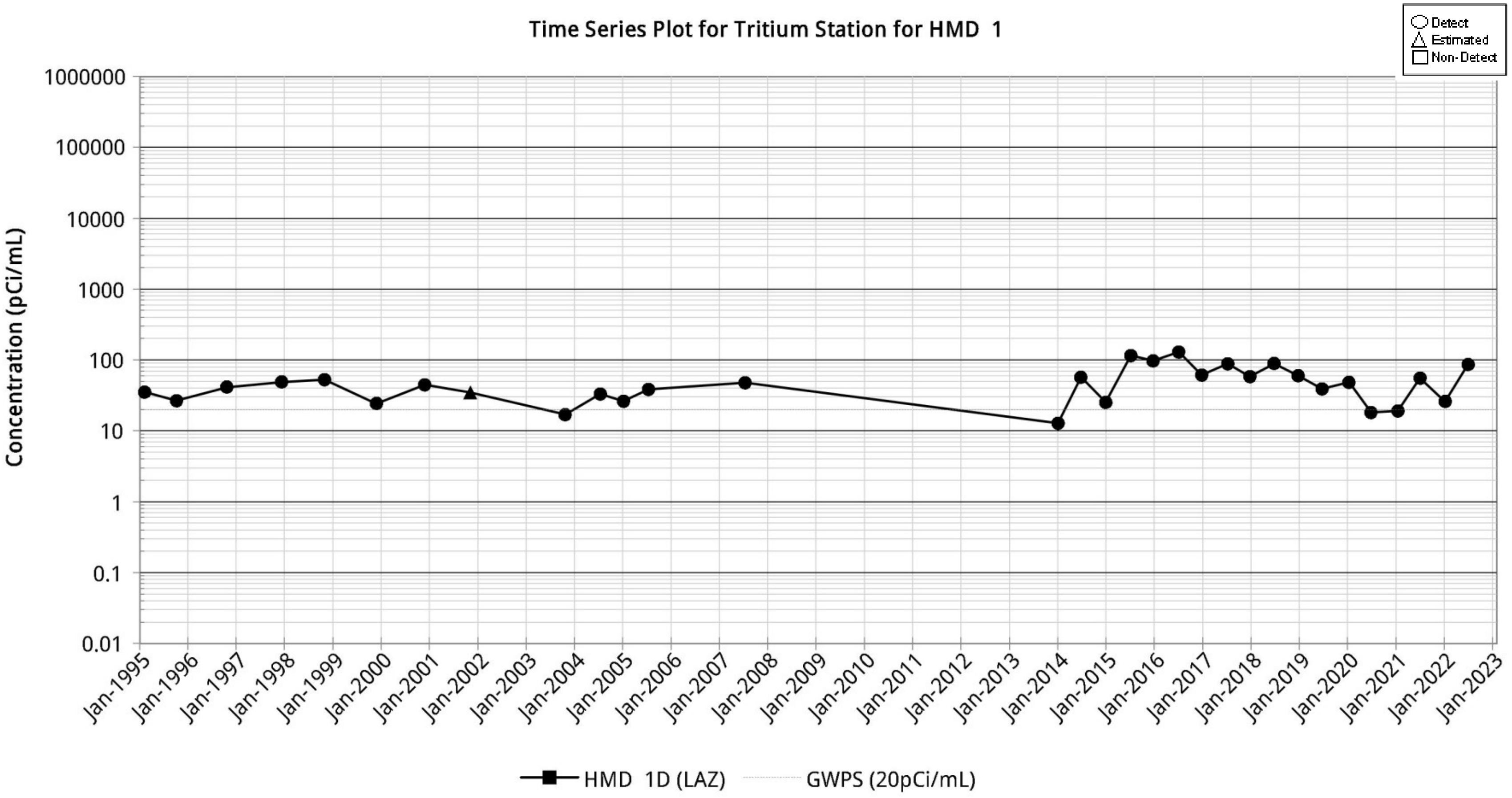
Jan-2020
Jan-2021
Jan-2022
Jan-2023
FSS 2D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HMD 1
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
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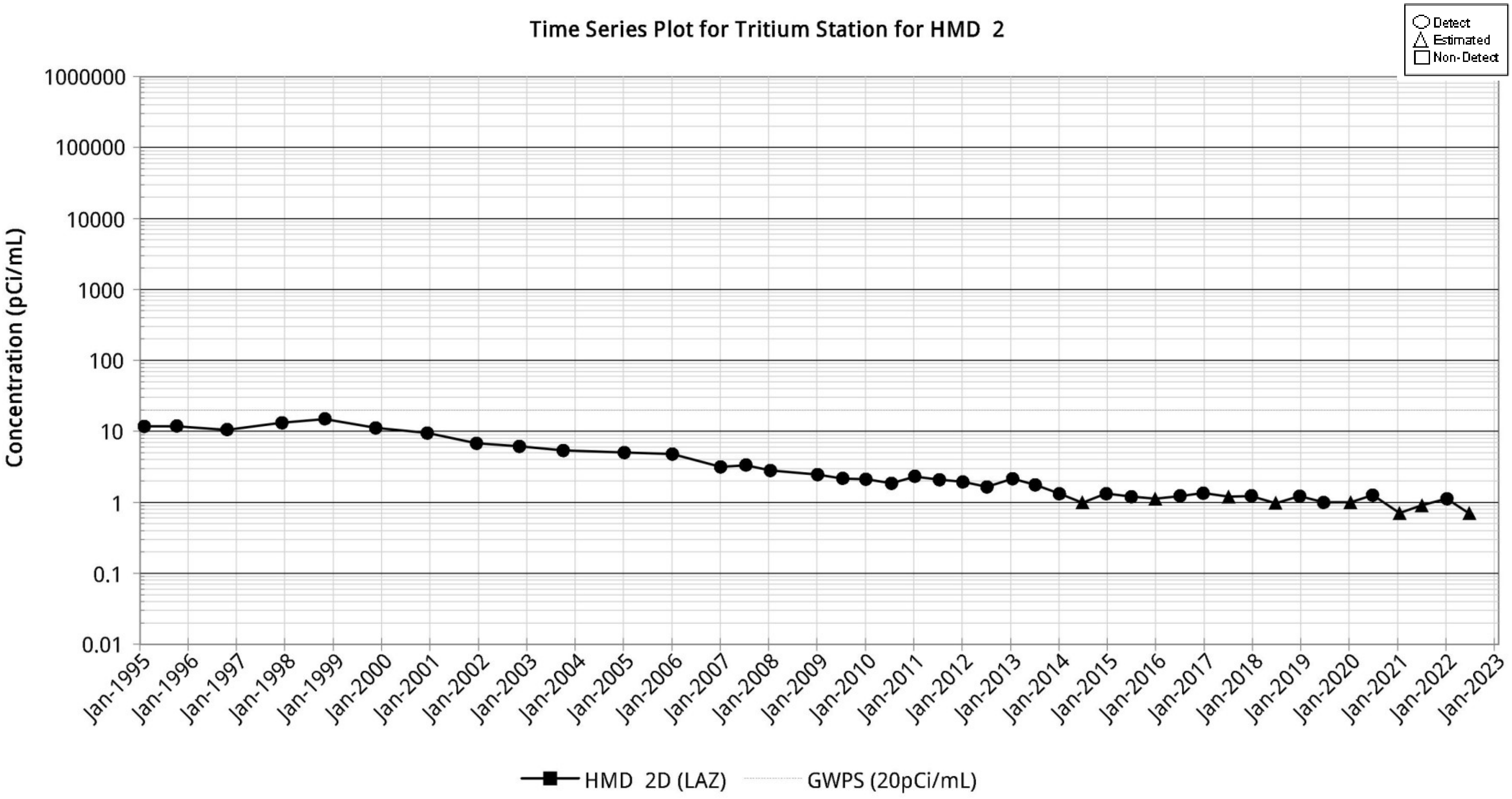
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HMD 1D (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HMD 2
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
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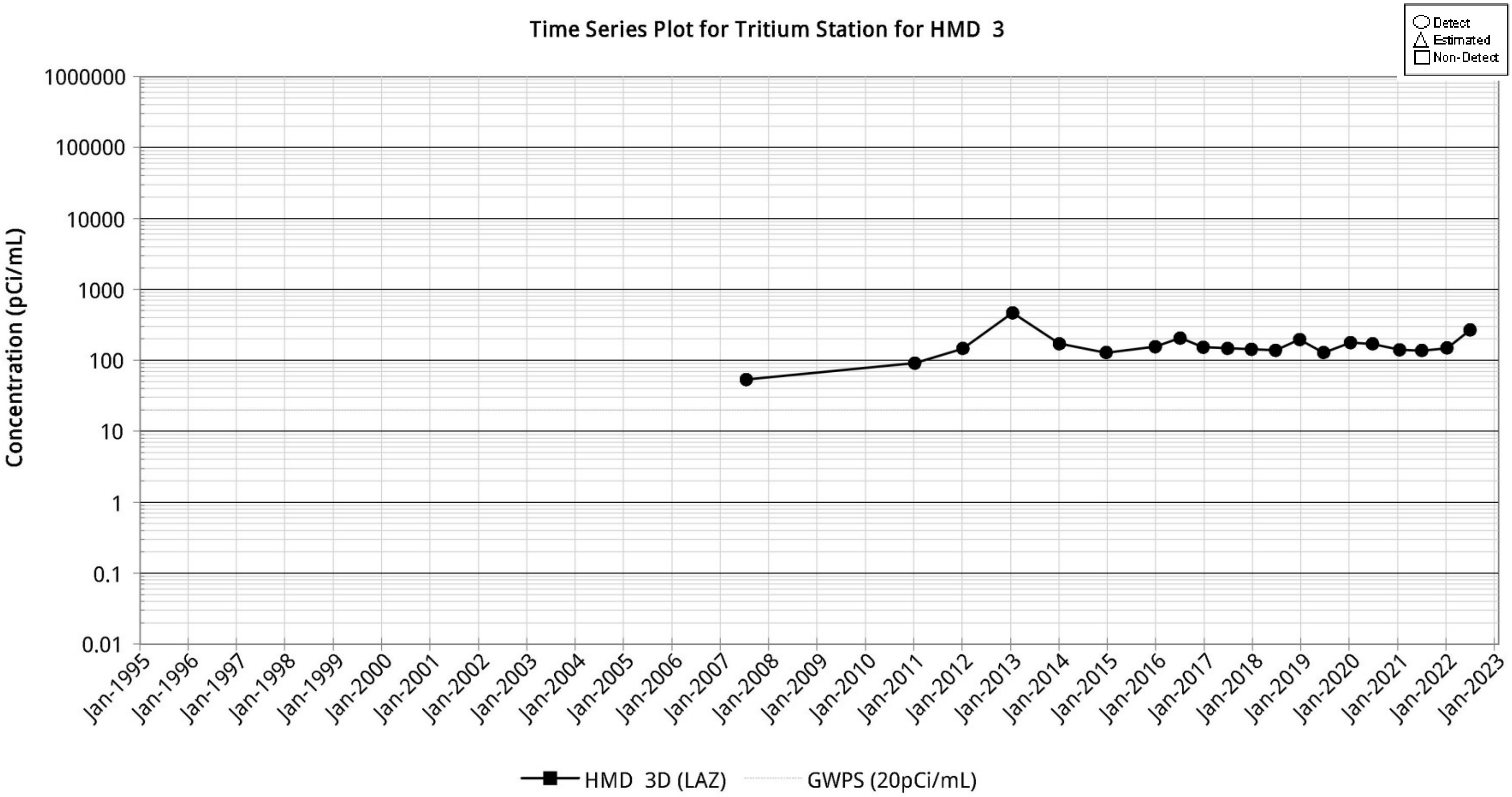
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HMD 2D (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HMD 3
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
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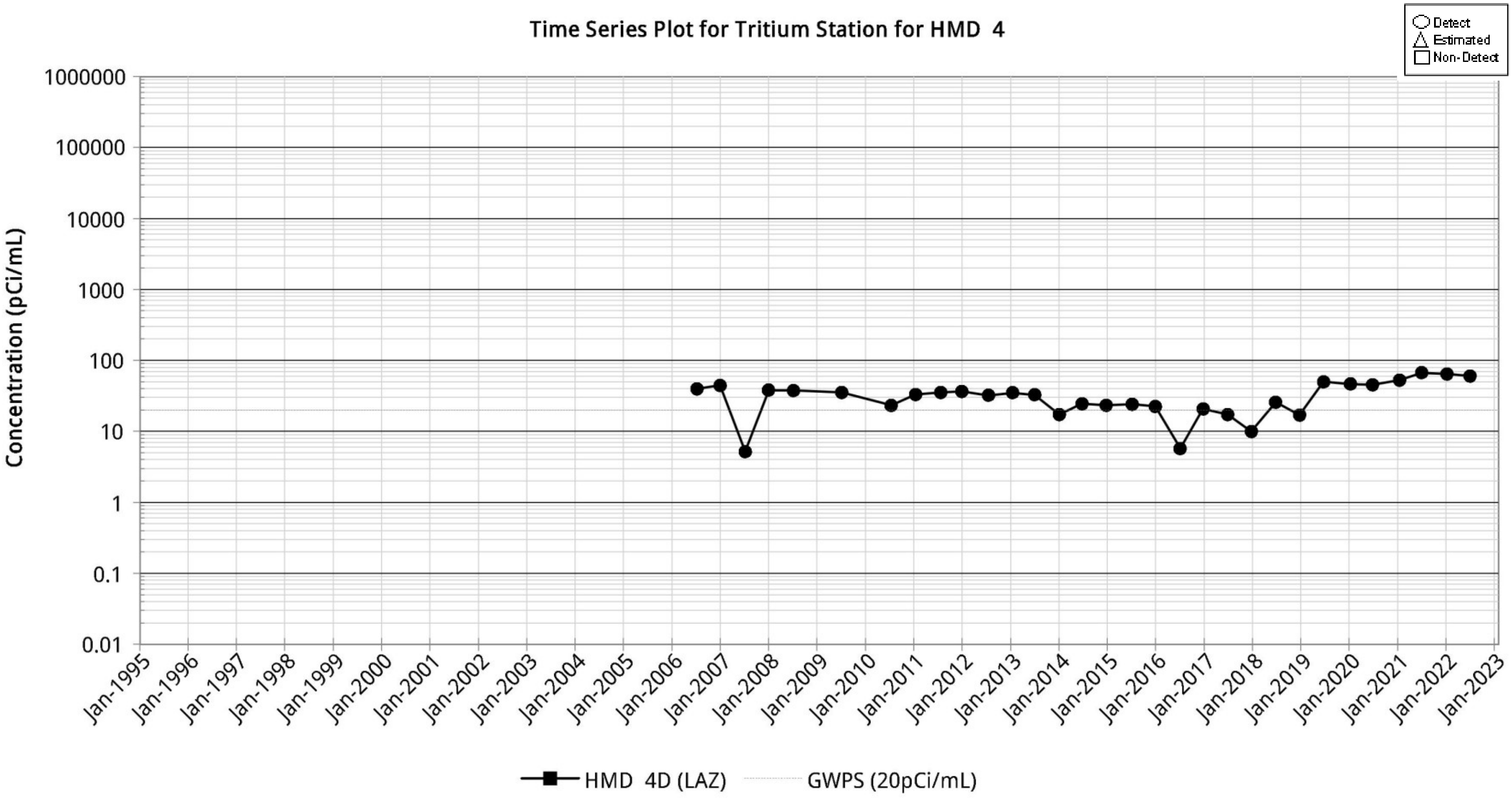
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HMD 3D (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HMD 4
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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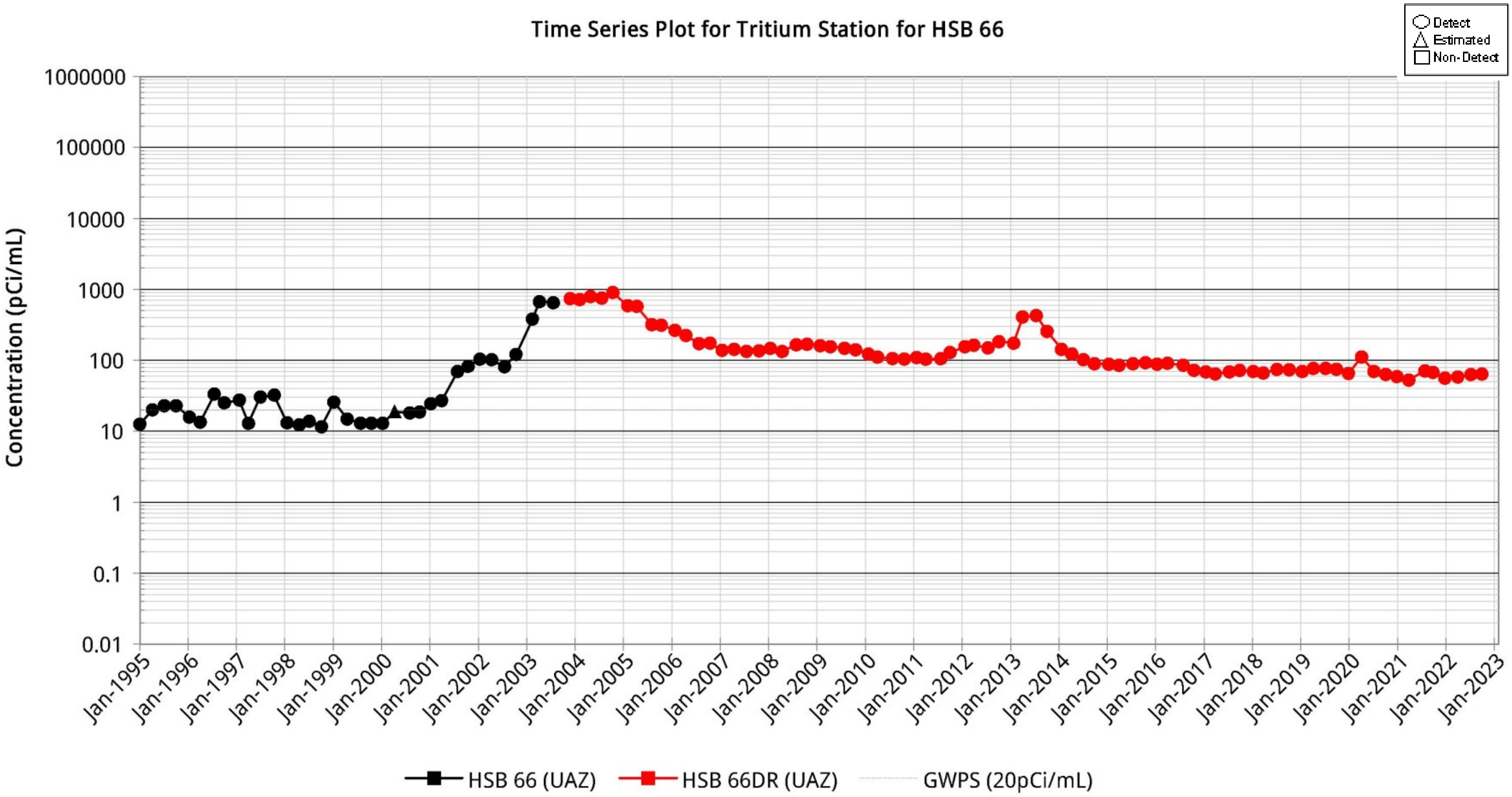
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HMD 4D (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HSB 66
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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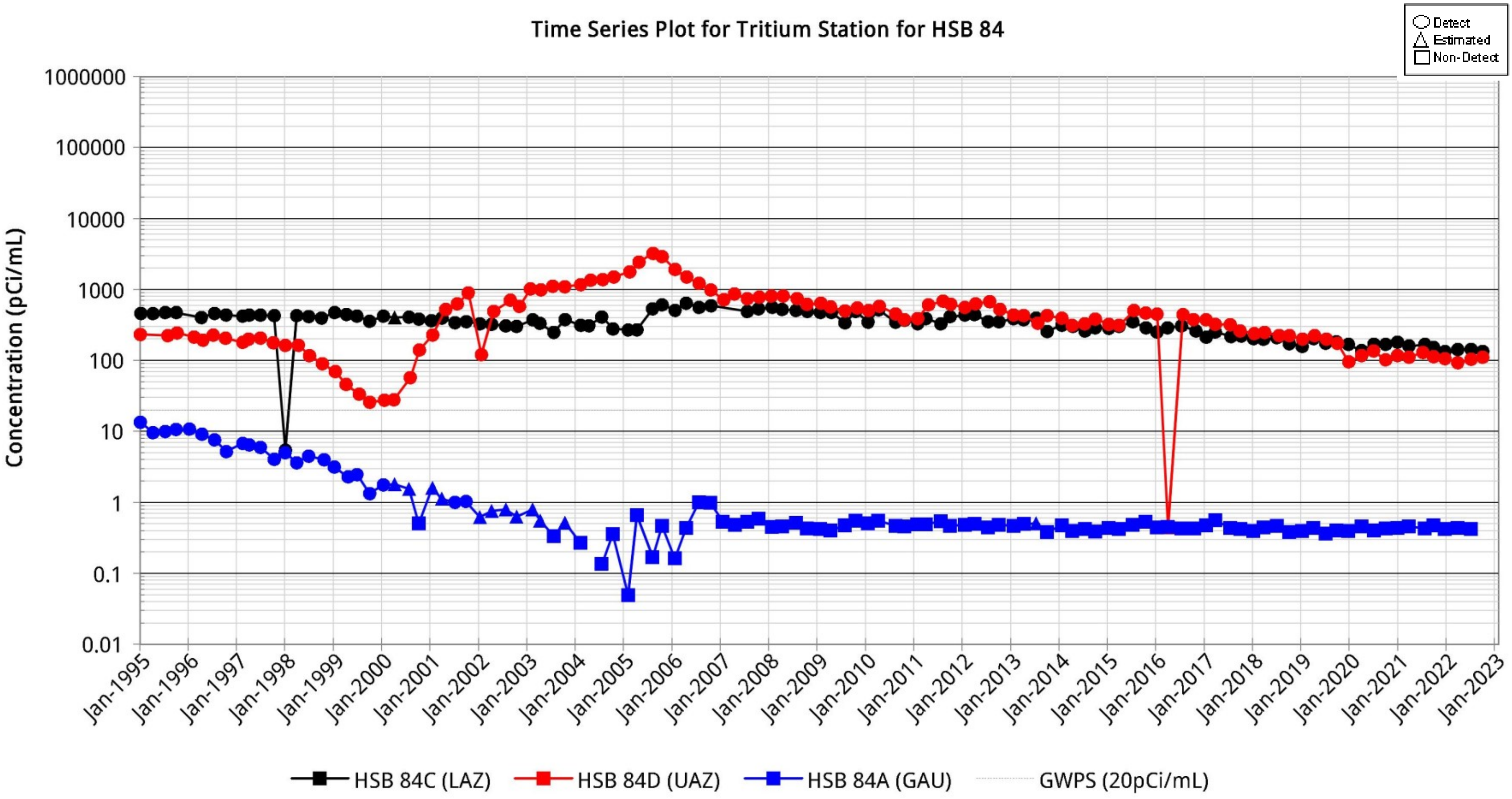
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB 66 (UAZ)
HSB 66DR (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HSB 84
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
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Jan-2019
Jan-2020
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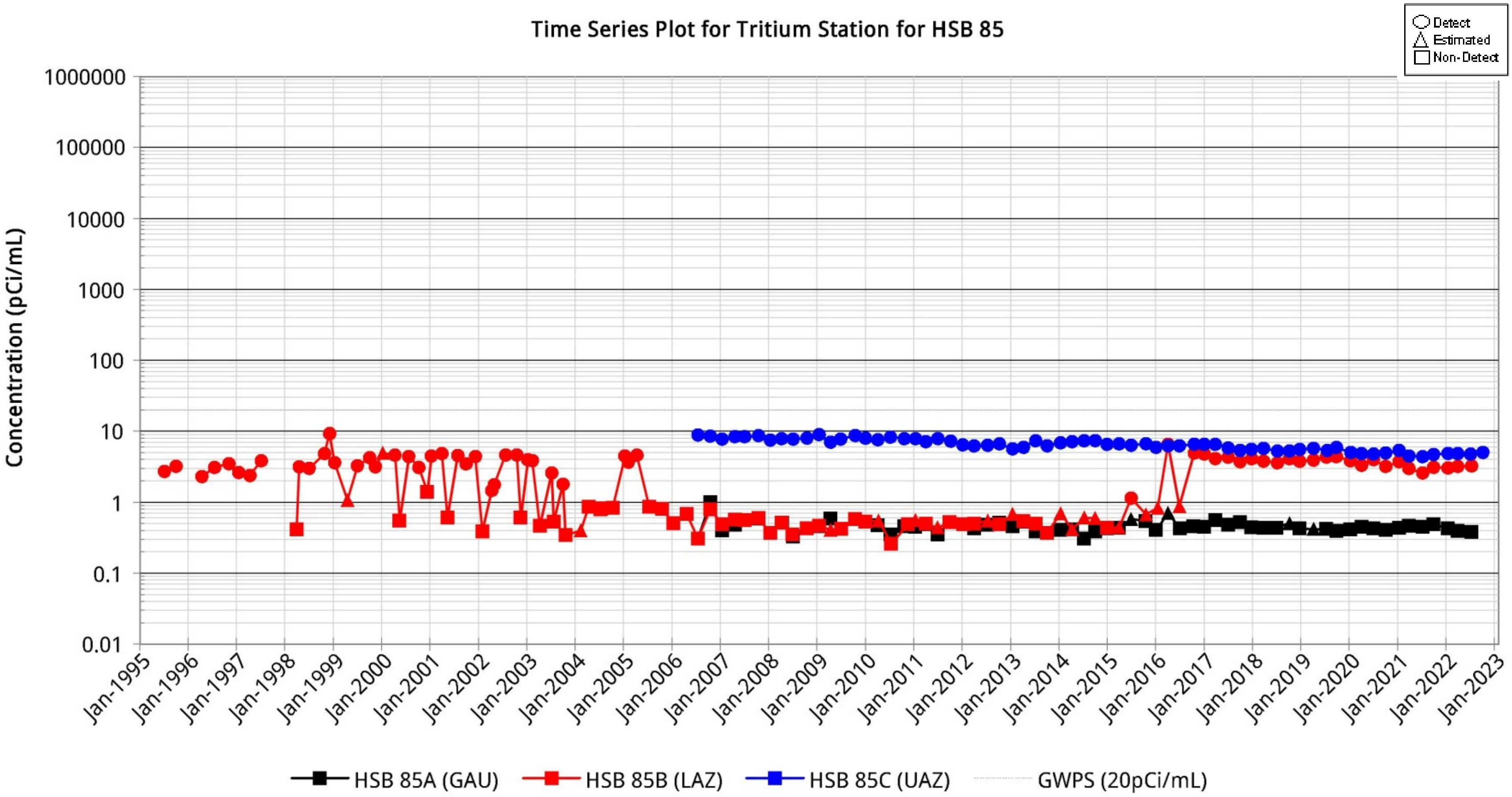
Jan-2023
HSB 84C (LAZ)
HSB 84D (UAZ)
HSB 84A (GAU)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HSB 85
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
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Jan-2000
Jan-2001
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Jan-2018
Jan-2019
Jan-2020
Jan-2021
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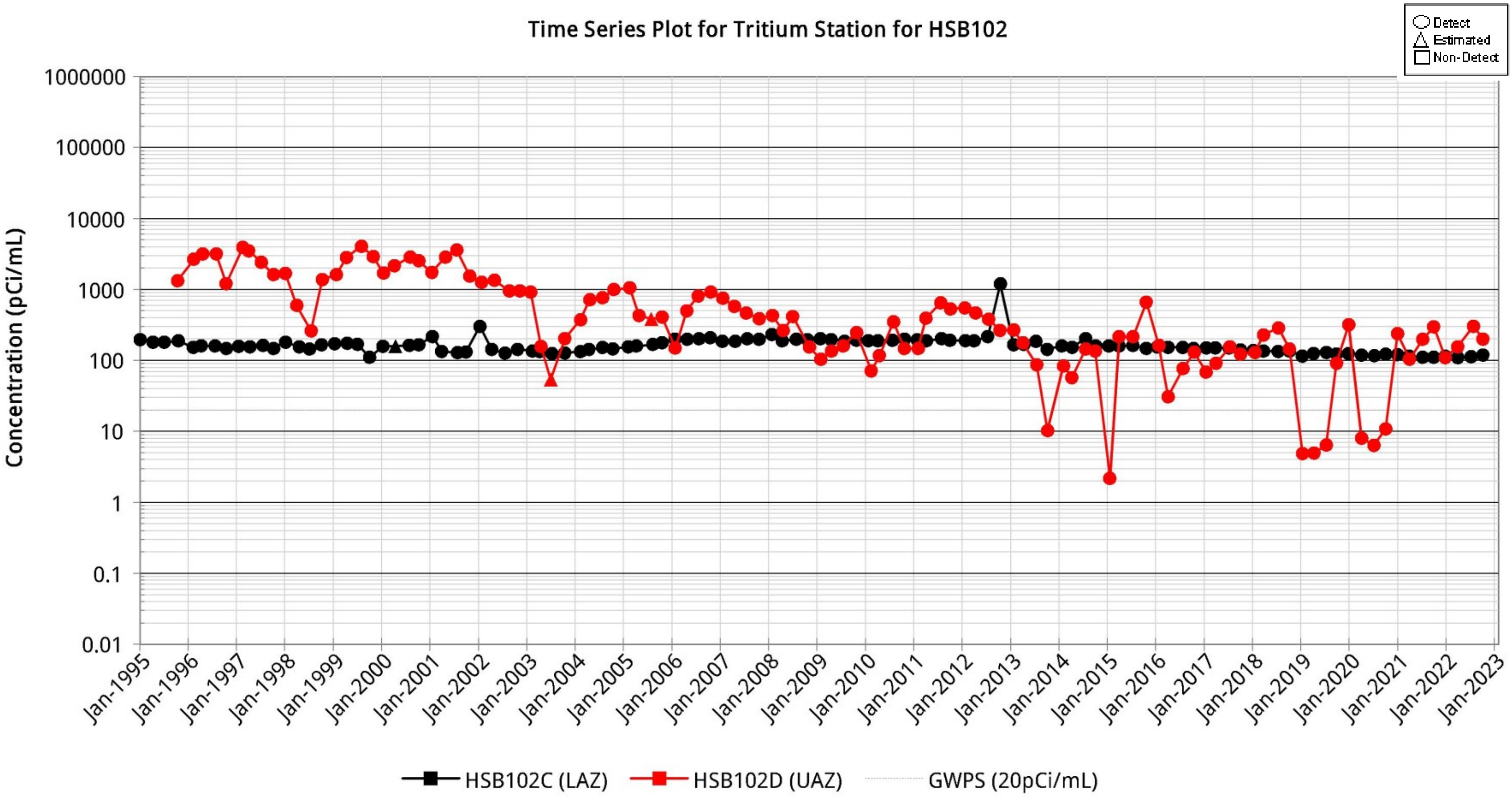
Jan-2023
HSB 85A (GAU)
HSB 85B (LAZ)
HSB 85C (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HSB102
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
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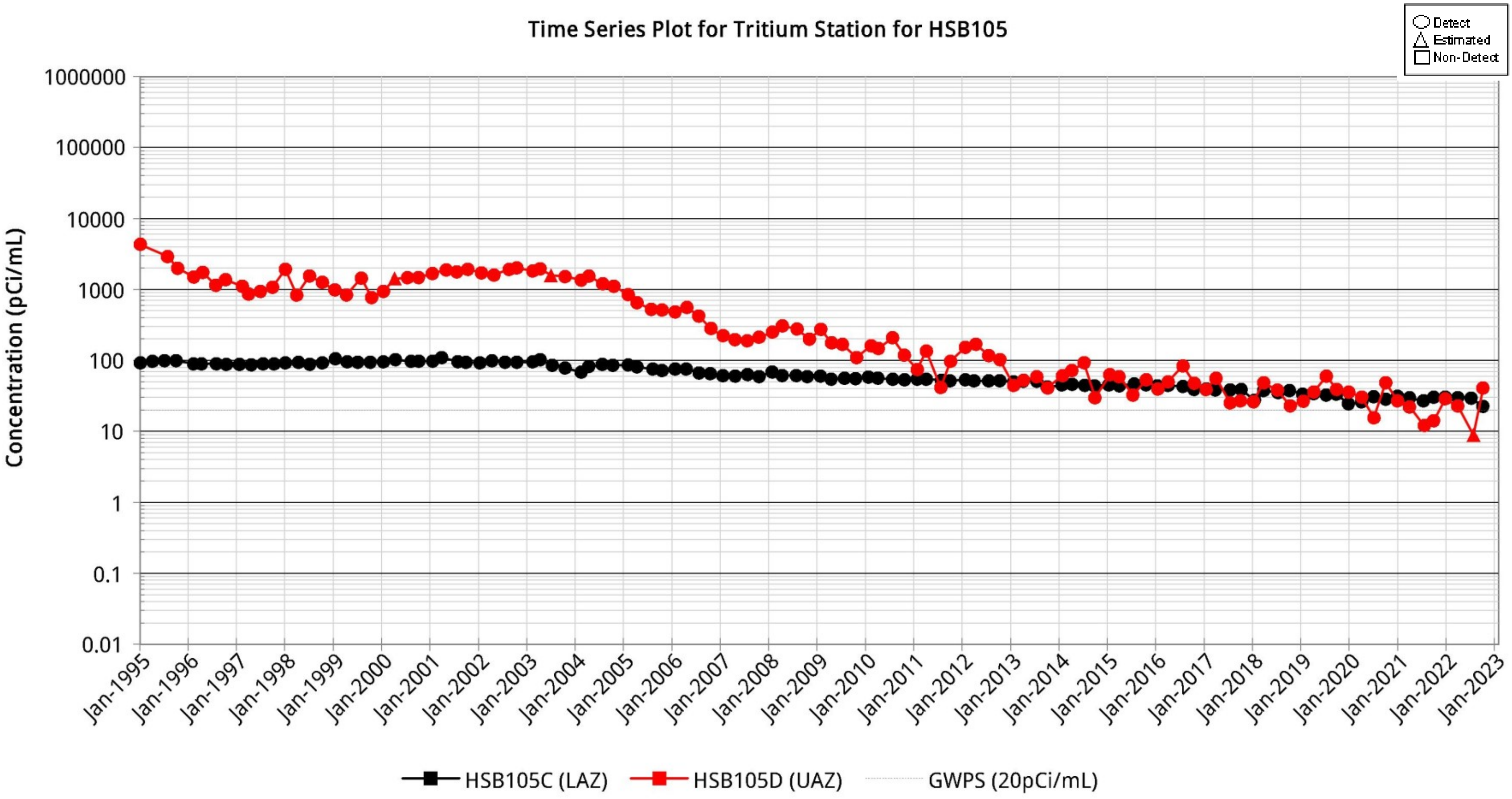
Jan-2021
Jan-2022
Jan-2023
HSB102C (LAZ)
HSB102D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HSB105
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
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Jan-1997
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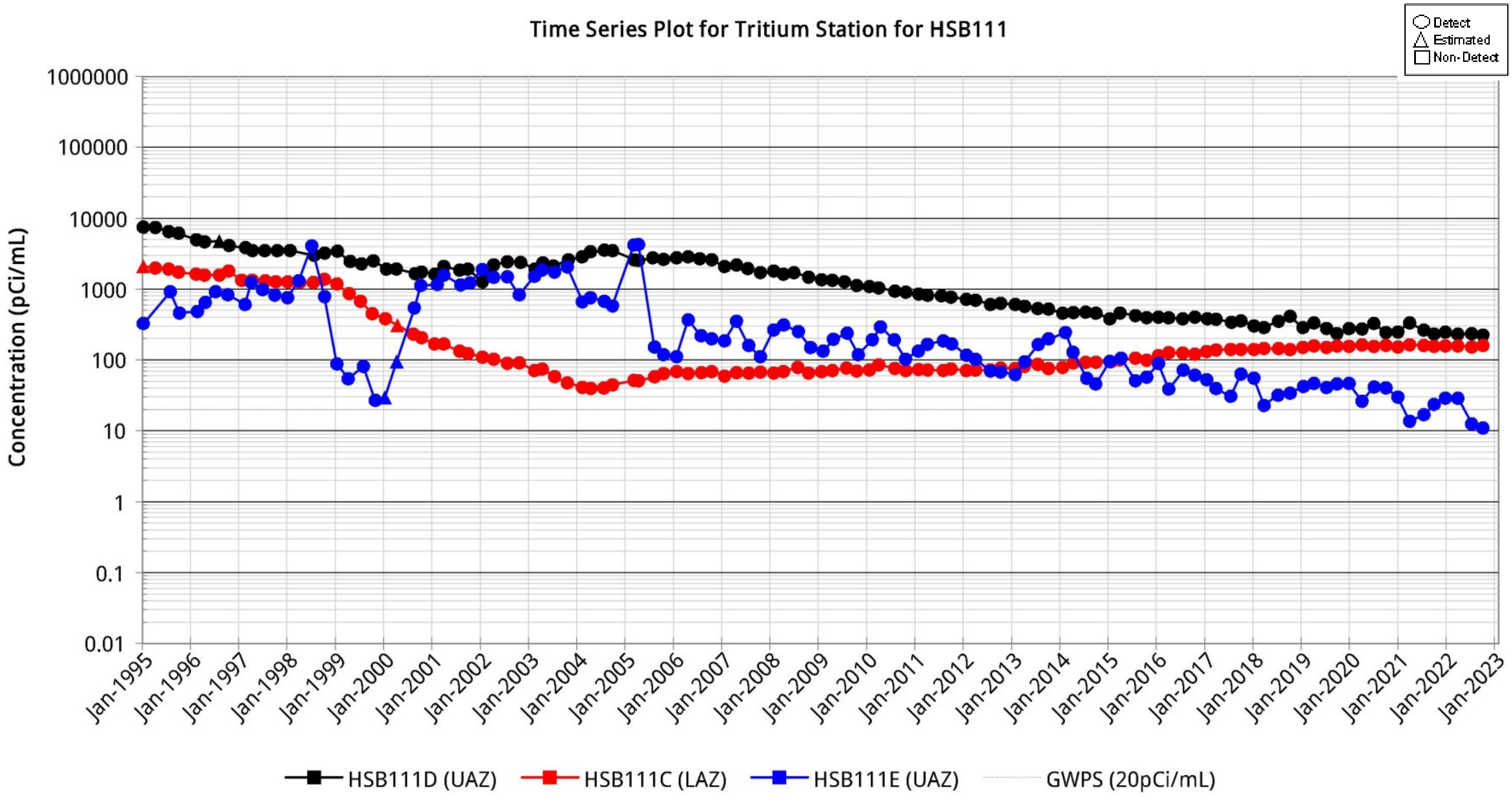
Jan-2021
Jan-2022
Jan-2023
HSB105C (LAZ)
HSB105D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HSB111
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
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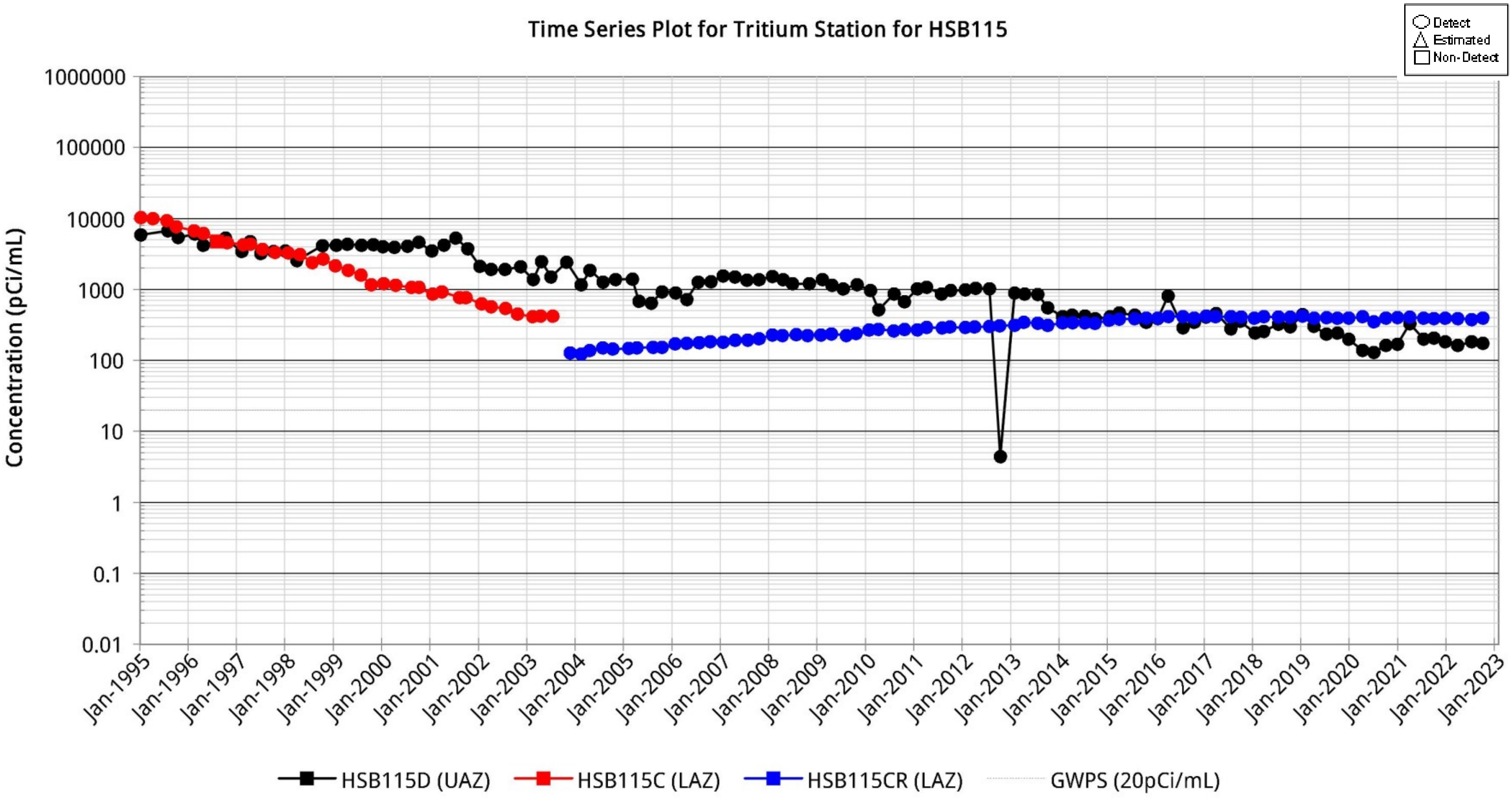
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB111D (UAZ)
HSB111C (LAZ)
HSB111E (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HSB115
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
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Jan-1999
Jan-2000
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Jan-2020
Jan-2021
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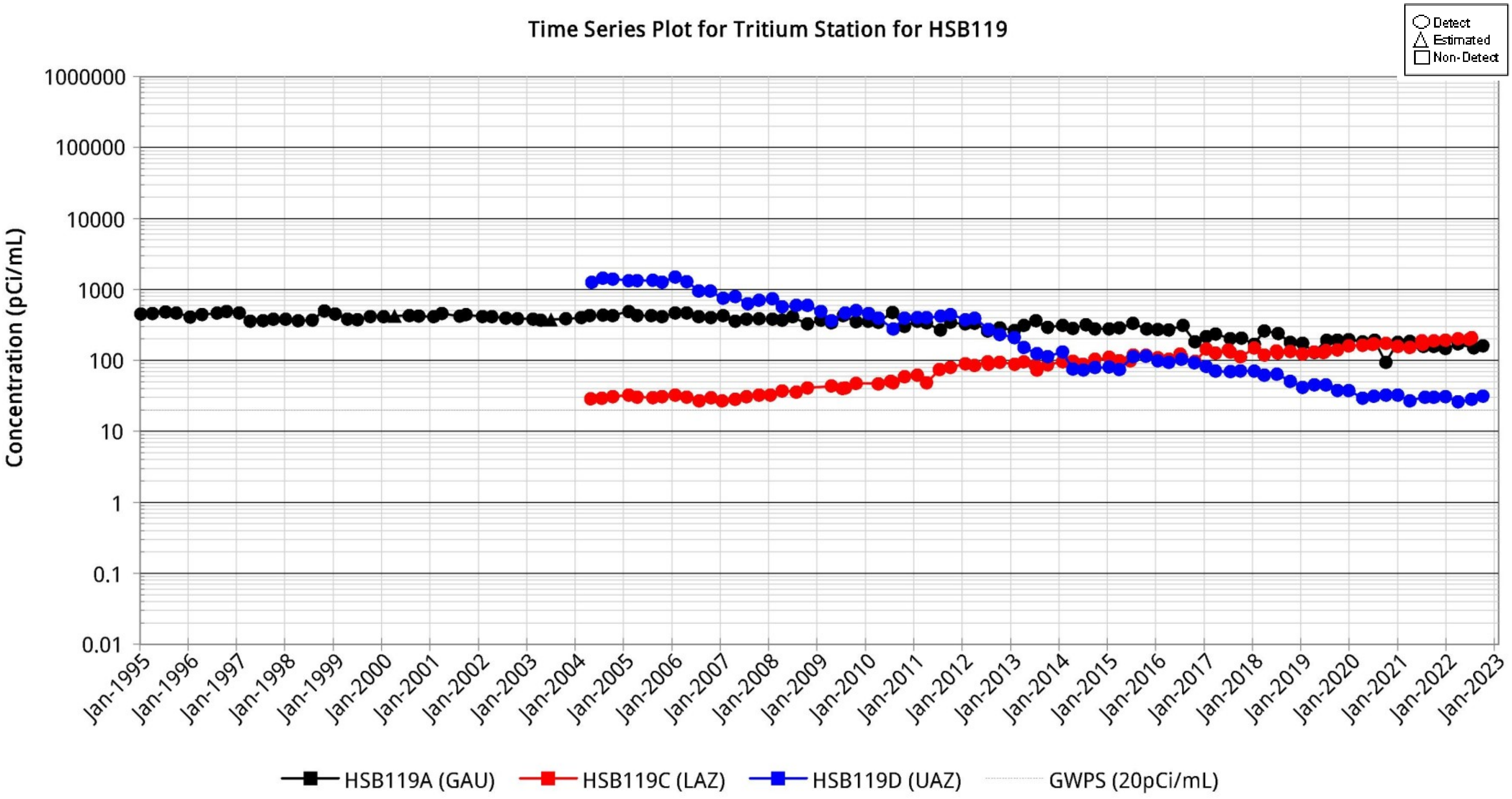
Jan-2023
HSB115D (UAZ)
HSB115C (LAZ)
HSB115CR (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HSB119
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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Jan-1999
Jan-2000
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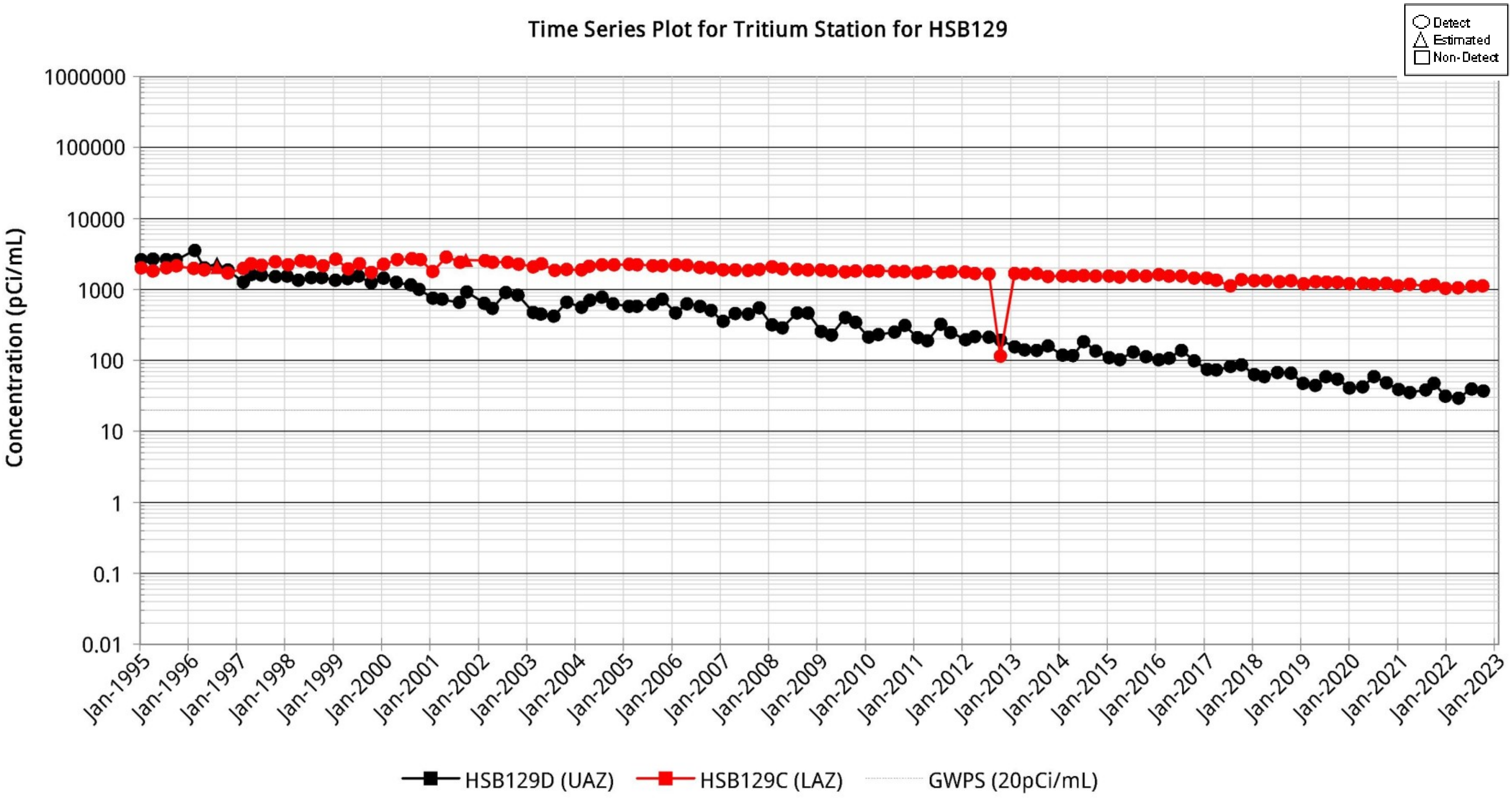
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB119A (GAU)
HSB119C (LAZ)
HSB119D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HSB129
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
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Jan-2018
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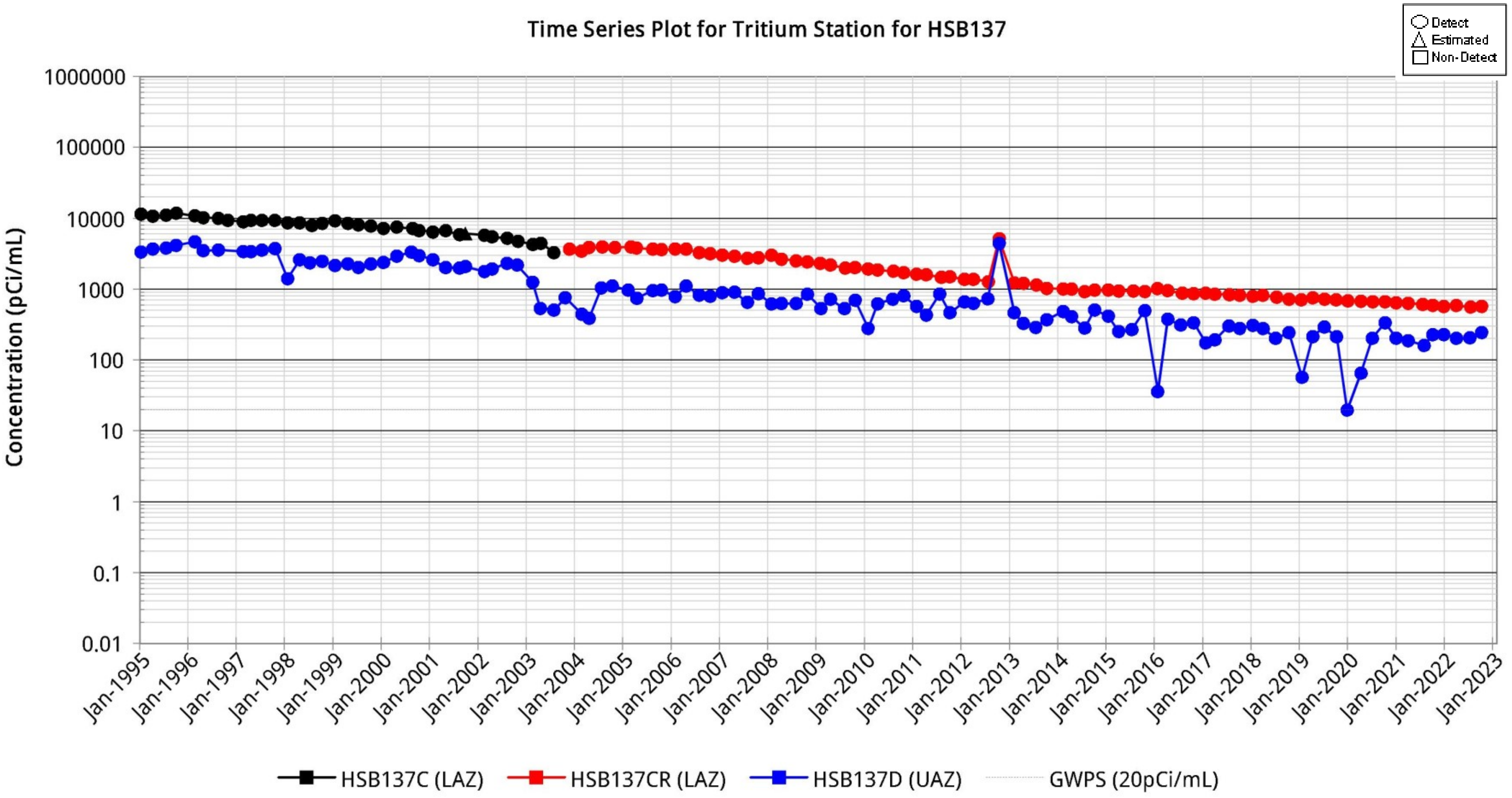
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB129D (UAZ)
HSB129C (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HSB137
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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Jan-2020
Jan-2021
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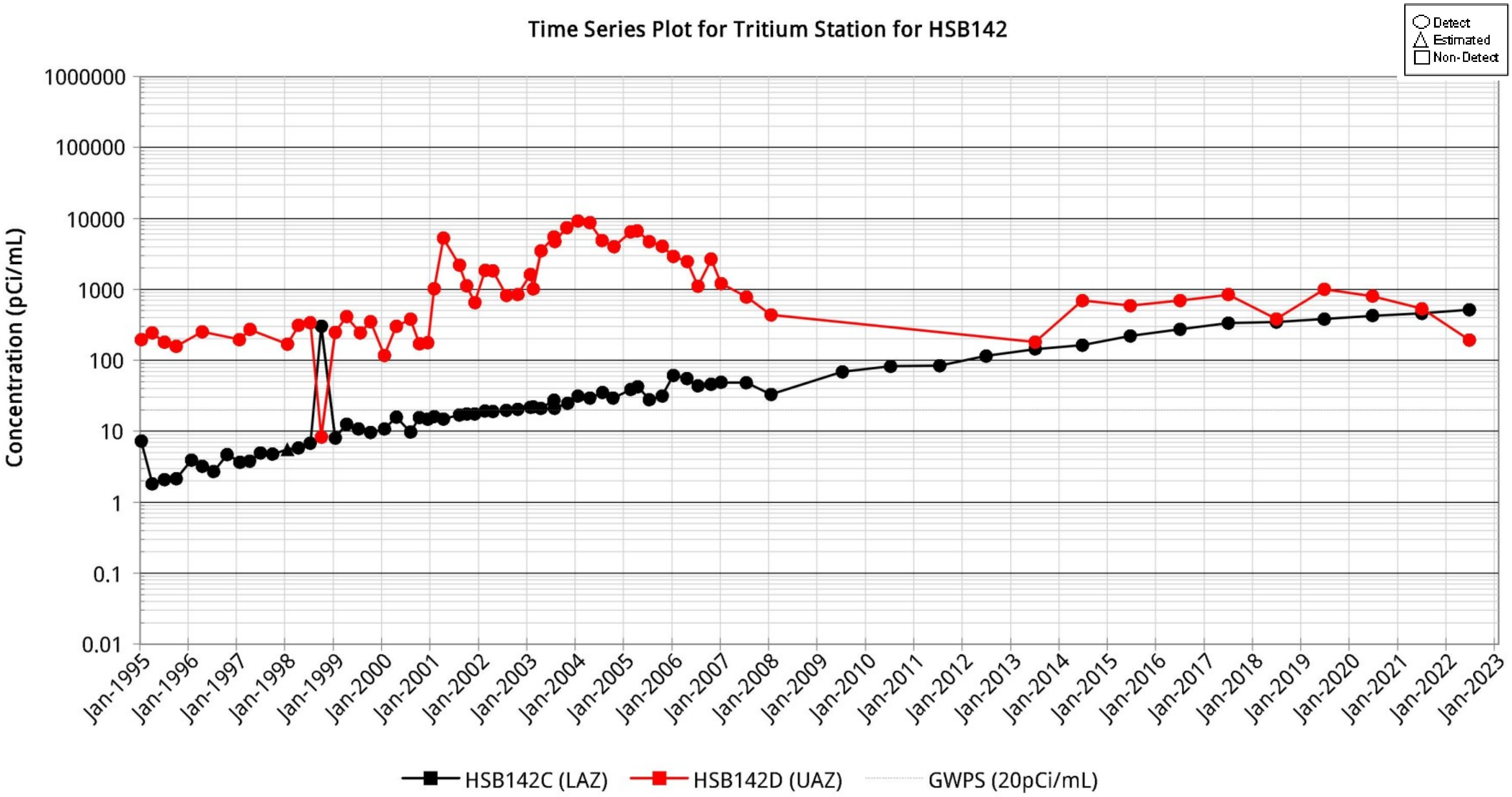
Jan-2023
HSB137C (LAZ)
HSB137CR (LAZ)
HSB137D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HSB142
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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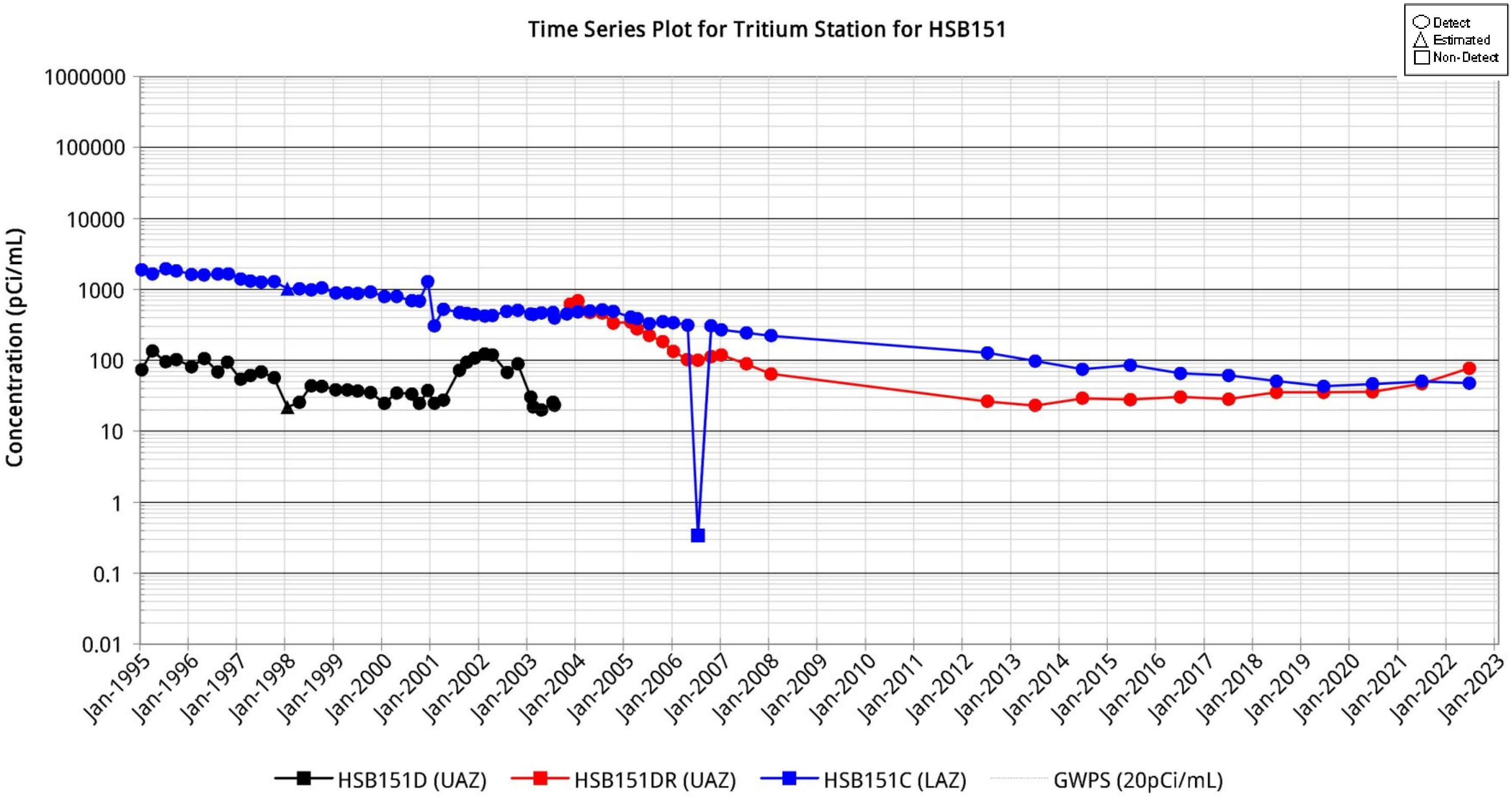
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB142C (LAZ)
HSB142D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for HSB151
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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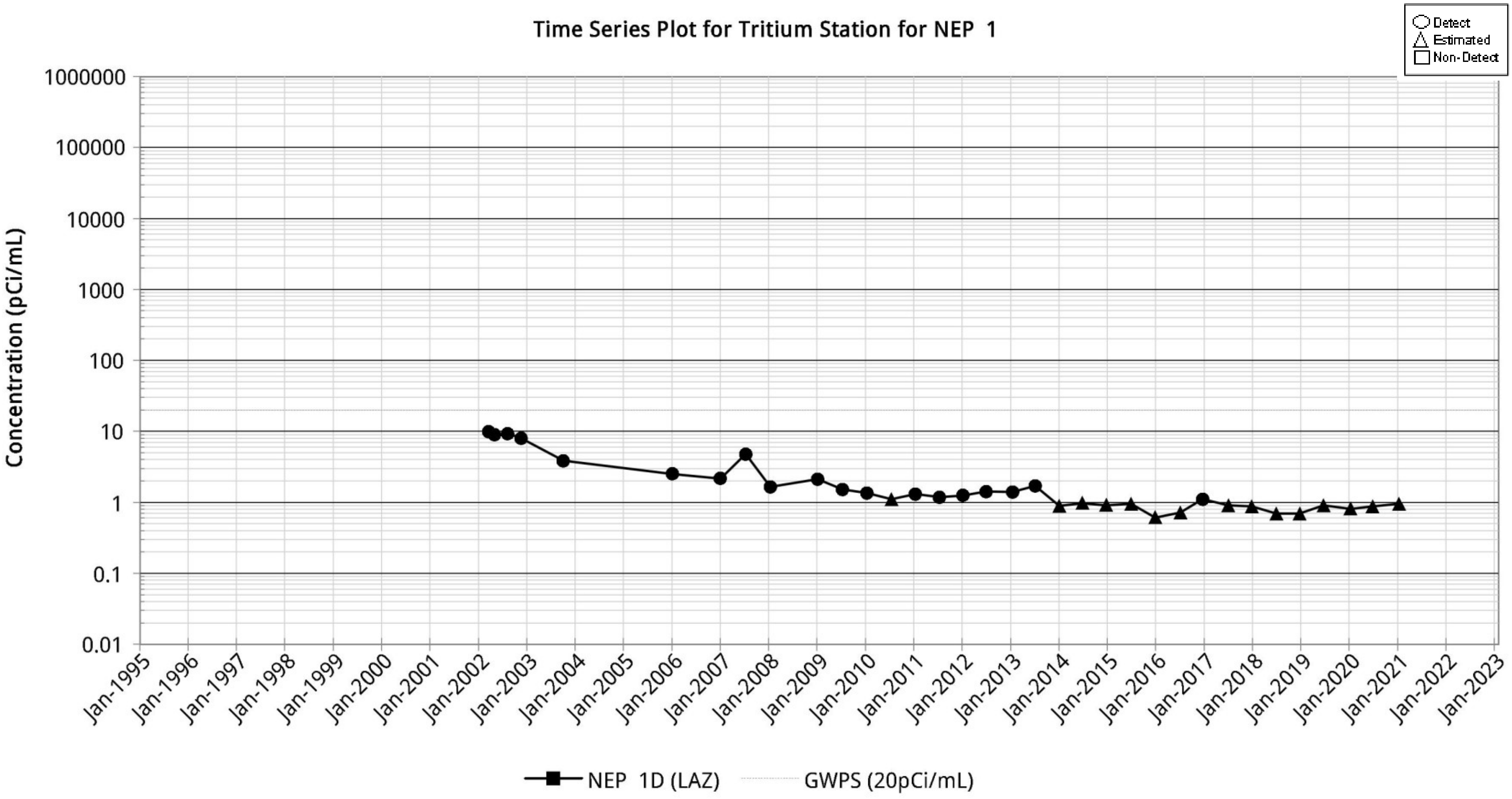
Jan-2020
Jan-2021
Jan-2022
Jan-2023
HSB151D (UAZ)
HSB151DR (UAZ)
HSB151C (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for NEP 1
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
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Jan-2020
Jan-2021
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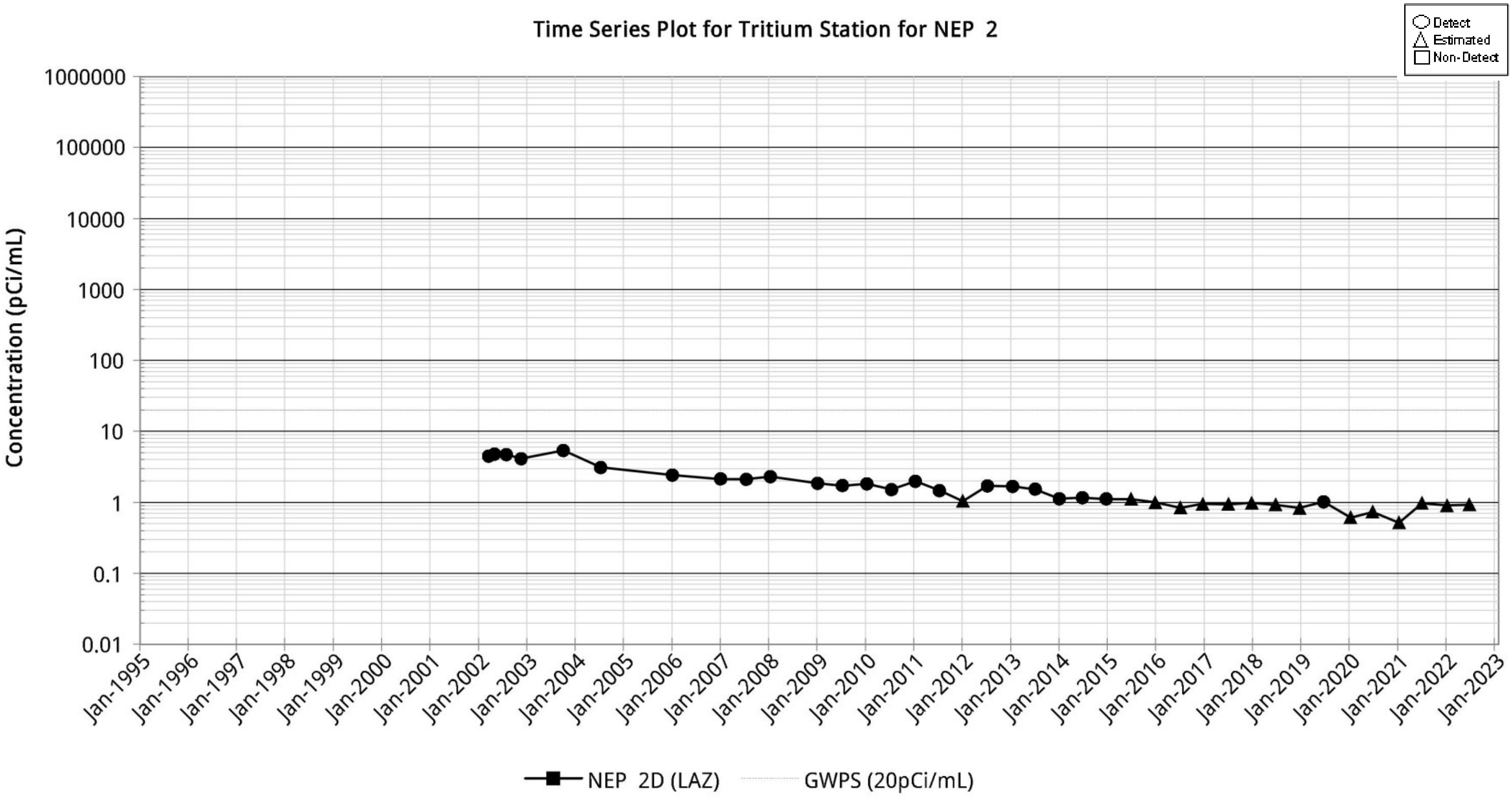
Jan-2023
NEP 1D (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for NEP 2
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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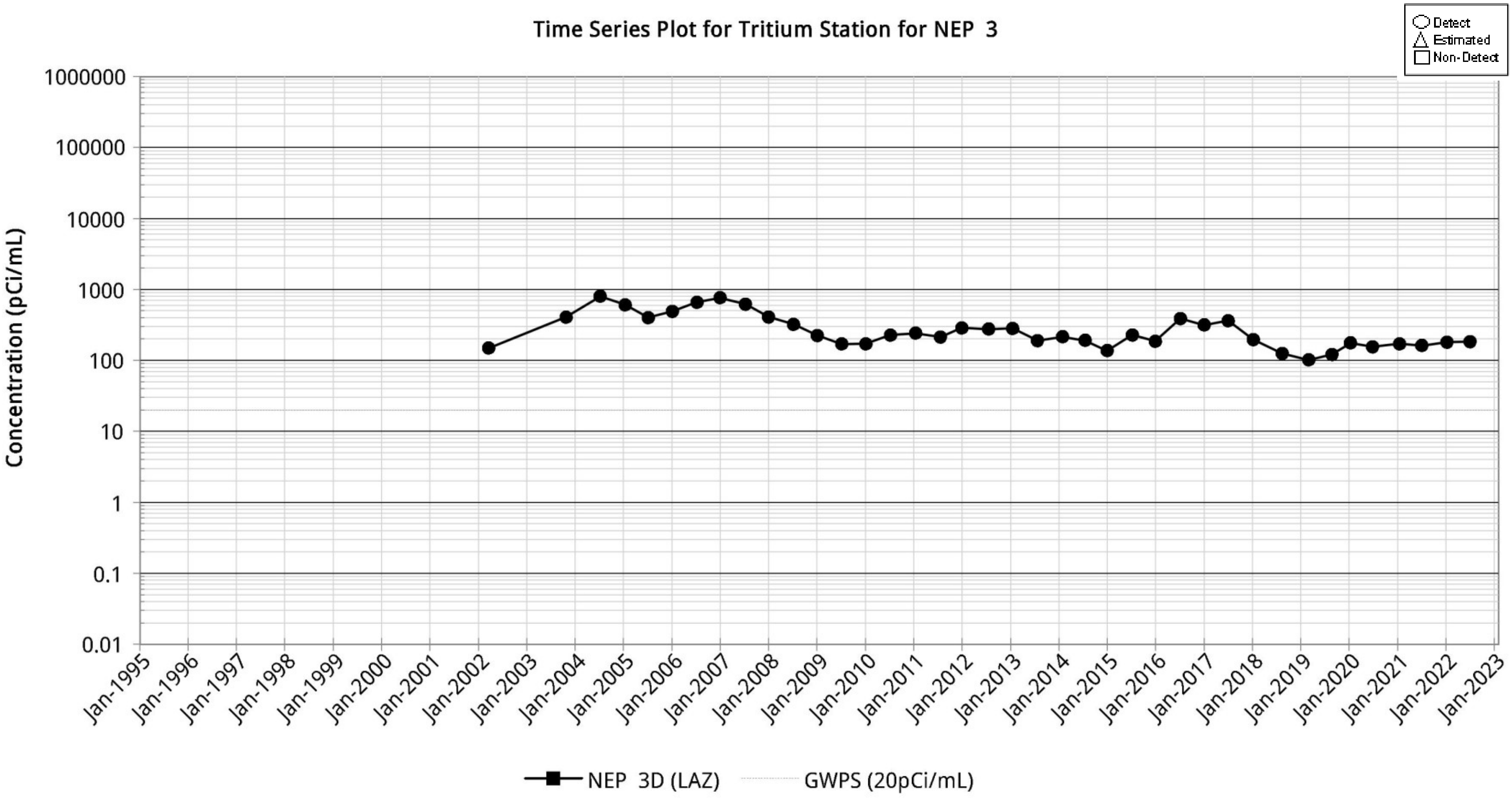
Jan-2023
NEP 2D (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for NEP 3
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
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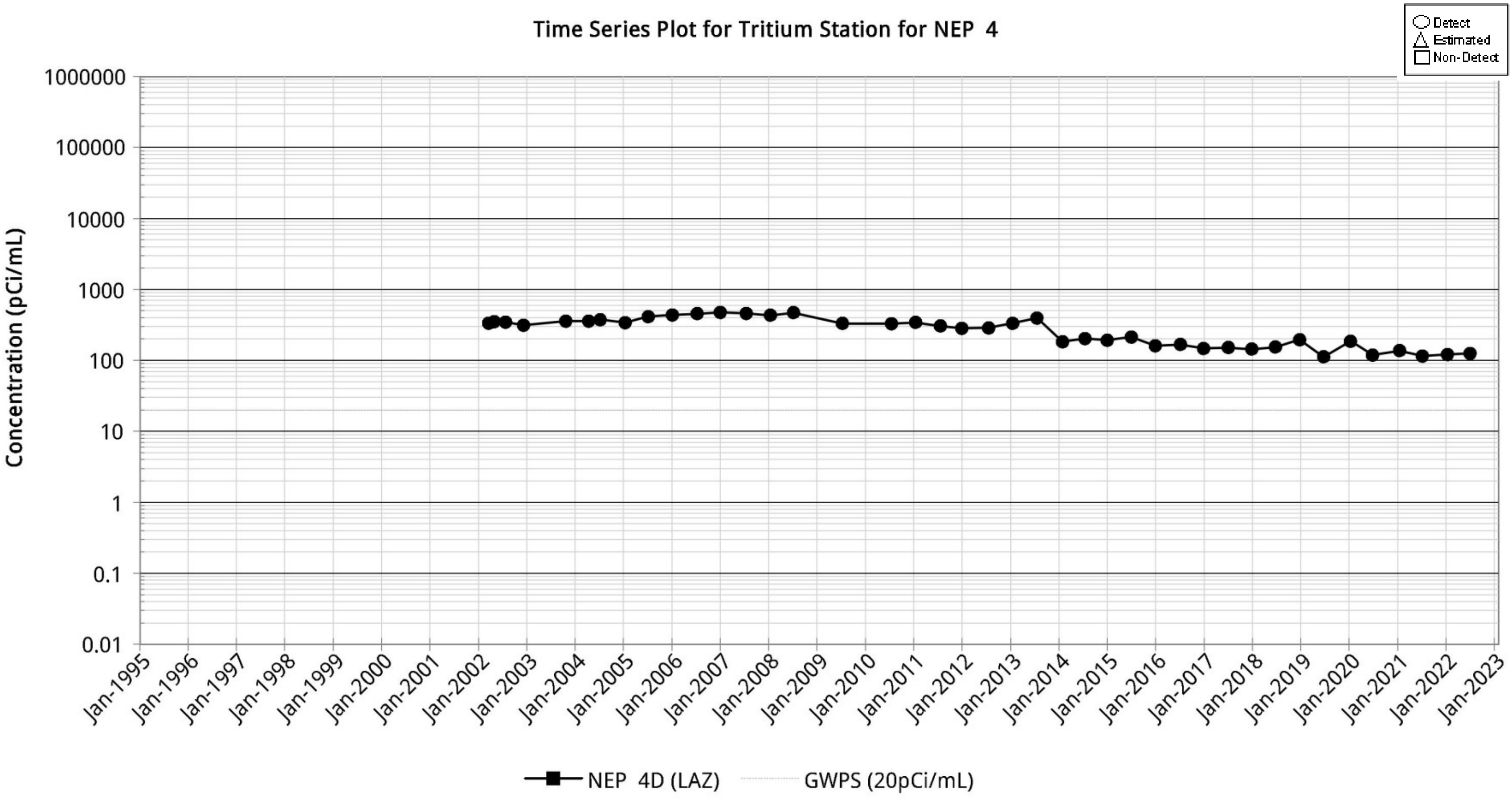
Jan-2020
Jan-2021
Jan-2022
Jan-2023
NEP 3D (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for NEP 4
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
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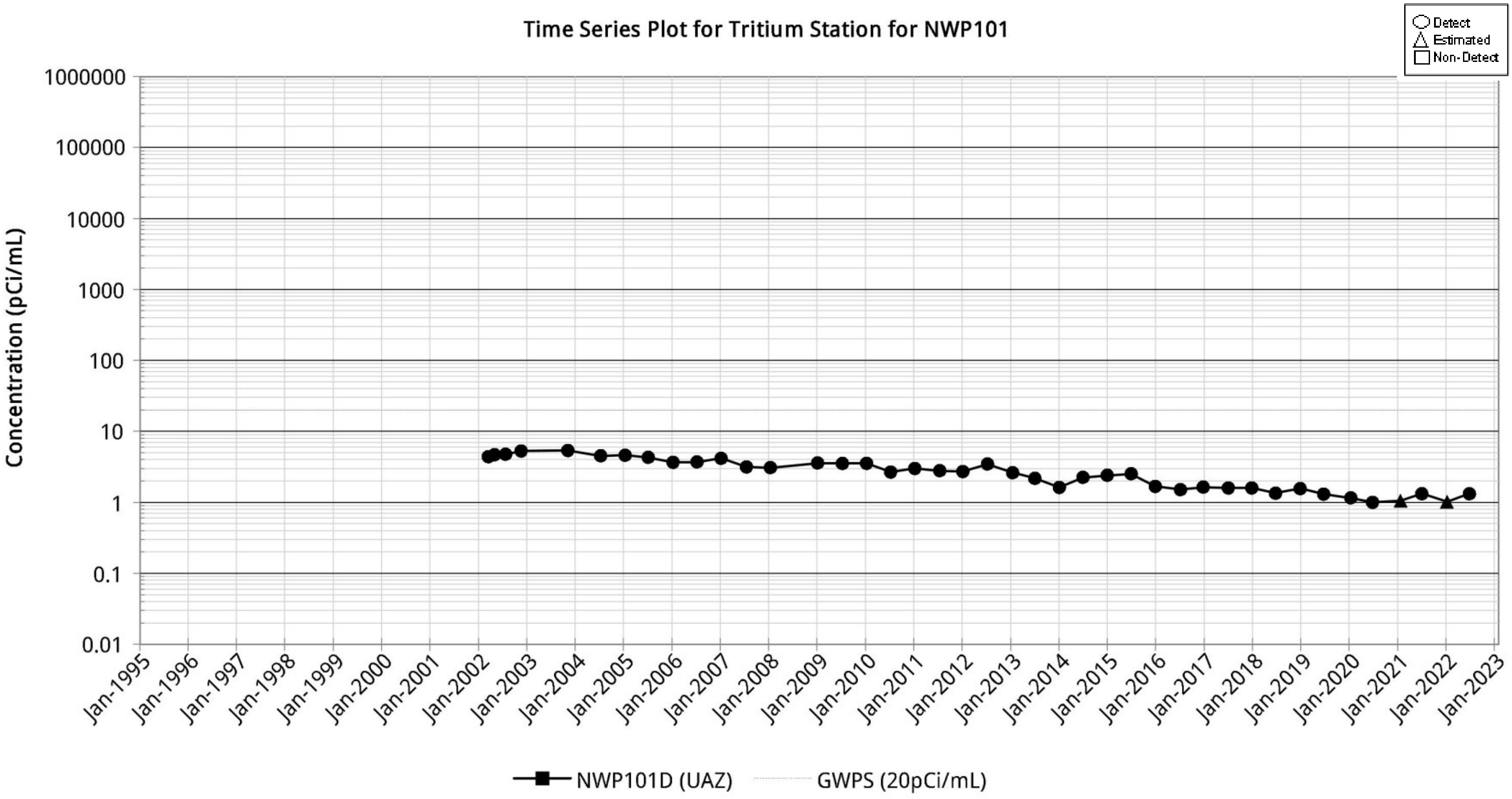
Jan-2020
Jan-2021
Jan-2022
Jan-2023
NEP 4D (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for NWP101
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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Jan-2020
Jan-2021
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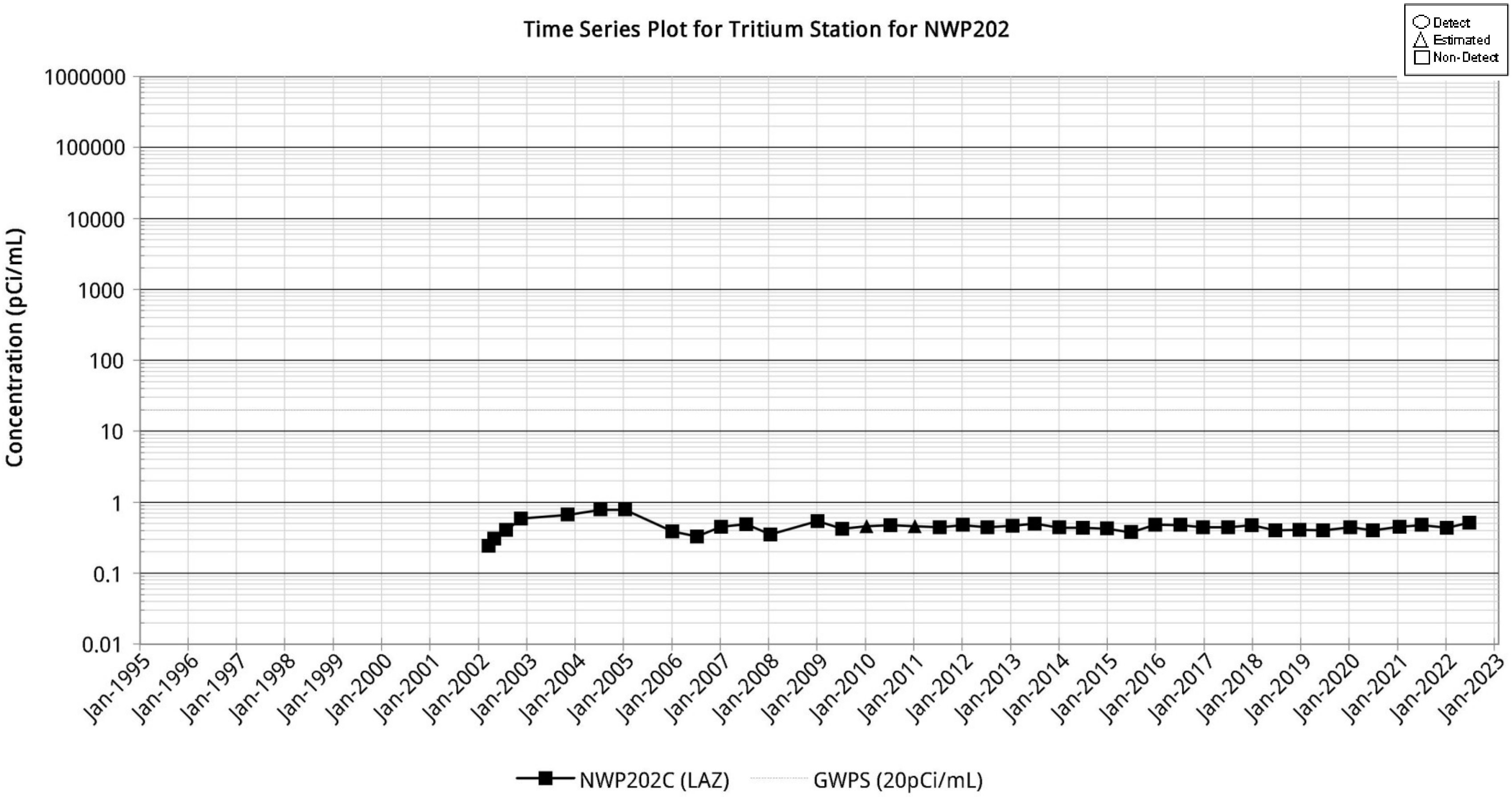
Jan-2023
NWP101D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for NWP202
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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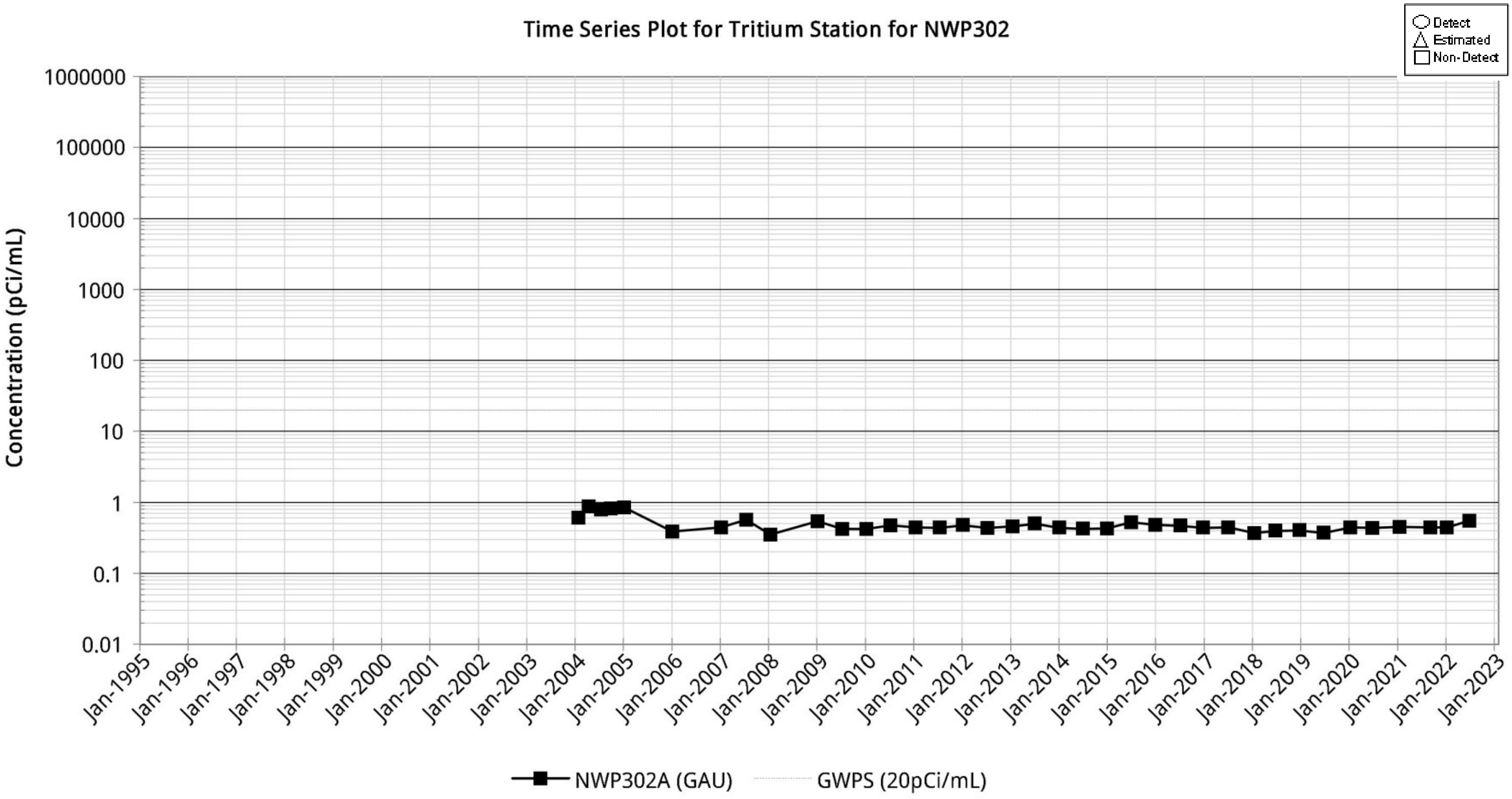
Jan-2020
Jan-2021
Jan-2022
Jan-2023
NWP202C (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for NWP302
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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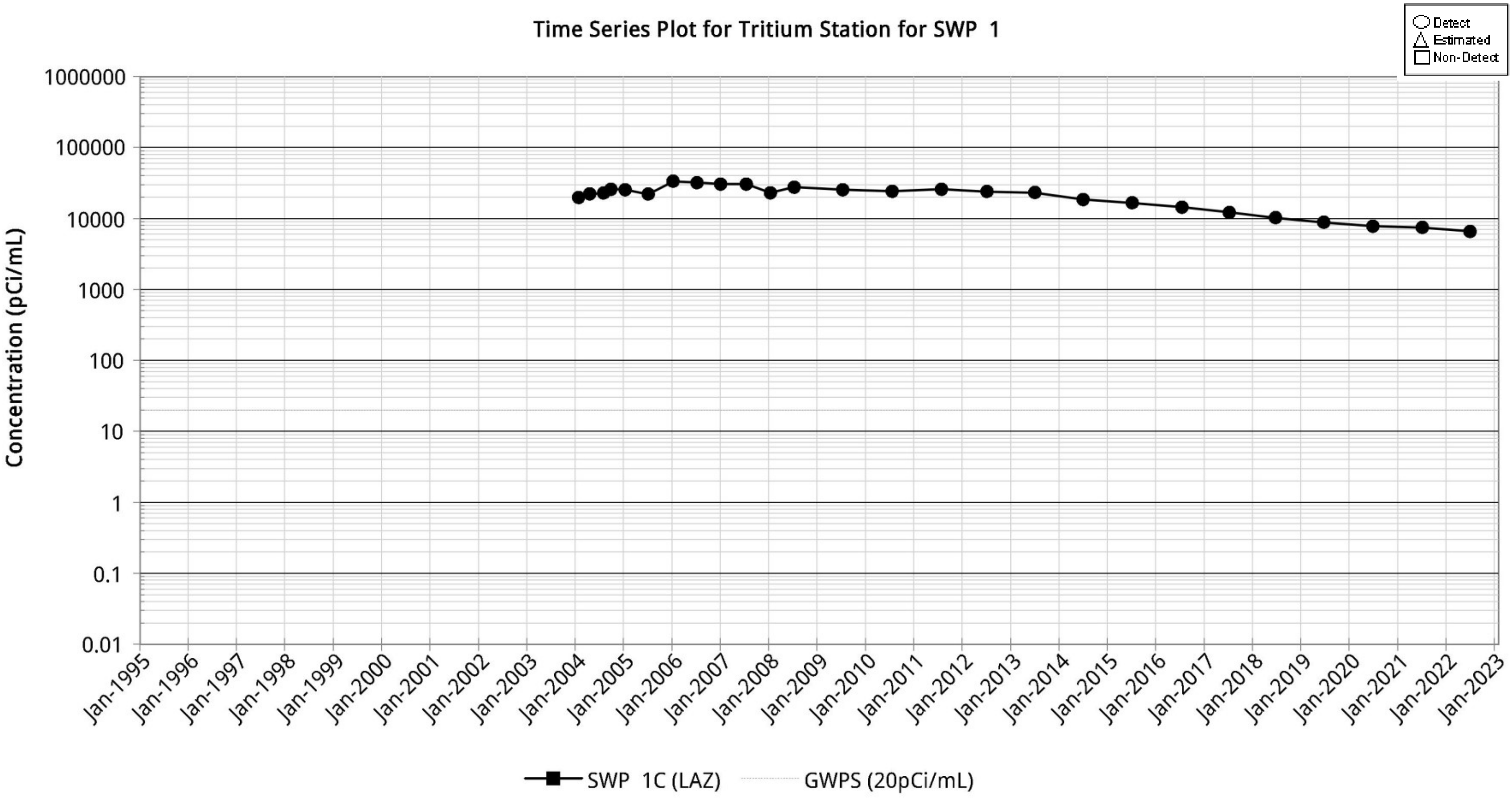
Jan-2020
Jan-2021
Jan-2022
Jan-2023
NWP302A (GAU)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for SWP 1
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
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Jan-2007
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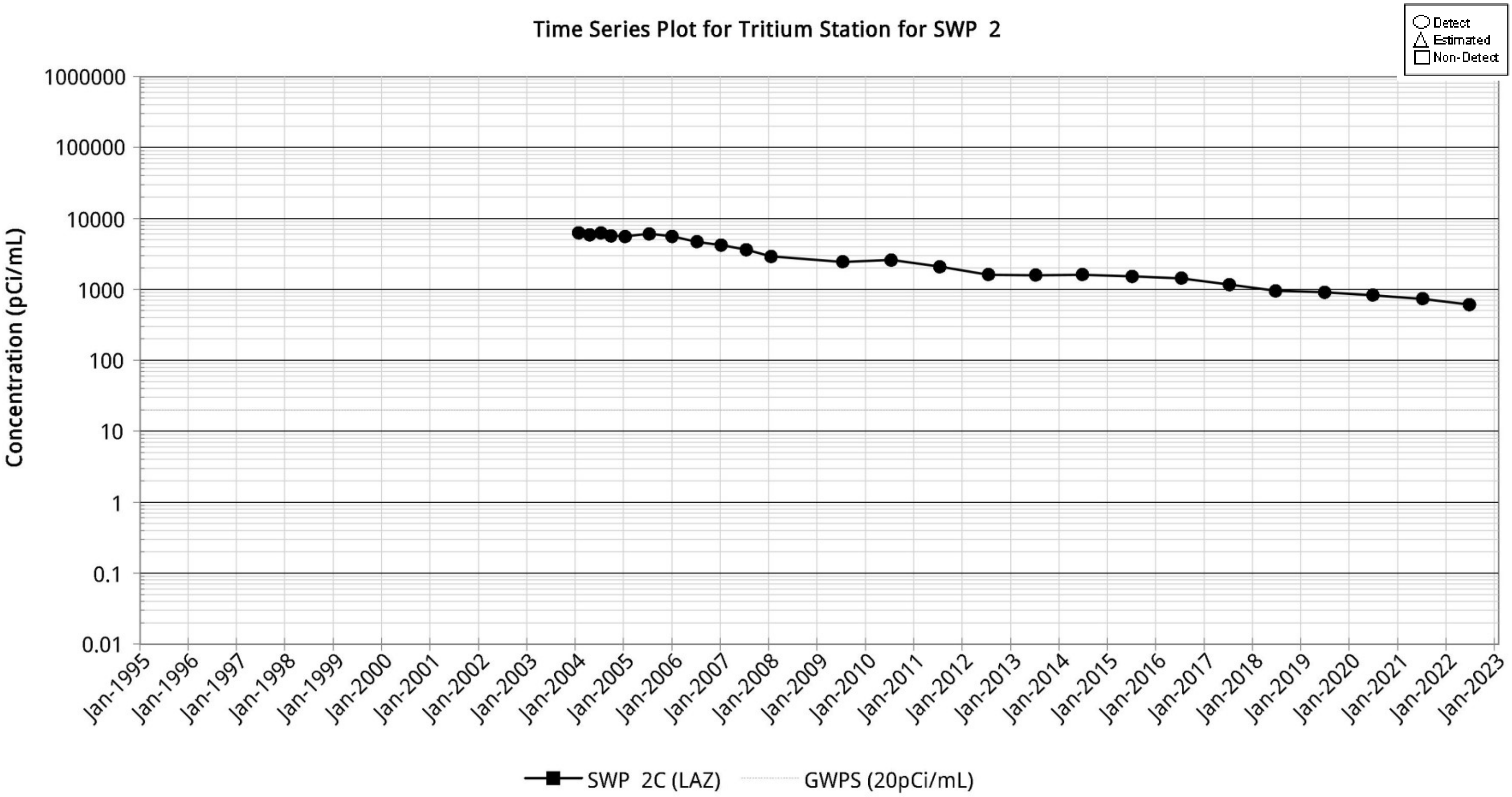
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
SWP 1C (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for SWP 2
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006
Jan-2007
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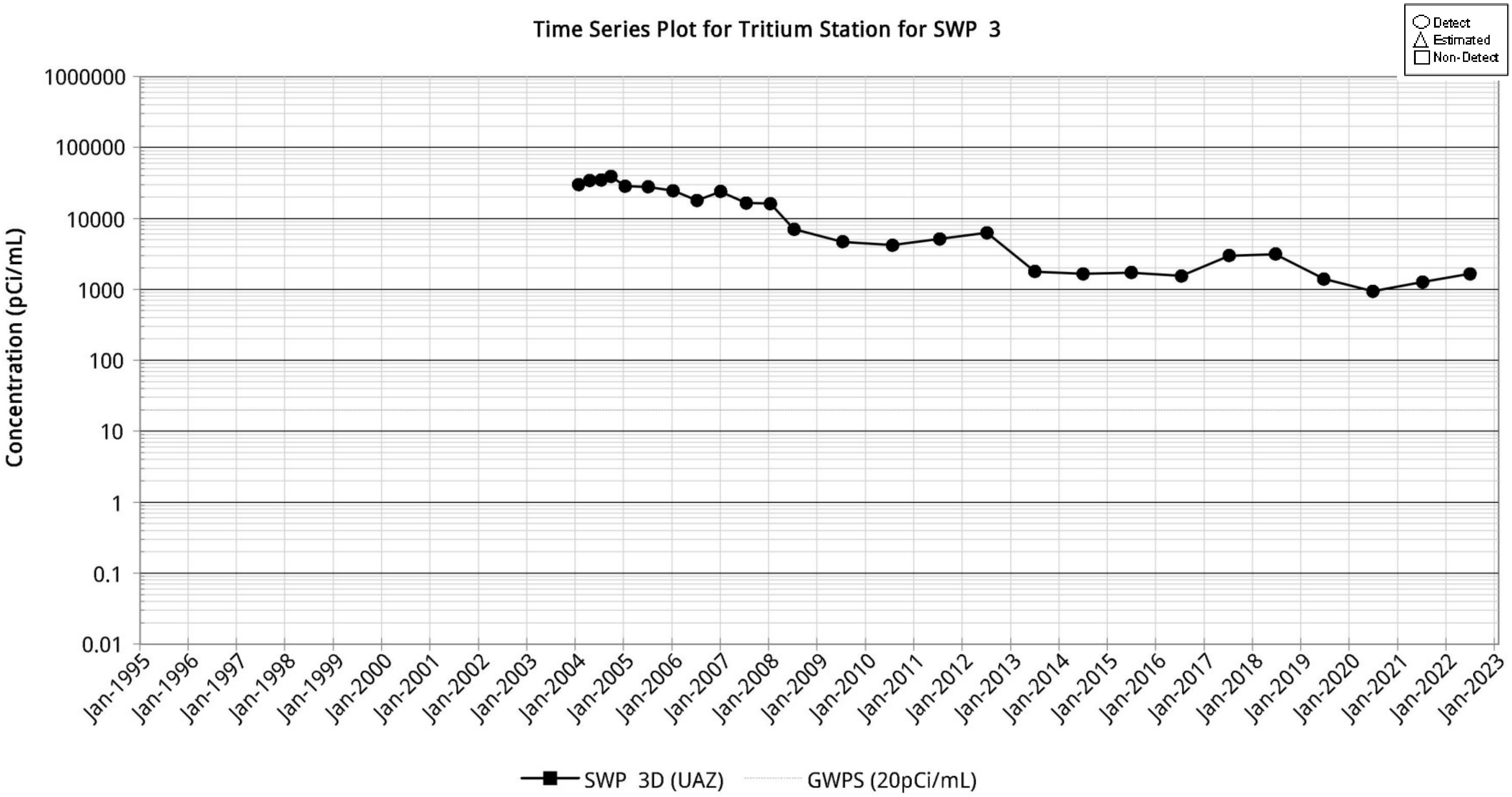
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Jan-2023
SWP 2C (LAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for SWP 3
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
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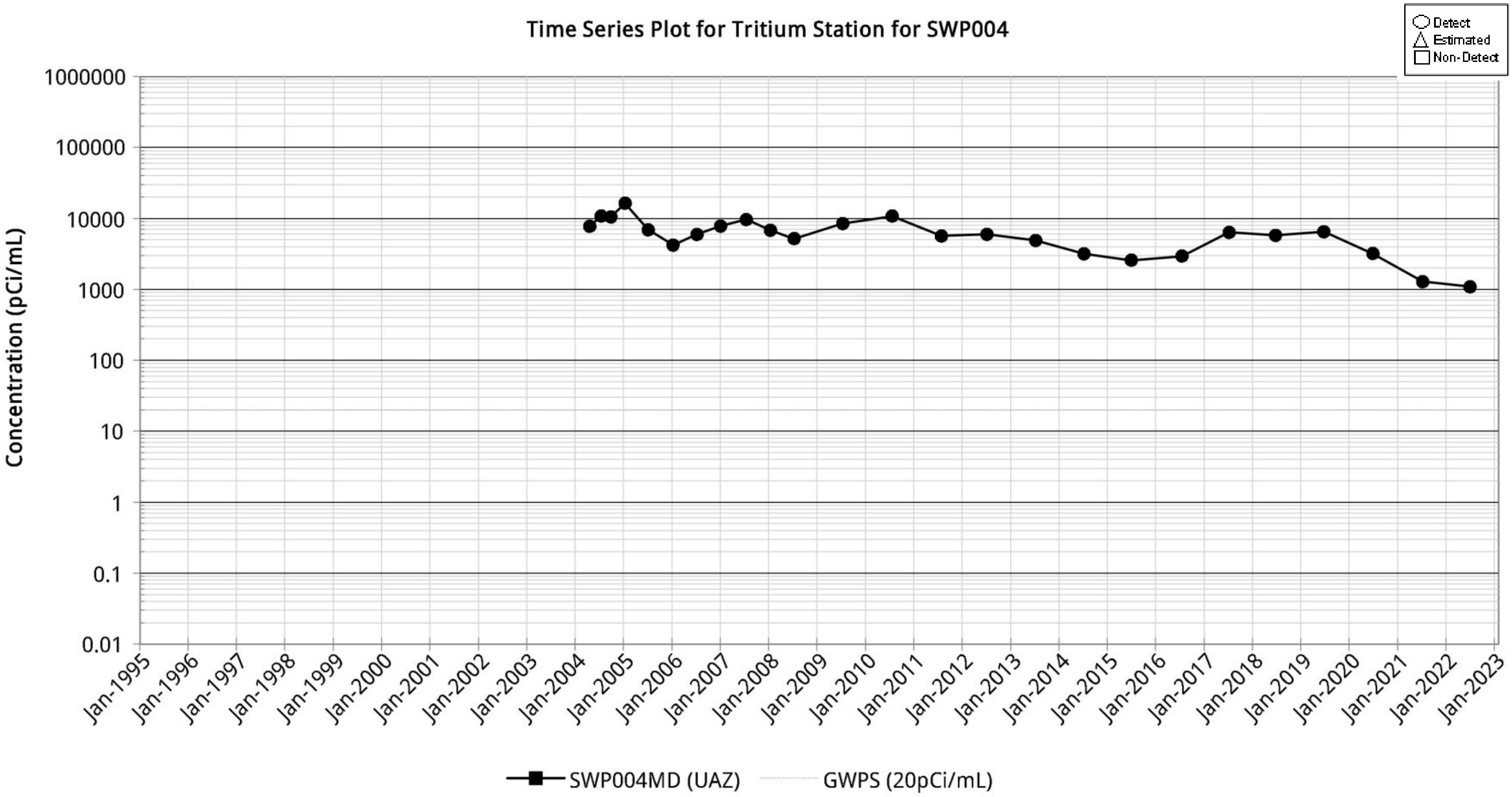
Jan-2022
Jan-2023
SWP 3D (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Tritium Station for SWP004
Detect
Estimated
Non-Detect
Concentration (pCi/mL)
1000000
100000
10000
1000
100
10
1
0.1
0.01
Jan-1995
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Jan-1997
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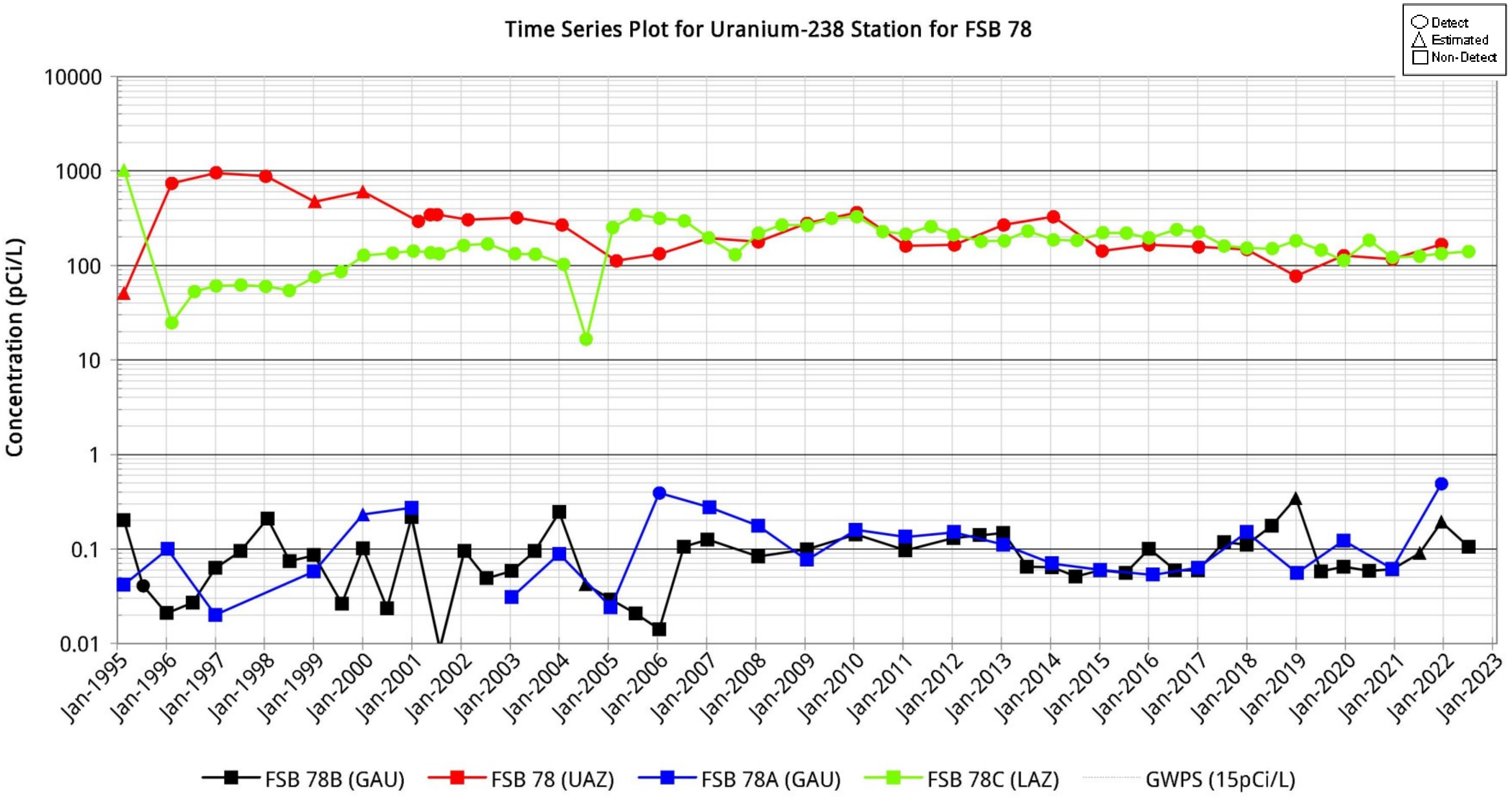
Jan-2021
Jan-2022
Jan-2023
SWP004MD (UAZ)
GWPS (20pCi/mL)


Time Series Plot for Uranium-238 Station for FSB 78
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
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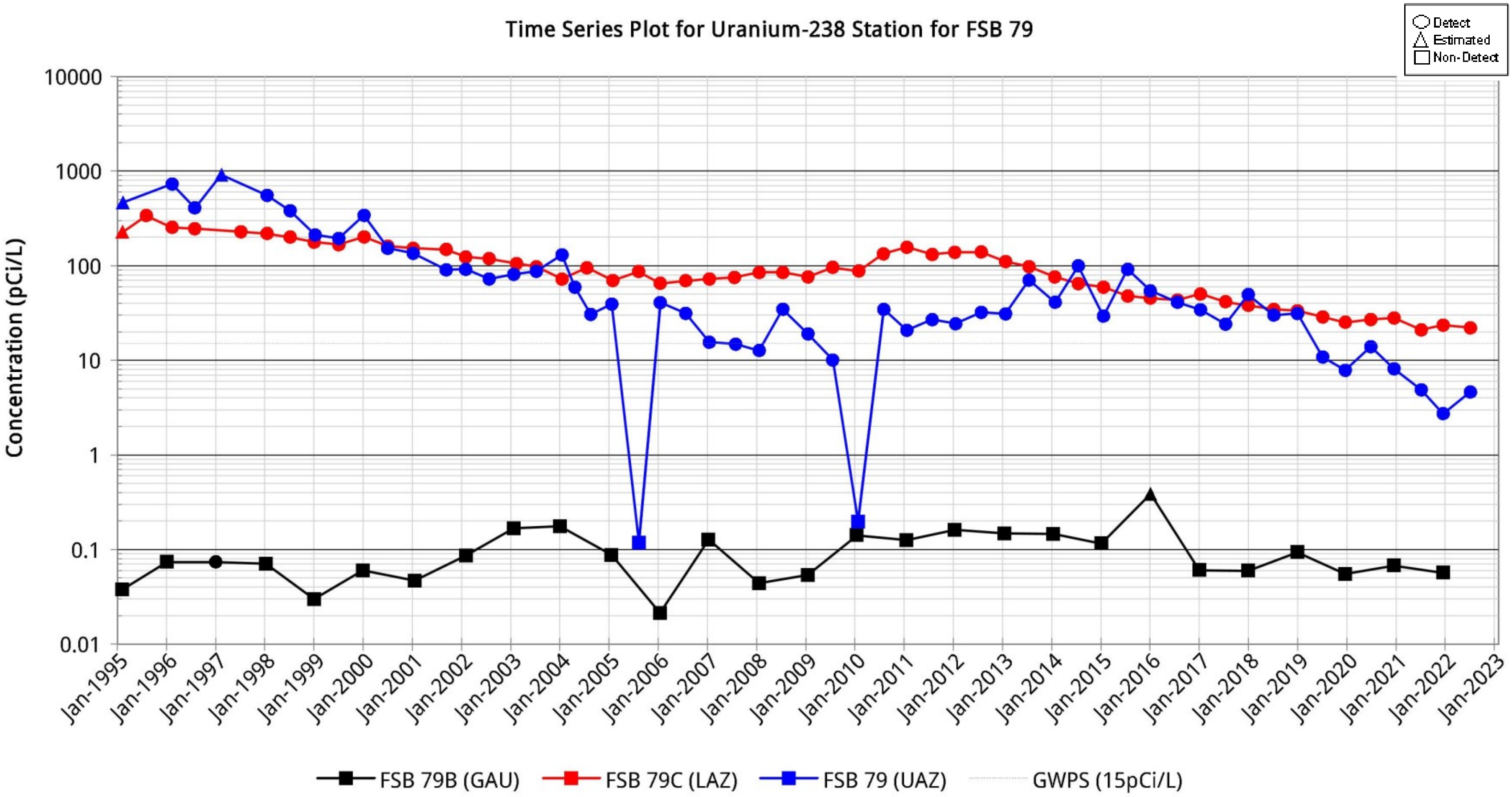
FSB 78B (GAU)
FSB 78 (UAZ)
FSB 78A (GAU)
FSB 78C (LAZ)
GWPS (15pCi/L)


Time Series Plot for Uranium-238 Station for FSB 79
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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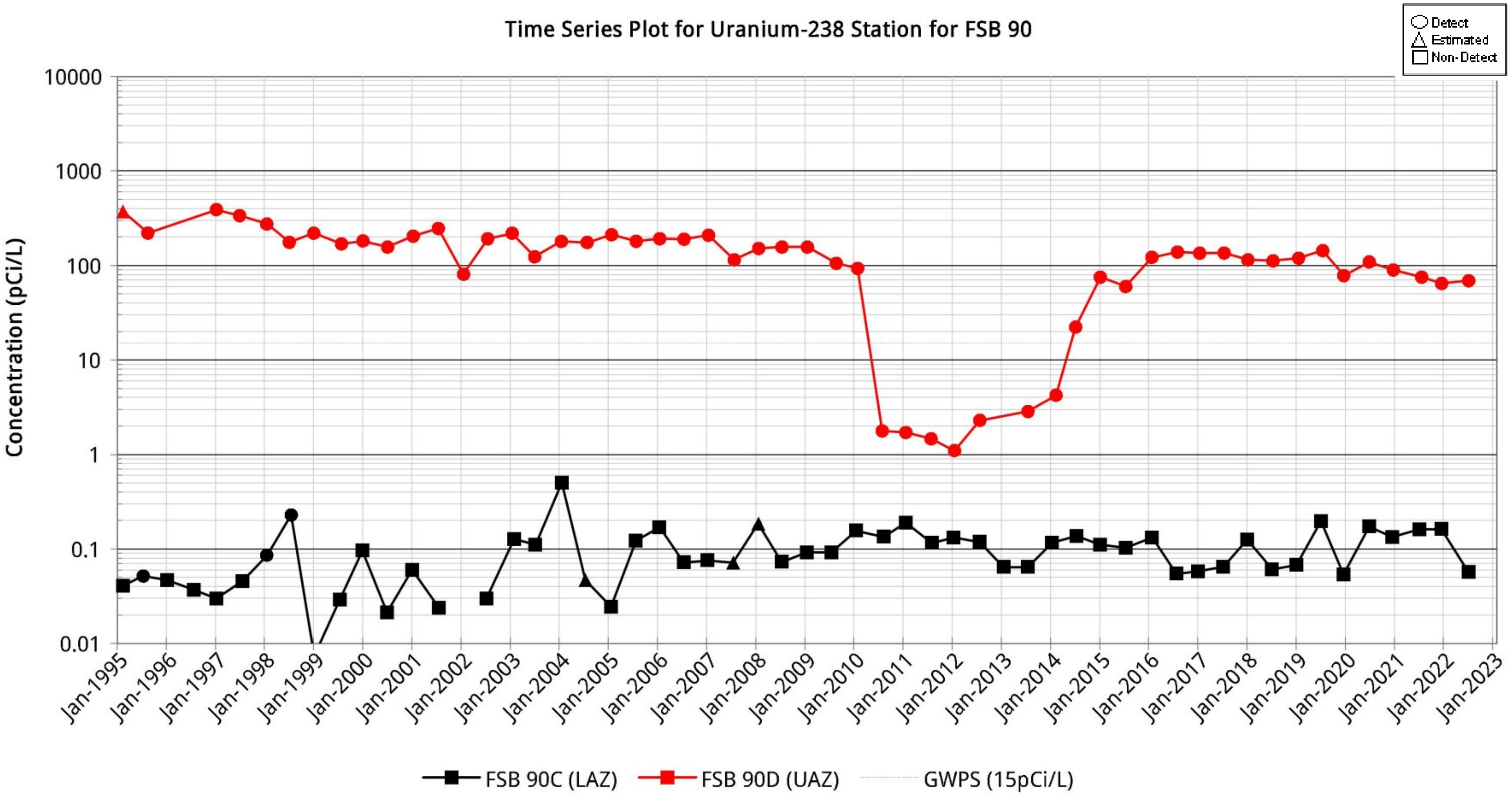
Jan-2023
FSB 79B (GAU)
FSB 79C (LAZ)
FSB 79 (UAZ)
GWPS (15pCi/L)


Time Series Plot for Uranium-238 Station for FSB 90
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
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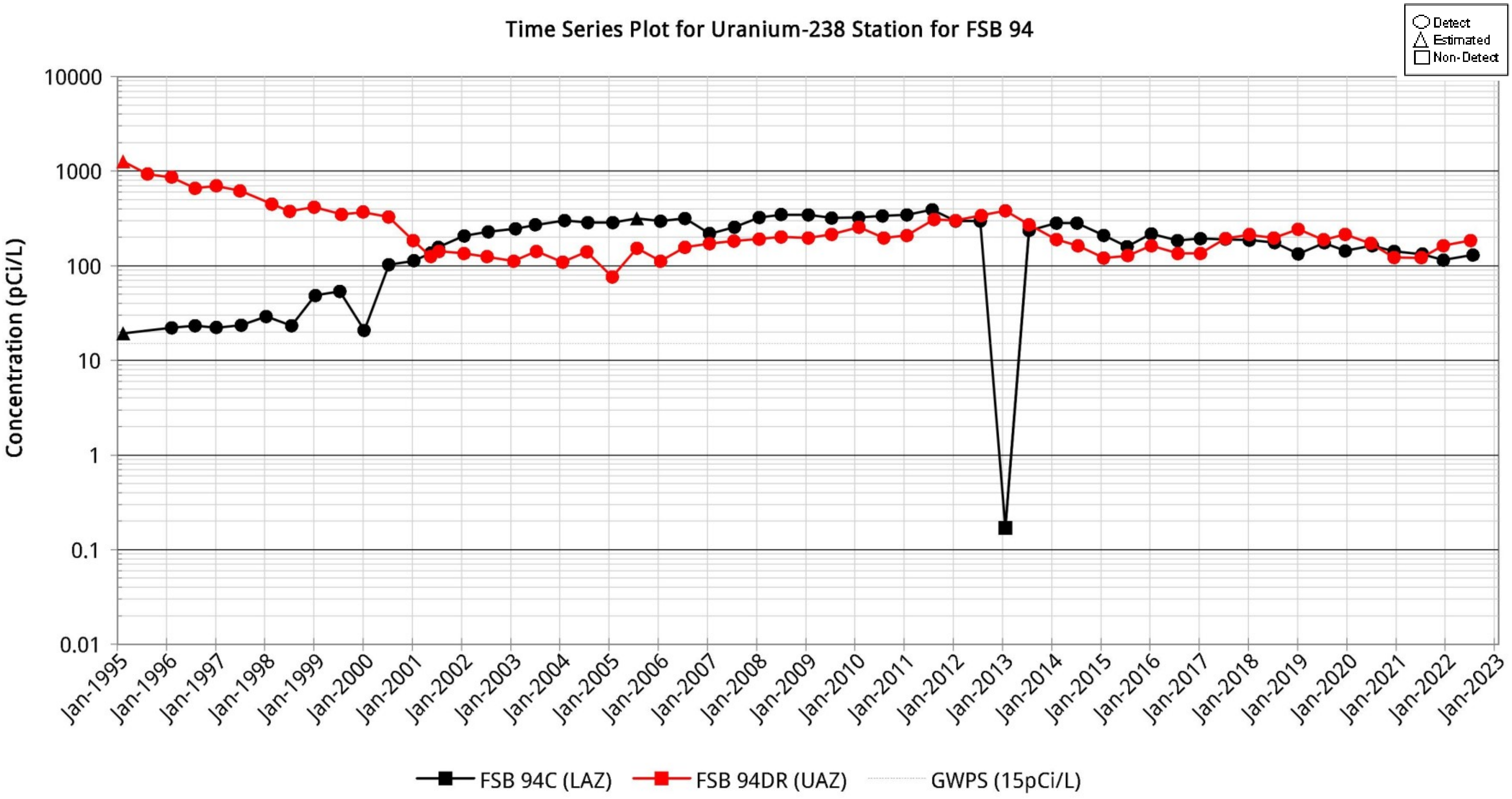
Jan-2023
FSB 90C (LAZ)
FSB 90D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Uranium-238 Station for FSB 94
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
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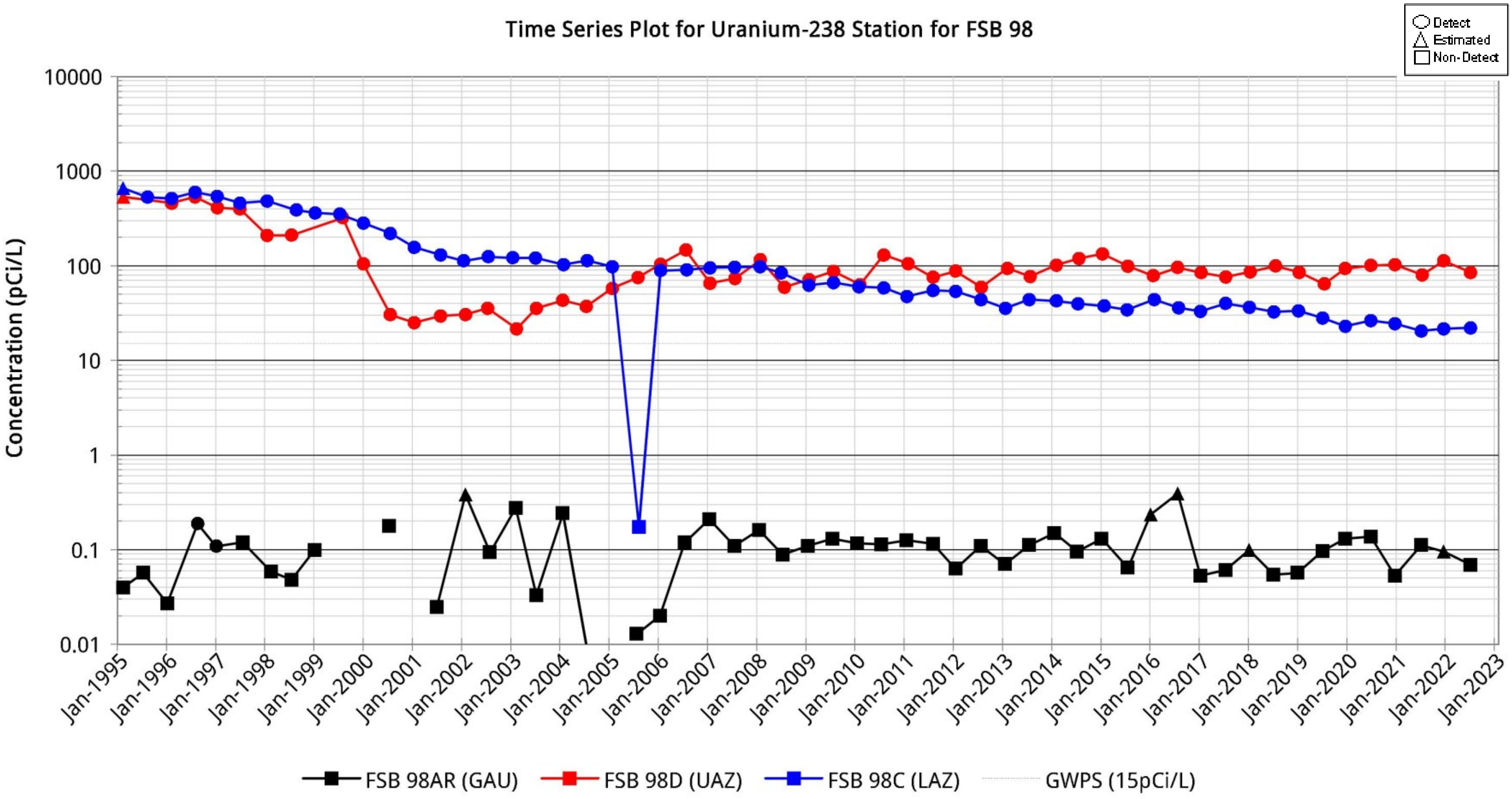
Jan-2023
FSB 94C (LAZ)
FSB 94DR (UAZ)
GWPS (15pCi/L)


Time Series Plot for Uranium-238 Station for FSB 98
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
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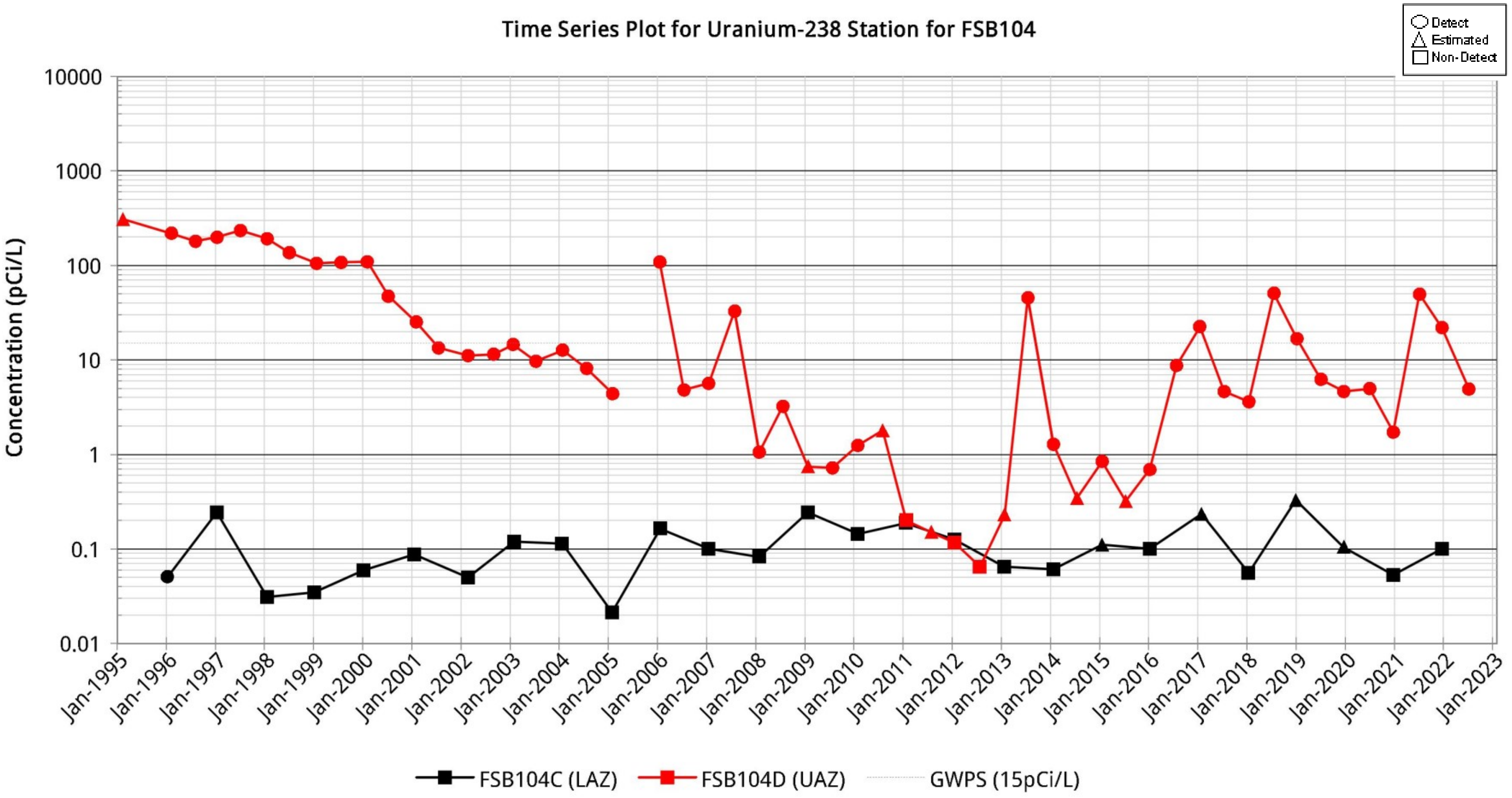
Jan-2023
FSB 98AR (GAU)
FSB 98D (UAZ)
FSB 98C (LAZ)
GWPS (15pCi/L)


Time Series Plot for Uranium-238 Station for FSB104
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
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1000
100
10
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0.1
0.01
Jan-1995
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Jan-1997
Jan-1998
Jan-1999
Jan-2000
Jan-2001
Jan-2002
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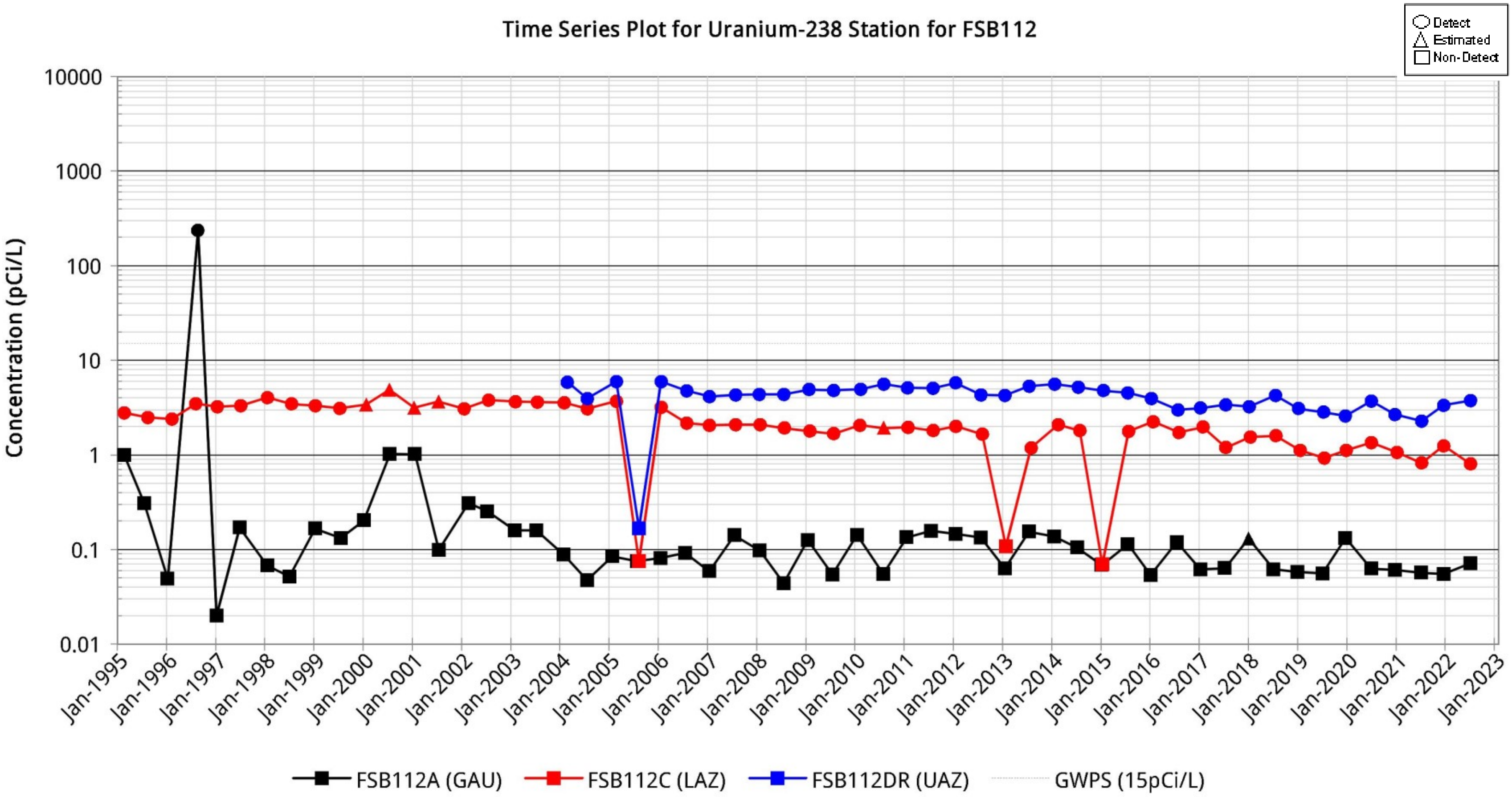
Jan-2022
Jan-2023
FSB104C (LAZ)
FSB104D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Uranium-238 Station for FSB112
○ Detect
△ Estimated
☐ Non-Detect
Concentration (pCi/L)
10000
1000
100
10
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0.1
0.01
Jan-1995
Jan-1996
Jan-1997
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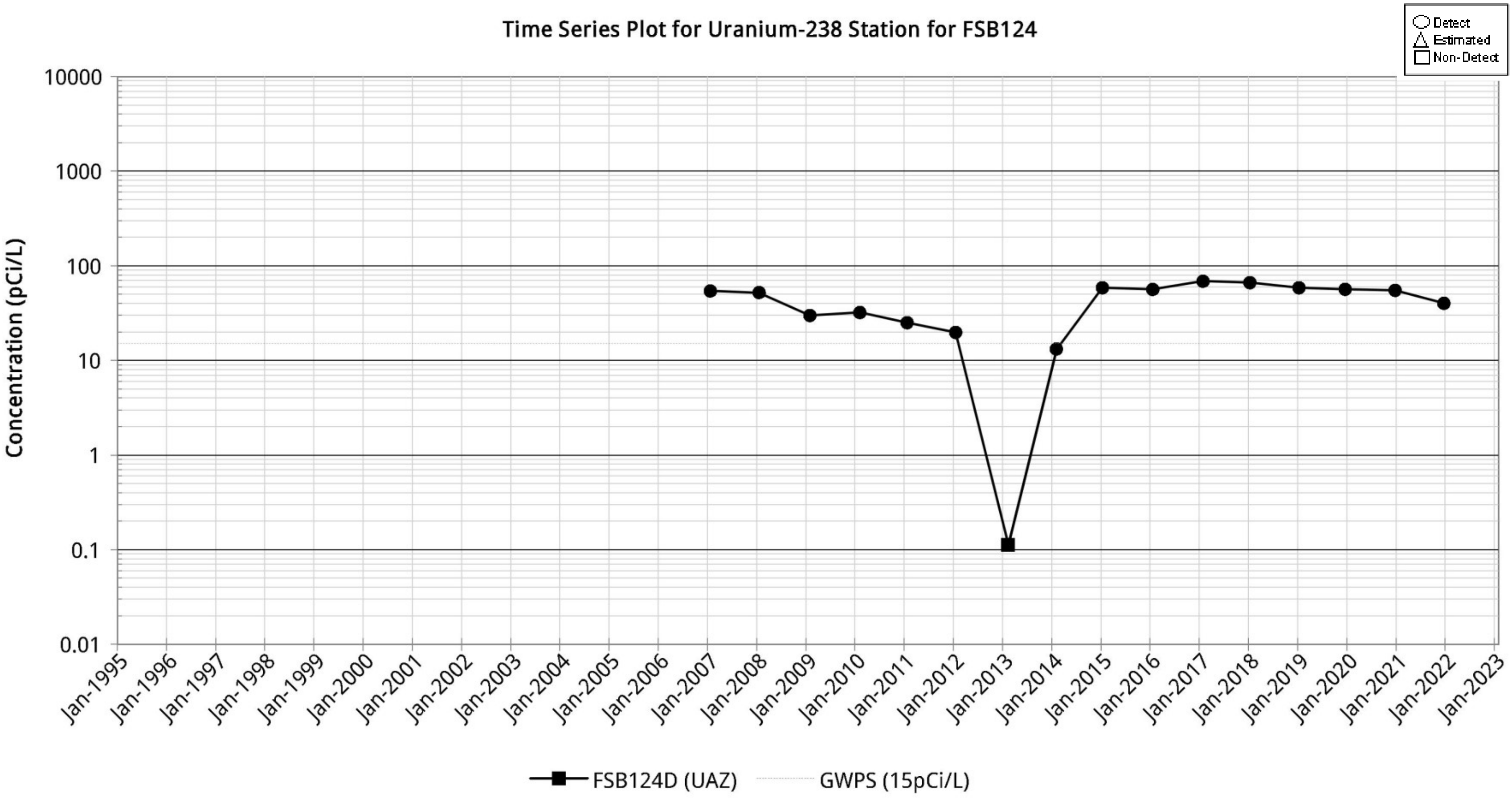
FSB112A (GAU)
FSB112C (LAZ)
FSB112DR (UAZ)
GWPS (15pCi/L)


Time Series Plot for Uranium-238 Station for FSB124
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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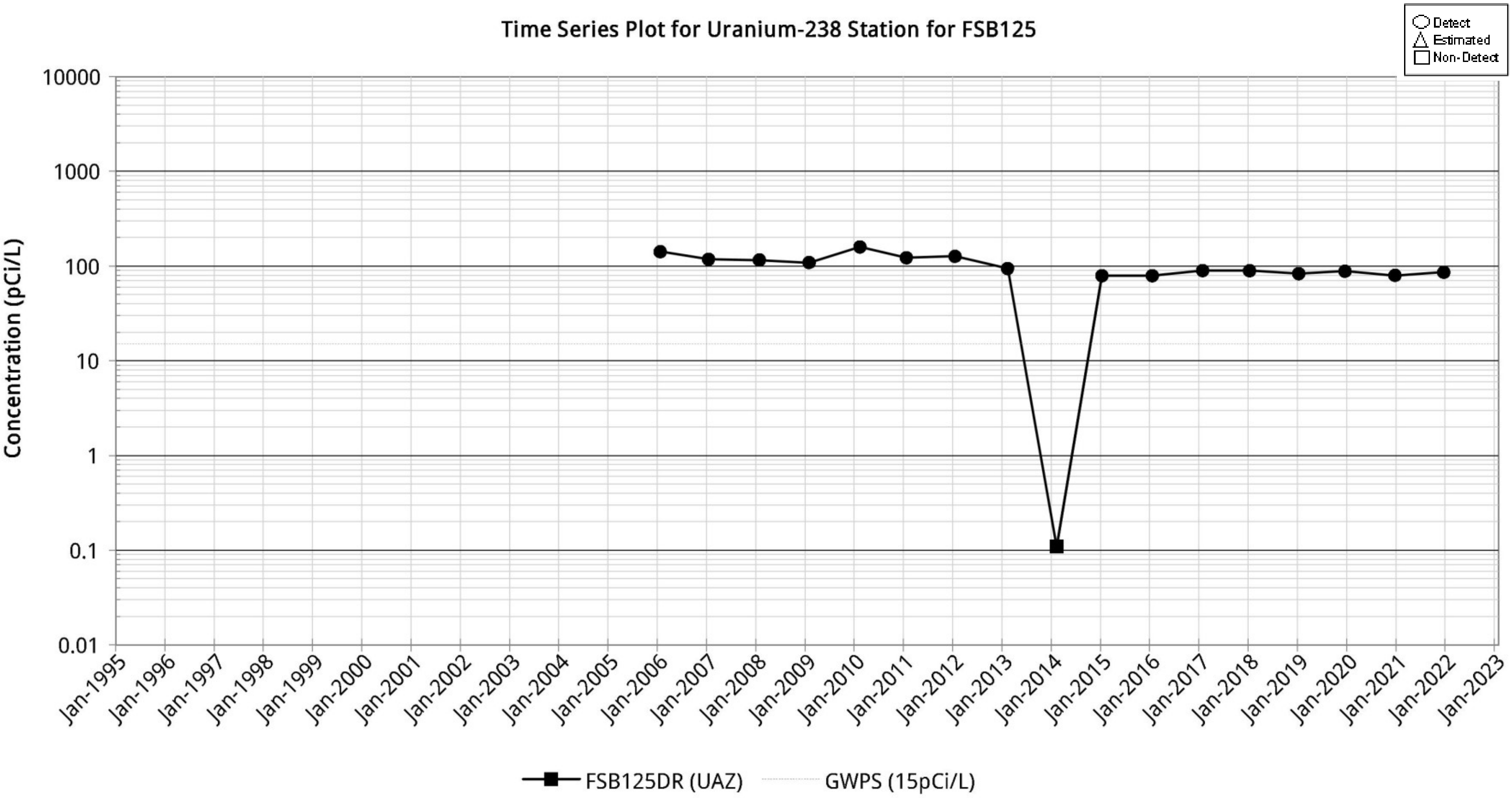
Jan-2023
FSB124D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Uranium-238 Station for FSB125
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
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Jan-1995
Jan-1996
Jan-1997
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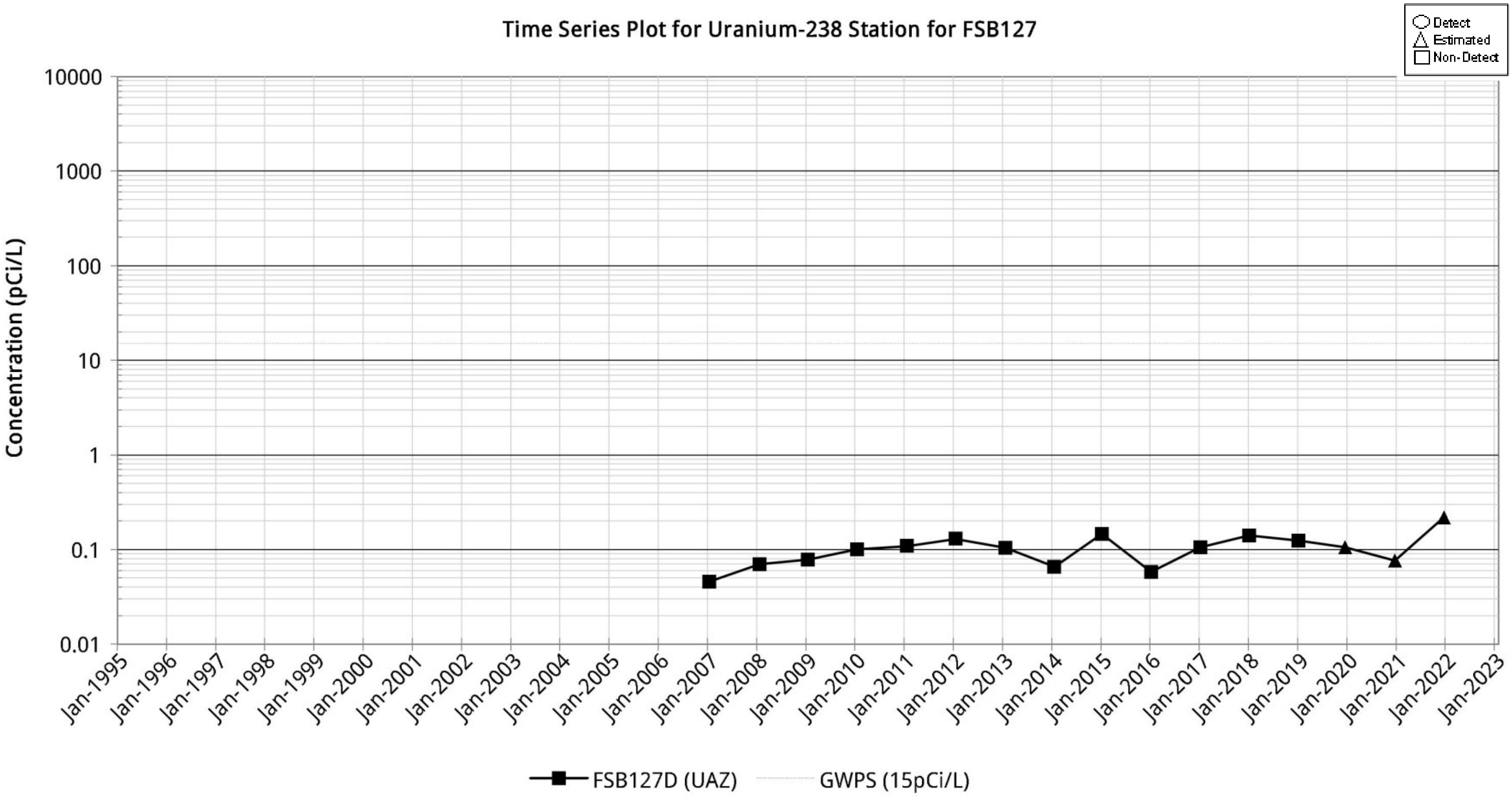
Jan-2023
FSB125DR (UAZ)
GWPS (15pCi/L)


Time Series Plot for Uranium-238 Station for FSB127
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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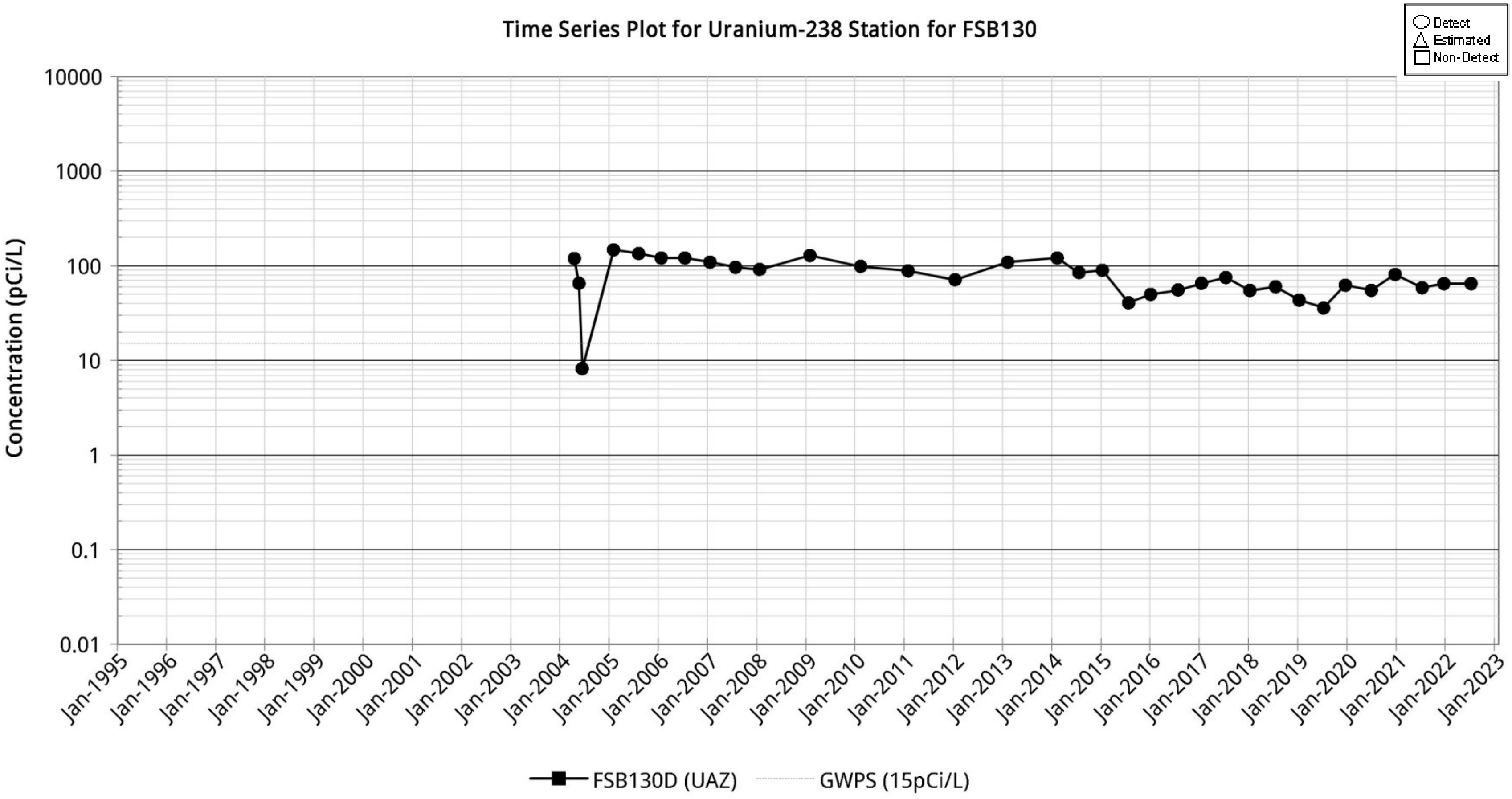
Jan-2023
FSB127D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Uranium-238 Station for FSB130
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
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0.1
0.01
Jan-1995
Jan-1996
Jan-1997
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Jan-2021
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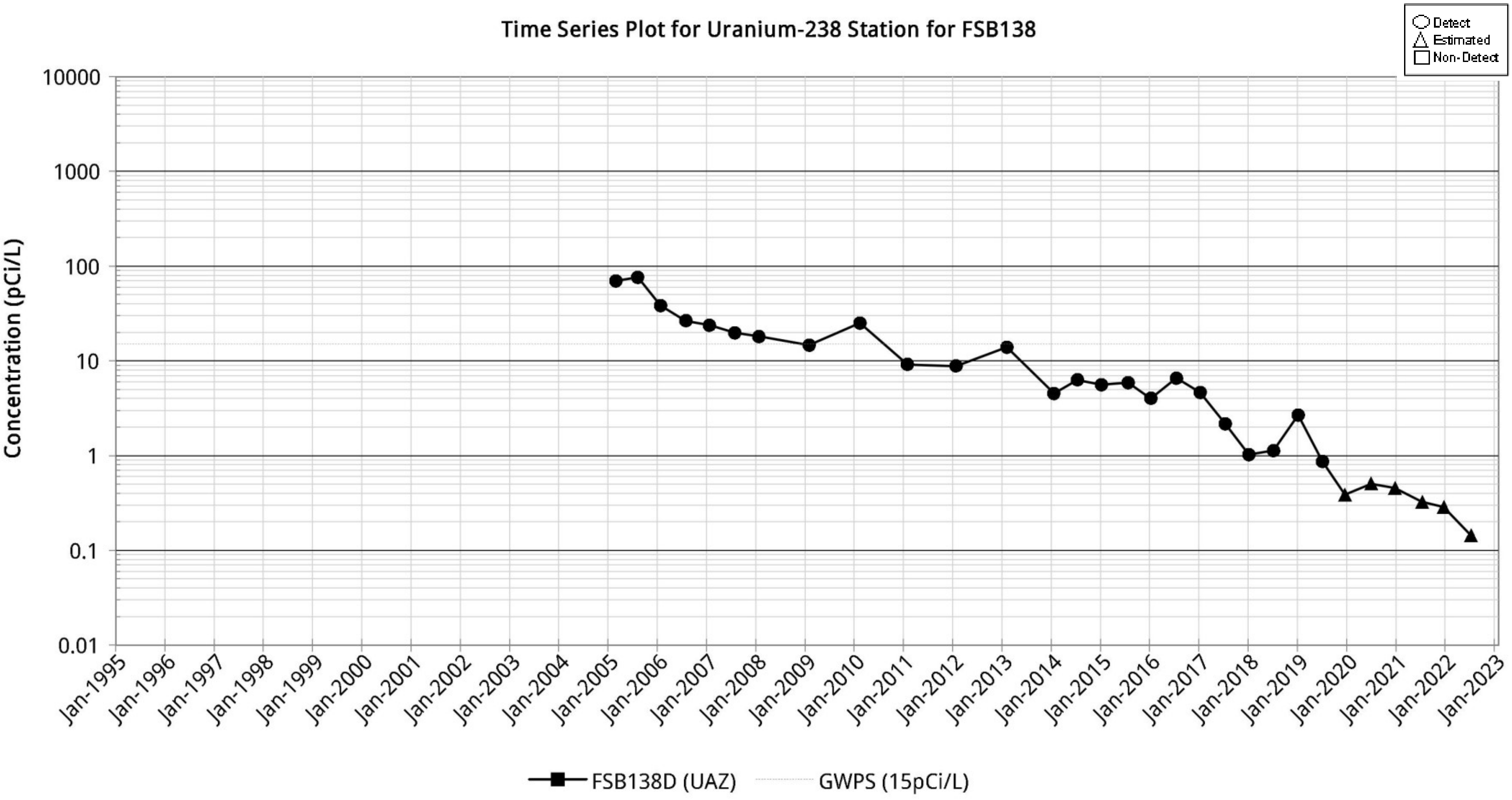
Jan-2023
FSB130D (UAZ)
GWPS (15pCi/L)


Time Series Plot for Uranium-238 Station for FSB138
Detect
Estimated
Non-Detect
Concentration (pCi/L)
10000
1000
100
10
1
0.1
0.01
Jan-1995
Jan-1996
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Jan-2023
FSB138D (UAZ)
GWPS (15pCi/L)

APPENDIX F

F-AREA AND H-AREA HAZARDOUS WASTE MANAGEMENT FACILITIES STATISTICAL EVALUATION

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To statistically assess the impact of the barrier walls and base injection, a simple hypothesis test was performed on water level (F- and H-Areas) and pH (F-Area only) data from select wells. To assess water level changes across the barriers, gradients were calculated for select well pairs as shown in Figures 1 and 2. Figure 3 shows the individual wells selected for assessment of pH changes. A brief summary of the statistical analysis follows.

For purposes of these tests, it was assumed that the before/after cutoffs were 2/1/2004 (F-Base injection), 8/1/2004 (F-Barrier), and 9/1/2004 (H-Barrier). The data was averaged by month. The two-tailed hypothesis test used a null hypothesis that the difference between the means (before/after) was zero. A t-statistic was used at a confidence of 95%.

A t-test statistic was calculated using:

$$t = \frac{\bar{x}_b - \bar{x}_a}{\sqrt{s_t^2\left(\frac{1}{n_b} + \frac{1}{n_a}\right)}}$$

where

$$s_t^2 = \frac{(n_b - 1)s_b^2 + (n_a - 1)s_a^2}{n_b + n_a - 2}$$

and $\bar{x}_b$, s_b, and n_b refer to the sample mean, standard deviation, and number (data count) for the *before* dataset, and $\bar{x}_a$, s_a, and n_a refer to the sample mean, standard deviation, and number (data count) for the *after* dataset. At a α=95% confidence level (two-tailed), the test rejects the null hypothesis if either $t > t_{\alpha/2}$ or $t < -t_{\alpha/2}$.

The null hypothesis for the water level gradient statistical test was that the difference between the mean water level gradients for each well pair before and after the installation of the barrier was zero. The null hypothesis for the pH statistical tests was that the difference in well average pH before and after the base injection was zero.

The results of the statistical tests are given in Tables 1 through 3, and Figures 4 through 6. The results summaries indicate: when insufficient data is available for the test, when there is no statistical difference, and when there is a statistical difference.

There are many points within the F Area pH and water level gradient data where there is not enough data to make the statistical test. This is often times a function of the relatively short period of time that the monitoring points have been available for data collection. Under these circumstances it is expected that statistical differences will become more widespread, especially for the water level gradient analyses. The pH differences are a location specific and chemical buffering issue. It maybe that the best locations for monitoring pH change during the base injection TA were not monitored, that more base was required, or that additional time is needed to eventually see changes at the down-gradient locations. Also the down-gradient path of the injected base in several areas was somewhat different than initially expected.

The water level gradient statistical evaluation for the H Area shows three well pairs that have statistical differences in gradient even though the barrier has been in place for a relatively short period of time. There are three well pairs with no statistical difference. It is thought that statistical differences will eventually become apparent for two of the pairs, but not the HSB147D to HSB138D pairs (located outside of the barrier system).

Table 1. F-Area pH Statistical Test Results Summary

Not enough data to test.	No statistically significant indication that the before/after means are different.	Statistically significant indication that the before/after means are different.
FB I13D, FB I14D, FB I16D, FEX 1, FEX 2, FEX 3, FEX 5, FEX 6, FEX 7, FOB 1D, FOB 13D, FOB 14D, FOB 16D, FPZ 2A, FPZ 5A, FPZ 5B, FPZ 6A, FPZ 6B, FPZ 7A, FPZ 7B, FSB 106D, FSB 112D, FSB 112DR, FSB 124D, FSB 125D, FSB 125DR, FSB 126D, FSB 127D, FSB 128D, FSB 129D, FSB 130D, FSB 131D, FSB 132D, FSB 133D, FSB 134D, FSB 135D, FSB 136D, FSB 137D, FSB 138D, FSP 2A, FSP 2B, FSP 47A, FSP 12A, FSP 204A, FSP 226A, FSP 249A, FSP 249B	FEX 4, FSB 78, FSB 110D, FSB 117D, FSB 121DR, FSB 122D	FB I15D, FB I17D, FSB 79, FSB 104D, FSB 118D

Table 2. F-Area Water Level Gradient Statistical Test Results Summary

Not enough data to test.	No statistically significant indication that the before/after means are different.	Statistically significant indication that the before/after means are different.
FIB 8 to FBI 15D FIT 5 to FSB 135D FIT 5 to FSB 136D FOB 2D to FOB 14D	FSB 110D to FS B79, FSB 112DR to FSB 136D	FSB 126D to FSB 79

Table 3. H-Area Water Level Gradient Statistical Test Results Summary

Not enough data to test.	No statistically significant indication that the before/after means are different.	Statistically significant indication that the before/after means are different.
--	HSB 153D to HSB 68DR, HSB 66D to HSB 69, HSB 147D to HSB 138D	HSB 154D to HSB 115D, HSB 153D to HSB 108D, HSB 112D to HSB 69

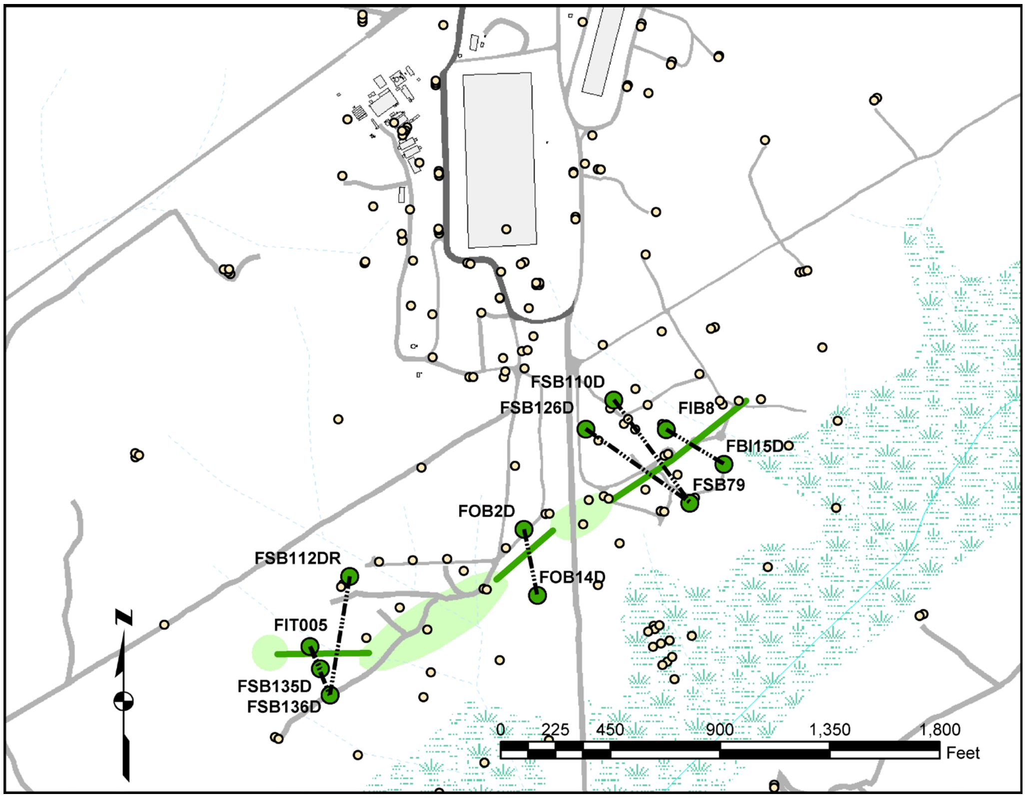

Figure 1. F-Area Well Pairs used for Statistical Analysis of Gradient

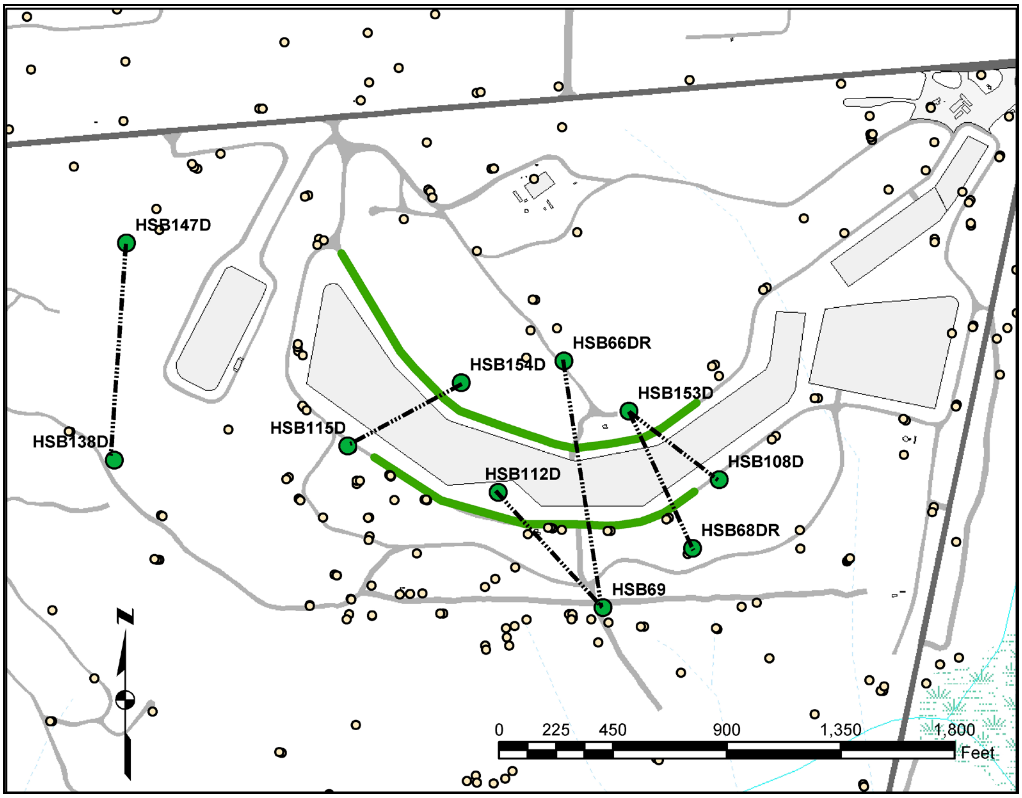

Figure 2. H-Area Well Pairs used for Statistical Analysis of Gradient

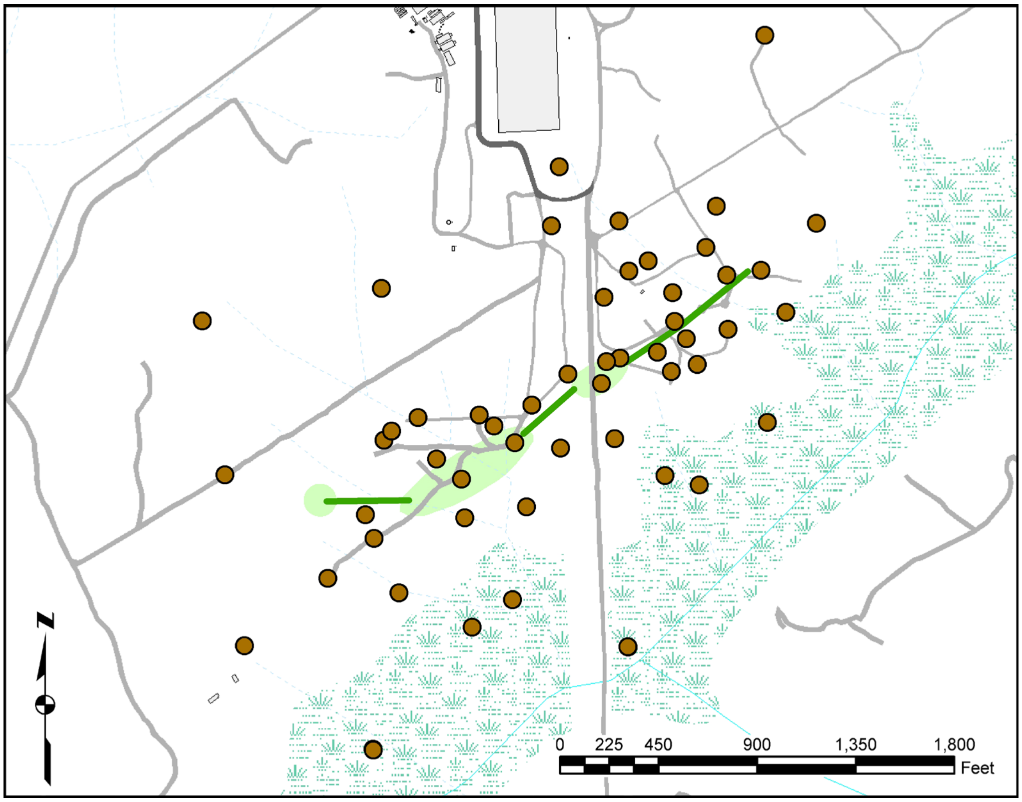

Figure 3. F-Area Wells used for Statistical Analysis of pH

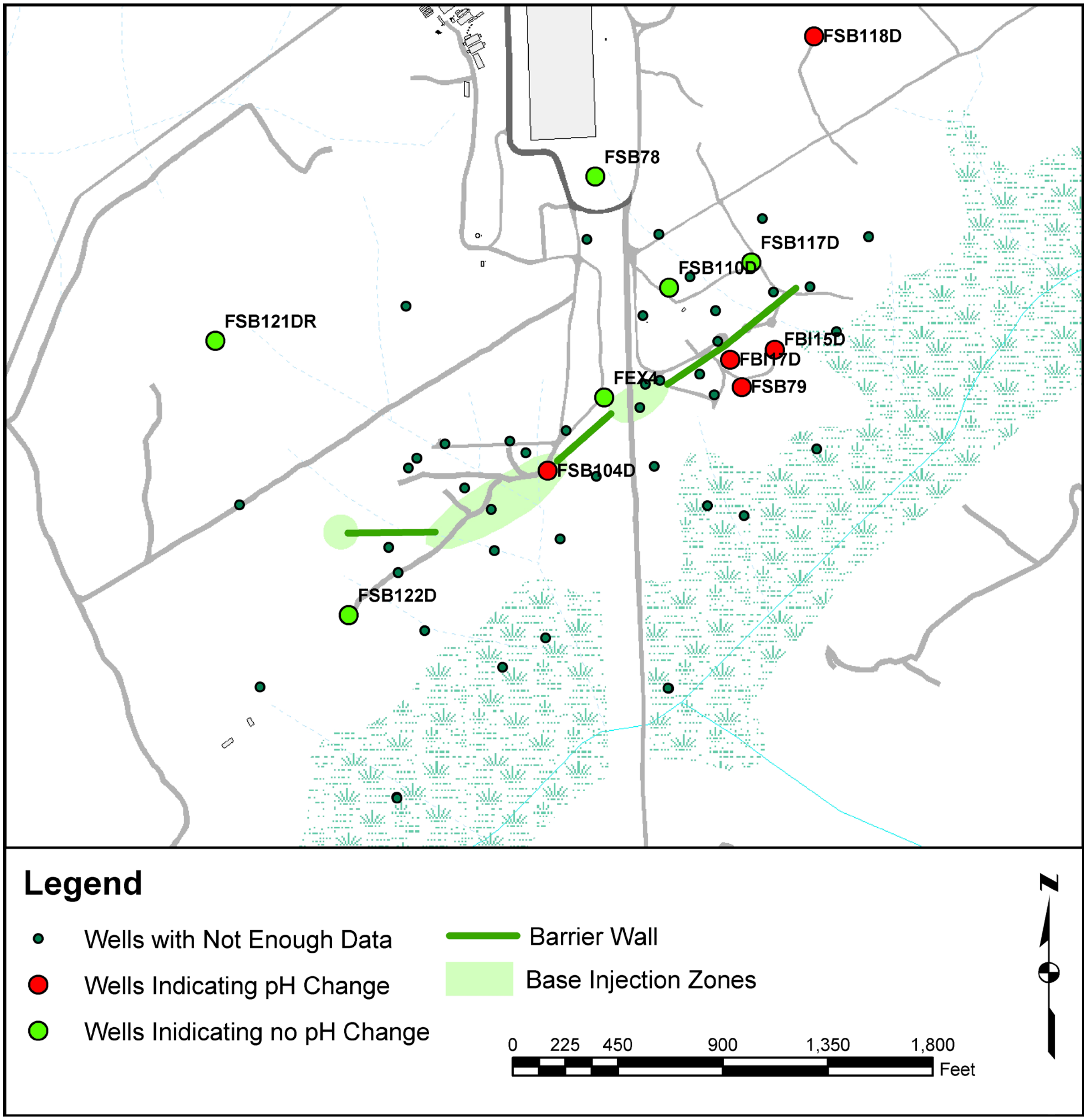

Figure 4. Statistical Analysis of pH Results

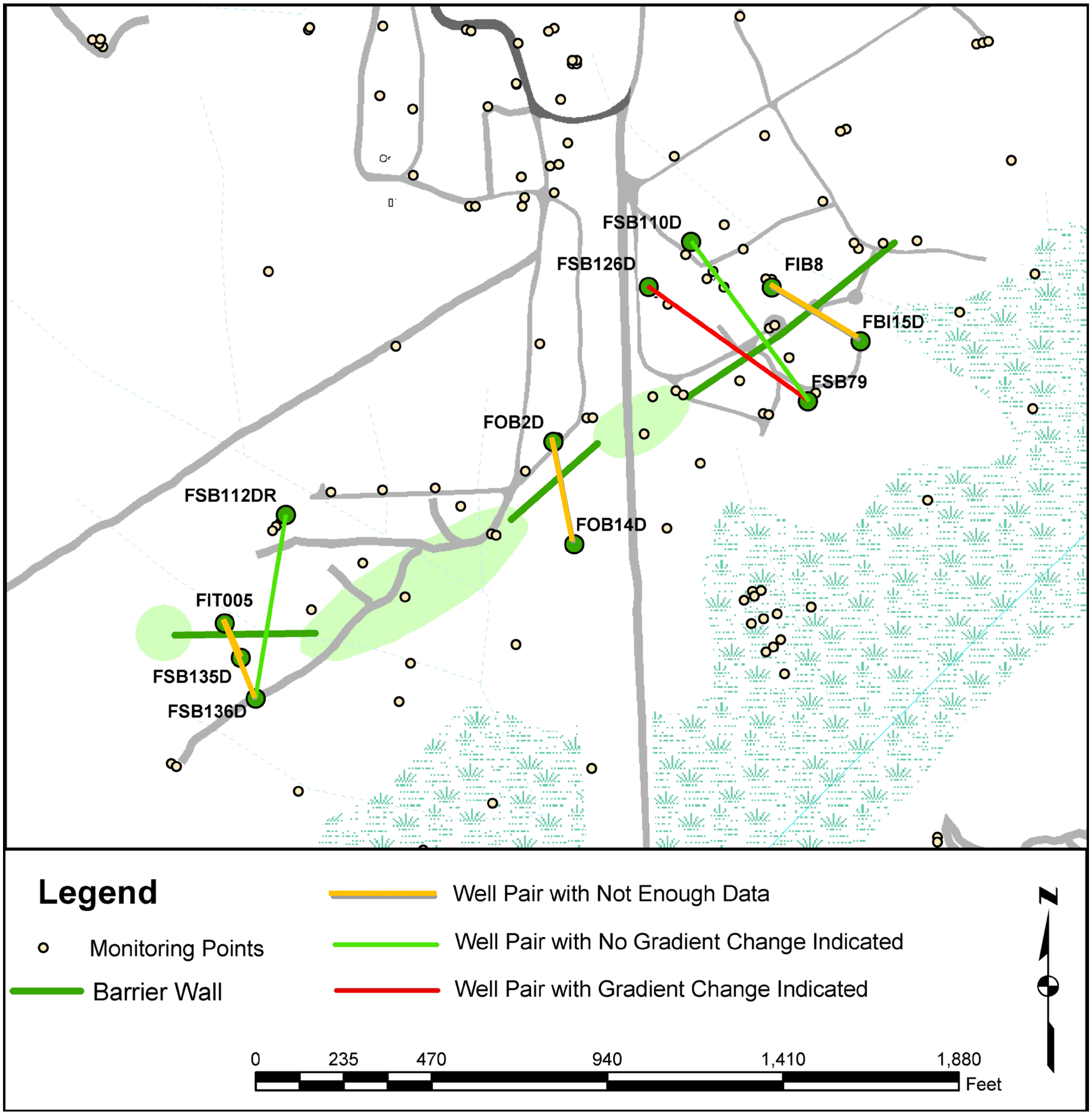

Figure 5. Statistical Analysis of F-Area Water Level Gradients Results

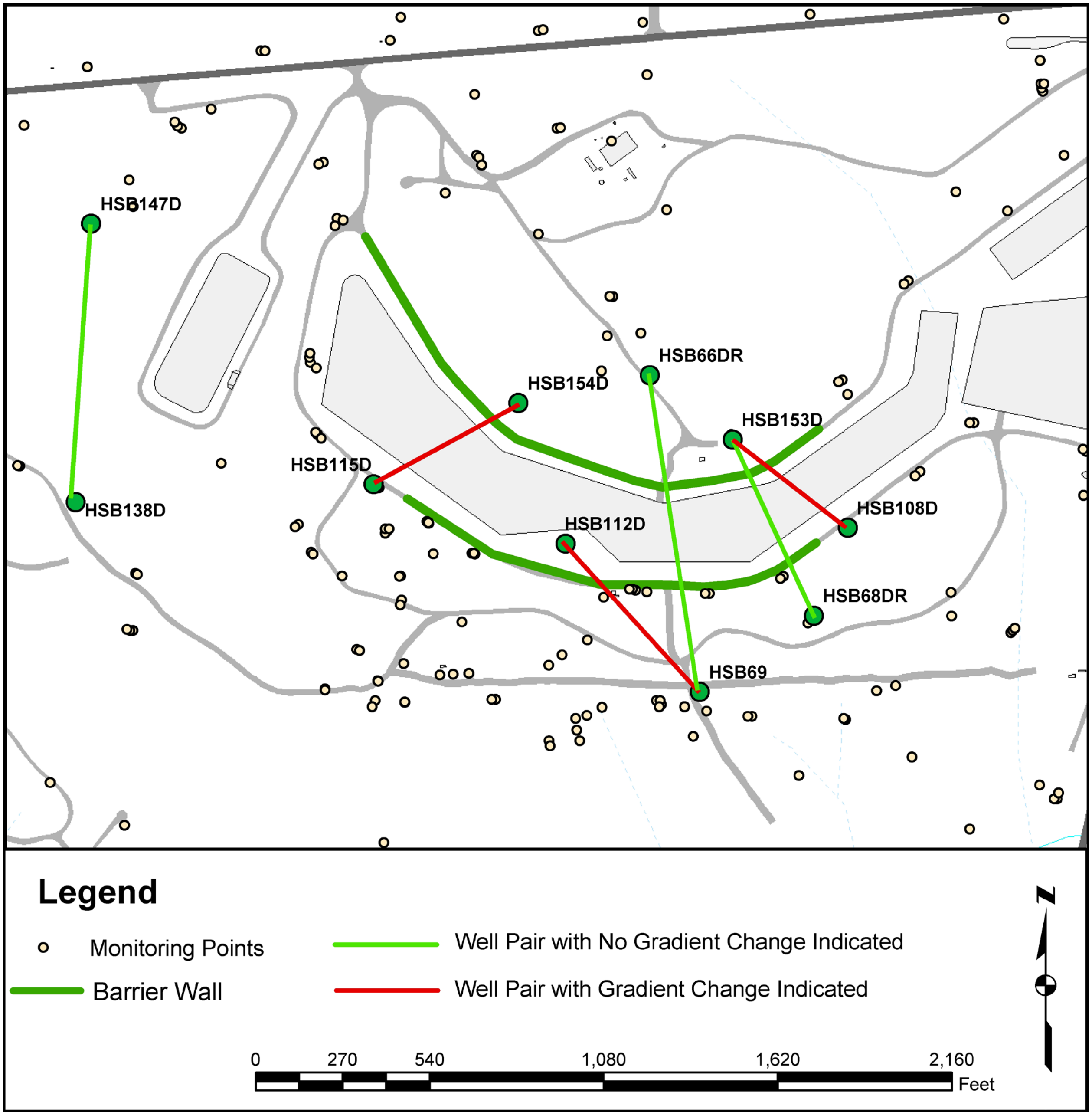

Figure 6. Statistical Analysis of H-Area Water Level Gradients Results

APPENDIX G

MIXED WASTE MANAGEMENT FACILITY

ESTIMATING EVAPO-TRANSPIRATION LOSSES FOR TRITIUM AT THE MWMF: 2022 ANNUAL DATA

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March 23, 2023 Ver. 1.0

Key Words:
Tritium
Phytoremediation
Old Rad Waste Burial Ground (ORWBG)
Mixed-Waste Management Facility (MWMF)
Evapo-transpiration (ET)

Estimating Evapo-Transpiration Losses for Tritium at the MWMF: 2023 End of Year Summary Report

By

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UNIVERSITY OF GEORGIA

SUMMARY

A series of tritium mass balance calculations were conducted in support of the Mixed Waste Management Facility (MWMF) to estimate the efficiency of the irrigation system based on soil cores that were collected in May and November of 2022. Results generated using the Cornell 1D model for predicting irrigation water use efficiency are also provided for comparison. Prior to 2003, monitoring data indicated that tritium leaching was largely restricted to the instrumented sampling depth of 3 meters. Starting in 2003, an effort was made to account for tritium movement below the soil monitoring zone based on water balance calculations for each month of operation that considered irrigation rate, precipitation, and estimated evapo-transpiration (ET). In recent years, the MWMF sampling plan and the Cornell 1D model have been revised to account for recent expansions of the irrigation area.

Starting in 2013, soil tritium data and modeling results for the Eastern Expansion Area (EEA) were included in the annual efficiency report. The 2014 efficiency report was the first to include results for the most recently opened Western Expansion Area (WEA). When leaching below the rooting zone was neglected in the tritium mass balance calculations for all plots, ET efficiency at the MWMF was estimated to be ≈ 99.5 and 98.4 % based on soil core data collected in May and November of 2022, respectively. When tritium leaching below the root zone was taken into account, the overall average ET efficiency for all plots was estimated to be ≈ 88.5 (± 9.9) and 87.6 (± 9.5) % for May and November, respectively, based on soil core data. The estimated efficiency for individual irrigation plots ranged from ≈ 62.9 to 97.1 % for May 2022. For November 2022 the efficiency ranged from 62.2 to 96.2 %. The lowest efficiency estimate, 62.2%, was for Plot 48 within the WEA, with the next lowest efficiency being 83.0% for Plot 16. Monthly efficiency results derived from the Cornell 1D model for December 2021 through December 2022 ranged from 66.9 to 88.8 % between plots, with lower efficiencies observed for the WEA plots (Plot 45 and Plot 48). The average efficiency for all plots was approximately 86.7 ± 1.2% for the original plots, 77.0 ± 3.4% for the EEA plots, and 68.4 ± 1.2% for the WEA plots, resulting in an overall of annual efficiency of 80.7 ± 7.4% for all 11 monitored plots. As noted above, the lower tritium use efficiencies generally reflect the lower vegetation/crop factors used in adjusting the potential evapo-transpiration estimates to account for lower vegetation coverages within the two expansion areas.

INTRODUCTION

Starting in 2001, the Savannah River Ecology Laboratory (SREL) has conducted a series of tritium mass balance calculations in support of the Mixed Waste Management Facility (MWMF) to estimate the effectiveness of evapotranspiration (ET) in volatilizing tritium associated with irrigation water applied to a series of forested plots. Such calculations require estimates of the amount of tritium applied to each of the irrigation plots, as well as the tritium levels and moisture contents throughout the soil profile, without specifically considering the ET potential. An important assumption underlying such an approach is that significant amounts of tritium have not leached below the deepest soil monitoring depth, i.e., 3 meters. Despite some evidence for leaching in a limited number of monitoring clusters that was attributed to leaks in the irrigation system and preferential flow resulting from various monitoring activities, soil data through December 2002 generally supported the assumption that very little of the applied tritium had leached below the three-meter maximum monitoring depth.

In 2003, significant tritium levels were observed in the deepest sampling depths for many of the instrumented monitoring clusters, indicative of leaching below the rooting zone. Therefore, a simple conceptual model was developed to account for tritium losses due to leaching. Time-domain reflectometry (TDR) data was used to estimate water storage and leaching from the top 3 meters of the soil profile, and suction lysimeters and soil vapor samplers were used to collect soil pore waters for tritium analysis. Tritium losses due to ET were based on the Penman-Monteith (PM) method, as calculated by the United States Department of Agriculture Forest Service – Savannah River (USFS-SR), with "crop factors" used to account for differences in vegetation cover between the various plots (Riha and Rebel, 2003). When precipitation plus the applied irrigation water minus ET for a given sampling interval exceeded the residual water content in the soil profile, leaching below the 3 meter depth was included in the calculations. The tritium concentration in the pore-water moving below the sampling zone was assumed to be the average tritium level observed at the deepest sampling depth for that sampling interval, i.e., the time between the two latest rounds of sampling.

Monthly sampling of the soil lysimeters and vapor wells, and monitoring of the TDR systems (i.e., soil moisture content at a given monitoring cluster) was suspended in December 2003 in favor of semi-annual soil core sampling for estimating residual soil tritium within the six instrumented irrigation plots. In 2011, the monitoring effort was expanded to include the Eastern Expansion Area (EEA), with soil cores collected from within three of the 12 new irrigation plots. In 2014, monitoring efforts were expanded to include the Western Expansion Area (WEA), with soil cores collected from two of the nine new irrigation plots, i.e., plots 45 and 48. In total, eleven cores (i.e., plots 4, 13, 16, 19, 22, 27, 31, 36, 41, 45, and 48) were collected in May and again in November of 2022 from the monitored irrigation plots at the MWMF. The cores were transported to the lab and analyzed for tritiated water (HTO) and water content to estimate residual tritium within the soil profile of a given plot. As noted above, estimates of tritium leaching were based on a simplified water balance assessment that accounted for precipitation, irrigation rate, tritium concentration in the irrigation water, the estimated water holding capacity of the soil profile within each plot, and ET estimates on a plot-by-plot basis for each month of the year. Details of the tritium mass balance estimates, including leaching estimates below the soil monitoring depth, are provided below.

In addition to the conceptual model described above, the Cornell one dimensional bucket-type (Cornell 1D) model was developed to estimate tritium use efficiencies based on plot specific water balances and tritium application rates (Riha and Rebel, 2003). The Cornell 1D model was optimized using 30 years of climate data as well as soil physical characteristics (i.e., soil texture) specific to each plot, vegetation type, soil moisture content, and tritium concentrations from lysimeter and vapor well sampling. Starting in 2014 the Cornell 1D model was revised to include the WEA using a shallower rooting depth and lower vegetation/crop factors than values used for the more-developed forest canopy within the EEA and the original irrigation area.

Mass Balance Calculations for Applied Tritium

Cumulative irrigation volumes for each plot were estimated based on USFS-SR application logs for each month of operation starting in May 2001 and continuing through December 2022. Application totals for 2022 are summarized in Table 1A. For example, given the gallons applied each month and the area of a specific plot (e.g., September 2022 for plot 31, see Table 1A):

$$\frac{34{,}255\ gallons}{2.04\ acres} \times \frac{1\ acre}{4050\ m^2} \times \frac{3.78\ L}{gallon} = \frac{15.7\ L}{m^2}$$

Application depth in cm for unit plot area (i.e., cm^2) is then calculated as (Table 1C):

$$\frac{15.7\ L}{m^2} \times \frac{1\ m^2}{10{,}000\ cm^2} \times \frac{1000\ cm^3}{1\ L} = 1.57\ cm$$

The average tritium level for pond samples collected within the month (Table 1B; 1040 pCi mL^{-1}) of interest is then used to estimate total tritium applied to a cm^2 of each plot (Table 1D):

$$1.57\ cm\ applied \times \frac{1040\ pCi}{mL} = \frac{1630\ pCi}{cm^2}$$

The cumulative amount of tritium applied is then determined by summing the above calculation for each month up to the point when the ET efficiency is being calculated (Table 1D).

Estimating Residual Soil Tritium Based on Soil Core Data

Residual soil tritium was calculated using the concentration of tritiated-water extracted from soil cores sampled at depths down to 300 cm. The soil pore water was extracted for tritium analysis by sublimation (i.e., freeze drying). The resulting solution was analyzed for tritium by liquid scintillation with an estimated detection limit of ≈ 0.36 pCi mL^{-1} and a counting error below 2% for elevated tritium concentrations (LS 6500 Multi-Purpose Scintillation Counter, Beckman Coulter, Inc.).

To estimate total tritium in the soil profile, the gravimetric water content for each soil core sample [(gm water/(gm water + gm soil)] was converted to a volumetric basis (example data from the first sample depth of Plot 4, May 2022 data; Table 3A):

$$100\ g\ moist\ soil - 5.5\ g\ water = 94.5\ g\ dry\ soil$$

The soil volume for a given sample is calculated using the soil bulk density, assumed to be 1.59 gm cm^{-3} for the sandy soils of the SRS (Looney et al., 1990).

$$94.5\ g\ dry\ soil \times \frac{1\ cm^3\ soil}{1.59\ g\ dry\ soil} = 59.43\ cm^3\ soil$$

Using the results from above, the volumetric water content for the specific sampling depth is then estimated as follows:

$$\theta = \frac{5.5\ cm^3\ water}{59.43\ cm^3\ soil} = 0.093$$

As an example, the values for Plot 4 derived from soil cores collected in May 2022 are given below, with all soil data summarized in Table 3.

Residual soil tritium for Plot 4 based on soil samples collected May 2022. The mid-year 2022 and year-end 2022 data for all plots is given in Table 3.

Sample Number	Depth Span (cm)	*Tritium Level pCi/mL	Gravimetric Water Content (%)	Volumetric Water Content	Tritium Sum
1	35.56	335.56	4.2	0.070	834.90
2	25.40	100.42	3.1	0.051	130.56
3	33.02	87.43	9.2	0.162	469.06
4	30.48	61.25	13.3	0.244	455.03
5	27.94	55.14	14.2	0.263	404.72
6	30.48	51.11	14.3	0.266	413.72
7	33.02	63.85	11.9	0.216	455.01
8	27.94	84.91	10.0	0.177	418.86
9	33.02	105.20	9.0	0.157	545.40
10	30.48	114.53	9.2	0.161	563.38
			Total Soil Tritium (pCi cm^{-2}) =		4.69 x 10^3

The tritium concentration (pC$_i$ cm^{-3}) is multiplied by the representative depth interval and the volumetric water content for each sample to provide an estimate of total tritium within a given soil volume.

$$\frac{335.56\ pCi}{cm^3} \times 35.56\ cm \times \frac{0.070\ cm^3\ water}{cm^3\ soil} = \frac{834.90\ pCi}{cm^2}$$

Note that the resulting units are the same as those for tritium applied to a unit plot area, cm^2. Therefore, for a given unit area of an irrigation plot, the amount of water with a given tritium concentration is equal to the depth span (cm) for the sample in question multiplied by the volumetric water content, θ. The same calculation is then completed for each representative sampling depth and the values are summed to estimate the total residual tritium in the profile as a function of area at that sampling location (Table 2B). For the May 2022 and November 2022 soil core data, all of the samples for a given plot were used to estimate the tritium content within the depth interval each sample represents. The results for all the depths in a given profile were then summed to estimate total tritium in the profile to a full monitoring depth of ≈ 300 cm. An example of the residual tritium results for Plot 4 is given above, with the cumulative summary for all plots given in Table 2B.

Evapo-Transpiration Efficiency: No Leaching

If leaching is insignificant, the total residual tritium within Plot 31 for November 2022 can now be calculated by (Table 2; Plot 31):

$$\frac{1.99 \times 10^{3}\ pCi\ cm^{-2}}{3.48 \times 10^{5}\ pCi\ cm^{-2}} = 0.006\ \times 100 = 0.6\ \%$$

The tritium evapo-transpiration efficiency for Plot 31 through November 2022 is then defined as total applied minus residual:

$$100\% - 0.6\% = 99.4\%$$

Obviously this approach yields unrealistically high efficiency rates that increasingly trend toward 100% with time because of the failure to account for tritium leaching below the root zone when precipitation plus irrigation exceeds the ET and the soil moisture storage capacity for a given plot.

Water Balance Calculations

A simple water balance approach was used to estimate tritium leaching within the irrigation plots. Environmental data used in the water balance calculations is provided in the Table below. The potential ET is then adjusted using an empirical vegetation/crop factor to adjust for vegetation conditions. For the WEA, lower vegetation factors were used for the water balance calculations to reflect the immature vegetation within the newly planted irrigation plots.

Precipitation data for the MWMF and ET estimates derived from the Priestly-Taylor (PT) method (cm).

Month	Precipitation	P-T	SW/EEA	WEA
	cm	cm	ET-CF*	ET-CF**
Jan. 2022	9.8	3.9	3.5	1.9
Feb.	5.4	6.6	5.9	3.3
March	7.9	9.9	8.9	5.0
April	11.2	13.8	12.4	8.3
May	5.3	18.8	16.9	11.3
June	14.9	23.0	20.7	13.8
July	8.7	19.8	17.8	11.9
Aug.	13.9	15.5	14.0	9.3
Sep.	4.9	13.2	11.8	7.9
Oct.	5.5	8.3	7.5	4.1
Nov.	6.8	4.2	3.8	2.1
Dec.	8.3	2.4	2.1	1.2

*PTx0.9

**PTx0.6 in Summer and PTx0.5 in Winter

Prior to 2004 (Seaman et al., 2004), the water balance for each sampling interval was calculated as follows:

$$Moisture\ balance\ (cm) = soil\ moisture\ t_i + irrig. + precip. - ET - soil\ moisture\ t_f$$

The initial (t_i) and final (t_f) moisture content values were based on TDR data for the initial and subsequent monitoring dates, respectively. Tritium losses due to ET were based on the average monthly estimates using the Priestly-Taylor (PT) and Penman-Monteith (PM) methods, as calculated by the USFS-SR, assuming a crop factor of 0.90 for the original 27 irrigation plots (Riha and Rebel, 2003). For example, a positive value is indicative of leaching, while negative value means uptake and evaporation exceeded water inputs.

$$52.18\ cm + 2.29\ cm + 18.61\ cm - 3.06\ cm - 63.22\ cm = 6.8\ cm$$

In the current example, 6.8 cm of water leached below the 3 meter sampling profile between two given monitoring intervals, typically a period of 1 month between sampling events during the first few years of operation. The amount of tritium leached below the profile for that monitoring period was then calculated as the leaching depth times the average pore-water tritium concentration within soil samples from the deepest sampling depth for a given plot.

$$6.8\ cm \times \frac{1607\ pCi}{mL} = \frac{1.09 \times 10^4\ pCi}{cm^2}$$

Starting in 2004, this approach could no longer be used because TDR measurements were not available to estimate initial and final moisture contents within the soil profile. One simple approach would be to use the gravimetric soil moisture data from soil cores collected at the beginning and end of a given monitoring period to represent the initial and final moisture contents, respectively, with the cumulative precipitation, irrigation volumes and ET estimates for the intermediate monitoring period. Although the approach seems reasonable, it fails to account for the episodic nature of precipitation events and seasonal variations in ET. In this simplified approach, any potential leaching can be offset by high ET rates at some point during the monitoring interval, with typically wetter months offset by the high ET rates of the summer.

As an alternative, monthly water balances were calculated using an estimated soil pedon field capacity (FC) based on an idealized soil typical of the irrigation site (Riha and Rebel, 2003). In the current context, FC is defined as the total amount of moisture that can be retained against gravity within the upper 3 meters of the soil profile, i.e., 62.8 cm of water, and therefore assumed to be subject to continued evapo-transpiration. For this approach, the water balance equation is modified as:

$$Moisture\ balance\ (cm) = soil\ moisture\ t_i + irrig. + precip. - ET - FC$$

with each of the values representing monthly estimates rather than the cumulative values for the entire time span between soil sampling events, typically 5-7 months. Monthly values are used to account for the episodic nature of precipitation and irrigation events, and their impact on leaching.

The initial soil moisture content for each monitoring period was based on soil core data from November 2021 and May 2022, Tables 3C and 3A respectively. As before, a positive moisture value is indicative of leaching for that month, and the initial soil moisture content (t_i) is then set at FC (i.e., 62.8 cm) for the subsequent month. If the monthly moisture balance (cm) is positive, the value is then multiplied by the average tritium concentration (pCi mL^{-1}) in the soil profile to estimate the amount of tritium having been leached (pCi cm^{-2}) for that month. A negative moisture balance result is indicative of the added storage capacity within the soil profile during drier months, and the moisture content for the next month is equivalent to the FC with the moisture deficit subtracted from it. Using this approach, storage capacity can accumulate for dry months when the FC and ET is not exceeded by precipitation plus irrigation. To some degree this approach still fails to fully account for the episodic nature of precipitation events, as moisture balance calculations are based on average monthly inputs. Furthermore, it fails to account for the reduction in water uptake by plants as the soil gets increasingly drier.

Leaching estimates for each plot for January 2022 through December 2022 are summarized in Table 4A. For 2022, leaching occurred in most plots during the months of January through April. Additionally, the Western Expansion Area experienced leaching during the months of August and October through December.

Evapo-Transpiration Efficiency: With Leaching

Tritium loss due to ET and leaching is then calculated as the ratio of residual soil tritium plus cumulative tritium lost through leaching divided by the total amount that has been applied to a given plot. Using May 2022 data for Plot 16 as an example (Table 4):

$$\frac{2.45\times10^{4}\ pCi\ cm^{-2}+6.21\times10^{5}\ pCi\ cm^{-2}}{3.79\times10^{6}\ pCi\ cm^{-2}}=\frac{6.45\times10^{5}\ pCi\ cm^{-2}}{3.79\times10^{6}\ pCi\ cm^{-2}}=0.170\times100=17.0\%$$

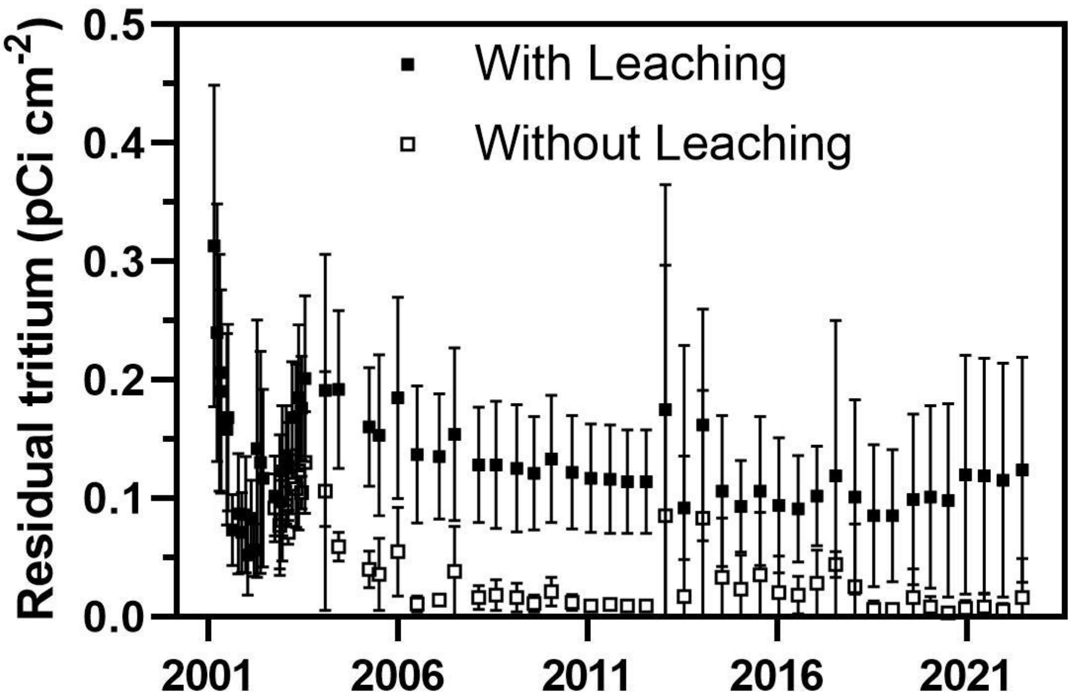
Evapo-transpiration efficiency is then defined as total applied minus leaching plus residual:

$$100\%-17.0\%=83.0\%$$

For Plot 16, 17.0% of the applied tritium remained in the soil profile or leached below the monitoring zone through May 2022, with approximately 83.0% presumably having been evapo-transpired (Table 4E). When leaching was neglected in the tritium mass balance, ET efficiencies at the MWMF through November 2022 were approximately 98.4% (Table 2C). However, when taking leaching into account, the estimated efficiency for November 2022 ranged from 62.2 to 96.2 %, with an average efficiency of approximately 87.6 ± 9.5 % (Table 4E). It is important to note that the lower efficiencies reflect data from the WEA (i.e., plots 45 and 48), where tritium uptake is presumably lower in the newly planted plots. The lowest estimated plot efficiency was observed for Plot 48 within the WAE, i.e., 62.2 % for November 2022 (see Table 4).

General trends with respect to residual tritium estimates are presented in Figure 1 and Table 5. Starting in 2003, residual tritium estimates with and without considering leaching are provided. In general, the efficiency of the system initially increased as tritium became more thoroughly distributed within the soil profile and subject to plant uptake within the full rooting zone, reaching a plateau of approximately 95% during the drought of 2002. Throughout 2003, the efficiency decreased somewhat under more normal precipitation conditions. As expected, the difference between the two estimates has generally increased as the potential for leaching continues with extended operation and less of the total applied tritium remains in the root zone. The high efficiencies observed in the latter half of 2005 through 2007 are likely attributed to the suspension of irrigation from September 2005 through March 2006, decreasing the level of residual tritium in the soil cores, and generally drier conditions throughout 2007 that reduced tritium leaching within the soil profile. The high levels of efficiency experienced for 2010 through 2012 can generally be attributed to an extended drought period, which limited leaching below the sampled soil profile. The lower site-average efficiencies and higher standard deviations observed in more recent sampling events reflects the impact of site expansion to areas with limited, immature vegetation.

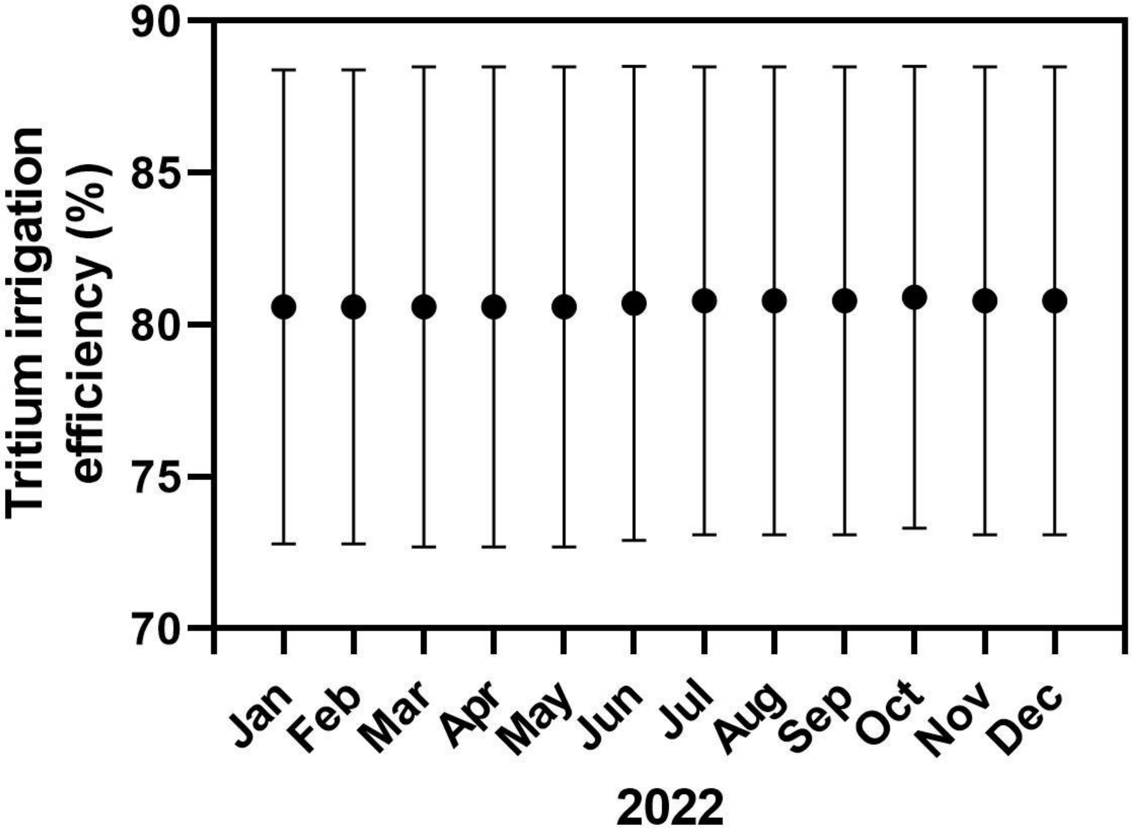
Figure 1. Residual soil tritium from May 2001 through December 2022, including estimates of tritium leached below the 3-meter sampling depth. Error bars reflect standard deviation of the means for the 11 sample irrigation plots, i.e., plots 4, 13, 16, 19, 22, 27, 31, 36, 41, 45, and 48.



Cornell 1D Model Results for 2022

For comparison, the Cornell 1D model was used to estimate the efficiency of tritium removed through ET at the site (Riha and Rebel, 2003). In 2014, the model was modified to include the Western Expansion Area. Water budget estimates were modeled using weather data, irrigation volumes, and Penman-Monteith estimates for ET. These data were compiled for daily estimates of the water deficit/surplus. Tritium concentrations were sampled at the pond each month to estimate levels in applied irrigation water. The Cornell 1D model uses the water budget, tritium concentration, soil profile data specific to each plot, and a cropping factor to estimate tritium movement through the soil profile. The monthly averages of daily efficiency estimates of tritium removal through ET for the monitored plots are included in Table 6 and presented in Figure 2. The model derived efficiencies ranged from 66.9 to 88.8% between plots, with an overall average of 80.7 ± 7.4% for all plots. The yearly average was 86.7 ± 1.2 % for original plots, 77.0 ± 3.4% for the Eastern Expansion Area, and 68.4 ± 1.2% for the Western Expansion Area.

Figure 2. Average monthly ET efficiency estimates for 2022 derived from the Cornell 1D model for plots 4, 13, 16, 19, 22, 27, 31, 36, 41, 45, and 48. Error bars reflect the standard deviation of the means for the average ET efficiency between plots.



Important Units and Conversion Factors
1 acre = 4,050 m^2
1 m^2 = 10,000 cm^2
1 gallon = 3.78 l
1 gallon = 3,780 cm^3
1 inch = 2.54 cm

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Table 1. Application rates (gallons and cm irrigation depth) and tritium concentrations for each of the instrumented clusters from December 2021 through December 2022 (Data given in bold used as examples cited in discussion).

Table 1A. Application Summary

Plot #	Acreage	Cummulative December 2021 (gallons)	Jan. 2022	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. 2022	Sum (gallons)
4	0.62	4.04E+06	6596	11398	8973	18964	24396	23814	19255	16830	23232	16296	9264	970	4.22E+06
13	0.95	4.93E+06	7875	14688	12750	24438	38563	26938	24813	21688	27313	21000	10500	1250	5.16E+06
16	0.63	3.16E+06	5662	8930	7410	14858	21166	10944	12806	11894	16606	11628	6878	760	3.29E+06
19	0.8	4.30E+06	7674	12103	10043	20137	31776	19107	20446	16120	24669	15759	9837	1030	4.49E+06
22	1.07	4.25E+06	6046	11663	8186	20919	26911	17548	14713	15676	21133	17976	8988	535	4.42E+06
27	0.75	3.51E+06	5644	9753	9545	16227	20875	20377	16476	14401	19879	13944	7927	830	3.67E+06
31	2.04	3.56E+06	0	14415	42470	24180	66495	37820	53320	45105	**34255**	37975	25575	0	3.94E+06
36	2.08	3.85E+06	0	0	46169	26286	72287	41114	57964	49034	37239	41283	27803	0	4.25E+06
41	1.96	2.70E+06	0	11393	33565	19110	52553	29890	42140	35648	27073	30013	20213	0	3.00E+06
45	1.97	3.08E+06	0	10880	34816	21216	45016	41344	39984	39712	30056	34952	22440	0	3.40E+06
48	1.93	2.60E+06	0	8960	28672	17472	37072	34048	32928	32704	24752	24976	18480	0	2.86E+06
		4.00E+07												Total	4.27E+07

Table 1B. Monthly Tritium Levels for MWMF Pond (pCi mL^{-1})	Jan. 2022	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. 2022
	1237	1173	1117	980	1000	1014	953	930	**1040**	863	992	1220

Table 1C. Irrigation Depth (cm)

Plot #	Jan. 2022	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. 2022	Sum (cm)
4	0.99	1.72	1.35	2.85	3.67	3.58	2.90	2.53	3.50	2.45	1.39	0.15	27.09
13	0.77	1.44	1.25	2.40	3.79	2.65	2.44	2.13	2.68	2.06	1.03	0.12	22.77
16	0.84	1.32	1.10	2.20	3.14	1.62	1.90	1.76	2.46	1.72	1.02	0.11	19.19
19	0.90	1.41	1.17	2.35	3.71	2.23	2.39	1.88	2.88	1.84	1.15	0.12	22.01
22	0.53	1.02	0.71	1.82	2.35	1.53	1.28	1.37	1.84	1.57	0.78	0.05	14.85
27	0.70	1.21	1.19	2.02	2.60	2.54	2.05	1.79	2.47	1.74	0.99	0.10	19.40
31	0.00	0.66	1.94	1.11	3.04	1.73	2.44	2.06	**1.57**	1.74	1.17	0.00	17.46
36	0.00	0.00	2.07	1.18	3.24	1.84	2.60	2.20	1.67	1.85	1.25	0.00	17.91
41	0.00	0.54	1.60	0.91	2.50	1.42	2.01	1.70	1.29	1.43	0.96	0.00	14.36
45	0.00	0.52	1.65	1.01	2.13	1.96	1.89	1.88	1.42	1.66	1.06	0.00	15.18
48	0.00	0.43	1.39	0.84	1.79	1.65	1.59	1.58	1.20	1.21	0.89	0.00	12.58

Table 1D. Monthly Tritium Applied for 2019 (pCi cm^{-2})

Plot #	Jan. 2022	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. 2022	Sum
4	1228	2013	1508	2797	3673	3636	2762	2357	3638	2117	1383	178	2.73E+04
13	957	1693	1399	2352	3789	2684	2323	1982	2791	1781	1023	150	2.29E+04
16	1037	1552	1226	2157	3136	1644	1808	1639	2559	1487	1011	137	1.94E+04
19	1107	1656	1308	2302	3708	2261	2273	1749	2994	1587	1138	147	2.22E+04
22	652	1193	797	1788	2348	1552	1223	1272	1917	1353	778	57	1.49E+04
27	869	1424	1326	1979	2598	2572	1954	1667	2573	1498	978	126	1.96E+04
31	0	774	2170	1084	3043	1755	2324	1920	**1630**	1500	1161	0	1.74E+04
36	0	0	2313	1156	3244	1871	2478	2047	1738	1599	1237	0	1.77E+04
41	0	636	1785	892	2503	1444	1912	1579	1341	1234	955	0	1.43E+04
45	0	605	1842	985	2133	1987	1805	1750	1481	1429	1054	0	1.51E+04
48	0	508	1548	828	1793	1670	1517	1471	1245	1042	886	0	1.25E+04

Table 2. Cumulative tritium application totals and residual soil tritium for cores collected in May and November 2022.

Table 2A. Cumulative tritium application totals

Plot #	Cumulative Through December 2021	Jan. 2022	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	5.11E+06	5.11E+06	5.12E+06	5.12E+06	5.12E+06	5.12E+06	5.13E+06	5.13E+06	5.13E+06	5.14E+06	5.14E+06	5.14E+06	5.14E+06
13	4.01E+06	4.01E+06	4.01E+06	4.01E+06	4.01E+06	4.02E+06	4.02E+06	4.02E+06	4.02E+06	4.03E+06	4.03E+06	4.03E+06	4.03E+06
16	3.78E+06	3.78E+06	3.78E+06	3.78E+06	3.78E+06	3.79E+06	3.79E+06	3.79E+06	3.79E+06	3.79E+06	3.80E+06	3.80E+06	3.80E+06
19	4.39E+06	4.39E+06	4.40E+06	4.40E+06	4.40E+06	4.40E+06	4.40E+06	4.41E+06	4.41E+06	4.41E+06	4.41E+06	4.41E+06	4.41E+06
22	3.48E+06	3.48E+06	3.48E+06	3.48E+06	3.48E+06	3.49E+06	3.49E+06	3.49E+06	3.49E+06	3.49E+06	3.49E+06	3.49E+06	3.49E+06
27	3.82E+06	3.82E+06	3.82E+06	3.83E+06	3.83E+06	3.83E+06	3.83E+06	3.83E+06	3.84E+06	3.84E+06	3.84E+06	3.84E+06	3.84E+06
31	3.31E+05	3.31E+05	3.32E+05	3.34E+05	3.35E+05	3.38E+05	3.40E+05	3.42E+05	3.44E+05	3.46E+05	3.47E+05	3.48E+05	3.48E+05
36	3.39E+05	3.39E+05	3.39E+05	3.42E+05	3.43E+05	3.46E+05	3.48E+05	3.50E+05	3.52E+05	3.54E+05	3.56E+05	3.57E+05	3.57E+05
41	2.50E+05	2.50E+05	2.50E+05	2.52E+05	2.53E+05	2.56E+05	2.57E+05	2.59E+05	2.61E+05	2.62E+05	2.63E+05	2.64E+05	2.64E+05
15	2.44E+05	2.44E+05	2.44E+05	2.46E+05	2.47E+05	2.49E+05	2.51E+05	2.53E+05	2.55E+05	2.56E+05	2.58E+05	2.59E+05	2.59E+05
48	2.13E+05	2.13E+05	2.14E+05	2.15E+05	2.16E+05	2.18E+05	2.20E+05	2.21E+05	2.23E+05	2.24E+05	2.25E+05	2.26E+05	2.26E+05

Table 2B. Residual Soil Tritium (pCi cm^{-2})

Plot #	November 2021	Jan. 2022	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	2.06E+03					4.69E+03						2.88E+03	
13	2.26E+03					2.59E+03						3.89E+03	
16	2.32E+04					2.45E+04						1.20E+04	
19	1.18E+03					2.52E+03						4.47E+03	
22	7.82E+03					1.72E+03						1.85E+03	
27	7.19E+02					3.46E+03						2.36E+03	
31	1.21E+04					4.34E+02						1.99E+03	
36	5.37E+03					2.20E+03						4.30E+03	
41	3.37E+03					2.52E+03						2.94E+04	
45	1.12E+03					2.70E+03						1.58E+03	
48	2.41E+03					3.85E+03						8.08E+03	

Table 2C. Residual tritium fraction without accounting for leaching.

Plot #	November 2021		Jan. 2022	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	0.000						0.001						0.001	
13	0.001						0.001						0.001	
16	0.006						0.006						0.003	
19	0.000						0.001						0.001	
22	0.002						0.000						0.001	
27	0.000						0.001						0.001	
31	0.036						0.001						0.006	
36	0.016						0.006						0.012	
41	0.013						0.010						0.111	
45	0.005	November 2021					0.011	May 2021					0.006	Nov. 2021
48	0.012	Efficiency (%)					0.018	Efficiency %					0.036	Efficiency %
Avg	0.008	**99.2**				Avg.	0.005	**99.5**				Avg.	0.016	**98.4**
Std Dev	0.011					Std Dev	0.005732					Std Dev	0.033253	

Table 3. Tritium concentrations and water content data for soil samples collected in May 2022 (A), November 2022 (B) and November/December 2021 (C).

Table 3A. Tritium Concentrations and water content data for soil samples collected in May 2022

	Plot 4				Plot 13				Plot 16				Plot 19			
Sample	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum
1	35.56	0.070	335.56	834.90	30.48	0.079	277.84	666.02	38.10	0.084	166.79	534.07	33.02	0.102	89.34	300.49
2	25.40	0.051	100.42	130.56	33.02	0.046	84.78	129.01	25.40	0.087	87.90	764.60	27.94	0.082	33.43	76.33
3	33.02	0.162	87.43	469.06	30.48	0.054	80.55	131.62	27.94	0.161	109.89	1774.28	33.02	0.091	42.82	128.06
4	30.48	0.244	61.25	455.03	27.94	0.106	68.09	201.62	35.56	0.274	70.94	1943.68	33.02	0.162	33.58	180.09
5	27.94	0.263	55.14	404.72	30.48	0.214	40.49	264.45	25.40	0.246	124.56	3061.75	27.94	0.223	8.31	51.80
6	30.48	0.266	51.11	413.72	33.02	0.236	35.39	275.55	27.94	0.241	229.90	5529.16	33.02	0.254	9.33	78.32
7	33.02	0.216	63.85	455.01	27.94	0.192	33.36	178.50	33.02	0.256	173.81	4451.64	25.4	0.278	21.47	151.45
8	27.94	0.177	84.91	418.86	33.02	0.210	33.36	230.91	33.02	0.248	101.52	2520.07	35.56	0.250	45.88	407.30
9	33.02	0.157	105.20	545.40	27.94	0.223	35.54	220.96	27.94	0.238	88.09	2094.14	27.94	0.223	75.79	471.18
10	30.48	0.161	114.53	563.38	35.56	0.191	42.73	290.02	30.48	0.238	77.91	1852.25	27.94	0.225	107.45	676.24
Total Sum	307.34			4690.64	309.88			2588.66	304.80			24525.64	304.8			2521.27

	Plot 22				Plot 27				Plot 31				Plot 36			
Sample	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum
1	30.48	0.058	9.07	16.07	35.56	0.087	149.54	460.67	35.56	0.115	18.92	77.15	38.10	0.130	63.03	312.62
2	33.02	0.064	6.71	14.10	25.40	0.086	51.21	441.29	27.94	0.192	10.86	58.32	22.86	0.123	29.73	83.94
3	27.94	0.209	19.11	111.35	35.56	0.076	45.38	344.85	33.02	0.277	10.22	93.37	35.56	0.138	31.21	153.19
4	35.56	0.277	36.51	359.78	25.40	0.299	31.74	950.53	33.02	0.263	7.79	67.69	30.48	0.196	29.66	177.44
5	25.4	0.215	57.67	315.57	30.48	0.209	19.71	411.37	25.40	0.256	6.79	44.22	30.48	0.188	38.02	218.35
6	30.48	0.202	41.74	256.57	30.48	0.141	10.88	153.53	27.94	0.214	5.70	34.05	25.40	0.138	54.29	190.42
7	30.48	0.178	42.62	230.83	27.94	0.158	8.00	126.24	30.48	0.474	4.09	58.98	30.48	0.136	55.09	228.30
8	25.4	0.128	42.67	138.74	35.56	0.161	10.54	169.15	0.00				33.02	0.183	53.30	322.04
9	40.64	0.127	35.93	185.04	30.48	0.149	13.19	196.51	0.00				25.40	0.088	53.38	119.48
10	25.4	0.165	21.49	90.04	33.02	0.161	13.08	210.79	0.00				30.48	0.238	55.02	398.72
Total Sum	304.8			1718.08	309.88			3464.93	213.36			433.79	302.26			2204.52

	Plot 41				Plot 45				Plot 48			
Sample	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum
1	38.10	0.086	162.84	531.94	35.56	0.072	93.49	239.59	30.48	0.063	116.43	224.21
2	25.40	0.120	28.06	85.73	27.94	0.140	44.24	173.21	35.56	0.069	48.41	118.62
3	33.02	0.197	38.93	253.54	27.94	0.307	41.08	352.04	27.94	0.070	35.59	69.56
4	30.48	0.211	33.30	214.46	30.48	0.314	19.11	183.01	30.48	0.055	29.94	50.54
5	33.02	0.185	31.68	193.95	30.48	0.291	26.43	234.35	27.94	0.069	26.60	51.09
6	22.86	0.204	35.08	163.36	33.02	0.276	33.73	307.90	25.40	0.190	136.13	657.63
7	33.02	0.287	34.94	331.39	27.94	0.245	36.88	252.45	40.64	0.200	117.66	957.74
8	25.40	0.240	37.55	228.77	33.02	0.256	40.89	346.00	27.94	0.268	67.69	507.12
9	35.56	0.260	34.25	317.22	30.48	0.250	43.95	335.00	25.40	0.268	72.90	496.38
10	27.94	0.210	33.68	197.86	30.48	0.188	47.46	271.75	33.02	0.267	81.89	722.01
Total Sum	304.80			2518.20	307.34			2695.31	304.80			3854.90

Table 3B. Tritium Concentrations and water content data for soil samples collected in November 2022

	Plot 4				Plot 13				Plot 16				Plot 19			
Sample	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum
1	30.48	0.091	199.53	555.65	33.02	0.069	235.69	536.69	35.56	0.090	41.86	134.13	35.56	0.045	151.22	242.02
2	35.56	0.070	93.68	234.66	27.94	0.056	95.23	149.01	30.48	0.109	19.72	65.45	27.94	0.052	74.14	106.80
3	25.40	0.131	107.83	359.87	33.02	0.101	112.57	374.00	22.86	0.170	14.55	56.40	27.94	0.048	62.45	83.08
4	30.48	0.200	87.87	535.20	27.94	0.258	73.89	532.19	27.94	0.210	20.74	121.88	33.02	0.064	44.03	92.94
5	27.94	0.195	51.32	280.29	30.48	0.275	52.79	442.06	38.10	0.248	82.28	778.98	30.48	0.125	17.60	66.85
6	33.02	0.191	44.68	282.03	35.56	0.232	48.99	403.29	27.94	0.231	213.36	1375.63	27.94	0.183	21.07	107.79
7	25.40	0.176	39.42	176.37	25.40	0.234	50.26	298.71	33.02	0.241	307.99	2451.06	33.02	0.247	60.26	491.09
8	33.02	0.189	29.95	186.73	33.02	0.250	54.25	448.23	30.48	0.258	313.98	2464.94	27.94	0.241	129.84	875.82
9	33.02	0.179	22.93	135.92	27.94	0.217	58.95	357.17	27.94	0.279	296.15	2311.87	30.48	0.200	181.88	1107.99
10	27.94	0.190	24.98	132.43	30.48	0.181	62.37	344.81	30.48	0.254	285.68	2215.44	33.02	0.211	185.94	1293.83
Total Sum	302.26			2879.15	304.80			3886.16	304.80			11975.77	307.34			4468.22

	Plot 22				Plot 27				Plot 31				Plot 36			
Sample	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum
1	30.48	0.061	92.08	171.58	38.10	0.087	206.58	686.06	30.48	0.086	97.15	254.54	33.02	0.113	121.40	454.92
2	33.02	0.143	33.04	156.00	27.94	0.076	189.73	402.89	30.48	0.180	34.36	188.54	25.40	0.145	101.41	374.00
3	30.48	0.347	30.07	317.76	22.86	0.037	148.65	125.47	30.48	0.219	30.45	203.72	35.56	0.153	96.59	524.71
4	30.48	0.227	34.14	236.48	33.02	0.024	179.90	144.08	35.56	0.231	24.75	203.48	30.48	0.175	65.08	346.37
5	27.94	0.169	34.21	161.27	30.48	0.037	240.31	272.94	25.40	0.281	23.78	169.99	27.94	0.189	58.88	311.42
6	30.48	0.161	34.28	168.08	30.48	0.083	207.39	524.58	30.48	0.300	24.71	226.28	30.48	0.232	57.85	409.18
7	30.48	0.161	34.26	168.22	30.48	0.037	87.02	97.93	35.56	0.226	25.17	201.89	27.94	0.264	110.13	812.98
8	35.56	0.158	33.60	188.76	27.94	0.024	44.27	30.00	25.40	0.221	25.35	142.47	38.10	0.224	54.23	462.79
9	27.94	0.120	33.00	110.60	35.56	0.037	30.85	40.88	30.48	0.246	26.39	198.09	22.86	0.189	53.76	232.55
10	33.02	0.160	31.67	166.83	22.86	0.083	19.96	37.87	30.48	0.247	27.14	204.15	35.56	0.215	48.92	373.78
Total Sum	309.88			1845.57	299.72			2362.70	304.80			1993.14	307.34			4302.72

	Plot 41				Plot 45				Plot 48			
Sample	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm^{-3})	Tritium Sum
1	30.48	0.136	24.45	101.65	35.56	0.096	107.14	367.13	38.10	0.107	216.83	886.18
2	30.48	0.159	19.87	96.21	27.94	0.062	54.20	93.20	38.10	0.107	228.81	935.18
3	35.56	0.198	36.76	258.55	33.02	0.059	60.75	118.16	20.32	0.081	173.51	286.77
4	30.48	0.205	68.20	426.60	25.40	0.066	40.59	68.32	30.48	0.082	156.55	389.15
5	1424.94	0.195	87.65	24373.25	30.48	0.229	36.83	256.86	27.94	0.067	127.75	237.96
6	25.40	0.185	133.32	627.13	30.48	0.245	23.45	174.87	35.56	0.054	179.70	346.75
7	33.02	0.209	182.09	1256.51	25.40	0.195	9.00	44.51	27.94	0.084	327.98	770.10
8	27.94	0.211	157.69	929.14	38.10	0.212	13.12	106.10	25.40	0.183	340.61	1585.47
9	35.56	0.217	97.63	751.67	27.94	0.308	22.84	196.60	33.02	0.239	223.74	1764.99
10	30.48	0.219	92.63	619.60	27.94	0.200	27.80	155.43	27.94	0.245	128.23	878.19
Total Sum	1704.34			29440.32	302.26			1581.20	304.80			8080.74

Table 3C. Tritium Concentrations and water content data for soil samples collected in November 2021

	Plot 4				Plot 13				Plot 16				Plot 19			
Sample	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm-3)	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm-3)	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm-3)	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm-3)	Tritium Sum
1	33.02	0.076	233.44	588.71	38.10	0.100	297.73	1131.02	30.48	0.071	76.94	167.61	30.48	0.174	9.06	48.05
2	27.94	0.047	109.51	142.98	30.48	0.069	69.84	145.99	35.56	0.100	30.59	108.69	66.04	0.115	5.55	41.98
3	30.48	0.142	44.48	191.91	25.40	0.045	79.05	90.90	30.48	0.178	72.85	395.10	45.72	0.154	5.08	35.81
4	35.56	0.154	32.96	180.97	30.48	0.042	73.19	94.58	22.86	0.216	117.79	581.87	20.32	0.167	8.95	30.29
5	25.40	0.200	23.61	120.20	35.56	0.043	62.38	95.44	33.02	0.249	344	2824.88	22.86	0.155	28.92	102.80
6	33.02	0.204	25.46	171.19	20.32	0.093	37.61	70.91	27.94	0.232	522.98	3390.59	35.56	0.153	28.66	156.04
7	30.48	0.226	32.34	222.88	30.48	0.128	32.32	125.78	33.02	0.242	548.24	4386.66	30.48	0.179	40.6	221.32
8	25.40	0.230	28.77	168.38	35.56	0.130	37.34	172.10	27.94	0.255	530	3778.24	30.48	0.151	58.56	270.21
9	38.10	0.207	23.77	187.41	27.94	0.141	35.47	139.69	35.56	0.256	496.2	4523.01	15.24	0.152	56.52	131.29
10	25.40	0.182	17.78	82.28	30.48	0.158	40.02	192.30	27.94	0.245	444.72	3044.49	15.24	0.175	54.65	146.15
Total Sum	304.80			2056.91	304.80			2258.71	304.80			23201.16	312.42			1183.95

	Plot 22				Plot 27				Plot 31				Plot 36			
Sample	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm-3)	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm-3)	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm-3)	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm-3)	Tritium Sum
1	38.1	0.044	21.62	36.34	35.56	0.091	114.31	369.30	35.56	0.148	176.07	925.67	30.48	0.140	81.51	348.52
2	25.4	0.035	6.56	5.81	27.94	0.072	32.34	65.28	30.48	0.176	72.67	390.12	30.48	0.124	80.14	303.61
3	25.4	0.204	12.1	62.81	35.56	0.062	25.33	55.42	33.02	0.215	150.11	1065.45	35.56	0.122	96.65	419.11
4	35.56	0.201	30.35	216.99	22.86	0.134	22.85	70.11	27.94	0.227	279.50	1774.51	33.02	0.109	82.45	296.45
5	30.48	0.173	44.06	231.67	27.94	0.218	12.52	76.38	33.02	0.226	219.49	1634.66	27.94	0.126	69.62	245.58
6	30.48	0.121	88.68	327.12	30.48	0.151	18.08	82.97	25.40	0.241	156.47	957.98	22.86	0.119	89.91	244.15
7	27.94	0.118	159.42	524.63	0.00				27.94	0.239	114.19	761.36	35.56	0.177	123.57	777.97
8	27.94	0.122	293.23	1000.87	0.00				40.64	0.263	189.29	2024.92	33.02	0.199	145.6	958.85
9	35.56	0.158	471.14	2655.13	0.00				25.40	0.274	199.73	1387.67	27.94	0.204	155.31	885.29
10	27.94	0.160	619.18	2763.10	0.00				25.40	0.240	200.73	1222.02	27.94	0.195	164.18	894.47
Total Sum	304.8			7824.48	180.34			719.47	304.80			12144.36	304.80			5373.99

	Plot 41				Plot 45				Plot 48			
Sample	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm-3)	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm-3)	Tritium Sum	Depth Span (cm)	Volumetric Water Content	Tritium (pCi cm-3)	Tritium Sum
1	33.02	0.121	198.78	794.31	35.56	0.072	146.43	375.77	33.02	0.085	401.22	1119.84
2	30.48	0.121	57.13	210.27	25.40	0.061	65.12	100.42	33.02	0.085	123.7	345.26
3	33.02	0.188	21.12	131.29	33.02	0.111	64.89	236.94	33.02	0.075	84.26	207.98
4	30.48	0.198	39.26	237.09	33.02	0.161	12.53	66.57	30.48	0.060	119.41	218.00
5	30.48	0.164	39.43	197.59	30.48	0.171	7.21	37.60	15.24	0.059	111.86	101.20
6	27.94	0.223	59.09	367.68	30.48	0.131	8.04	32.04	33.02	0.115	26.75	101.58
7	30.48	0.246	63.26	474.77	33.02	0.237	6.67	52.09	38.10	0.179	12.26	83.72
8	27.94	0.236	56.54	373.15	27.94	0.251	10.82	75.85	25.40	0.182	9.82	45.46
9	27.94	0.221	49	302.26	33.02	0.184	22.77	138.50	35.56	0.225	11.1	88.97
10	33.02	0.219	39.29	284.16	0.00				27.94	0.225	15.32	96.45
Total Sum	304.80			3372.57	281.94			1115.78	304.80			2408.46

Table 4. Efficiency estimates for May and November 2022 including the leaching fraction.

Table 4A. Estimated Leaching Fraction (cm)

Plot #	Tritium Conc. 300 cm (pCi mL^{-1}) Nov. 2021	May 2022 (pCi mL^{-1})	Nov. 2022 (pCi mL^{-1})	Jan. 2022	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
4	18	92	29	7.33	1.19	0.30	1.72									
13	40	36	56	7.11	0.92	0.20	1.26									
16	445	110	301	7.17	0.80	0.04	1.06									
19	55	63	139	7.23	0.89	0.12	1.21									
22	619	36	33	5.00	0.49		0.35									
27	18	11	46	7.04	0.02	0.54										
31	201	4	26	6.34	0.14	0.89										
36	164	54	67	6.34		0.49	0.04									
41	39	35	133	4.17	0.02	0.54										
45	23	42	15	7.90	2.66	4.52	3.90				4.19		1.13	5.71	7.14	
48	15	85	255	7.90	2.64	4.57	4.00				4.42		1.50	5.81	7.14	
	Precipitation Levels (cm)			9.85	5.43	7.89	11.25	5.27	14.93	8.70	13.94	4.93	5.52	6.84	8.33	102.87

Table 4B. Cumulative Leaching (pCi cm^{-2})

Plot #	Total Tritium leached through Dec. 2021			Jan. 2022	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total through Dec. 2022
4	4.86E+05			1.30E+02	2.12E+01	5.25E+00	3.05E+01									4.86E+05
13	5.52E+05			2.85E+02	3.68E+01	7.89E+00	5.06E+01									5.52E+05
16	6.17E+05			3.19E+03	3.56E+02	1.88E+01	4.73E+02									6.21E+05
19	4.10E+05			3.95E+02	4.86E+01	6.34E+00	6.62E+01									4.10E+05
22	3.18E+05			3.09E+03	3.06E+02		2.14E+02									3.21E+05
27	1.72E+05			1.27E+02	3.51E-01	9.81E+00										1.72E+05
31	9.67E+03			1.27E+03	2.74E+01	1.78E+02										1.12E+04
36	9.00E+03			1.04E+03		8.09E+01	6.96E+00									1.01E+04
41	4.71E+03			1.64E+02	7.62E-01	2.13E+01										4.89E+03
45	3.63E+04			1.80E+02	6.06E+01	1.03E+02	8.88E+01				9.53E+01		2.58E+01	1.30E+02	1.62E+02	3.71E+04
48	7.67E+04			1.21E+02	4.04E+01	7.00E+01	6.12E+01				6.78E+01		2.29E+01	8.90E+01	1.09E+02	7.72E+04

Table 4C. Leachate plus residual soil tritium

Plot #	Soil Tritium May 2022	Total May (Soil + Leachate)	Soil Tritium November 2022	Total November (Soil + Leachate)
4	4.69E+03	4.90E+05	2.88E+03	4.89E+05
13	2.59E+03	5.55E+05	3.89E+03	5.56E+05
16	2.45E+04	6.45E+05	1.20E+04	6.33E+05
19	2.52E+03	4.13E+05	4.47E+03	4.15E+05
22	1.72E+03	3.23E+05	1.85E+03	3.23E+05
27	3.46E+03	1.76E+05	2.36E+03	1.75E+05
31	4.34E+02	1.16E+04	1.99E+03	1.31E+04
36	2.20E+03	1.23E+04	4.30E+03	1.44E+04
41	2.52E+03	7.41E+03	2.94E+04	3.43E+04
45	2.70E+03	3.94E+04	1.58E+03	3.87E+04
48	3.85E+03	8.08E+04	8.08E+03	8.53E+04

Table 4D. Total applied tritium

Plot #	May 2022	November 2022
4	5.12E+06	5.14E+06
13	4.02E+06	4.03E+06
16	3.79E+06	3.80E+06
19	4.40E+06	4.41E+06
22	3.49E+06	3.49E+06
27	3.83E+06	3.84E+06
31	3.38E+05	3.48E+05
36	3.46E+05	3.57E+05
41	2.56E+05	2.64E+05
45	2.49E+05	2.59E+05
48	2.18E+05	2.26E+05

Table 4E. Efficiency

Plot #		Residual Tritium			Residual Tritium	
4		0.096			0.095	
13		0.138			0.138	
16		**0.170**			0.167	
19		0.094			0.094	
22		0.093			0.092	
27		0.046			0.045	
31		0.034			0.038	
36		0.036			0.040	
41		0.029			0.130	
45		0.158	**May**		0.150	**November**
48		0.371	**Overall Efficiency (%)**		0.378	**Overall Efficiency (%)**
	Avg.	**0.115**	**88.5**	**Avg.**	**0.124**	**87.6**
	Std. Dev.	**0.099**	**9.9**	**Std. Dev.**	**0.095**	**9.5**

Table 5A. Estimated residual soil tritium throughout the operation history of the MWMF for 2001 through 2003.

Date	Vapor/TDR Data*	Corrected Vapor Data**	Lysimeter Data	Soil Cores
2001 Data				
26-Jul	0.313 (±0.136)		0.446	
24-Aug	0.204 (±0.109)			
17-Sep	0.206 (±0.100)			
1-Oct	0.190 (±0.086)	0.163		
27-Nov	0.158 (±0.081)			
7-Dec	0.168 (±0.079)			
2002 Data				
16-Jan	0.073 (±0.030)			
10-Feb				
13-March	0.087 (±0.051)			
19-April	0.071 (±0.034)			
23-May	0.086 (±0.049)			
12-June	0.052 (±0.034)			
17-July	0.083 (±0.032)			
1-Aug				0.047 (±0.015)[#]
14-Aug	0.056 (±0.022)			
11-Sep	0.142 (±0.109)			
17-Oct	0.130 (±0.094)			
9-Nov	0.117 (±0.075)			0.049 (±0.039)[##]

*residual moisture content based on TDR results

**suspect vapor data replaced with tritium levels from extracted soil cores.

[#] tritium data based on three cores collected to a depth of 4 meters and sectioned at ~ 15 cm intervals.

[##] tritium data based on soil samples collected from select specified depths (50, 150, 200, and 300 cm)

Table 5B. Estimated residual soil tritium throughout the operation history of the MWMF for 2004 through 2022.

Date	Soil Core data, leaching not included	Soil Core data including leaching	Lysimeter Data	Soil Cores
June 2004	0.106 (±0.101)[#]	0.191 (±0.115)[#]		
November 2004	0.059 (±0.012)[#]	0.192 (±0.067)[#]		
August 2005	0.040 (±0.016)[#]	0.158 (±0.152)[#]		
November 2005	0.036 (±0.030)[#]	0.153 (±0.068)[#]		
May/June 2006	0.055 (±0.037)[#]	0.185 (±0.085)[#]		
November 2006	0.011 (±0.007)[#]	0.137 (±0.056)[#]		
July 2007	0.014 (±0.003)[#]	0.135 (±0.058)[#]		
December 2007	0.038 (±0.038)[#]	0.154 (±0.073)[#]		
June/August 2008	0.016 (±0.010)[#]	0.128 (±0.049)[#]		
December 2008	0.018 (±0.013)[#]	0.128 (±0.054)[#]		
June/August 2009	0.016 (±0.012)[#]	0.128 (±0.049)[#]		
December 2009	0.011 (±0.007)[#]	0.121 (±0.048)[#]		
June 2010	0.021 (±0.012)[#]	0.133 (±0.054)[#]		
December 2010	0.012 (±0.007)[#]	0.122 (±0.048)[#]		
June 2011	0.009 (±0.004)[#]	0.117 (±0.046)[#]		
December 2011	0.010 (±0.005)[#]	0.116 (±0.046)[#]		
June 2012	0.009 (±0.003)[#]	0.114 (±0.044)[#]		
December 2012	0.009 (±0.004)[#]	0.114 (±0.044)[#]		
July /August 2013	0.085 (±0.212)[#]	0.175 (±0.190)[#]		
December 2013	0.017 (±0.212)[#]	0.092 (±0.044)[#]		
June 2014	0.083 (±0.108)[#]	0.162 (±0.098)[#]		
December 2014	0.033 (±0.050)[#]	0.106 (±0.064)[#]		
June 2015	0.023 (±0.029)[#]	0.093 (±0.039)[#]		
December 2015	0.035 (±0.053)[#]	0.106 (±0.063)[#]		
May 2016	0.020 (±0.031)[#]	0.094 (±0.057)[#]		
November 2016	0.018 (±0.016)[#]	0.091 (±0.045)[#]		
June 2017	0.028 (±0.028)[#]	0.102 (±0.042)[#]		
December 2017	0.044 (±0.111)[#]	0.119 (±0.131)[#]		
June 2018	0.025 (±0.053)[#]	0.101 (±0.082)[#]		
December 2018	0.006 (±0.007)[##]	0.085 (±0.060)[##]		
June 2019	0.006 (±0.004)[#]	0.085 (±0.056)[#]		
November 2019	0.016 (±0.024)[#]	0.099 (±0.072)[#]		
June 2020	0.008 (±0.009)[#]	0.101 (±0.077)[#]		
Nov./Dec. 2020	0.005 (±0.006)[#]	0.098 (±0.082)[#]		
May 2021	0.007 (±0.007)[#]	0.120 (±0.101)[#]		
November 2021	0.008 (±0.011)[#]	0.119 (±0.099)[#]		
May 2022	0.005 (±0.005)[#]	0.115 (±0.099)[#]		
November 2022	0.016 (±0.033)[#]	0.124 (±0.095)[#]		

[#] tritium data based on soil samples collected from select specified depths (100, 200, and 300 cm)

[##] tritium data based on soil samples collected throughout the entire profile (i.e., 0 to 300 cm)

Table 6. 2022 Monthly ET efficiencies for 11 plots estimated with the Cornell 1D model.

	Plots												
Month	**4**	**13**	**16**	**19**	**22**	**27**	**31**	**36**	**41**	**45**	**48**	**Total Monthly Avg.**	**Std. Dev.**
Jan	85.0	87.0	88.8	87.5	85.9	86.0	72.0	78.4	79.8	67.2	69.6	80.6	7.8
Feb	84.9	86.9	88.7	87.5	85.9	86.0	72.0	78.4	79.8	67.2	69.6	80.6	7.8
Mar	84.9	86.9	88.7	87.5	85.9	86.0	71.9	78.3	79.6	66.9	69.4	80.6	7.9
April	84.9	86.9	88.7	87.5	85.9	86.0	72.0	78.3	79.6	66.9	69.3	80.6	7.9
May	85.0	86.9	88.7	87.5	85.9	86.0	72.2	78.5	79.7	67.0	69.4	80.6	7.9
June	85.0	87.0	88.8	87.5	85.9	86.0	72.3	78.7	79.9	67.2	69.6	80.7	7.8
July	85.0	87.0	88.8	87.5	86.0	86.0	72.4	78.7	80.0	67.4	69.7	80.8	7.7
Aug	85.0	87.0	88.8	87.5	86.0	86.0	72.6	78.9	80.2	67.5	69.9	80.8	7.7
Sep	85.0	87.0	88.8	87.5	86.0	86.0	72.6	78.9	80.1	67.4	69.8	80.8	7.7
Oct	85.0	87.0	88.8	87.5	86.0	86.1	72.8	79.0	80.3	67.5	69.9	80.9	7.6
Nov	85.0	87.0	88.8	87.5	85.9	86.0	72.7	78.9	80.2	67.4	69.8	80.8	7.7
Dec	85.0	87.0	88.8	87.5	85.9	86.0	72.7	78.9	80.2	67.4	69.7	80.8	7.7
					Original Plots		**Eastern Expansion**			**Western Expansion**		**All Plots**	
					Avg.	**86.7**	**Avg.**	**77.0**		**Avg.**	**68.4**	**Avg.**	**80.7**
					Std. Dev.	**1.2**	**Std. Dev.**	**3.4**		**Std. Dev.**	**1.2**	**Std. Dev.**	**7.4**

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Annual Corrective Action Report for the F-Area Hazardous Waste Management Facility, the H-Area Hazardous Waste Management Facility, and the Mixed Waste Management Facility (U)

SRNS-RP-2023-00762

Volume II

August 2023

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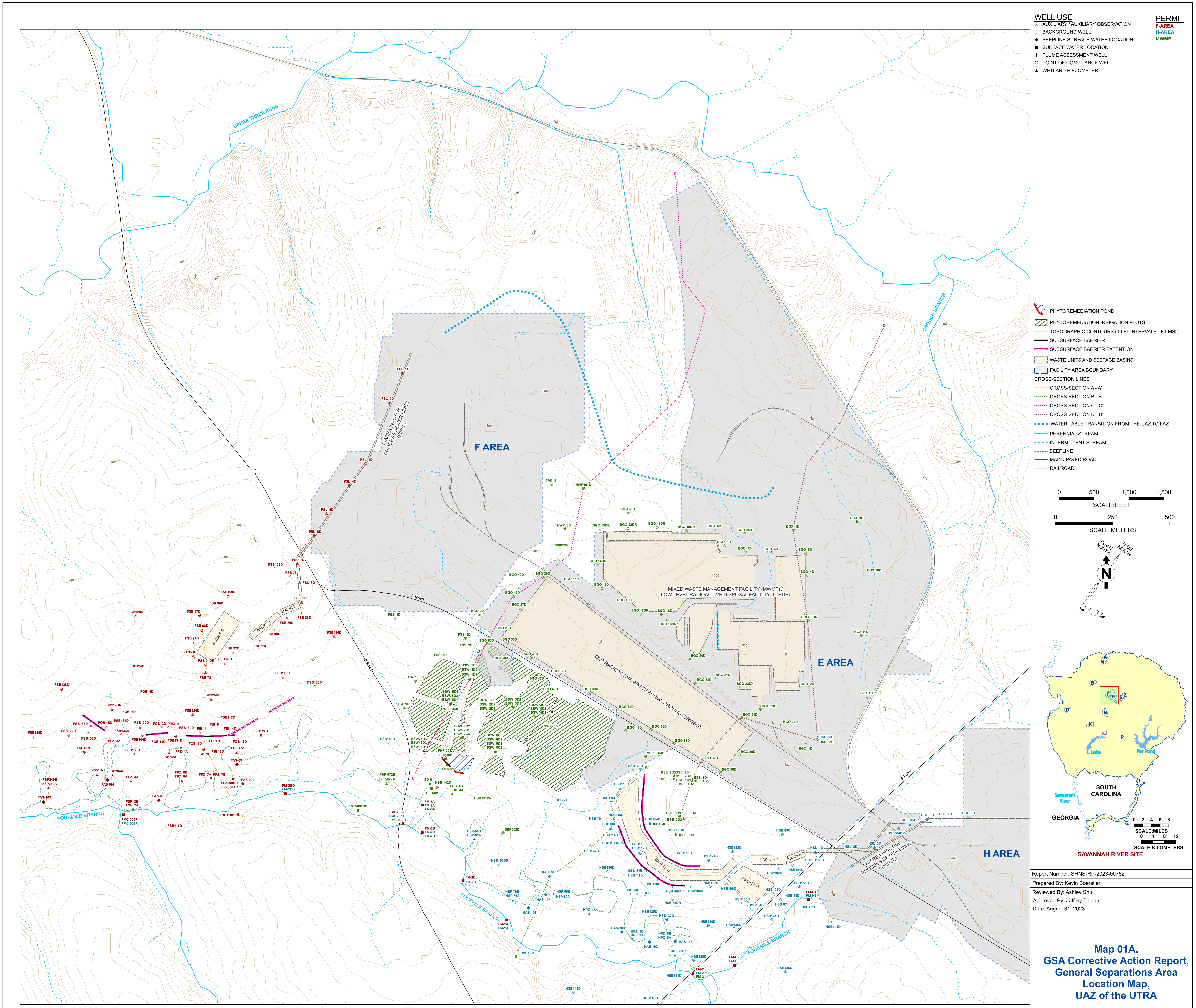
GSA 3Q Figure List
Maps

GSA 3Q Figure List
Maps

GSA 3Q Figure List
Cross-sections

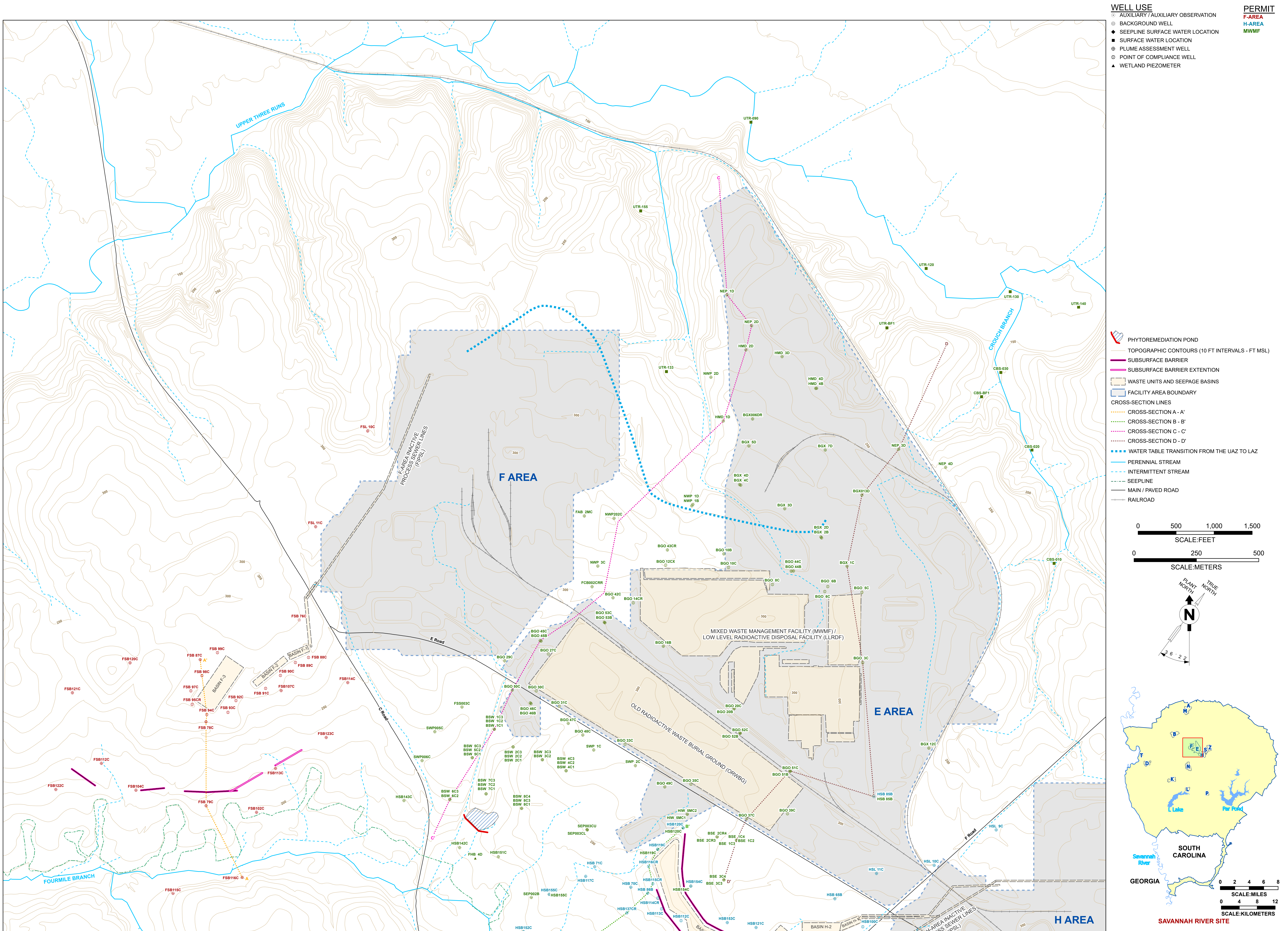


Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 01A. GSA Corrective Action Report, General Separations Area Location Map, UAZ of the UTRA

Map 01A. GSA Corrective Action Report, General Separations Area Location Map, UAZ of the UTRA

MAP01A



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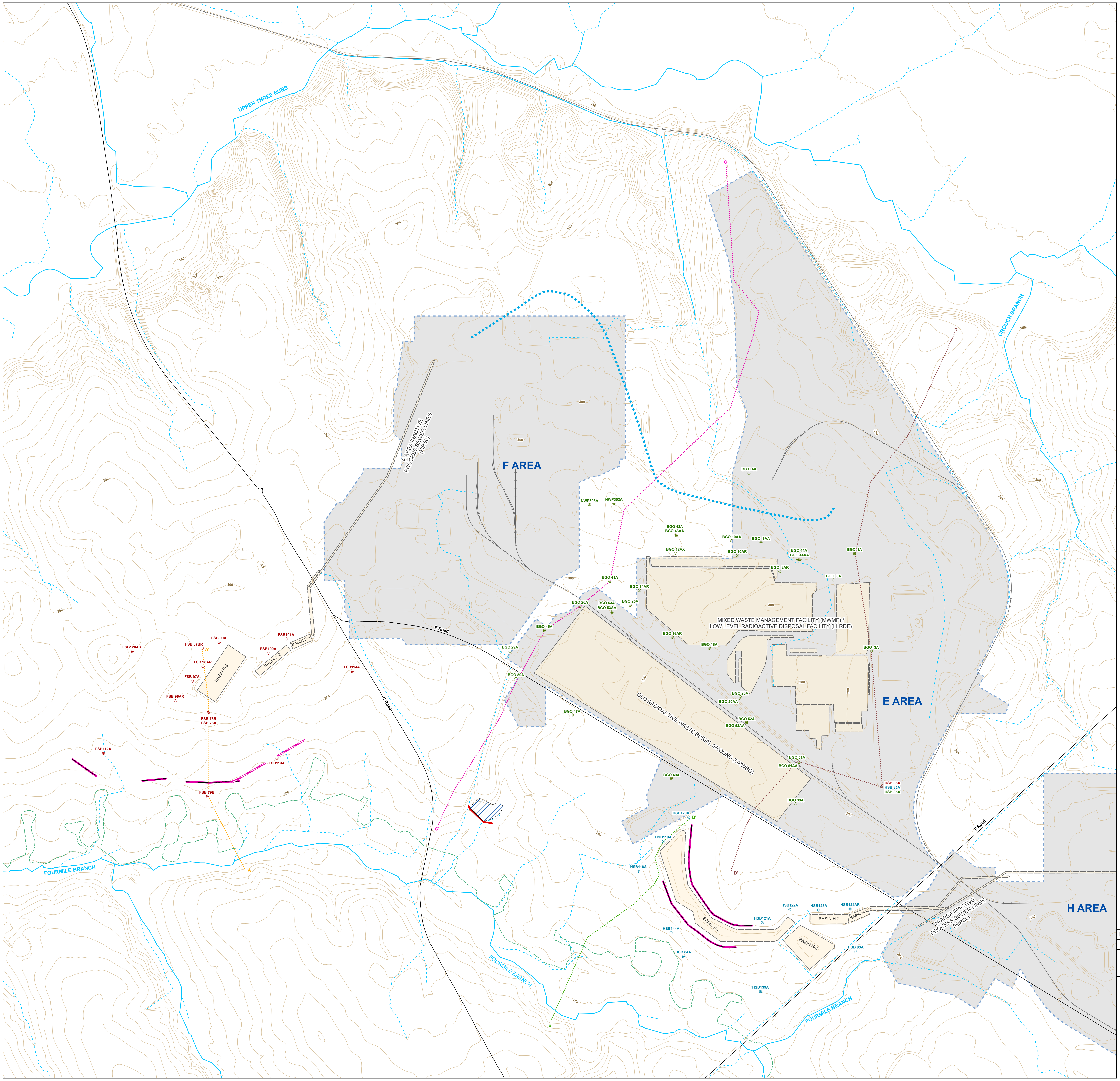
Map 01B.
GSA Corrective Action Report, General Separations Area Location Map, LAZ of the UTRA

Map 01B. GSA Corrective Action Report, General Separations Area Location Map, LAZ of the UTRA

MAP01B



WELL USE

- ☉ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

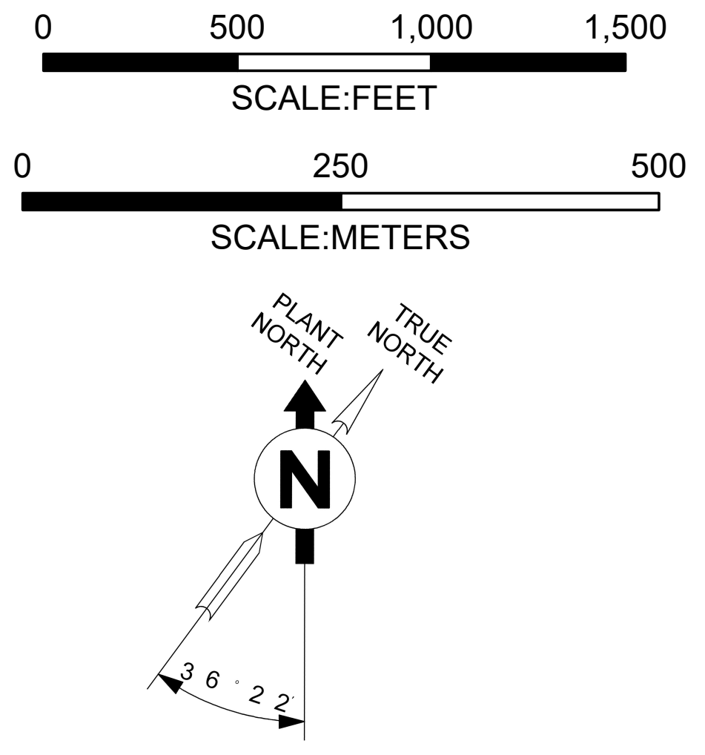
PERMIT

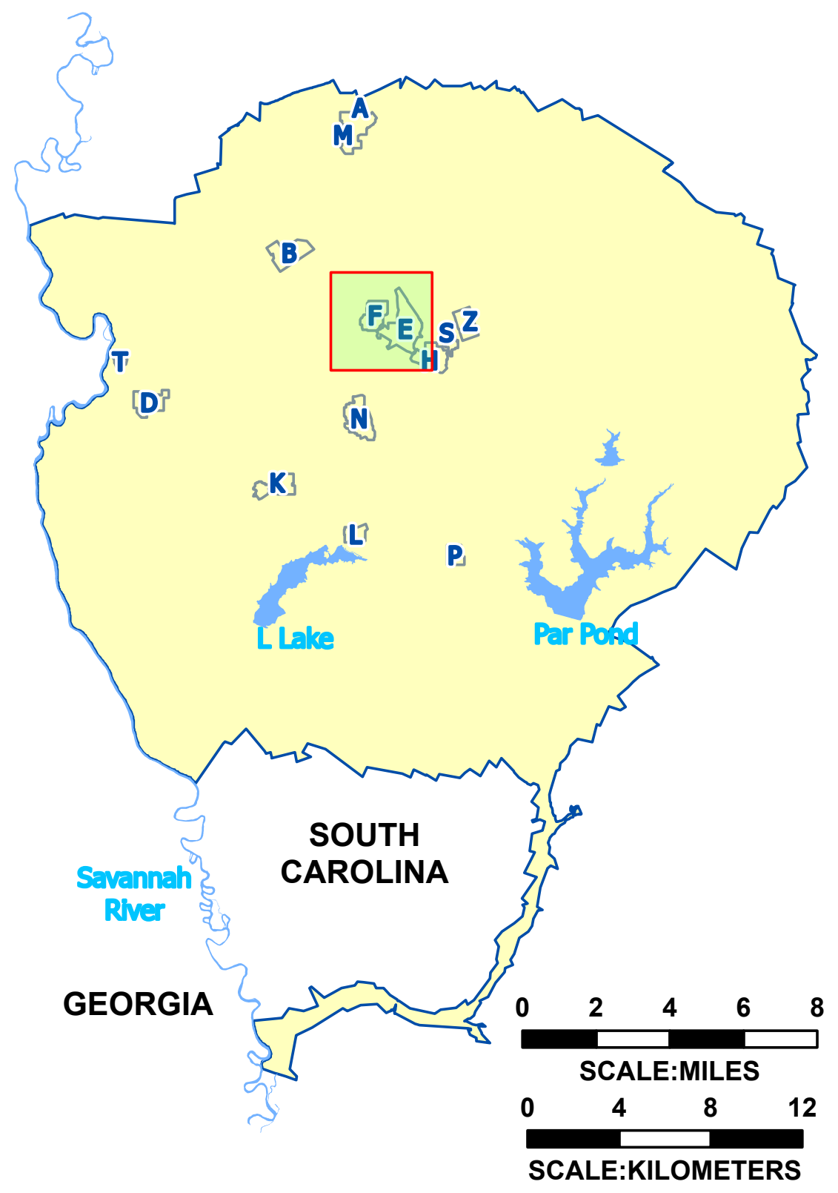
F-AREA
H-AREA
MWMF

- PHYTOREMEDIATION POND
- TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
- SUBSURFACE BARRIER
- SUBSURFACE BARRIER EXTENTION
- WASTE UNITS AND SEEPAGE BASINS
- FACILITY AREA BOUNDARY

CROSS-SECTION LINES

- CROSS-SECTION A - A'
- CROSS-SECTION B - B'
- CROSS-SECTION C - C'
- CROSS-SECTION D - D'
- WATER TABLE TRANSITION FROM THE UAZ TO LAZ
- PERENNIAL STREAM
- INTERMITTENT STREAM
- SEEPLINE
- MAIN / PAVED ROAD
- RAILROAD





SAVANNAH RIVER SITE

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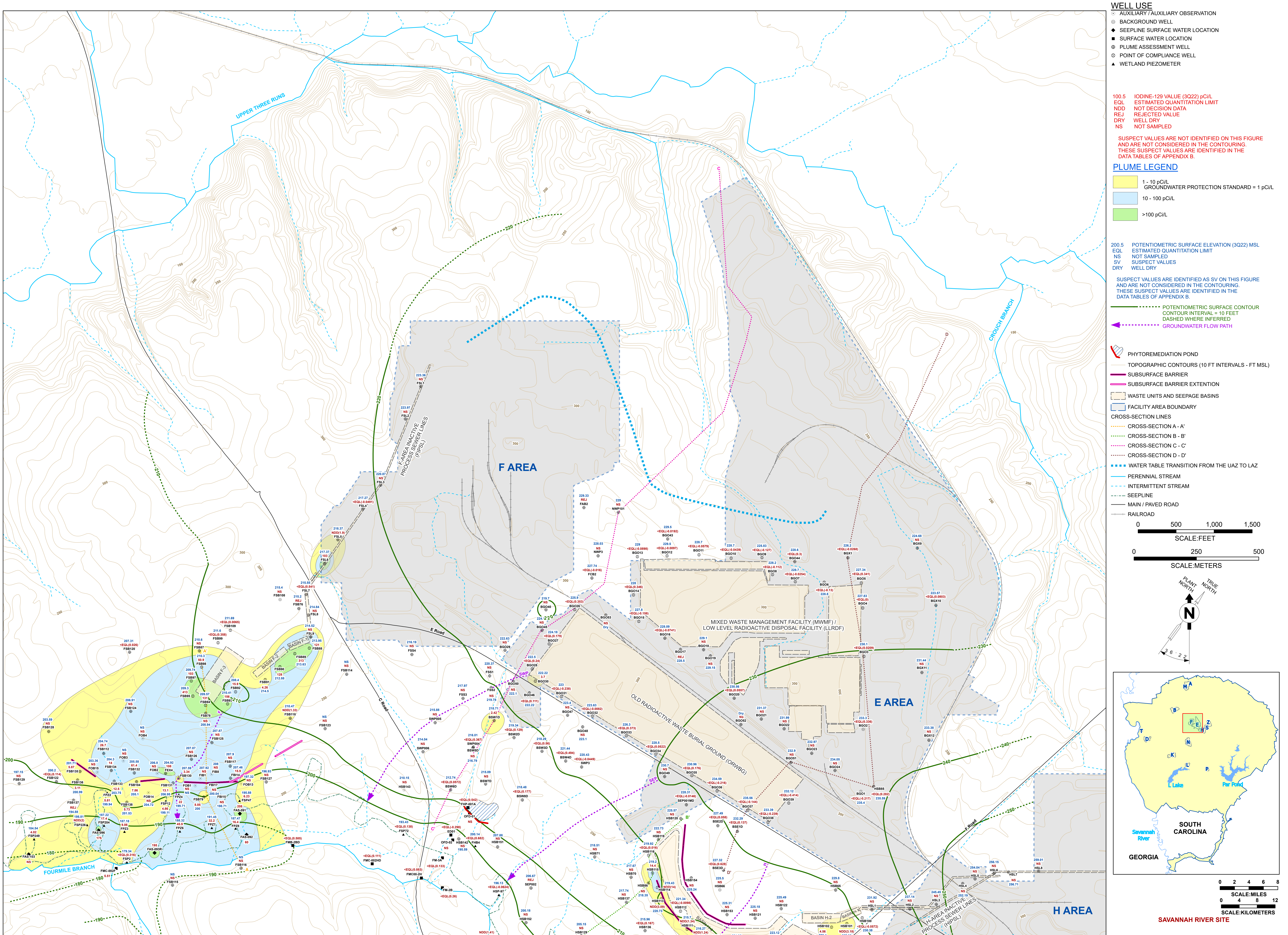
Date: August 31, 2023

Map 01C.
GSA Corrective Action Report, General Separations Area Location Map, Gordon Aquifer

Map 01C. GSA Corrective Action Report, General Separations Area Location Map, Gordon Aquifer

MAP01C



WELL USE
- ☉ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	IODINE-129 VALUE (3Q22) pCi/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

🟨	1 - 10 pCi/L GROUNDWATER PROTECTION STANDARD = 1 pCi/L
🟦	10 - 100 pCi/L
🟩	>100 pCi/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 10 FEET
DASHED WHERE INFERRED

GROUNDWATER FLOW PATH

PHYTOREMEDIATION POND
TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
SUBSURFACE BARRIER
SUBSURFACE BARRIER EXTENTION
WASTE UNITS AND SEEPAGE BASINS
FACILITY AREA BOUNDARY
CROSS-SECTION LINES
CROSS-SECTION A - A'
CROSS-SECTION B - B'
CROSS-SECTION C - C'
CROSS-SECTION D - D'
WATER TABLE TRANSITION FROM THE UAZ TO LAZ
PERENNIAL STREAM
INTERMITTENT STREAM
SEEPLINE
MAIN / PAVED ROAD
RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N

0 2 4 6 8
SCALE:MILES
0 4 8 12
SCALE:KILOMETERS

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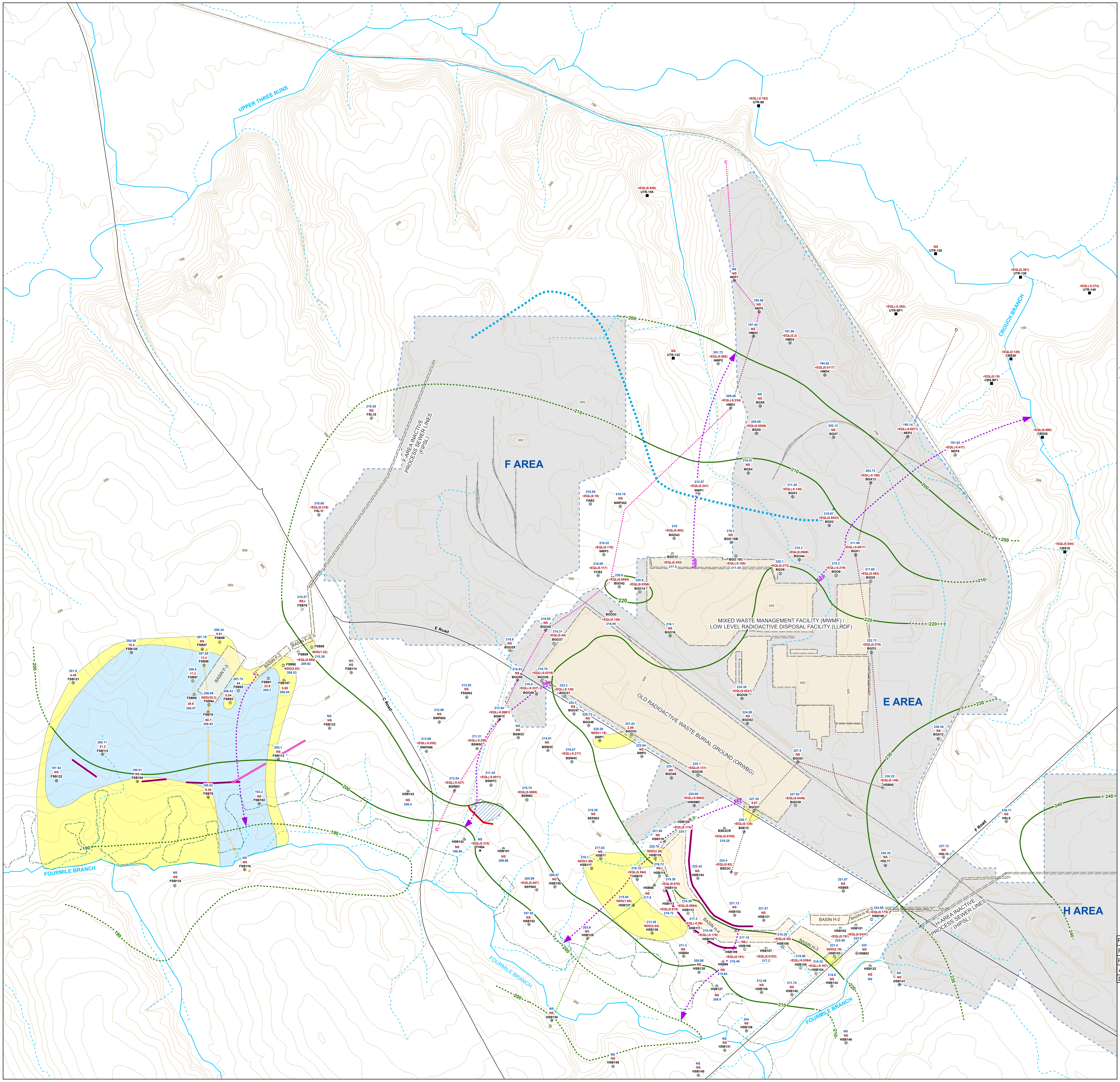
Map 02A.
GSA Corrective Action Report, Iodine-129 Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP02A

Map 02A. GSA Corrective Action Report, Iodine-129 Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022



WELL USE

- ⦿ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	IODINE-129 VALUE (3Q22) pCi/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

- 🟨 1 - 10 pCi/L
  GROUNDWATER PROTECTION STANDARD = 1 pCi/L
- 🟦 10 - 100 pCi/L
- 🟩 >100 pCi/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 10 FEET
DASHED WHERE INFERRED

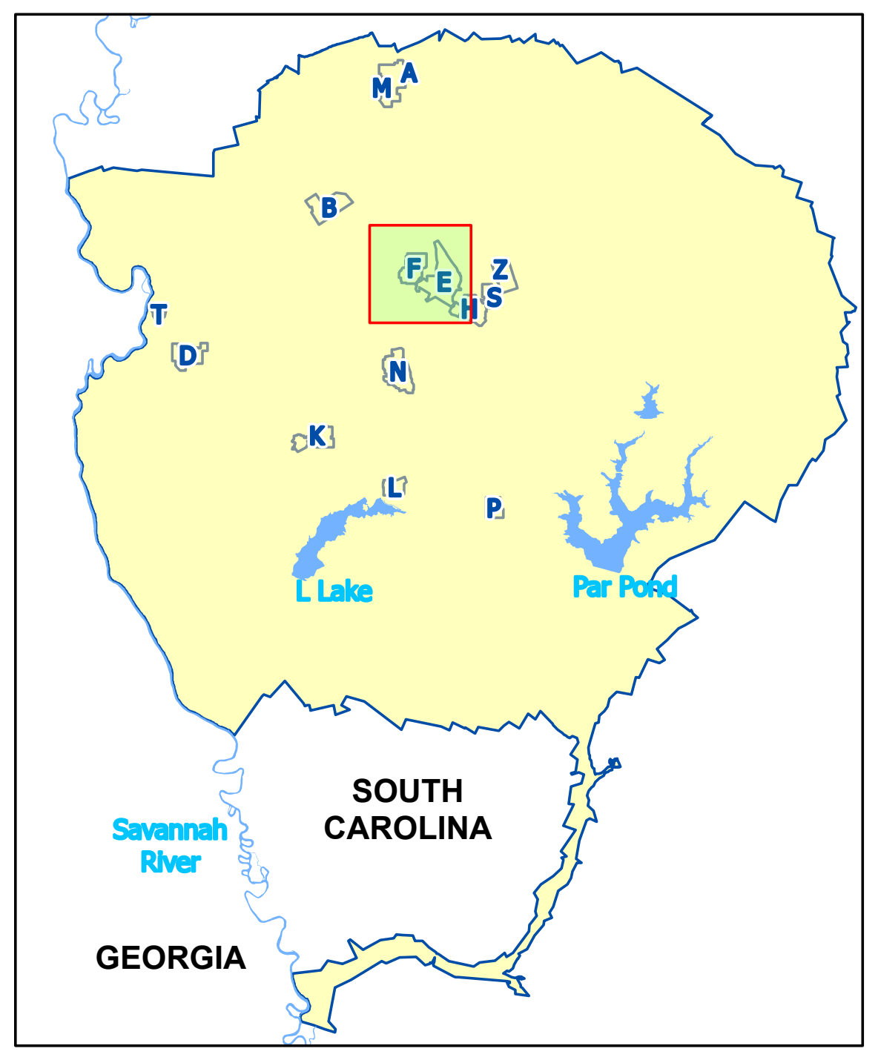
GROUNDWATER FLOW PATH

PHYTOREMEDIATION POND
TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
SUBSURFACE BARRIER
SUBSURFACE BARRIER EXTENTION
WASTE UNITS AND SEEPAGE BASINS
FACILITY AREA BOUNDARY
CROSS-SECTION LINES
CROSS-SECTION A - A'
CROSS-SECTION B - B'
CROSS-SECTION C - C'
CROSS-SECTION D - D'
WATER TABLE TRANSITION FROM THE UAZ TO LAZ
PERENNIAL STREAM
INTERMITTENT STREAM
SEEPLINE
MAIN / PAVED ROAD
RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N



0 2 4 6 8
SCALE:MILES
0 4 8 12
SCALE:KILOMETERS

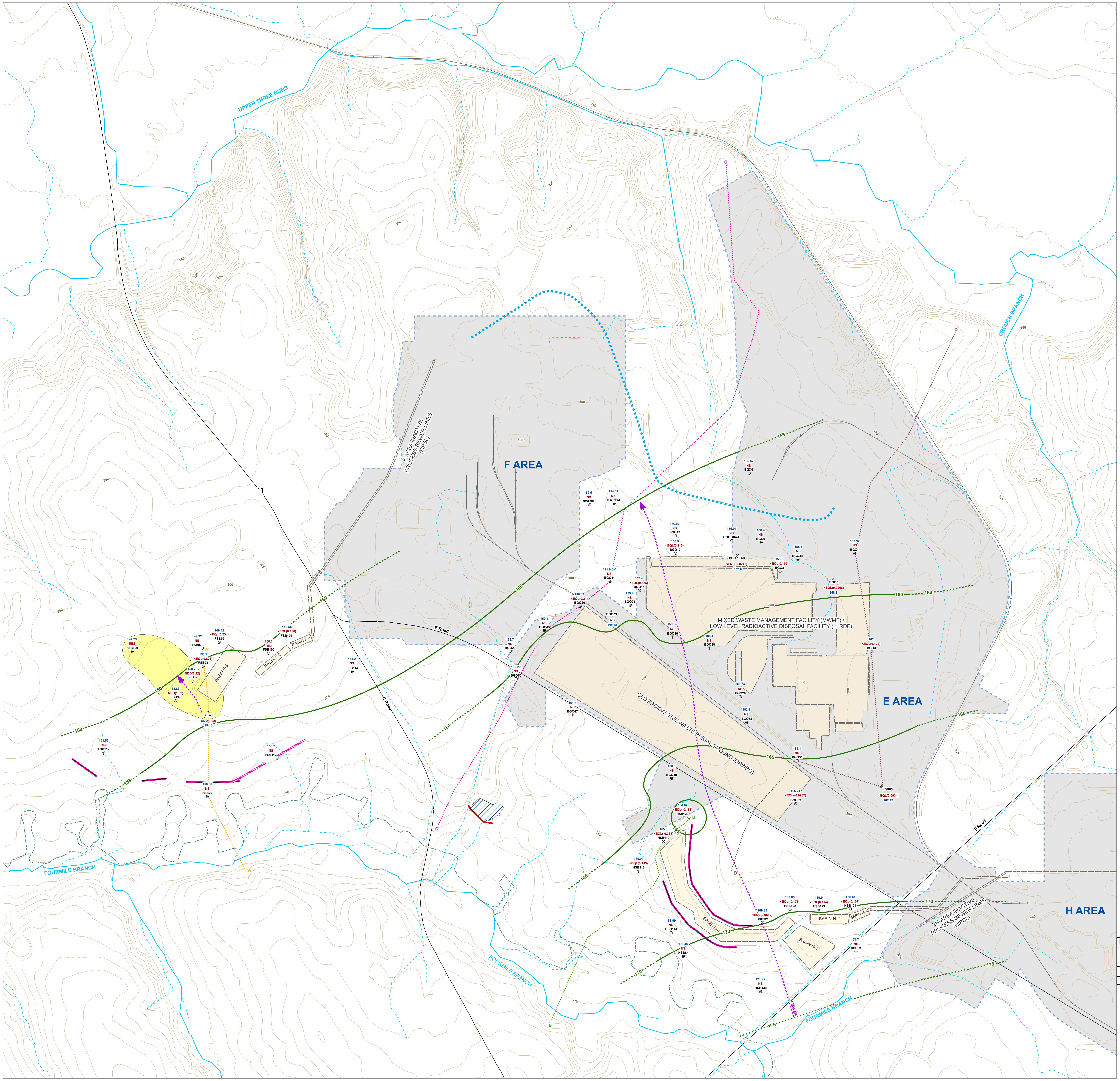
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762	
Prepared By: Kevin Boerstler	
Reviewed By: Ashley Shull	
Approved By: Jeffrey Thibault	
Date: August 31, 2023	

Map 02B.
GSA Corrective Action Report, Iodine-129 Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 02B. GSA Corrective Action Report, Iodine-129 Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP02B



WELL USE

- ☉ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	IODINE-129 VALUE (3Q22) pCi/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

🟨	1 - 10 pCi/L GROUNDWATER PROTECTION STANDARD = 1 pCi/L
🟦	10 - 100 pCi/L
🟩	>100 pCi/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 5 FEET
DASHED WHERE INFERRED

GROUNDWATER FLOW PATH

PHYTOREMEDIATION POND

TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)

SUBSURFACE BARRIER

SUBSURFACE BARRIER EXTENTION

WASTE UNITS AND SEEPAGE BASINS

FACILITY AREA BOUNDARY

CROSS-SECTION LINES

CROSS-SECTION A - A'

CROSS-SECTION B - B'

CROSS-SECTION C - C'

CROSS-SECTION D - D'

WATER TABLE TRANSITION FROM THE UAZ TO LAZ

PERENNIAL STREAM

INTERMITTENT STREAM

SEEPLINE

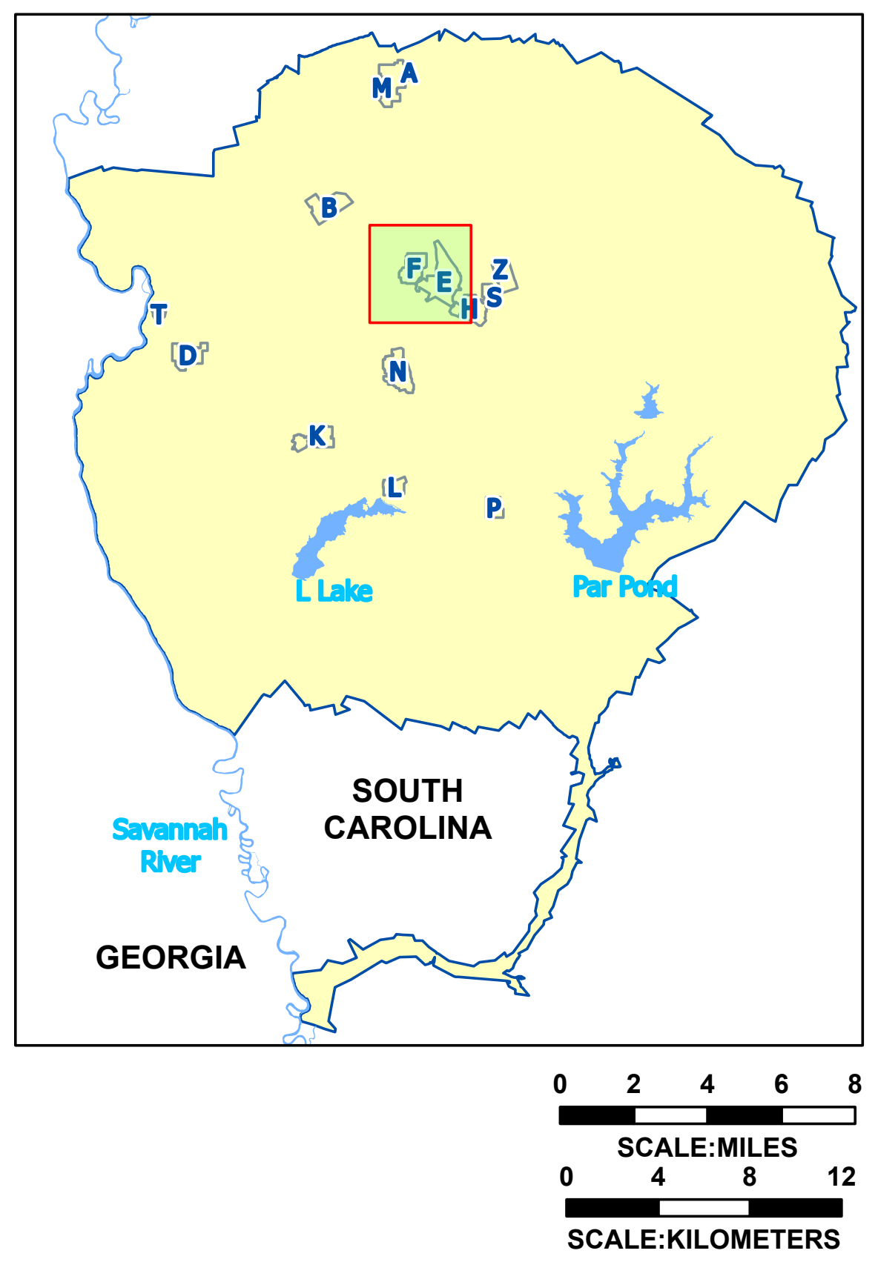
MAIN / PAVED ROAD

RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N



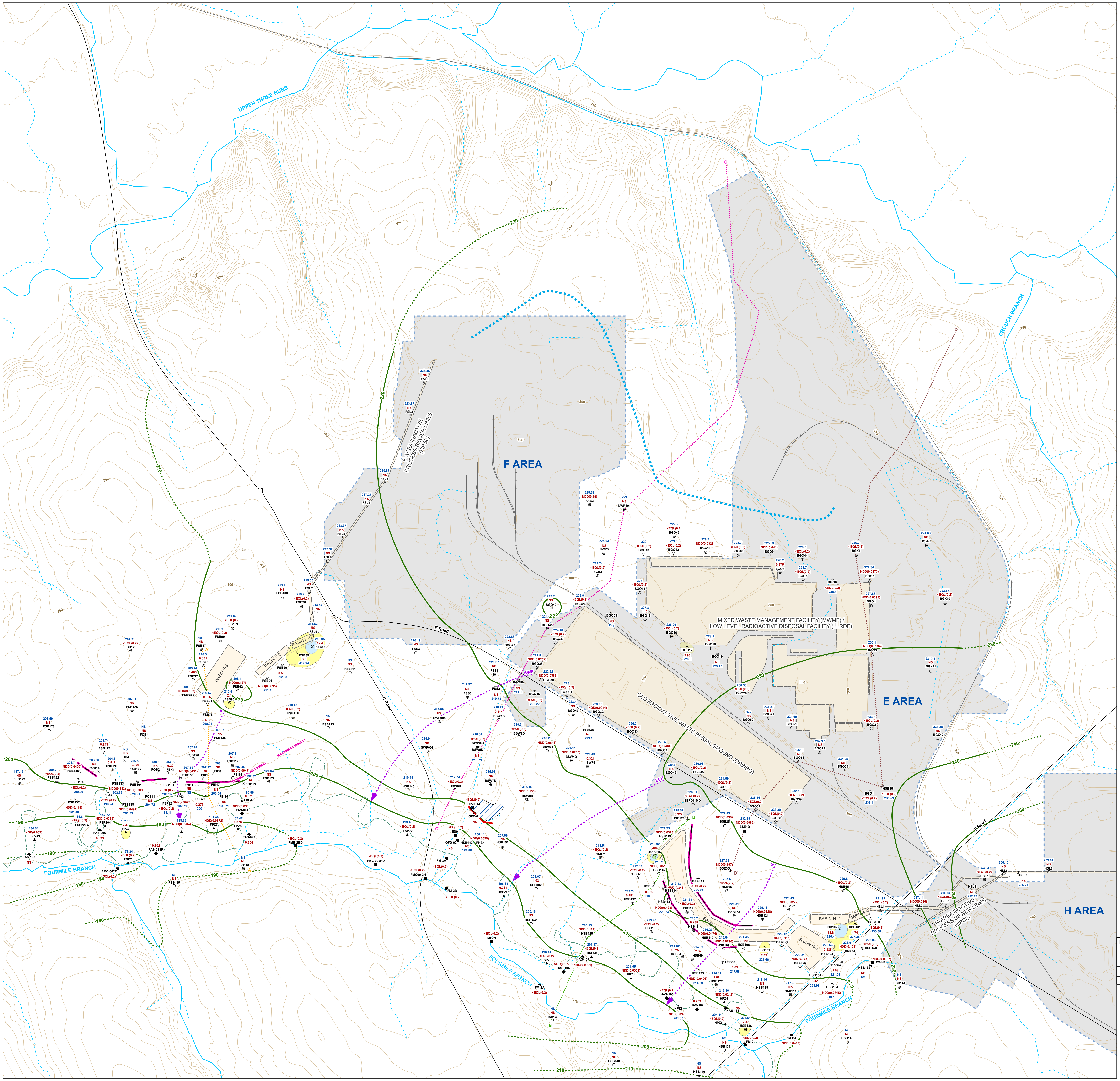
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 02C.
GSA Corrective Action Report, Iodine-1129 Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

Map 02C. GSA Corrective Action Report, Iodine-129 Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

MAP02C



WELL USE

- ⊙ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	MERCURY VALUE (3Q22) ug/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

- 🟨 2 - 10 ug/L
- 🟦 10 - 100 ug/L
- 🟩 >100 ug/L

GROUNDWATER PROTECTION STANDARD = 2 ug/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 10 FEET
DASHED WHERE INFERRED

GROUNDWATER FLOW PATH

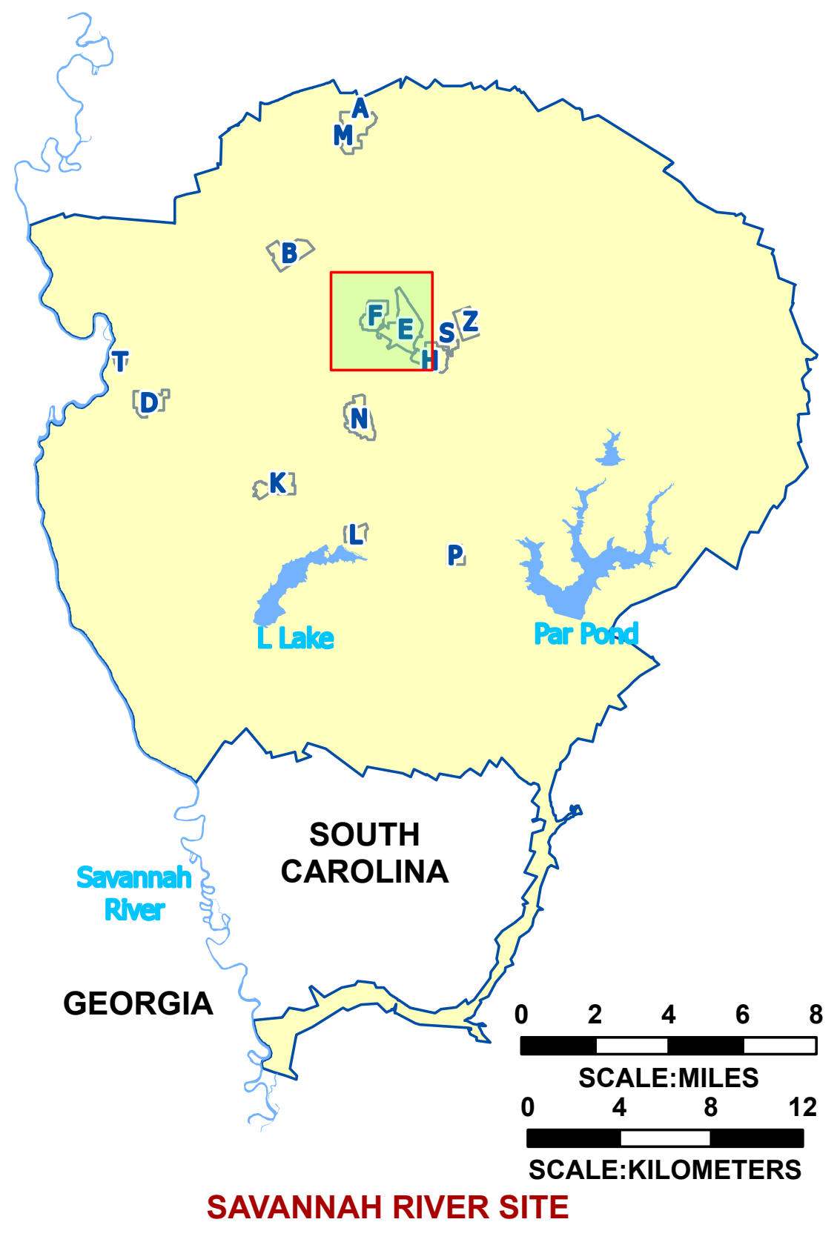
PHYTOREMEDIATION POND
TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
SUBSURFACE BARRIER
SUBSURFACE BARRIER EXTENTION
WASTE UNITS AND SEEPAGE BASINS
FACILITY AREA BOUNDARY

CROSS-SECTION LINES
CROSS-SECTION A - A'
CROSS-SECTION B - B'
CROSS-SECTION C - C'
CROSS-SECTION D - D'
WATER TABLE TRANSITION FROM THE UAZ TO LAZ
PERENNIAL STREAM
INTERMITTENT STREAM
SEEPLINE
MAIN / PAVED ROAD
RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N
36°22'



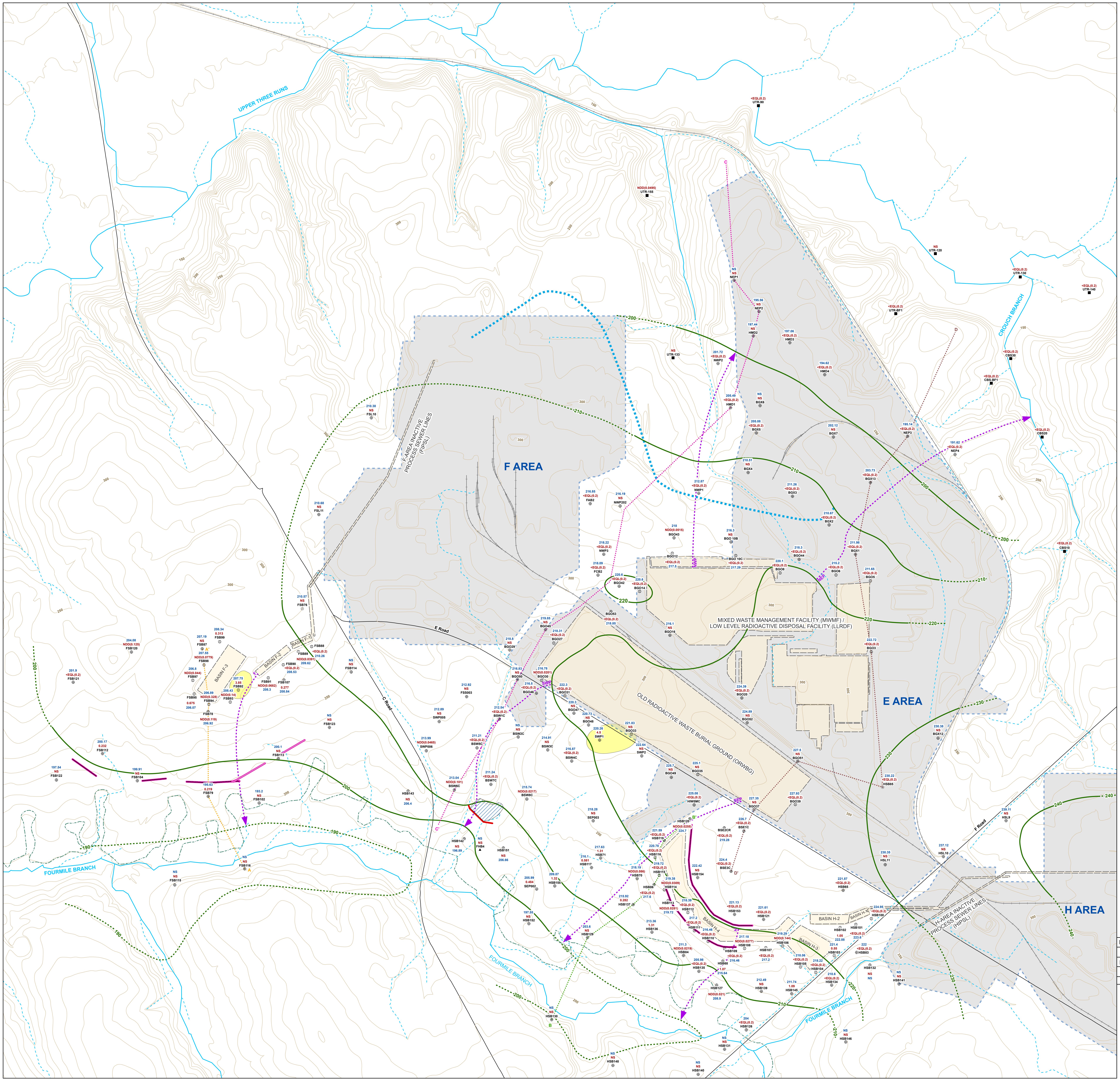
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 03A.
GSA Corrective Action Report, Mercury Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 03A. GSA Corrective Action Report, Mercury Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP03A



WELL USE

- ☉ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	MERCURY VALUE (3Q22) ug/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

- 🟨 2 - 10 ug/L
- GROUNDWATER PROTECTION STANDARD = 2 ug/L
- 🟦 >10 ug/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 10 FEET
DASHED WHERE INFERRED

GROUNDWATER FLOW PATH

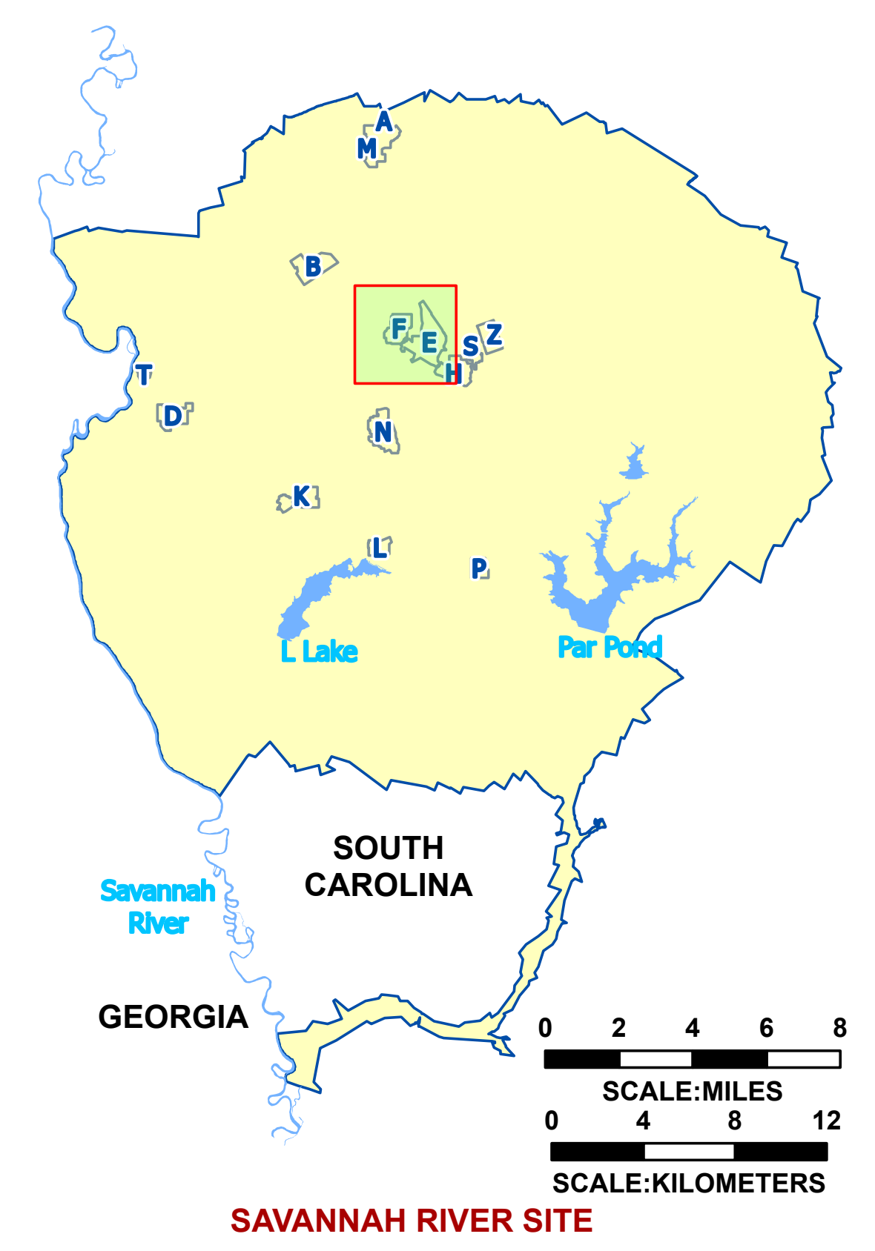
PHYTOREMEDIATION POND
TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
SUBSURFACE BARRIER
SUBSURFACE BARRIER EXTENTION
WASTE UNITS AND SEEPAGE BASINS
FACILITY AREA BOUNDARY

CROSS-SECTION LINES
CROSS-SECTION A - A'
CROSS-SECTION B - B'
CROSS-SECTION C - C'
CROSS-SECTION D - D'
WATER TABLE TRANSITION FROM THE UAZ TO LAZ
PERENNIAL STREAM
INTERMITTENT STREAM
SEEPLINE
MAIN / PAVED ROAD
RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N
36° 22'



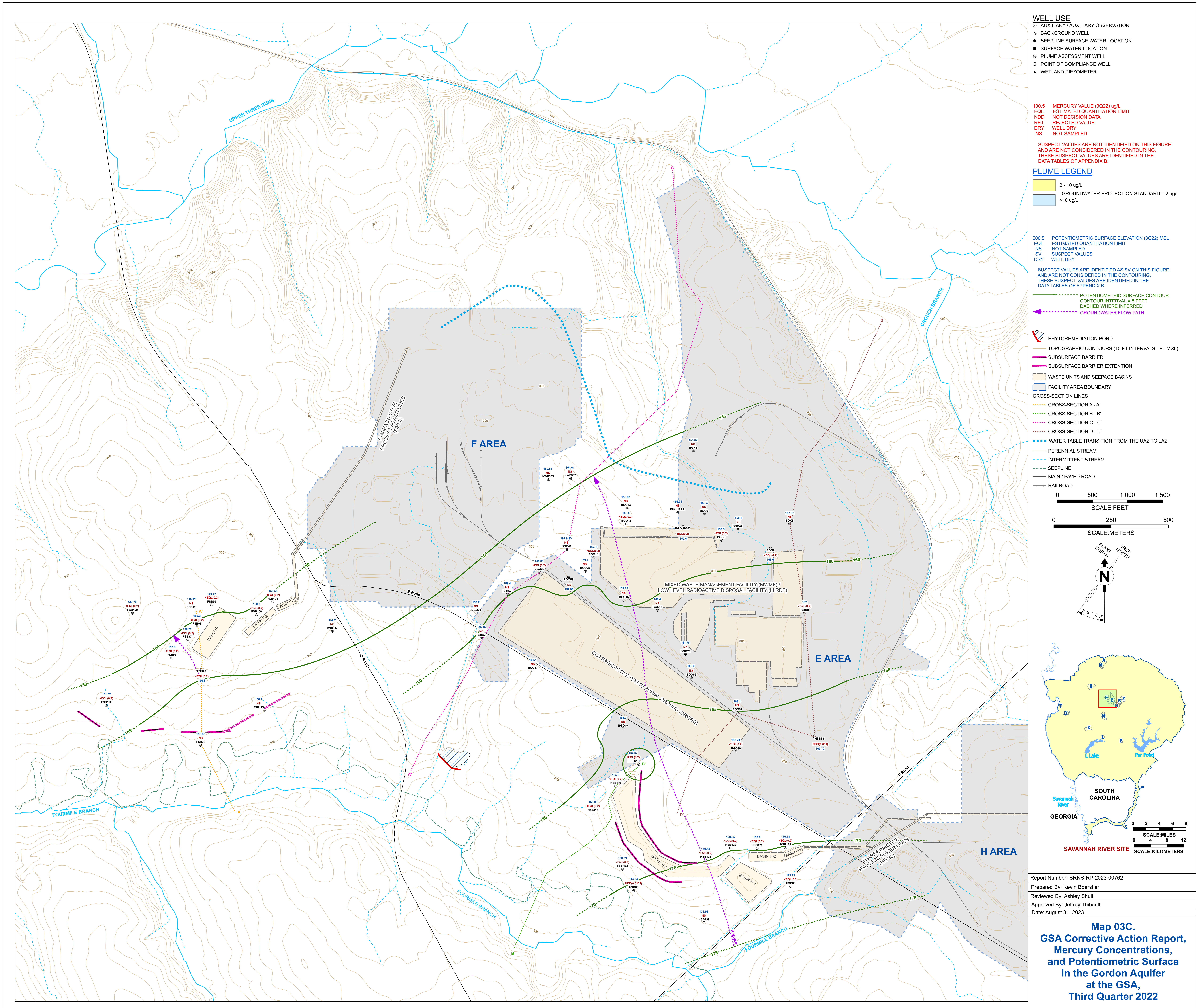
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 03B.
GSA Corrective Action Report, Mercury Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 03B. GSA Corrective Action Report, Mercury Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP03B

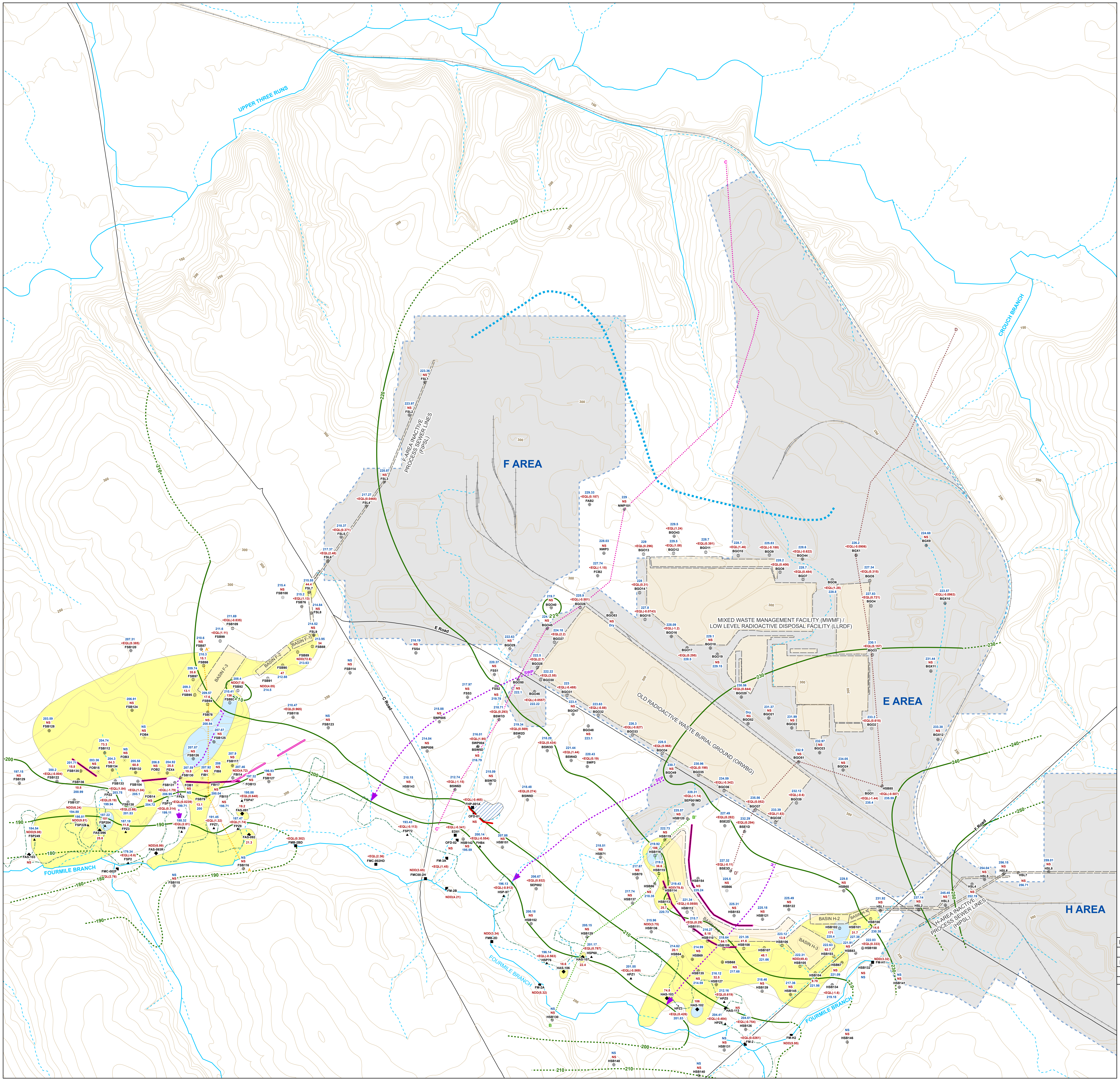


Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 03C. GSA Corrective Action Report, Mercury Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

Map 03C. GSA Corrective Action Report, Mercury Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

MAP03C



WELL USE

- ☉ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	STRONTIUM-90 VALUE (3Q22) pCi/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

🟨	8 - 100 pCi/L GROUNDWATER PROTECTION STANDARD = 8 pCi/L
🟦	100 - 1000 pCi/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 10 FEET
DASHED WHERE INFERRED

GROUNDWATER FLOW PATH

PHYTOREMEDIATION POND

TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)

SUBSURFACE BARRIER

SUBSURFACE BARRIER EXTENTION

WASTE UNITS AND SEEPAGE BASINS

FACILITY AREA BOUNDARY

CROSS-SECTION LINES

- CROSS-SECTION A - A'
- CROSS-SECTION B - B'
- CROSS-SECTION C - C'
- CROSS-SECTION D - D'

WATER TABLE TRANSITION FROM THE UAZ TO LAZ

PERENNIAL STREAM

INTERMITTENT STREAM

SEEPLINE

MAIN / PAVED ROAD

RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N

SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762

Prepared By: Kevin Boerstler

Reviewed By: Ashley Shull

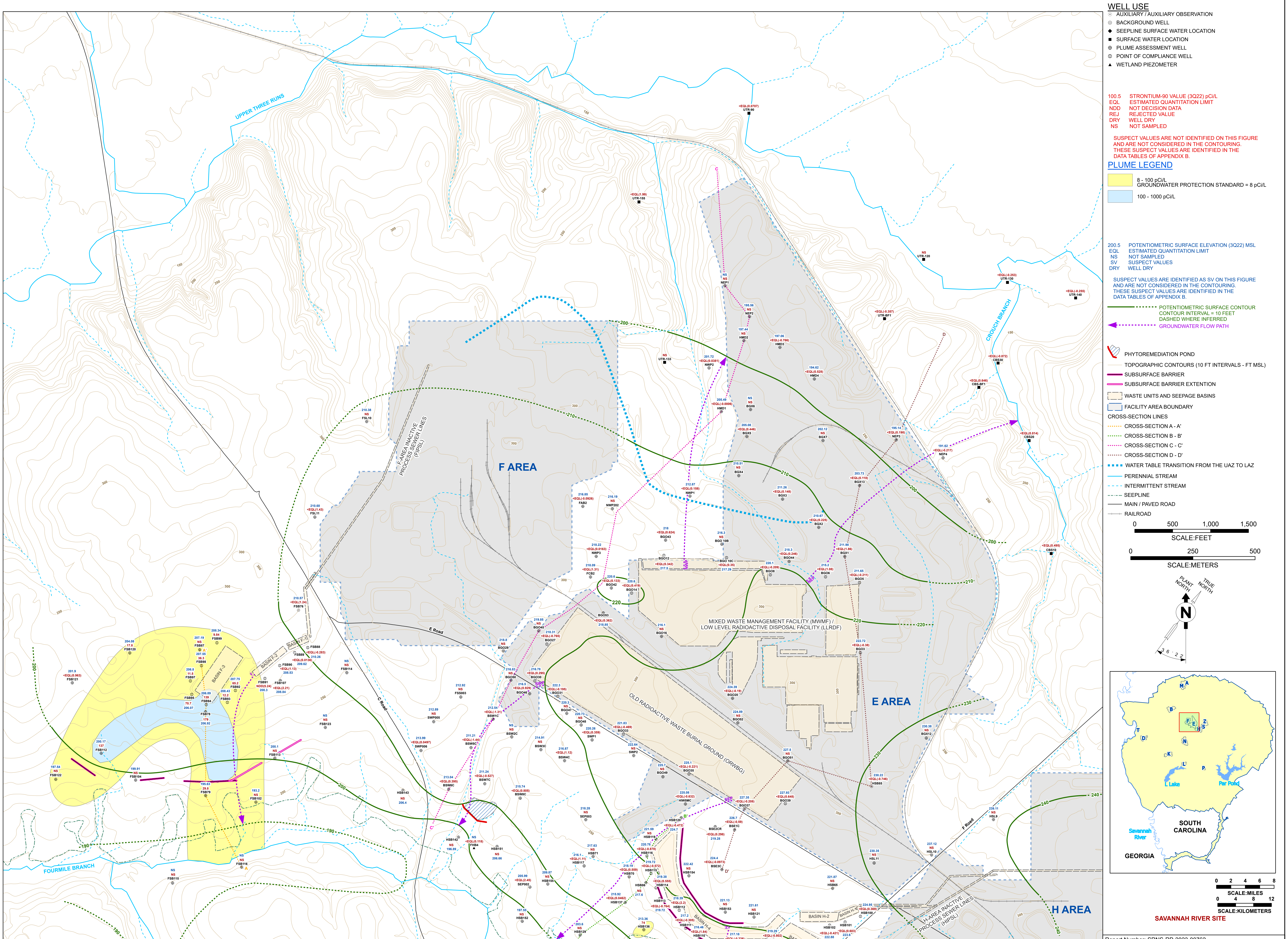
Approved By: Jeffrey Thibault

Date: August 31, 2023

Map 04A.
GSA Corrective Action Report, Strontium-90 Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 04A. GSA Corrective Action Report, Strontium-90 Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

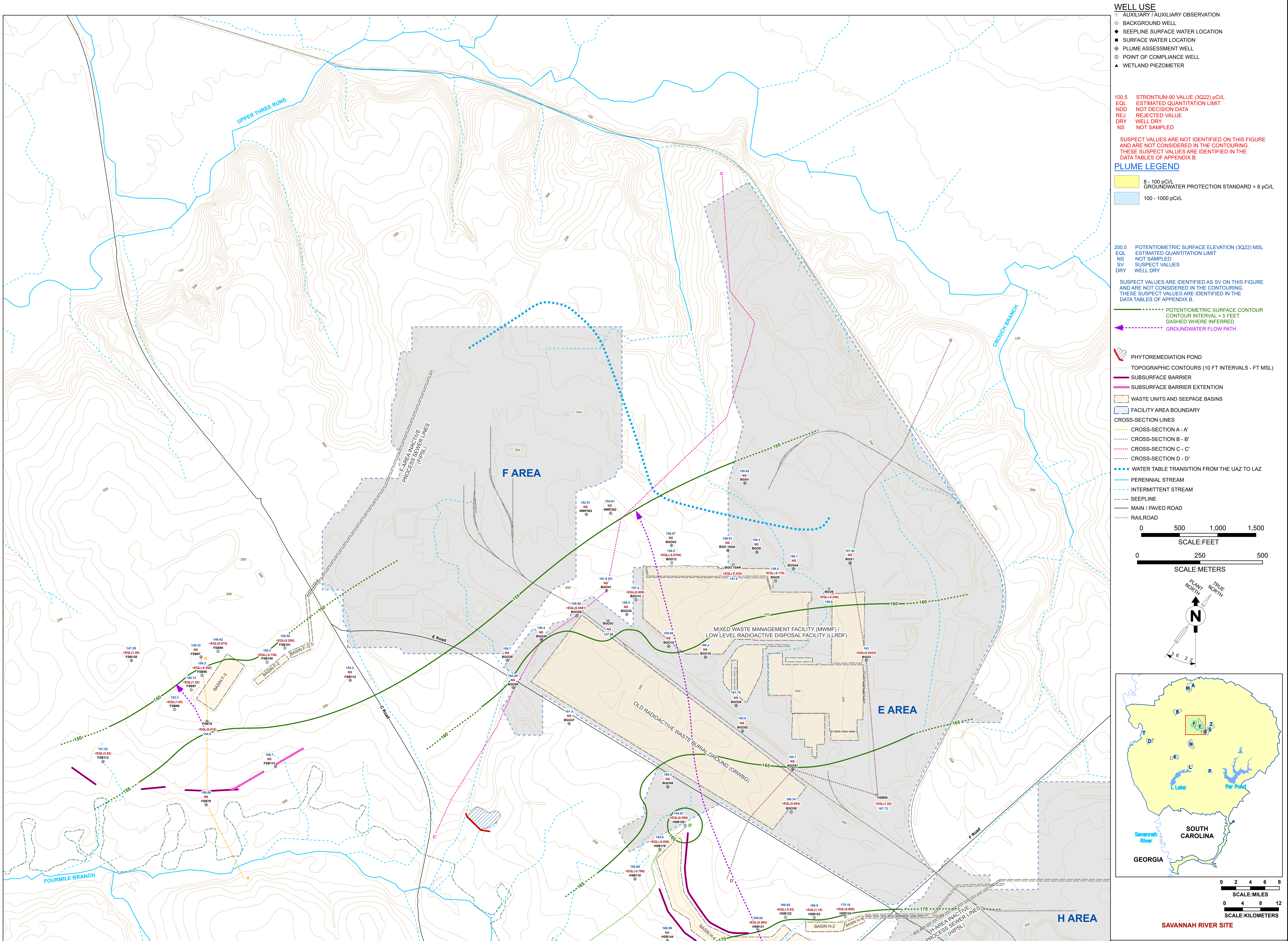
MAP04A



Report Number: SRNS-RP-2023-00762	
Prepared By: Kevin Boerstler	
Reviewed By: Ashley Shull	
Approved By: Jeffrey Thibault	
Date: August 31, 2023	

Map 04B.
GSA Corrective Action Report, Strontium-90 Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

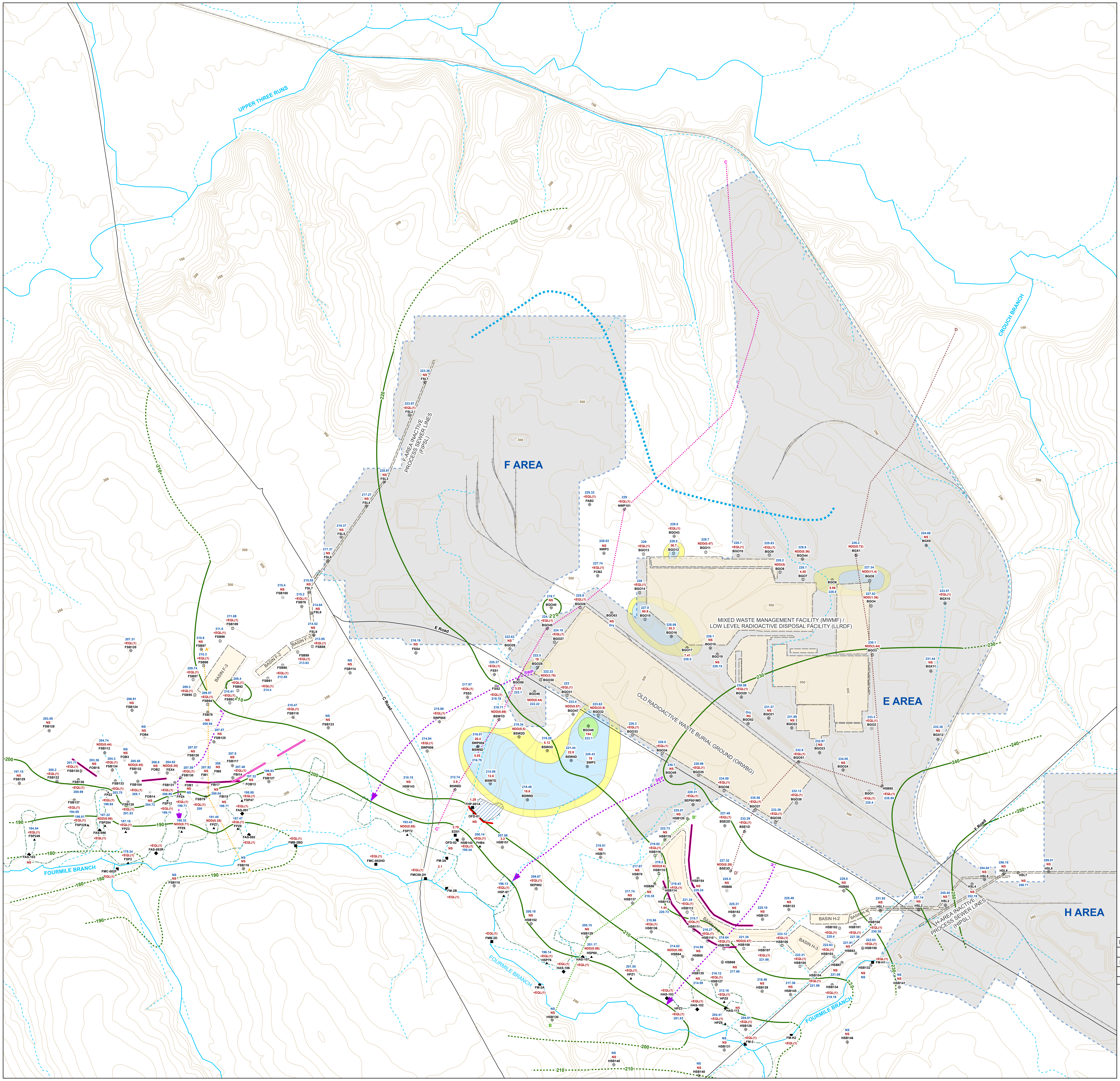
Map 04B. GSA Corrective Action Report, Strontium-90 Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022



Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 04C.
GSA Corrective Action Report, Strontium-90 Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

Map 04C. GSA Corrective Action Report, Strontium-90 Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022



WELL USE

- ⦿ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	TRICHLOROETHYLENE VALUE (3Q22) ug/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

- 🟨 5 - 10 ug/L
- 🟦 GROUNDWATER PROTECTION STANDARD = 5 ug/L 10 - 100 ug/L
- 🟩 >100 ug/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 10 FEET
DASHED WHERE INFERRED

GROUNDWATER FLOW PATH

PHYTOREMEDIATION POND

TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)

SUBSURFACE BARRIER

SUBSURFACE BARRIER EXTENTION

WASTE UNITS AND SEEPAGE BASINS

FACILITY AREA BOUNDARY

CROSS-SECTION LINES

CROSS-SECTION A - A'

CROSS-SECTION B - B'

CROSS-SECTION C - C'

CROSS-SECTION D - D'

WATER TABLE TRANSITION FROM THE UAZ TO LAZ

PERENNIAL STREAM

INTERMITTENT STREAM

SEEPLINE

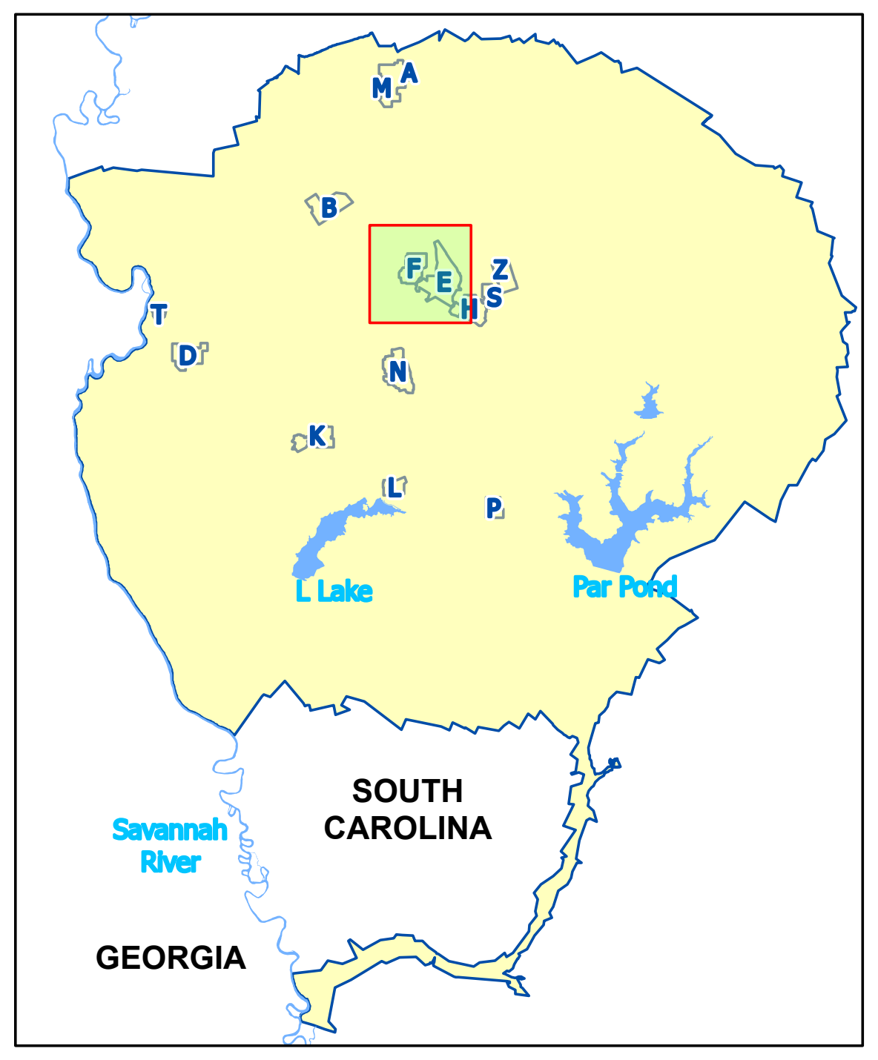
MAIN / PAVED ROAD

RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N



0 2 4 6 8
SCALE:MILES
0 4 8 12
SCALE:KILOMETERS

SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762

Prepared By: Kevin Boerstler

Reviewed By: Ashley Shull

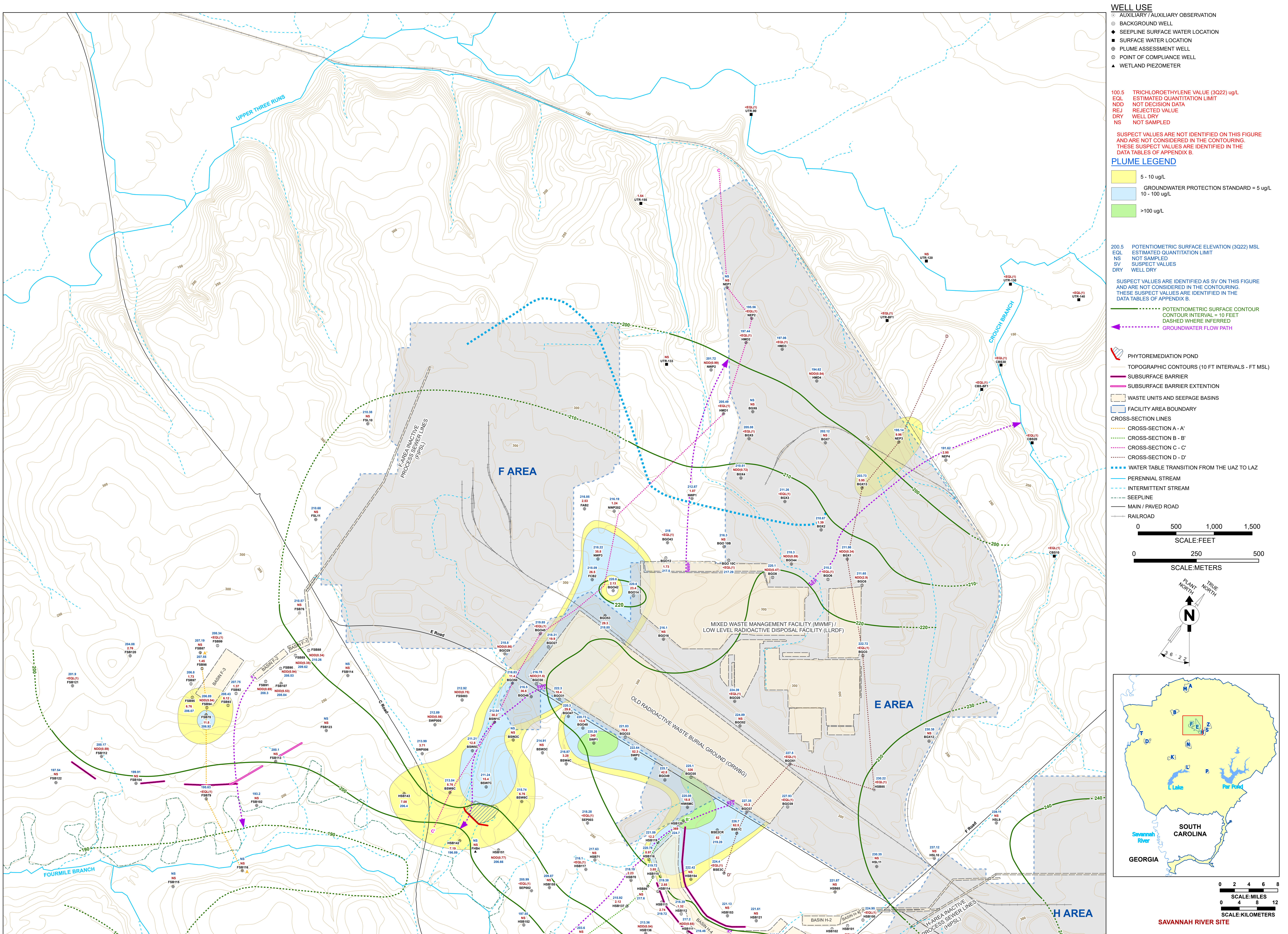
Approved By: Jeffrey Thibault

Date: August 31, 2023

Map 05A. GSA Corrective Action Report, Trichloroethylene Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 05A. GSA Corrective Action Report, Trichloroethylene Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP05A

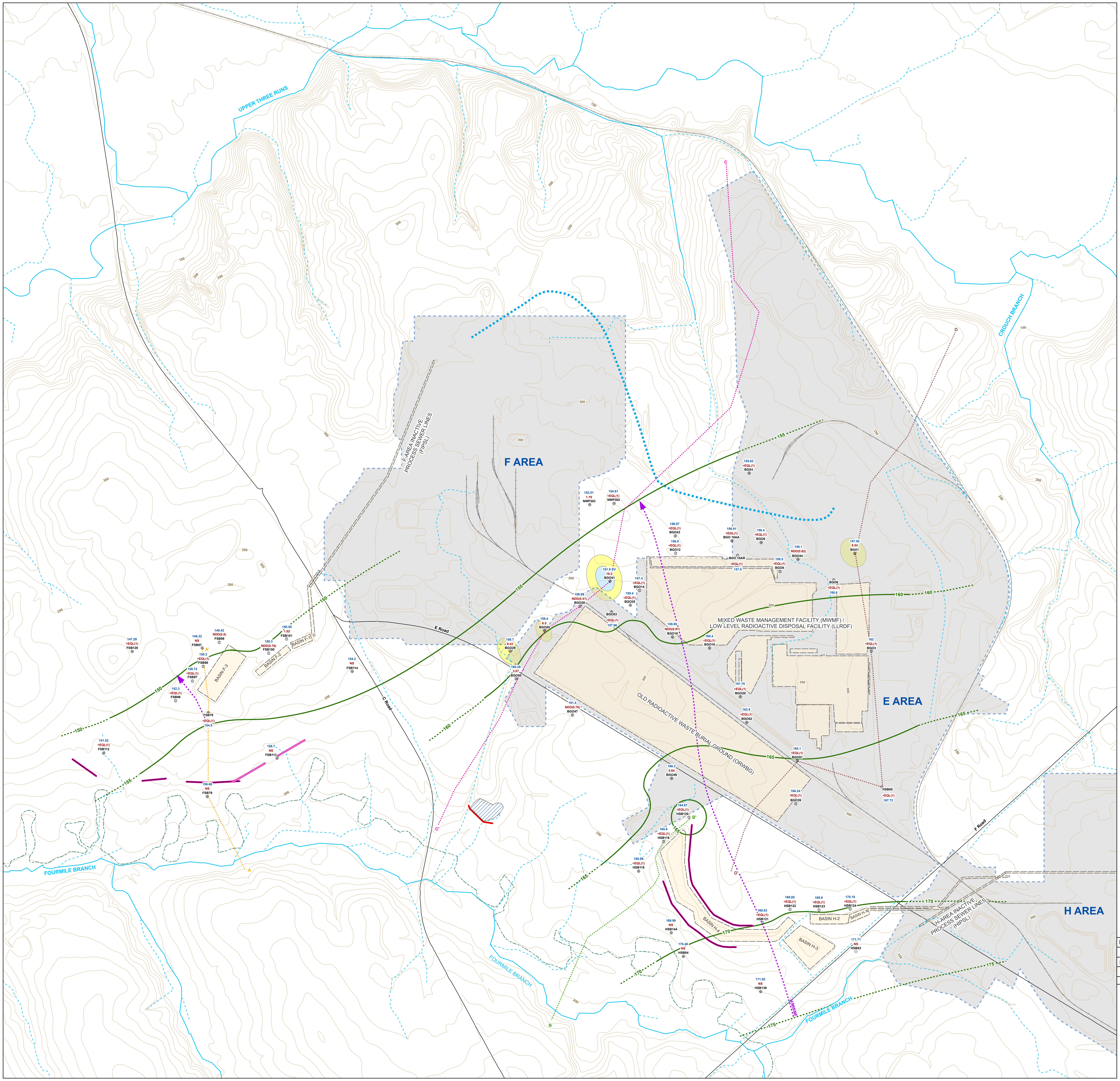


Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 05B. GSA Corrective Action Report, Trichloroethylene Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 05B. GSA Corrective Action Report, Trichloroethylene Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP05B



WELL USE

- ⊙ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	TRICHLOROETHYLENE VALUE (3Q22) ug/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

- 🟨 5 - 10 ug/L
- 🟦 GROUNDWATER PROTECTION STANDARD = 5 ug/L 10 - 100 ug/L
- 🟩 >100 ug/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

- POTENTIOMETRIC SURFACE CONTOUR CONTOUR INTERVAL = 5 FEET DASHED WHERE INFERRED
- GROUNDWATER FLOW PATH
- PHYTOREMEDIATION POND
- TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
- SUBSURFACE BARRIER
- SUBSURFACE BARRIER EXTENTION
- WASTE UNITS AND SEEPAGE BASINS
- FACILITY AREA BOUNDARY

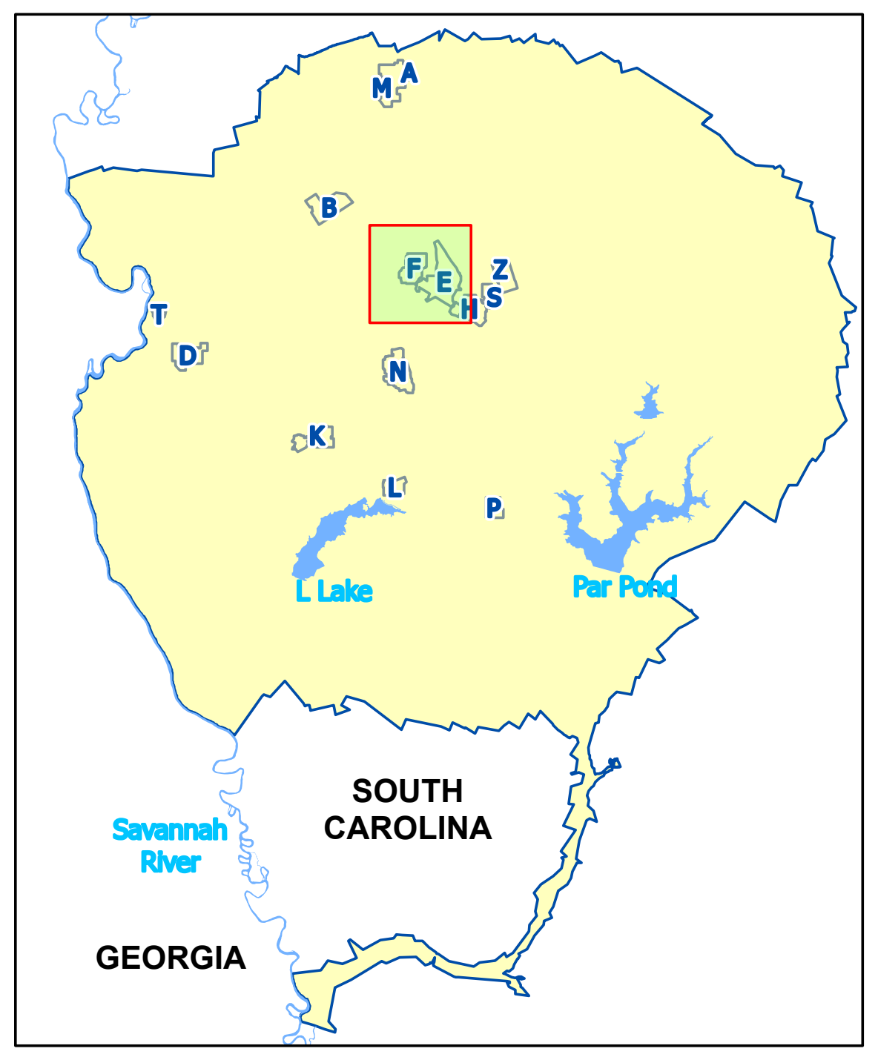
CROSS-SECTION LINES

- CROSS-SECTION A - A'
- CROSS-SECTION B - B'
- CROSS-SECTION C - C'
- CROSS-SECTION D - D'
- WATER TABLE TRANSITION FROM THE UAZ TO LAZ
- PERENNIAL STREAM
- INTERMITTENT STREAM
- SEEPLINE
- MAIN / PAVED ROAD
- RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N



0 2 4 6 8
SCALE:MILES
0 4 8 12
SCALE:KILOMETERS

SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
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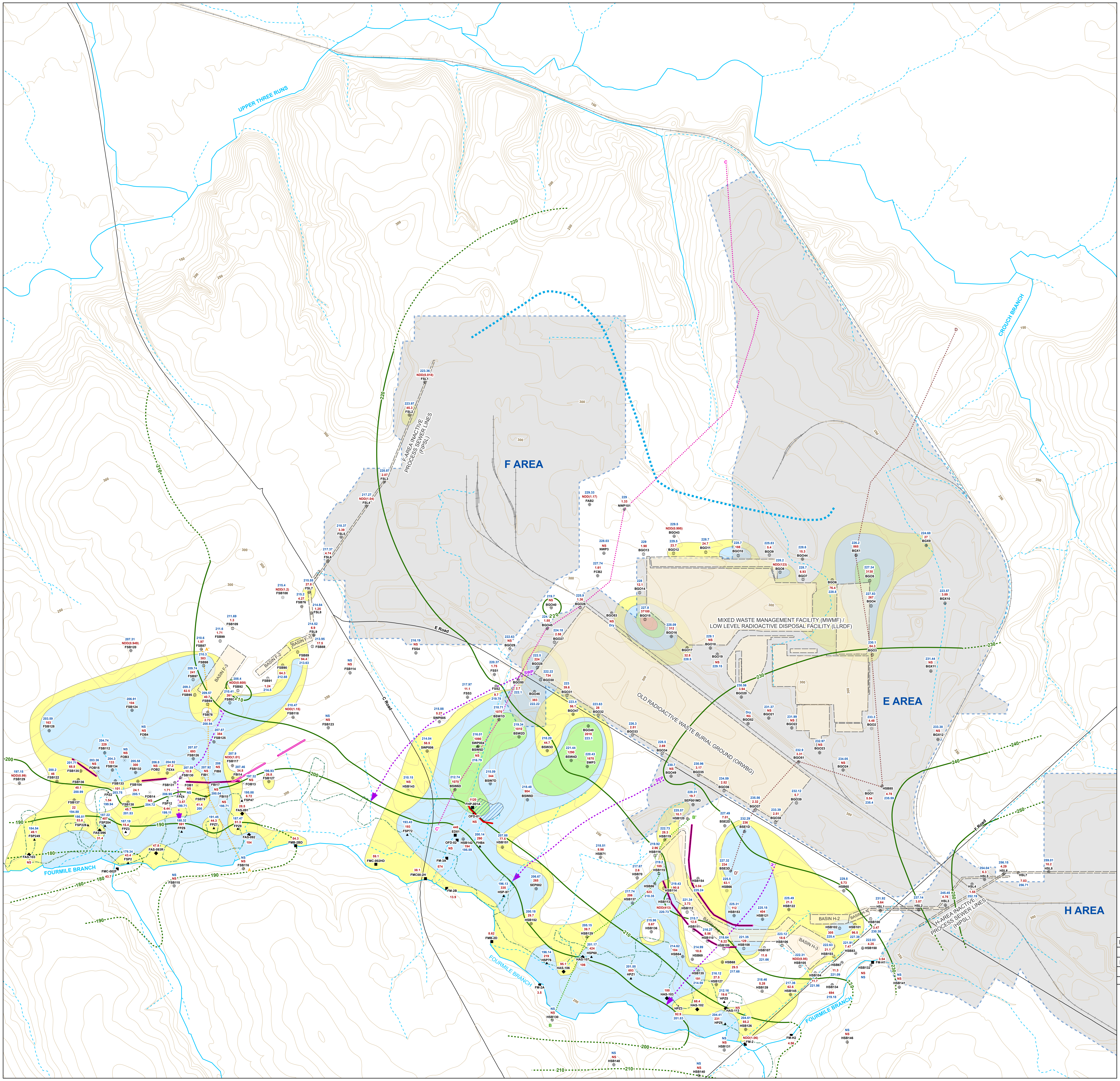
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 05C.
GSA Corrective Action Report, Trichloroethylene Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

Map 05C. GSA Corrective Action Report, Trichloroethylene Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

MAP05C



WELL USE

- ☉ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	TRITIUM VALUE (3Q22) pCi/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

- 🟨 20 - 100 pCi/mL
  GROUNDWATER PROTECTION STANDARD = 20 pCi/mL
- 🟦 100 - 1000 pCi/mL
- 🟩 1000 - 10000 pCi/mL
- 🟧 >10000 pCi/mL

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

- POTENTIOMETRIC SURFACE CONTOUR
  CONTOUR INTERVAL = 10 FEET
  DASHED WHERE INFERRED
- GROUNDWATER FLOW PATH
- PHYTOREMEDIATION POND
- TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
- SUBSURFACE BARRIER
- SUBSURFACE BARRIER EXTENTION
- WASTE UNITS AND SEEPAGE BASINS
- FACILITY AREA BOUNDARY

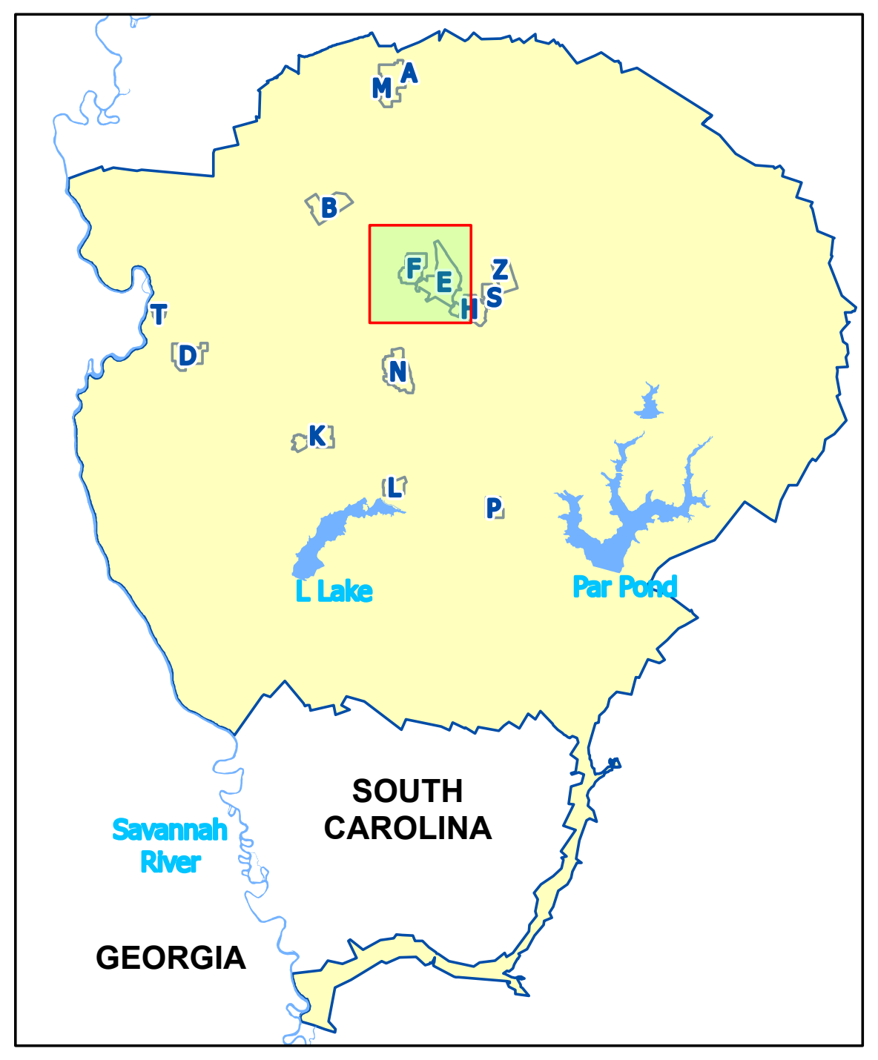
CROSS-SECTION LINES

- CROSS-SECTION A - A'
- CROSS-SECTION B - B'
- CROSS-SECTION C - C'
- CROSS-SECTION D - D'
- WATER TABLE TRANSITION FROM THE UAZ TO LAZ
- PERENNIAL STREAM
- INTERMITTENT STREAM
- SEEPLINE
- MAIN / PAVED ROAD
- RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N
36 2 2



0 2 4 6 8
SCALE:MILES
0 4 8 12
SCALE:KILOMETERS

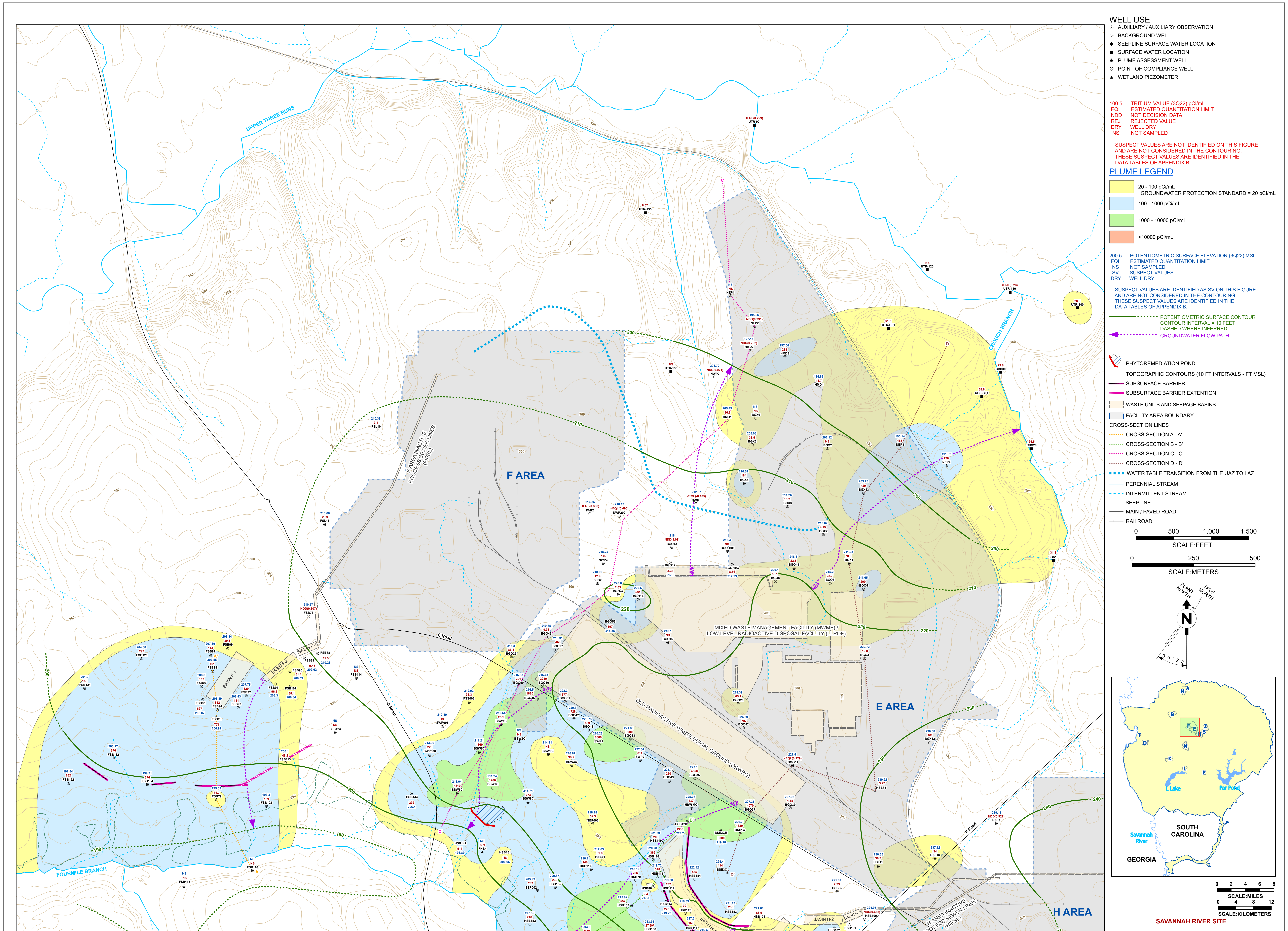
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 06A.
GSA Corrective Action Report, Tritium Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 06A. GSA Corrective Action Report, Tritium Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP06A



Report Number: SRNS-RP-2023-00762

Prepared By: Kevin Boerstler

Reviewed By: Ashley Shull

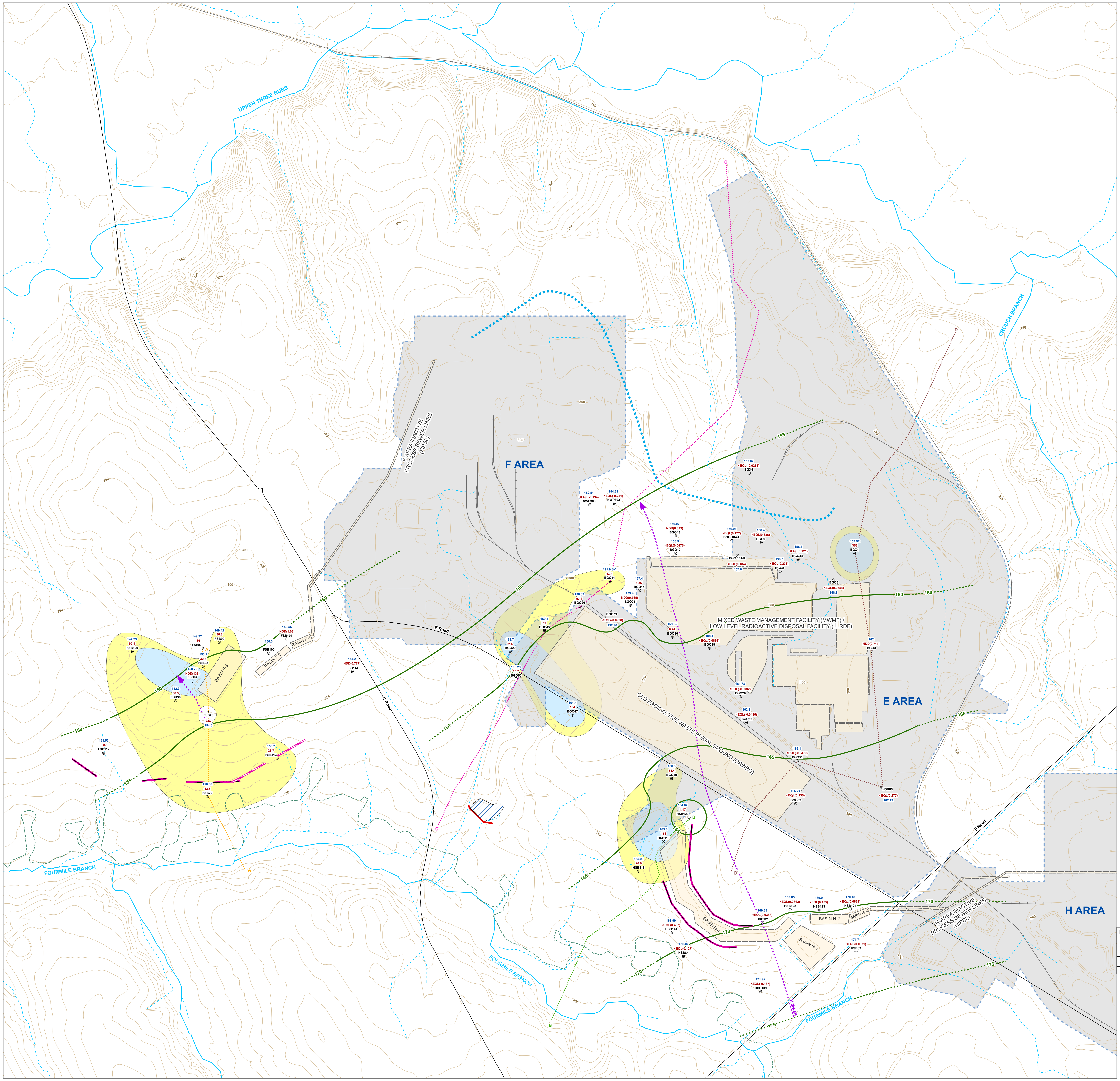
Approved By: Jeffrey Thibault

Date: August 31, 2023

Map 06B.
GSA Corrective Action Report, Tritium Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 06B. GSA Corrective Action Report, Tritium Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP06B



WELL USE
- ☉ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	TRITIUM VALUE (3Q22) pCi/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

🟨	20 - 100 pCi/mL GROUNDWATER PROTECTION STANDARD = 20 pCi/mL
🟦	100 - 1000 pCi/mL
🟩	1000 - 10000 pCi/mL
🟧	>10000 pCi/mL

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 5 FEET
DASHED WHERE INFERRED

GROUNDWATER FLOW PATH

PHYTOREMEDIATION POND
TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
SUBSURFACE BARRIER
SUBSURFACE BARRIER EXTENTION
WASTE UNITS AND SEEPAGE BASINS
FACILITY AREA BOUNDARY

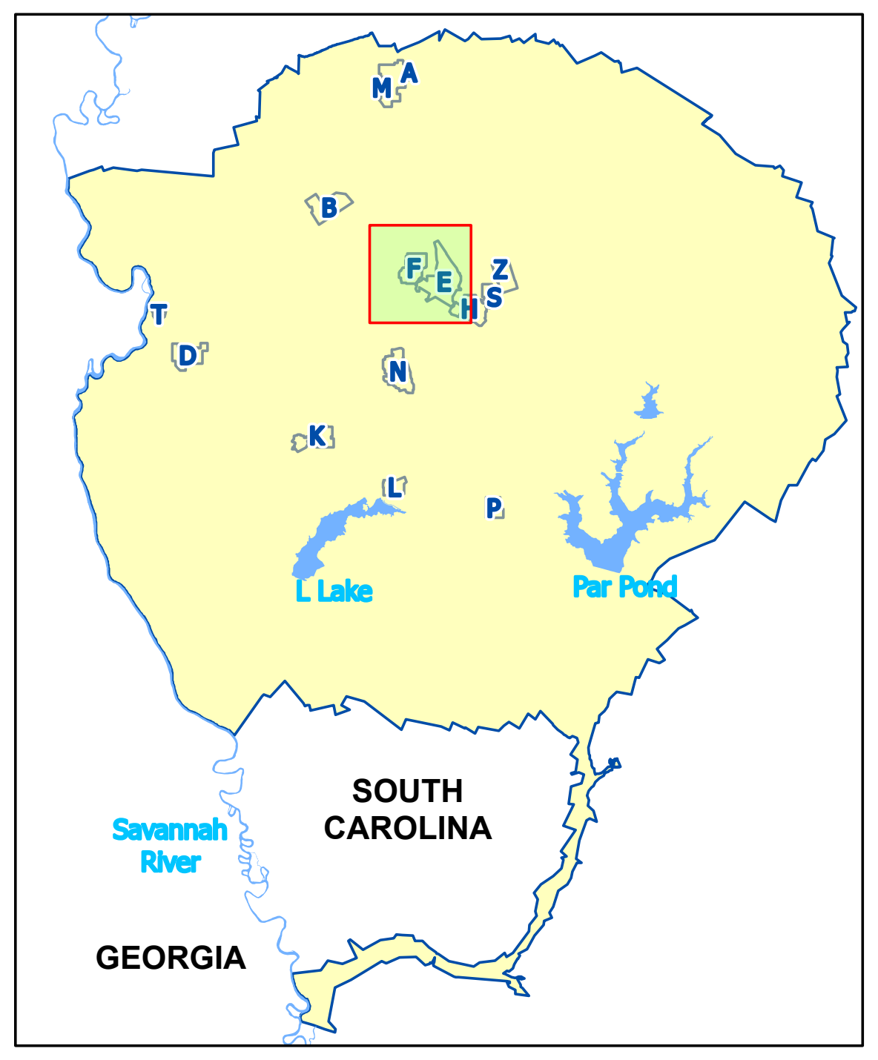
CROSS-SECTION LINES
- CROSS-SECTION A - A'
- CROSS-SECTION B - B'
- CROSS-SECTION C - C'
- CROSS-SECTION D - D'

WATER TABLE TRANSITION FROM THE UAZ TO LAZ
PERENNIAL STREAM
INTERMITTENT STREAM
SEEPLINE
MAIN / PAVED ROAD
RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N
36° 22'



0 2 4 6 8
SCALE:MILES
0 4 8 12
SCALE:KILOMETERS

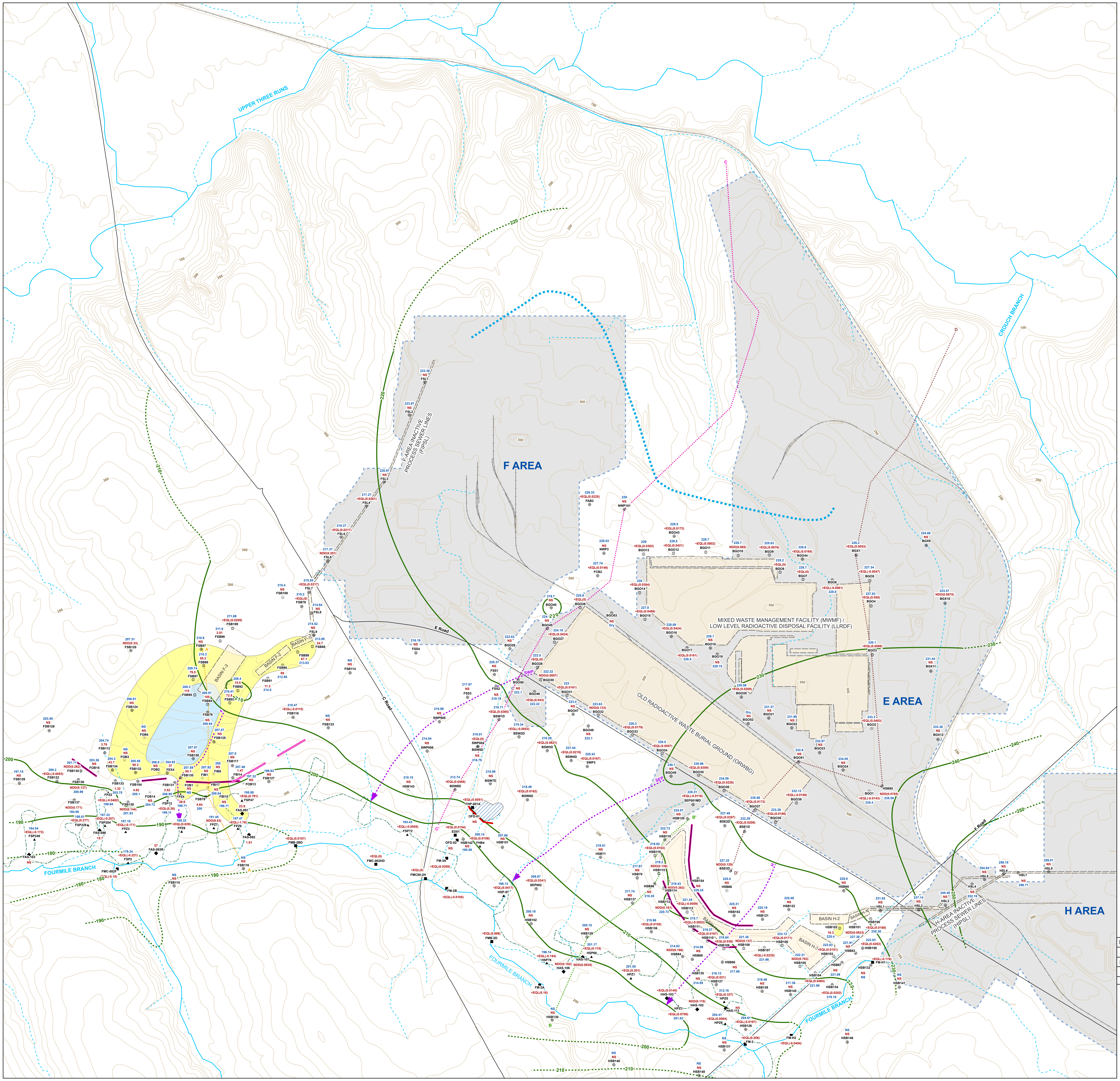
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 06C.
GSA Corrective Action Report, Tritium Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

MAP06C

Map 06C. GSA Corrective Action Report, Tritium Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022



WELL USE

- ☉ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	URANIUM-238 VALUE (3Q22) pCi/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

- 🟨 15 - 100 pCi/L
- 🟦 GROUNDWATER PROTECTION STANDARD = 15 pCi/L >100 pCi/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

- POTENTIOMETRIC SURFACE CONTOUR CONTOUR INTERVAL = 10 FEET DASHED WHERE INFERRED
- GROUNDWATER FLOW PATH
- PHYTOREMEDIATION POND
- TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
- SUBSURFACE BARRIER
- SUBSURFACE BARRIER EXTENTION
- WASTE UNITS AND SEEPAGE BASINS
- FACILITY AREA BOUNDARY

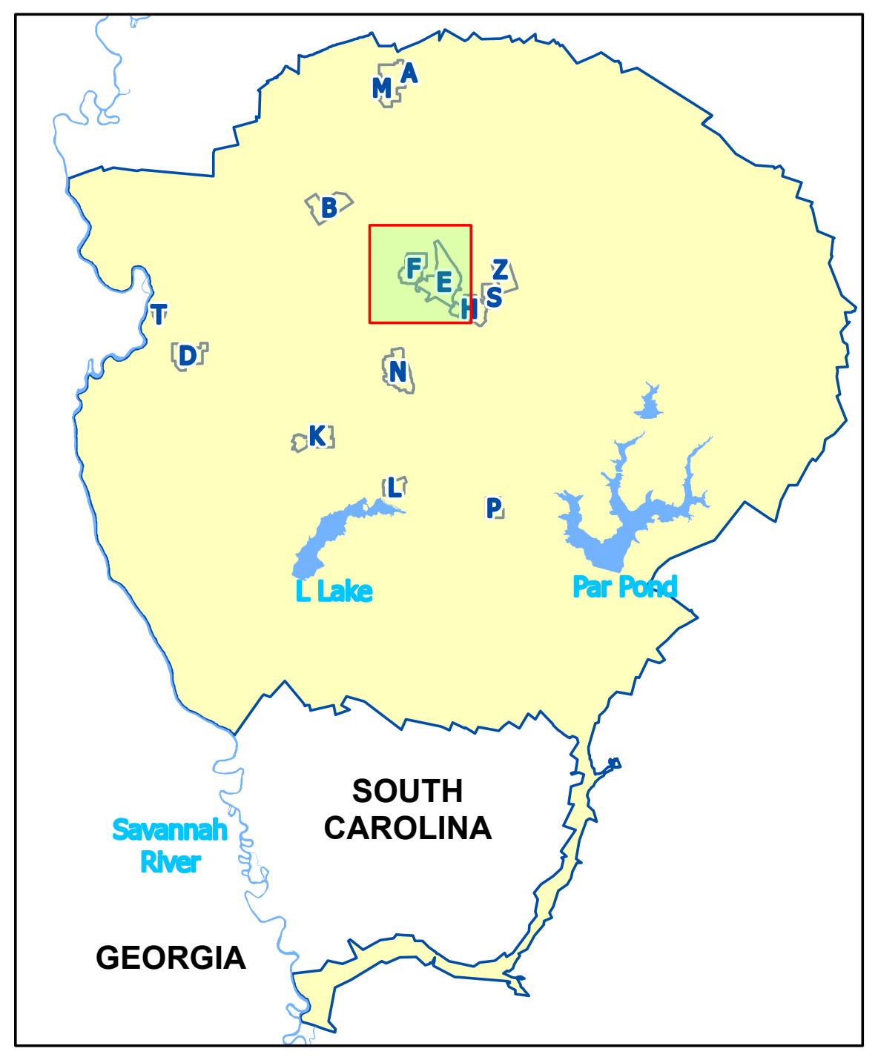
CROSS-SECTION LINES

- CROSS-SECTION A - A'
- CROSS-SECTION B - B'
- CROSS-SECTION C - C'
- CROSS-SECTION D - D'
- WATER TABLE TRANSITION FROM THE UAZ TO LAZ
- PERENNIAL STREAM
- INTERMITTENT STREAM
- SEEPLINE
- MAIN / PAVED ROAD
- RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N



0 2 4 6 8
SCALE:MILES
0 4 8 12
SCALE:KILOMETERS

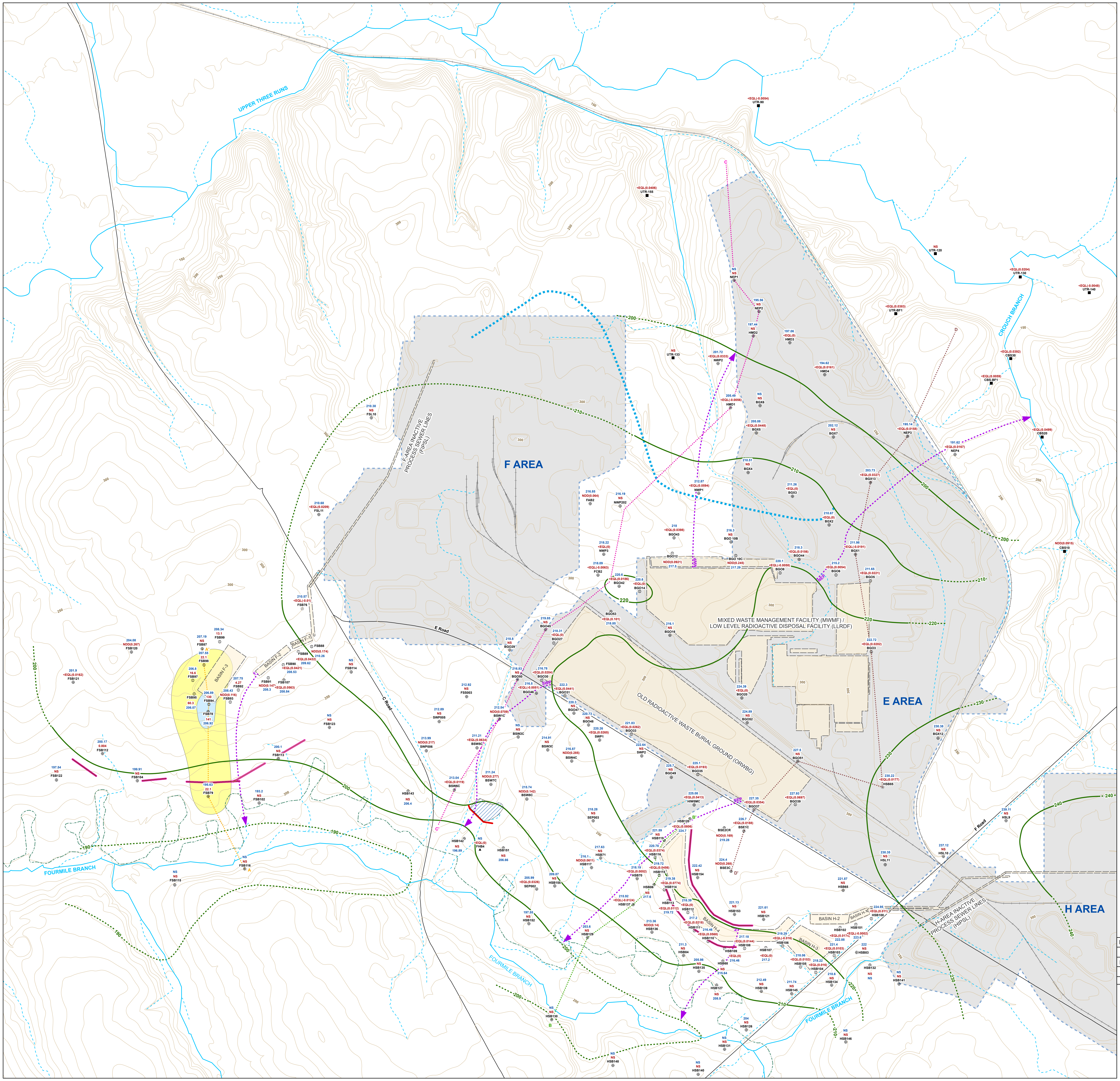
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 07A.
GSA Corrective Action Report, Uranium-238 Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 07A. GSA Corrective Action Report, Uranium-238 Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP07A



WELL USE

- ⊙ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	URANIUM-238 VALUE (3Q22) pCi/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

🟨 15 - 100 pCi/L

GROUNDWATER PROTECTION STANDARD = 15 pCi/L

🟦 >100 pCi/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 10 FEET
DASHED WHERE INFERRED

GROUNDWATER FLOW PATH

PHYTOREMEDIATION POND

TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)

SUBSURFACE BARRIER

SUBSURFACE BARRIER EXTENTION

WASTE UNITS AND SEEPAGE BASINS

FACILITY AREA BOUNDARY

CROSS-SECTION LINES

CROSS-SECTION A - A'

CROSS-SECTION B - B'

CROSS-SECTION C - C'

CROSS-SECTION D - D'

WATER TABLE TRANSITION FROM THE UAZ TO LAZ

PERENNIAL STREAM

INTERMITTENT STREAM

SEEPLINE

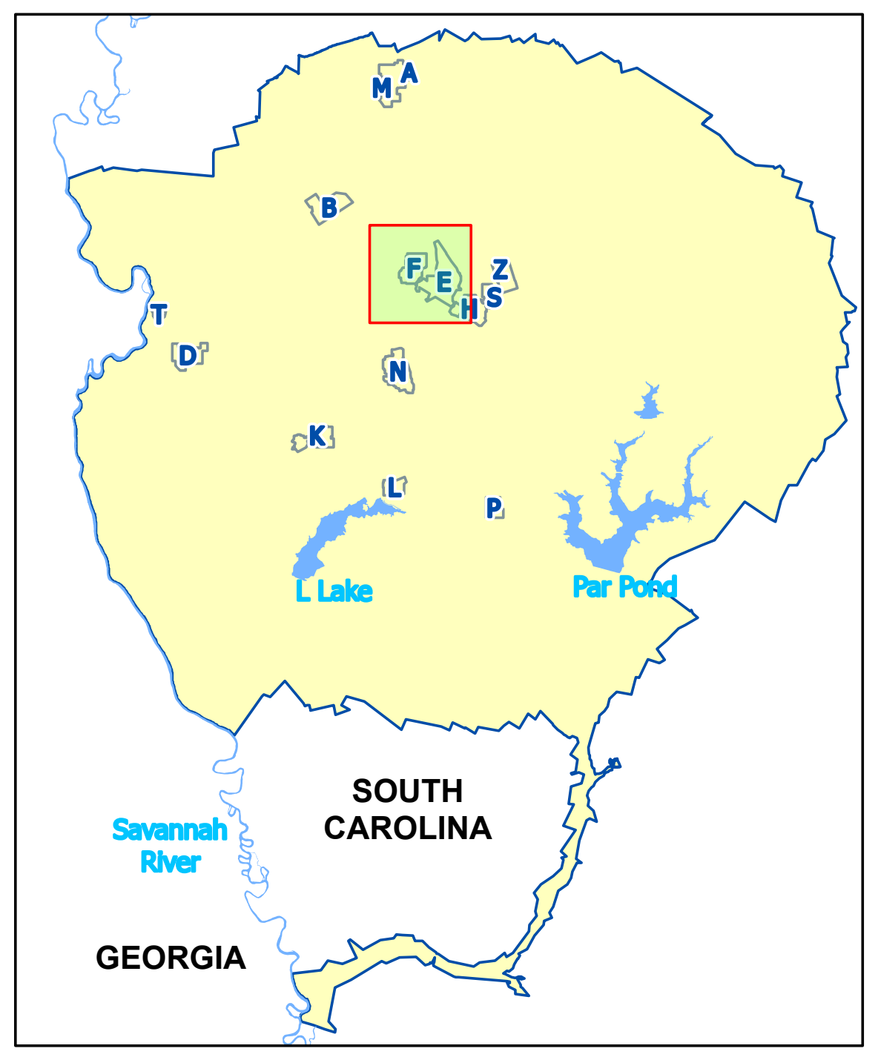
MAIN / PAVED ROAD

RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N
36 22



0 2 4 6 8
SCALE:MILES
0 4 8 12
SCALE:KILOMETERS

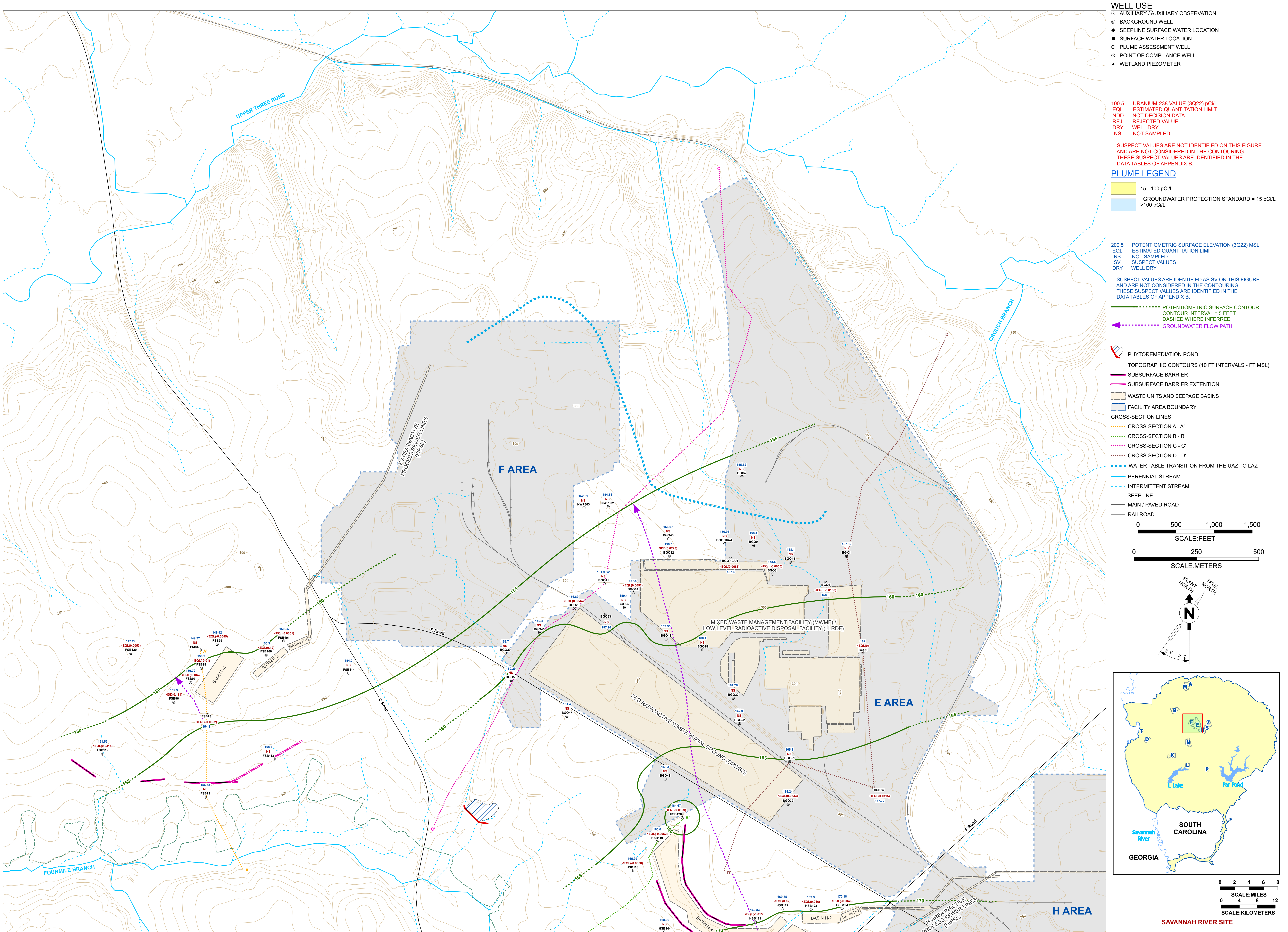
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 07B. GSA Corrective Action Report, Uranium-238 Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 07B. GSA Corrective Action Report, Uranium-238 Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP07B

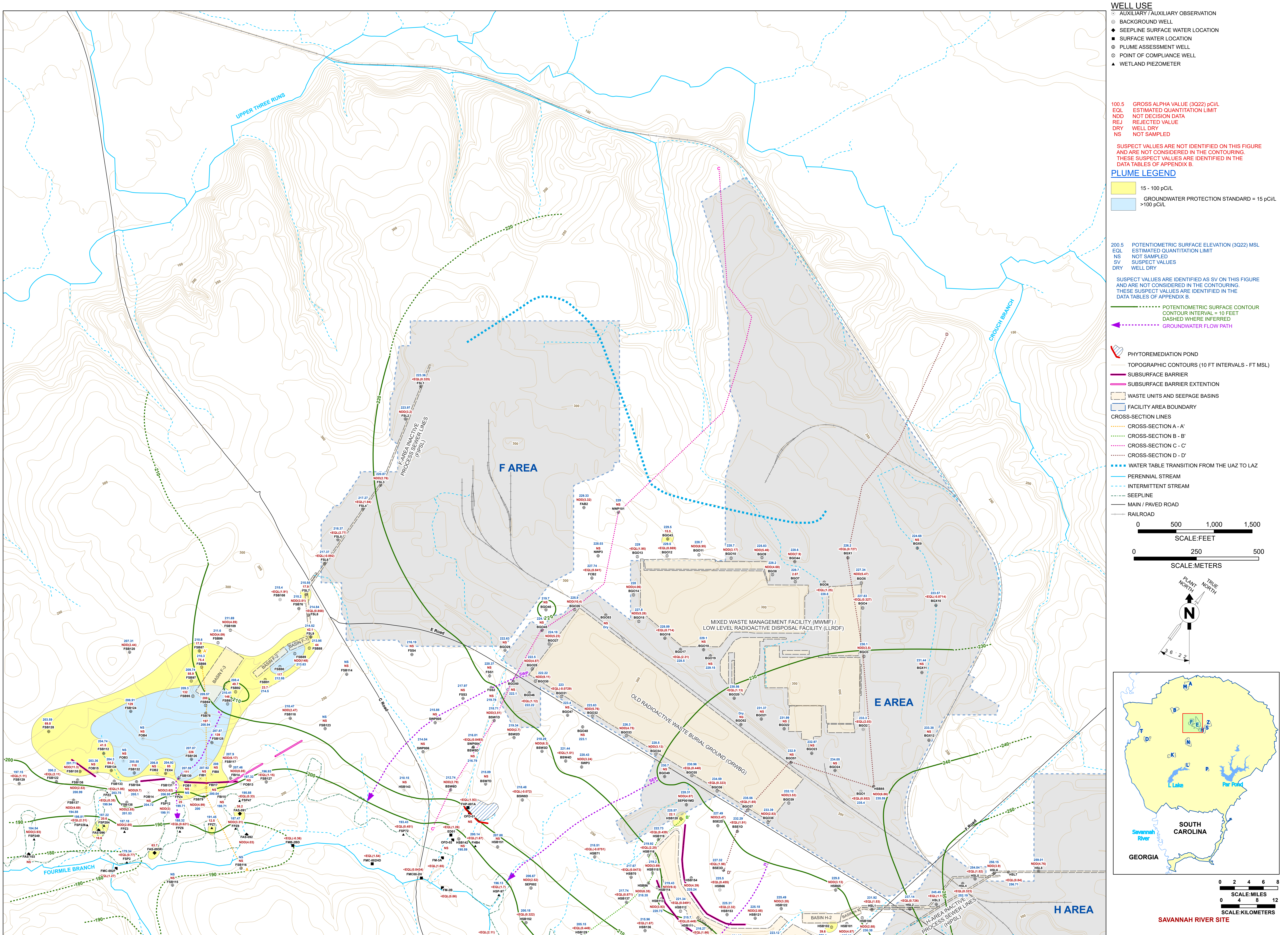


Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 07C. GSA Corrective Action Report, Uranium-238 Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

Map 07C. GSA Corrective Action Report, Uranium-238 Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

MAP07C



Report Number: SRNS-RP-2023-00762

Prepared By: Kevin Boerstler

Reviewed By: Ashley Shull

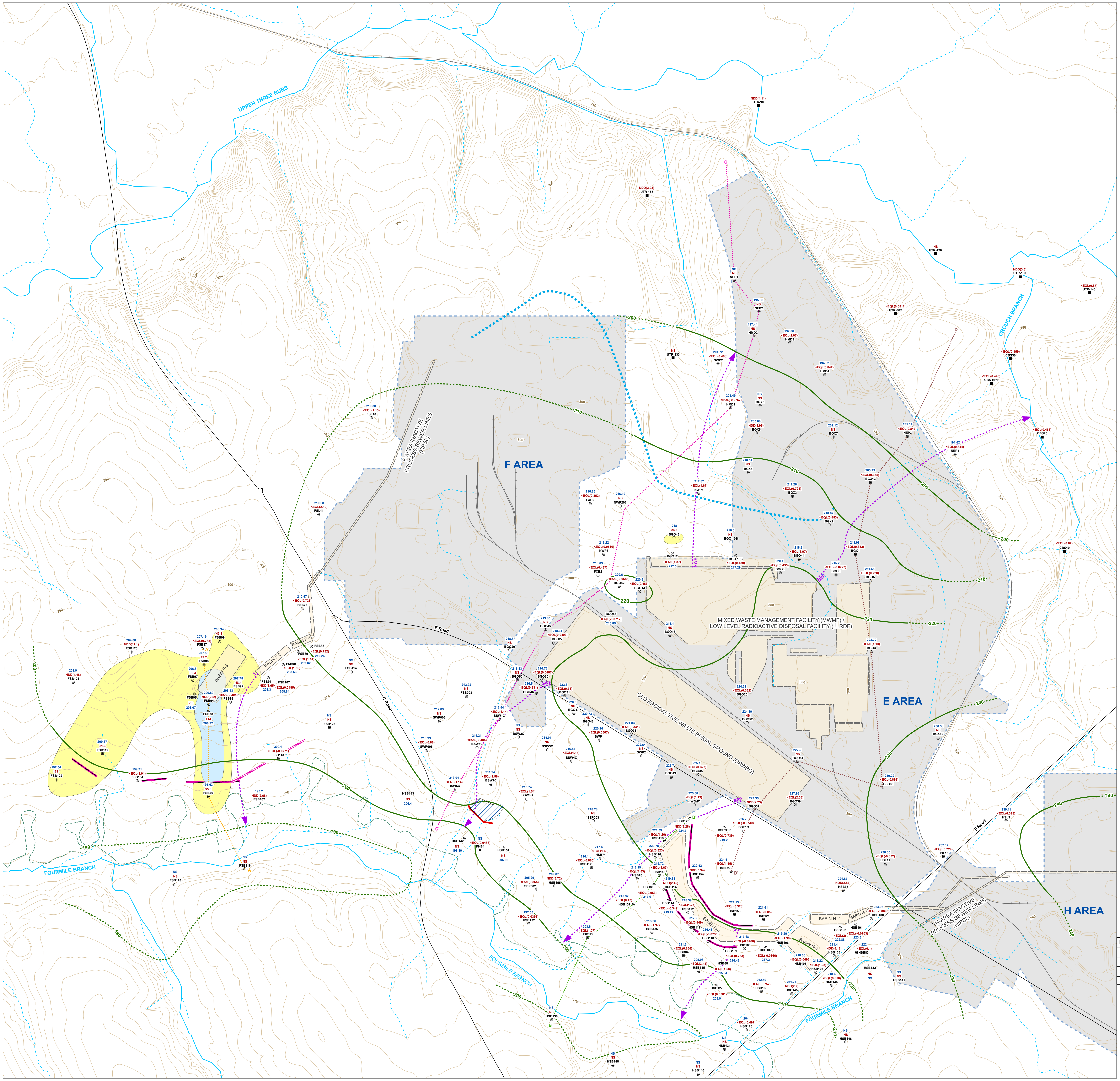
Approved By: Jeffrey Thibault

Date: August 31, 2023

Map 08A.
GSA Corrective Action Report, Gross Alpha Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 08A. GSA Corrective Action Report, Gross Alpha Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP08A



WELL USE
☉ AUXILIARY / AUXILIARY OBSERVATION
◎ BACKGROUND WELL
◆ SEEPLINE SURFACE WATER LOCATION
■ SURFACE WATER LOCATION
⊕ PLUME ASSESSMENT WELL
⊗ POINT OF COMPLIANCE WELL
▲ WETLAND PIEZOMETER

100.5	GROSS ALPHA VALUE (3Q22) pCi/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND
🟨 15 - 100 pCi/L
GROUNDWATER PROTECTION STANDARD = 15 pCi/L
🟦 >100 pCi/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

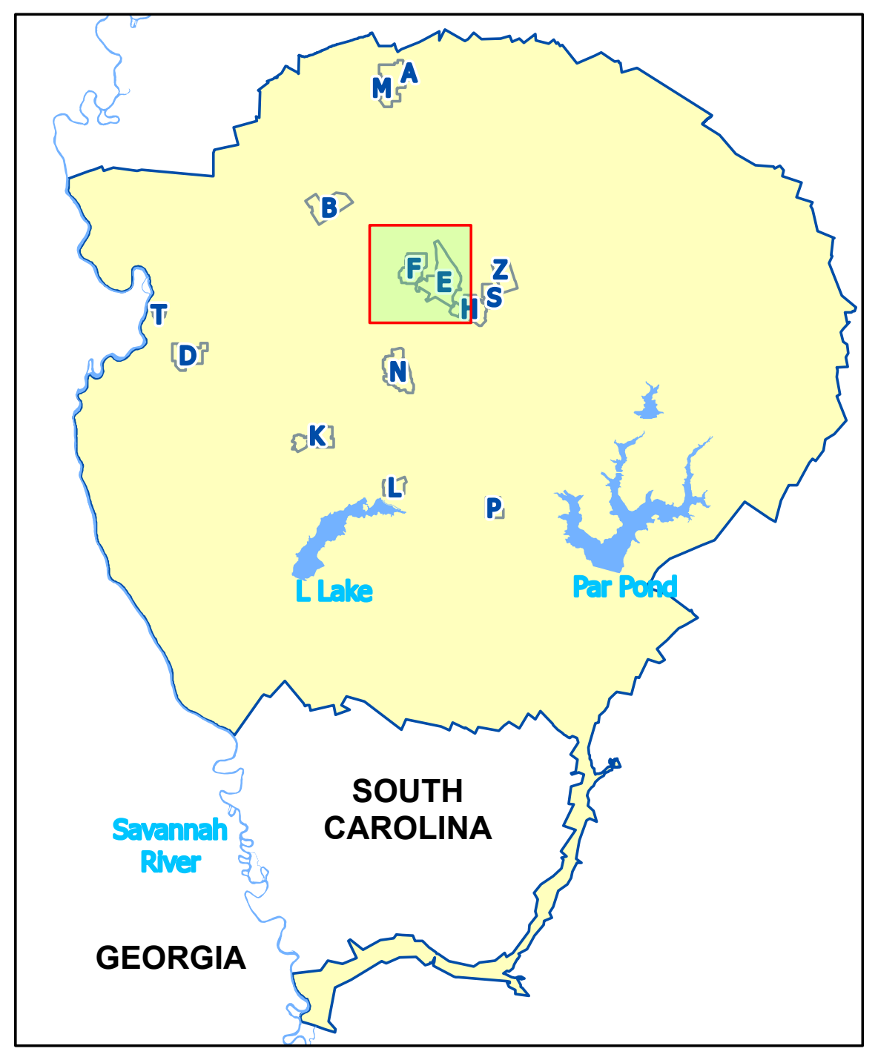
POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 10 FEET
DASHED WHERE INFERRED
GROUNDWATER FLOW PATH

PHYTOREMEDIATION POND
TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
SUBSURFACE BARRIER
SUBSURFACE BARRIER EXTENTION
WASTE UNITS AND SEEPAGE BASINS
FACILITY AREA BOUNDARY
CROSS-SECTION LINES
CROSS-SECTION A - A'
CROSS-SECTION B - B'
CROSS-SECTION C - C'
CROSS-SECTION D - D'
WATER TABLE TRANSITION FROM THE UAZ TO LAZ
PERENNIAL STREAM
INTERMITTENT STREAM
SEEPLINE
MAIN / PAVED ROAD
RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N



0 2 4 6 8
SCALE:MILES
0 4 8 12
SCALE:KILOMETERS

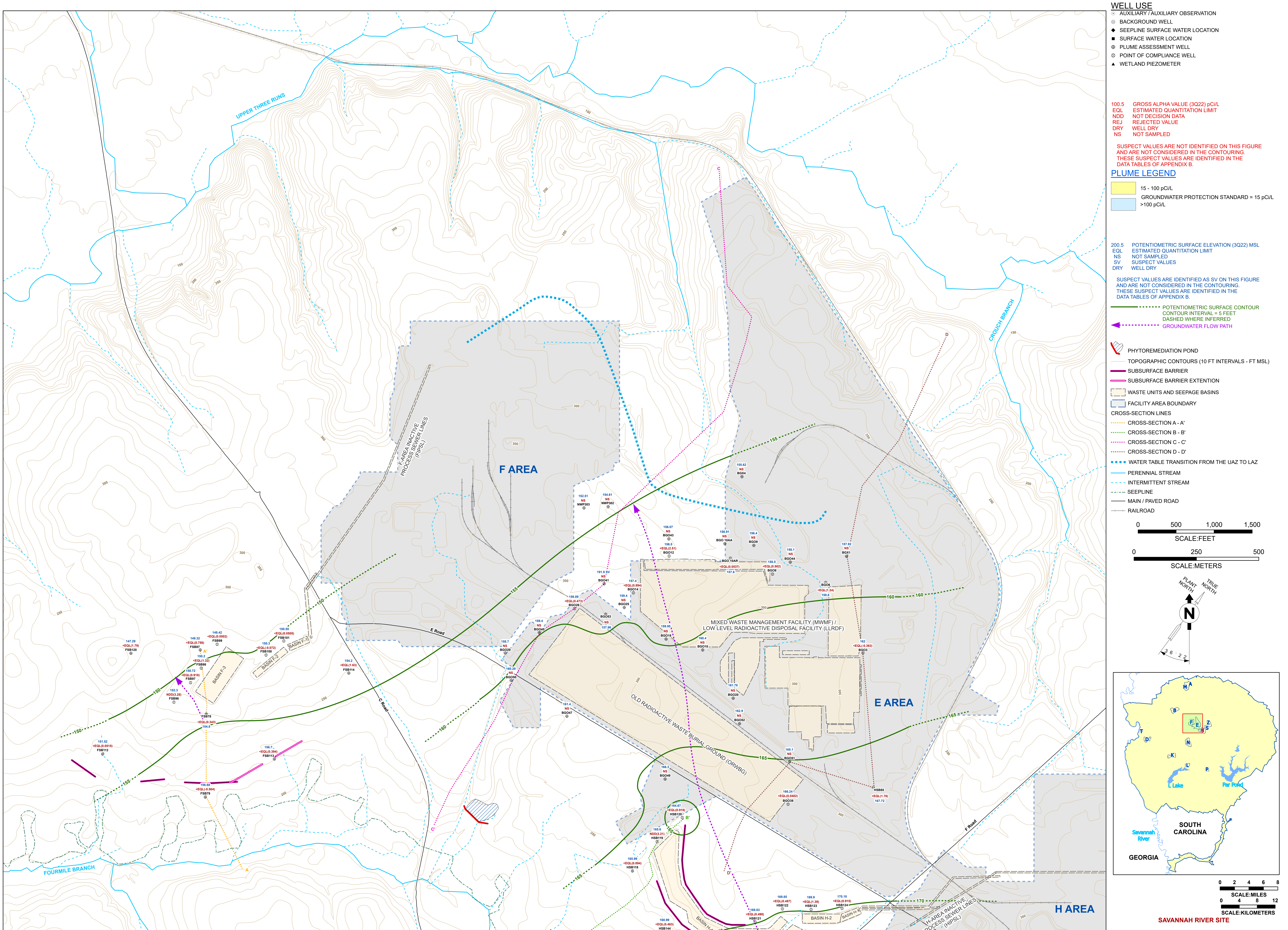
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 08B.
GSA Corrective Action Report, Gross Alpha Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 08B. GSA Corrective Action Report, Gross Alpha Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP08B



Report Number: SRNS-RP-2023-00762

Prepared By: Kevin Boerstler

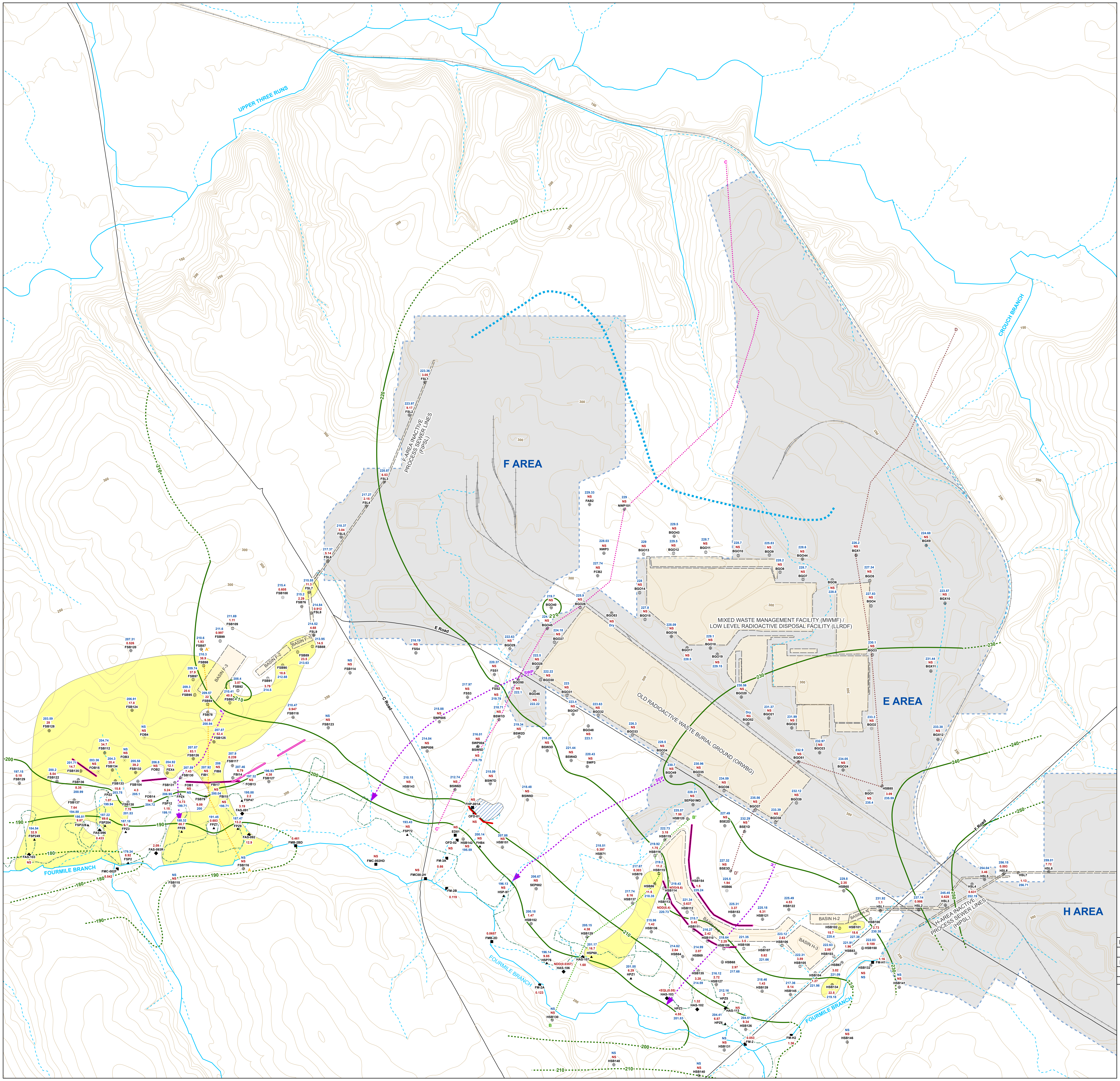
Reviewed By: Ashley Shull

Approved By: Jeffrey Thibault

Date: August 31, 2023

Map 08C.
GSA Corrective Action Report, Gross Alpha Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

Map 08C. GSA Corrective Action Report, Gross Alpha Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022



WELL USE

- ⦿ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	NITRATE-NITRITE (3Q22) mg/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

🟨	10 - 100 mg/L
🟦	>100 mg/L

GROUNDWATER PROTECTION STANDARD = 10 mg/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 10 FEET
DASHED WHERE INFERRED

GROUNDWATER FLOW PATH

PHYTOREMEDIATION POND

TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)

SUBSURFACE BARRIER

SUBSURFACE BARRIER EXTENTION

WASTE UNITS AND SEEPAGE BASINS

FACILITY AREA BOUNDARY

CROSS-SECTION LINES

CROSS-SECTION A - A'

CROSS-SECTION B - B'

CROSS-SECTION C - C'

CROSS-SECTION D - D'

WATER TABLE TRANSITION FROM THE UAZ TO LAZ

PERENNIAL STREAM

INTERMITTENT STREAM

SEEPLINE

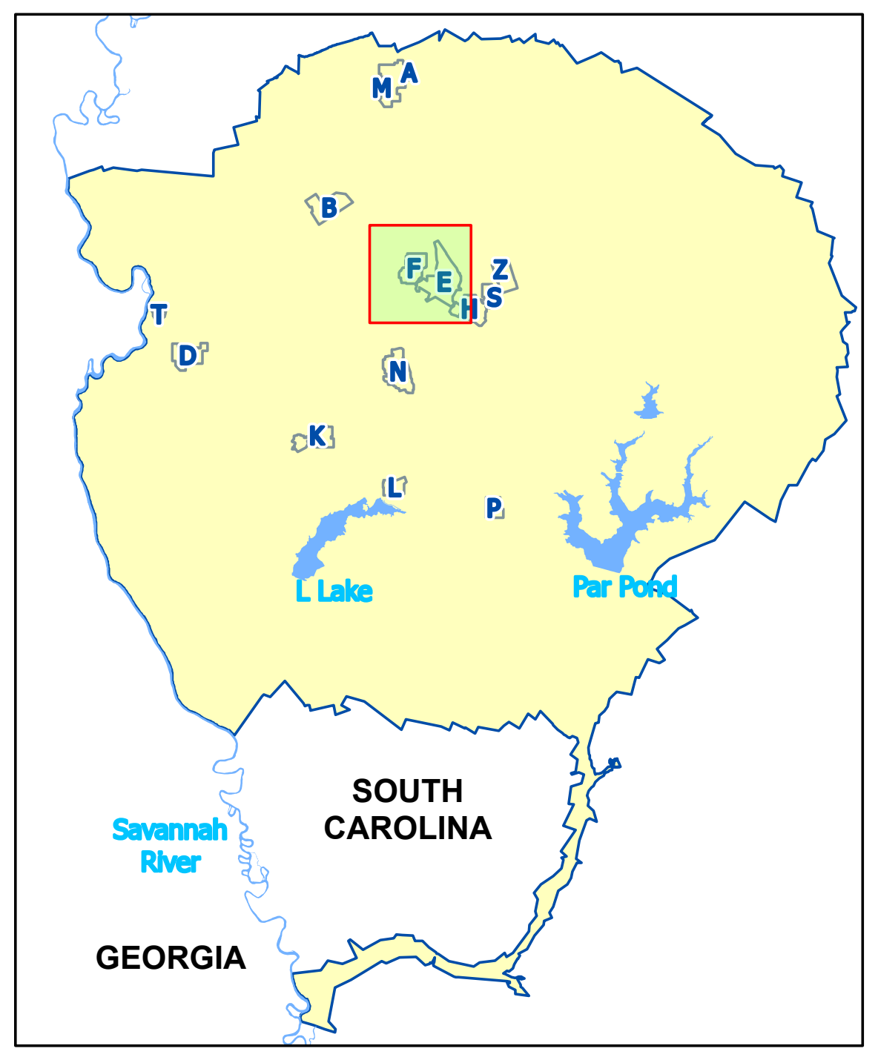
MAIN / PAVED ROAD

RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N
36° 22'



0 2 4 6 8
SCALE:MILES
0 4 8 12
SCALE:KILOMETERS

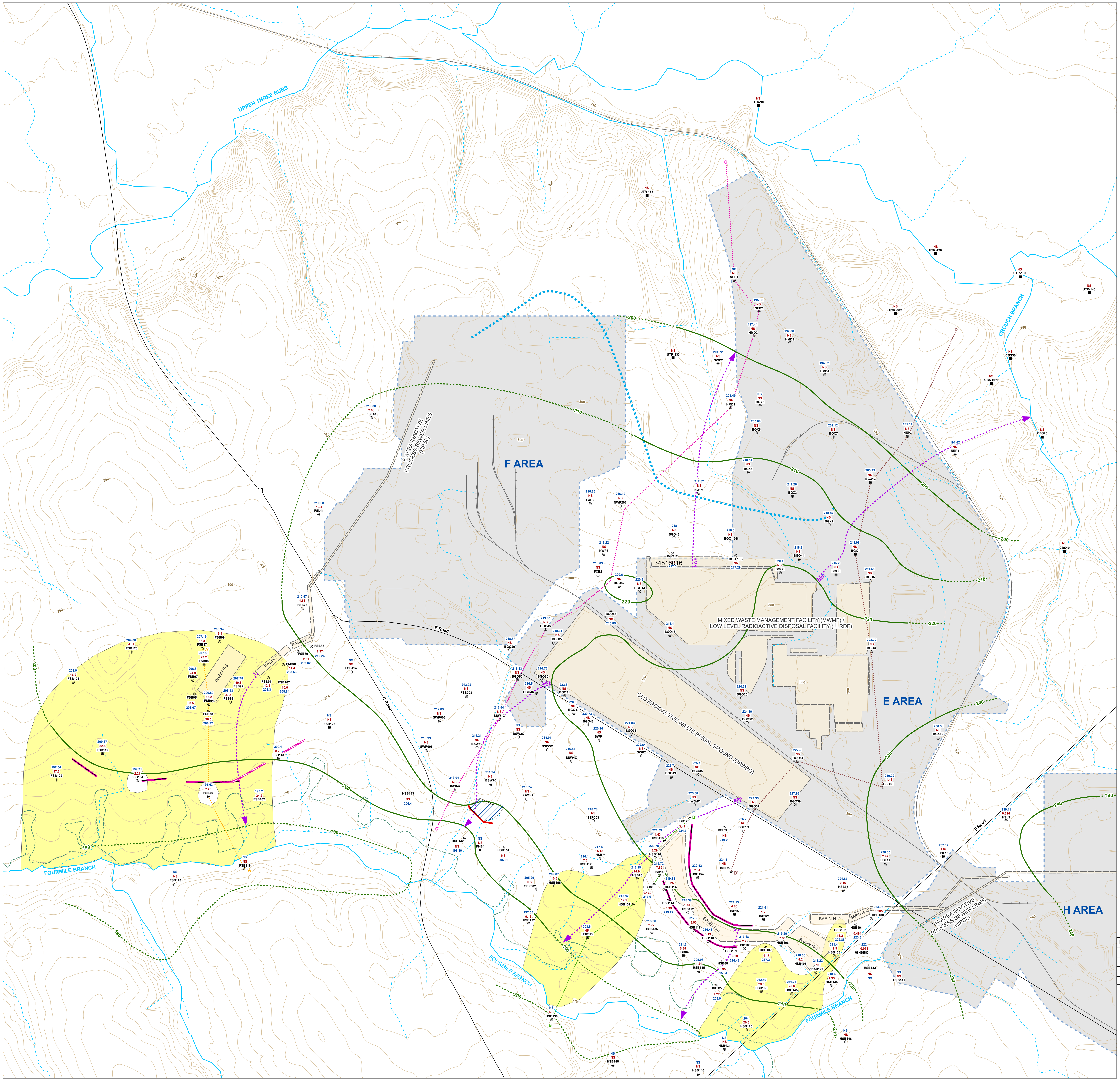
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 09A. GSA Corrective Action Report, Nitrate-Nitrite Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 09A. GSA Corrective Action Report, Nitrate-Nitrite Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP09A



WELL USE

- ⦿ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	NITRATE-NITRITE (3Q22) mg/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

- 🟨 10 - 100 mg/L
- 🟦 >100 mg/L

GROUNDWATER PROTECTION STANDARD = 10 mg/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 10 FEET
DASHED WHERE INFERRED

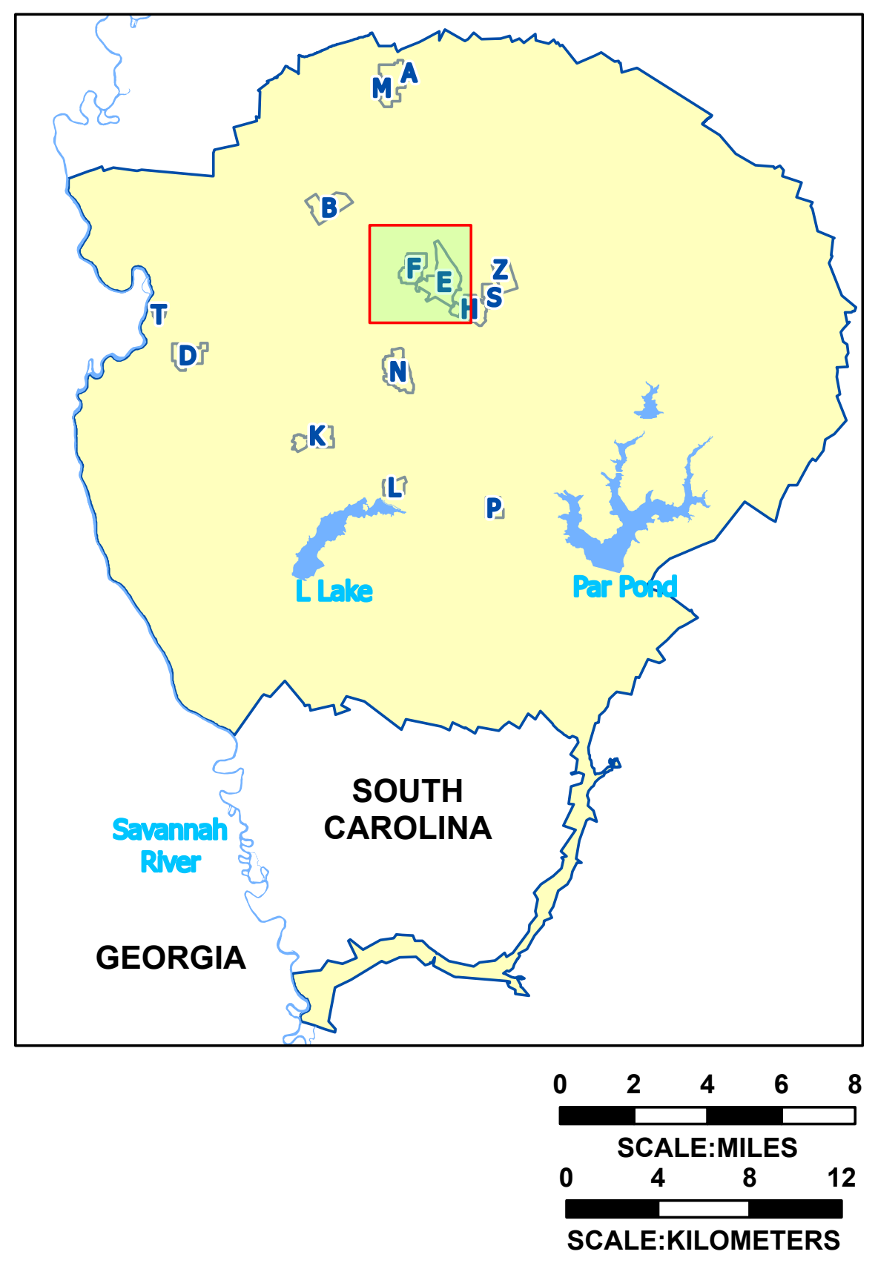
GROUNDWATER FLOW PATH

PHYTOREMEDIATION POND
TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
SUBSURFACE BARRIER
SUBSURFACE BARRIER EXTENTION
WASTE UNITS AND SEEPAGE BASINS
FACILITY AREA BOUNDARY
CROSS-SECTION LINES
CROSS-SECTION A - A'
CROSS-SECTION B - B'
CROSS-SECTION C - C'
CROSS-SECTION D - D'
WATER TABLE TRANSITION FROM THE UAZ TO LAZ
PERENNIAL STREAM
INTERMITTENT STREAM
SEEPLINE
MAIN / PAVED ROAD
RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N



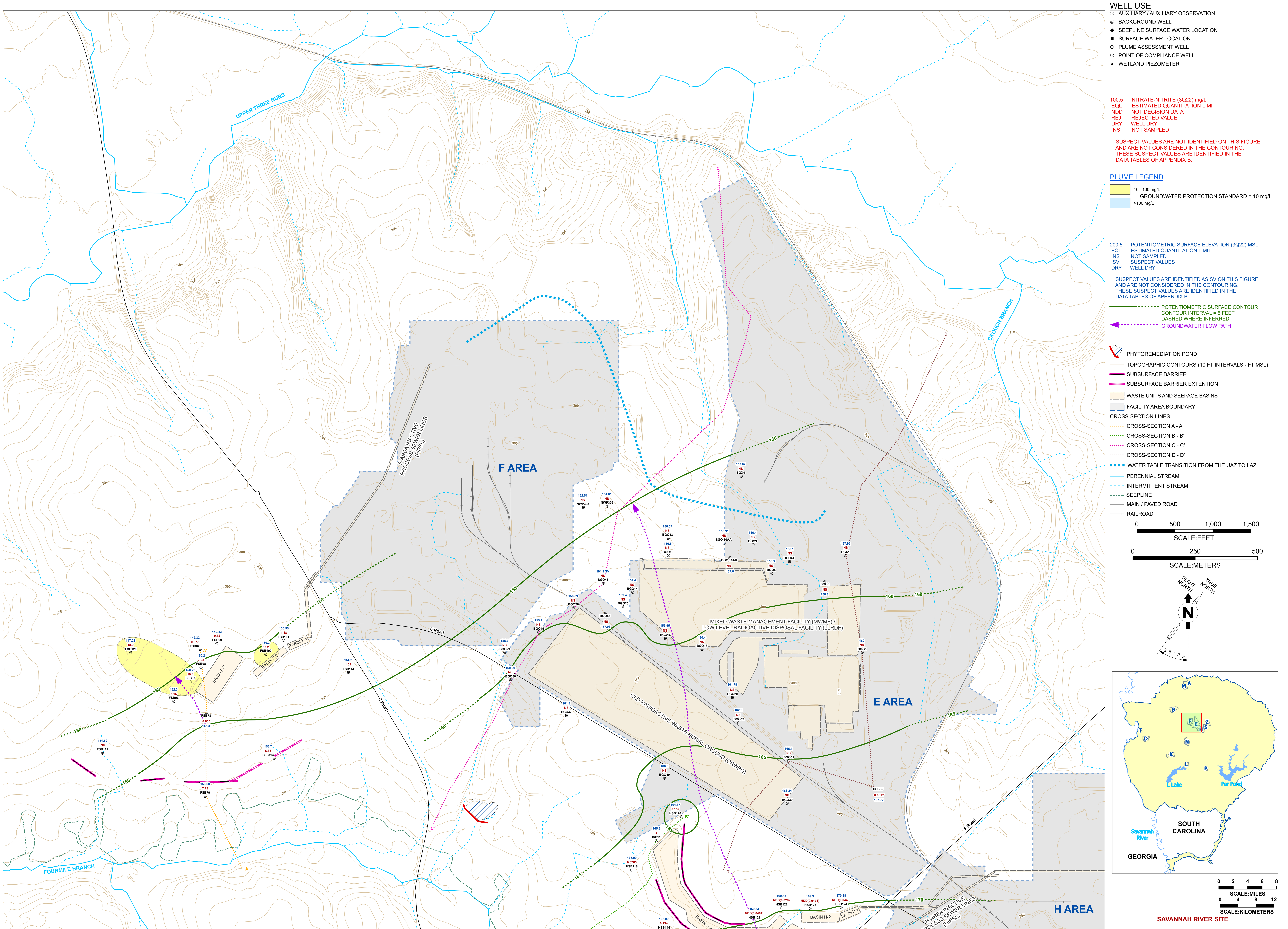
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 09B.
GSA Corrective Action Report, Nitrate-Nitrite Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 09B. GSA Corrective Action Report, Nitrate-Nitrite Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP09B



Report Number: SRNS-RP-2023-00762

Prepared By: Kevin Boerstler

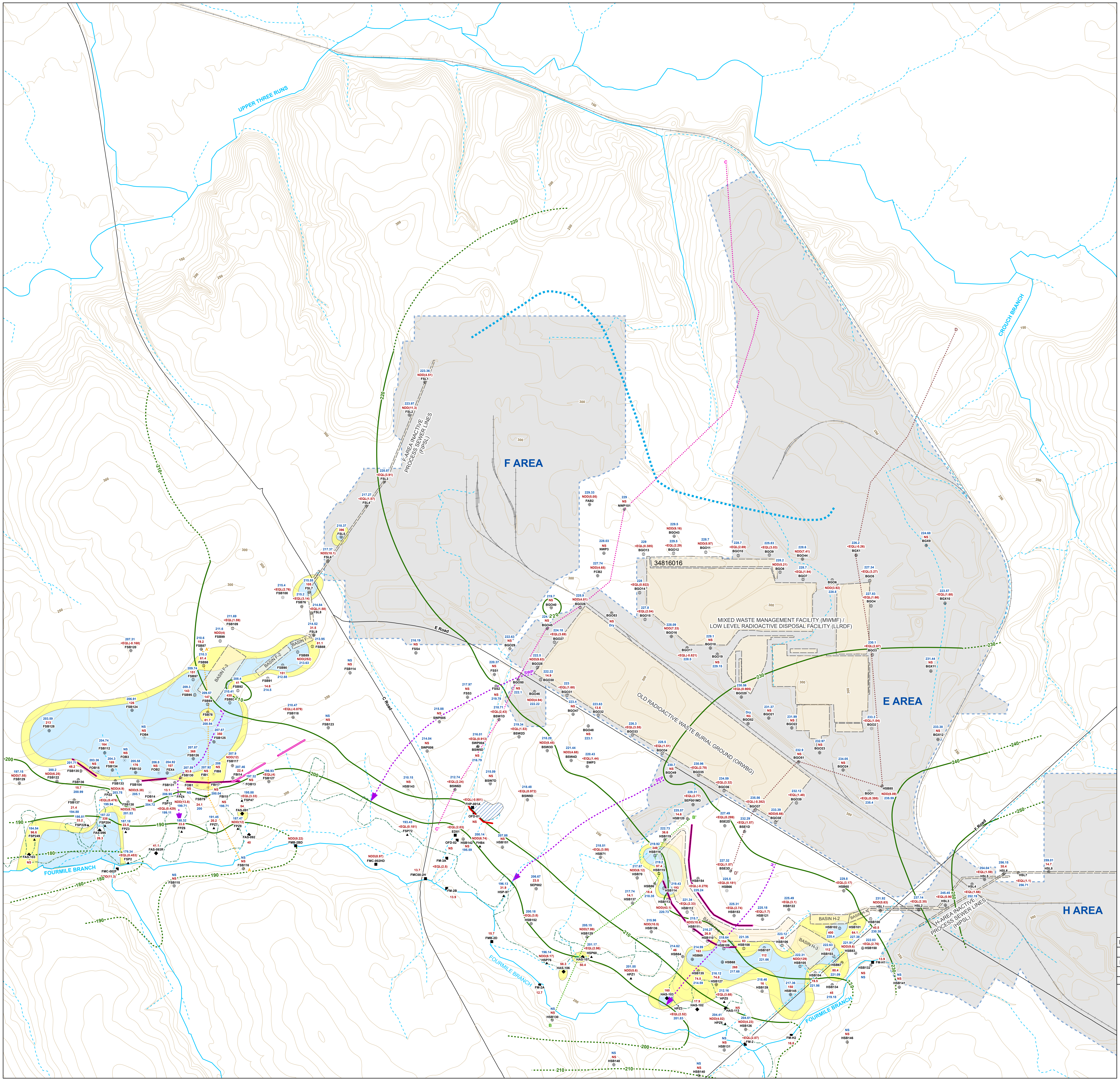
Reviewed By: Ashley Shull

Approved By: Jeffrey Thibault

Date: August 31, 2023

Map 09C.
GSA Corrective Action Report, Nitrate-Nitrite Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

Map 09C. GSA Corrective Action Report, Nitrate-Nitrite Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022



WELL USE

- ⦿ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	NONVOLATILE BETA (3Q22) pCi/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

🟨	50 - 100 pCi/L GROUNDWATER PROTECTION STANDARD = 50 pCi/L
🟦	100 - 1000 pCi/L
🟩	>1000 pCi/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

- POTENTIOMETRIC SURFACE CONTOUR CONTOUR INTERVAL = 10 FEET DASHED WHERE INFERRED
- GROUNDWATER FLOW PATH
- PHYTOREMEDIATION POND
- TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
- SUBSURFACE BARRIER
- SUBSURFACE BARRIER EXTENTION
- WASTE UNITS AND SEEPAGE BASINS
- FACILITY AREA BOUNDARY

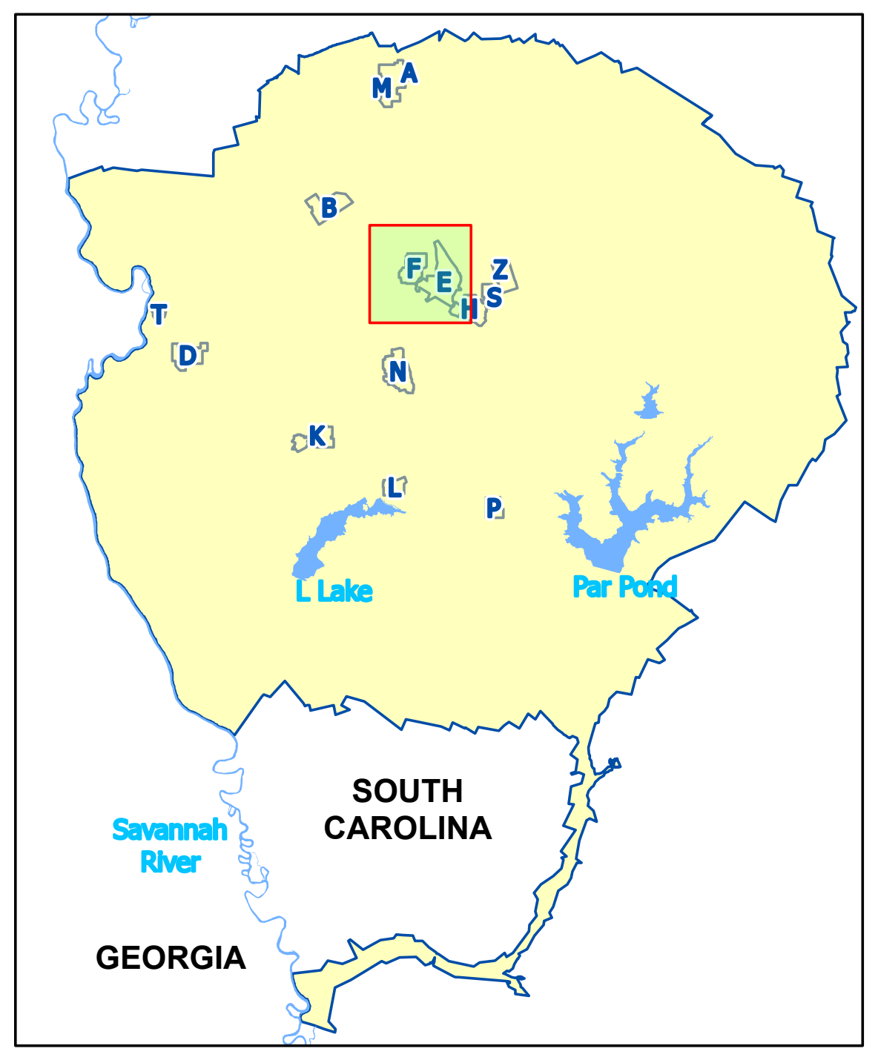
CROSS-SECTION LINES

- CROSS-SECTION A - A'
- CROSS-SECTION B - B'
- CROSS-SECTION C - C'
- CROSS-SECTION D - D'
- WATER TABLE TRANSITION FROM THE UAZ TO LAZ
- PERENNIAL STREAM
- INTERMITTENT STREAM
- SEEPLINE
- MAIN / PAVED ROAD
- RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N



0 2 4 6 8
SCALE:MILES
0 4 8 12
SCALE:KILOMETERS

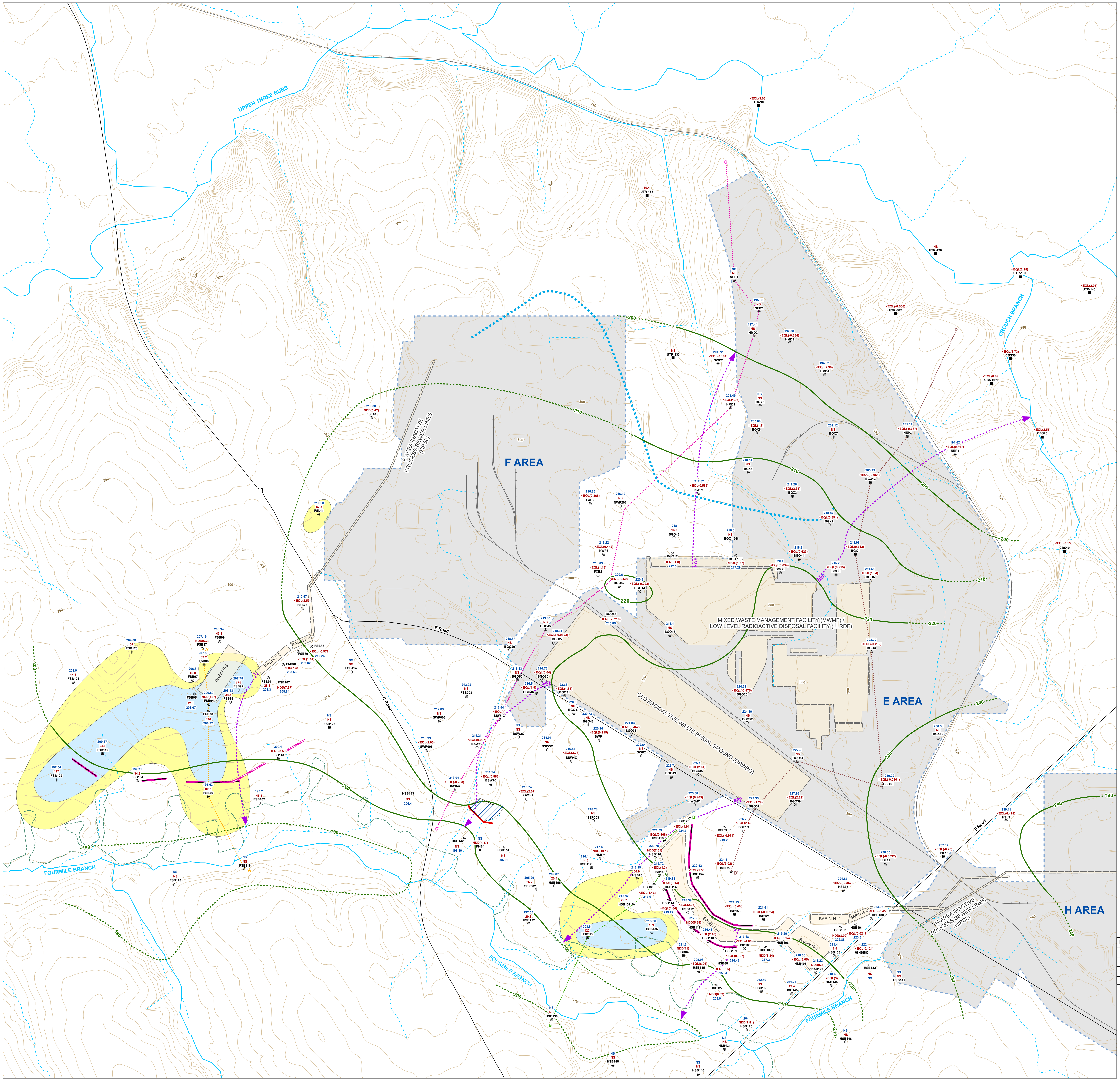
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 10A.
GSA Corrective Action Report, Nonvolatile Beta Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP10A

Map 10A. GSA Corrective Action Report, Nonvolatile Beta Concentrations, and Potentiometric Surface in the Upper Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022



WELL USE
- ⦿ AUXILIARY / AUXILIARY OBSERVATION
- ◎ BACKGROUND WELL
- ◆ SEEPLINE SURFACE WATER LOCATION
- ■ SURFACE WATER LOCATION
- ⊕ PLUME ASSESSMENT WELL
- ⊗ POINT OF COMPLIANCE WELL
- ▲ WETLAND PIEZOMETER

100.5	NONVOLATILE BETA (3Q22) pCi/L
EQL	ESTIMATED QUANTITATION LIMIT
NDD	NOT DECISION DATA
REJ	REJECTED VALUE
DRY	WELL DRY
NS	NOT SAMPLED

SUSPECT VALUES ARE NOT IDENTIFIED ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

PLUME LEGEND

🟨	50 - 100 pCi/L GROUNDWATER PROTECTION STANDARD = 50 pCi/L
🟦	100 - 1000 pCi/L
🟩	>1000 pCi/L

200.5	POTENTIOMETRIC SURFACE ELEVATION (3Q22) MSL
EQL	ESTIMATED QUANTITATION LIMIT
NS	NOT SAMPLED
SV	SUSPECT VALUES
DRY	WELL DRY

SUSPECT VALUES ARE IDENTIFIED AS SV ON THIS FIGURE AND ARE NOT CONSIDERED IN THE CONTOURING. THESE SUSPECT VALUES ARE IDENTIFIED IN THE DATA TABLES OF APPENDIX B.

POTENTIOMETRIC SURFACE CONTOUR
CONTOUR INTERVAL = 10 FEET
DASHED WHERE INFERRED

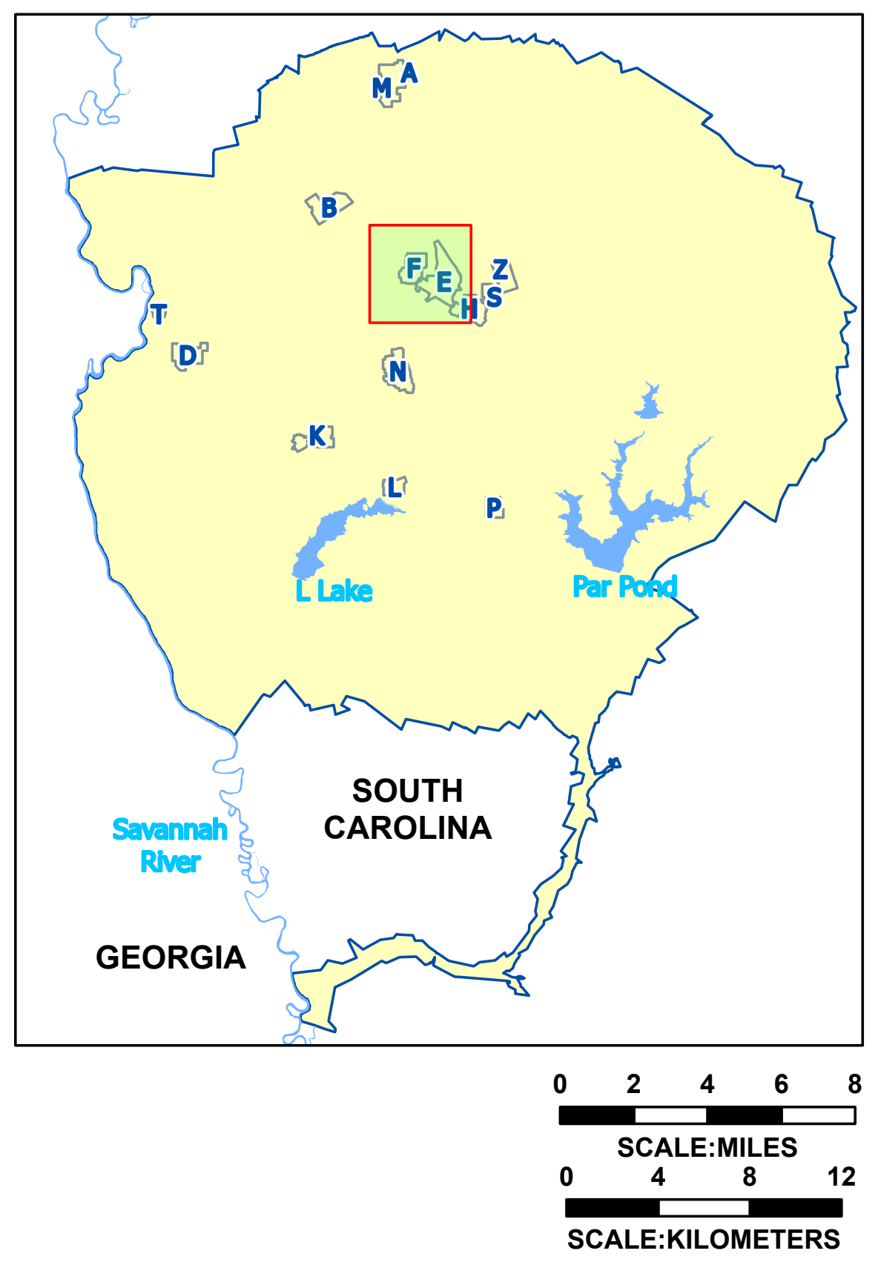
GROUNDWATER FLOW PATH

PHYTOREMEDIATION POND
TOPOGRAPHIC CONTOURS (10 FT INTERVALS - FT MSL)
SUBSURFACE BARRIER
SUBSURFACE BARRIER EXTENTION
WASTE UNITS AND SEEPAGE BASINS
FACILITY AREA BOUNDARY
CROSS-SECTION LINES
CROSS-SECTION A - A'
CROSS-SECTION B - B'
CROSS-SECTION C - C'
CROSS-SECTION D - D'
WATER TABLE TRANSITION FROM THE UAZ TO LAZ
PERENNIAL STREAM
INTERMITTENT STREAM
SEEPLINE
MAIN / PAVED ROAD
RAILROAD

0 500 1,000 1,500
SCALE:FEET

0 250 500
SCALE:METERS

PLANT NORTH
TRUE NORTH
N



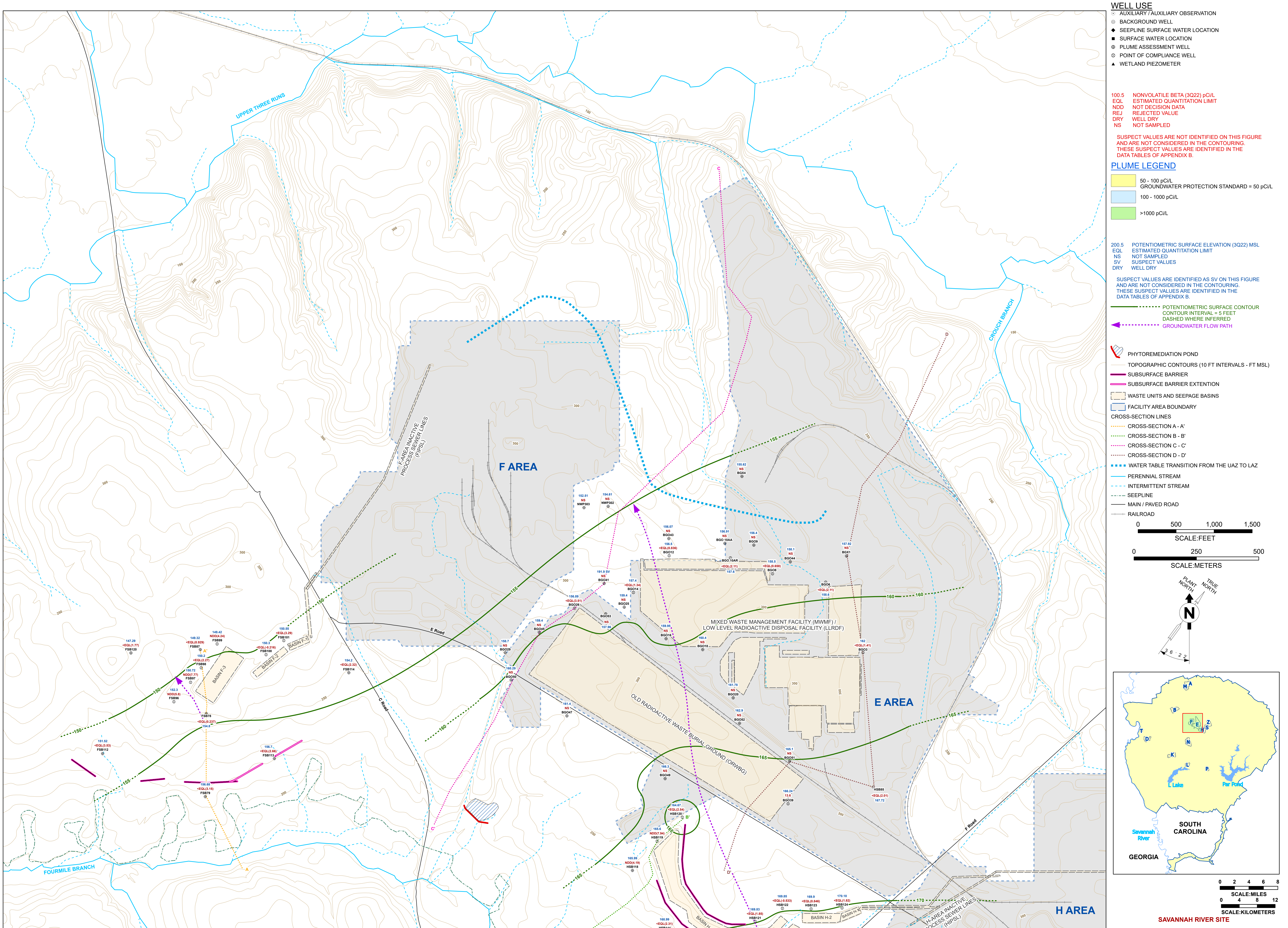
SAVANNAH RIVER SITE

Report Number: SRNS-RP-2023-00762
Prepared By: Kevin Boerstler
Reviewed By: Ashley Shull
Approved By: Jeffrey Thibault
Date: August 31, 2023

Map 10B.
GSA Corrective Action Report, Nonvolatile Beta Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

Map 10B. GSA Corrective Action Report, Nonvolatile Beta Concentrations, and Potentiometric Surface in the Lower Aquifer Zone of the Upper Three Runs Aquifer at the GSA, Third Quarter 2022

MAP10B



Report Number: SRNS-RP-2023-00762

Prepared By: Kevin Boerstler

Reviewed By: Ashley Shull

Approved By: Jeffrey Thibault

Date: August 31, 2023

Map 10C. GSA Corrective Action Report, Nonvolatile Beta Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

Map 10C. GSA Corrective Action Report, Nonvolatile Beta Concentrations, and Potentiometric Surface in the Gordon Aquifer at the GSA, Third Quarter 2022

Report Number: SRNS-RP-2023-00762

Prepared By: Branden Kramer

Reviewed By: Kevin Boerstler

Approved By: Jeff Thibault

Date: August 31, 2023

Map 11A.
Trichloroethylene F-Area HWMF
Hydrostratigraphic Cross Section C-C'
Third Quarter 2022

Map_11A

Report Number: SRNS-RP-2023-00762	
Prepared By: Branden Kramer	
Reviewed By: Kevin Boerstler	
Approved By: Jeff Thibault	
Date: August 31, 2023	

Map 11B.
Tritium F-Area HWMF
Hydrostratigraphic Cross Section C-C'
Third Quarter 2022

Map_11B

Report Number: SRNS-RP-2023-00762
Prepared By: Branden Kramer
Reviewed By: Kevin Boerstler
Approved By: Jeff Thibault
Date: August 31, 2023

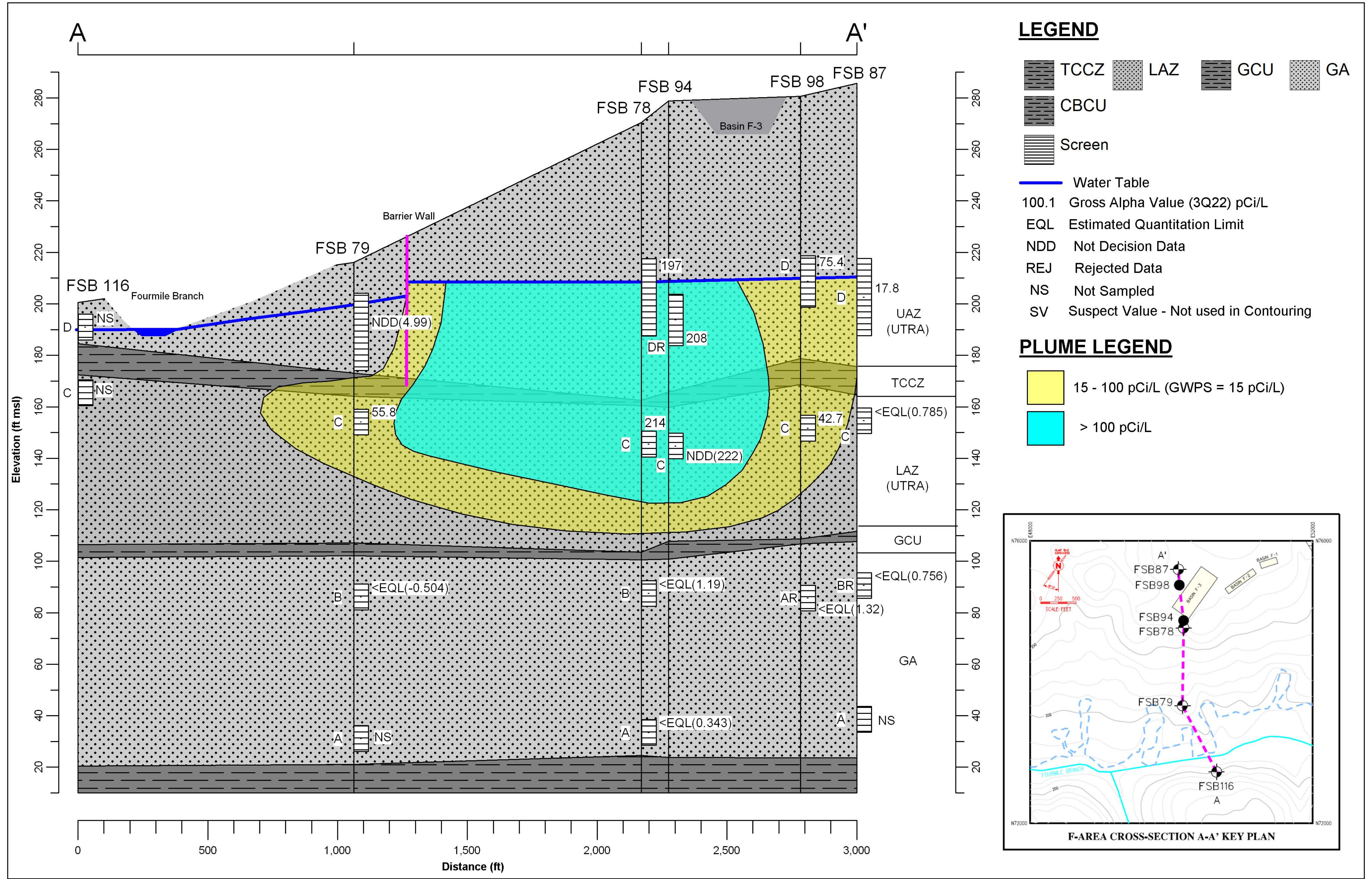
Map 12A.
Trichloroethylene F-Area HWMF
Hydrostratigraphic Cross Section D-D'
Third Quarter 2022

Map_12A

Report Number: SRNS-RP-2023-00762
Prepared By: Branden Kramer
Reviewed By: Kevin Boerstler
Approved By: Jeff Thibault
Date: August 31, 2023

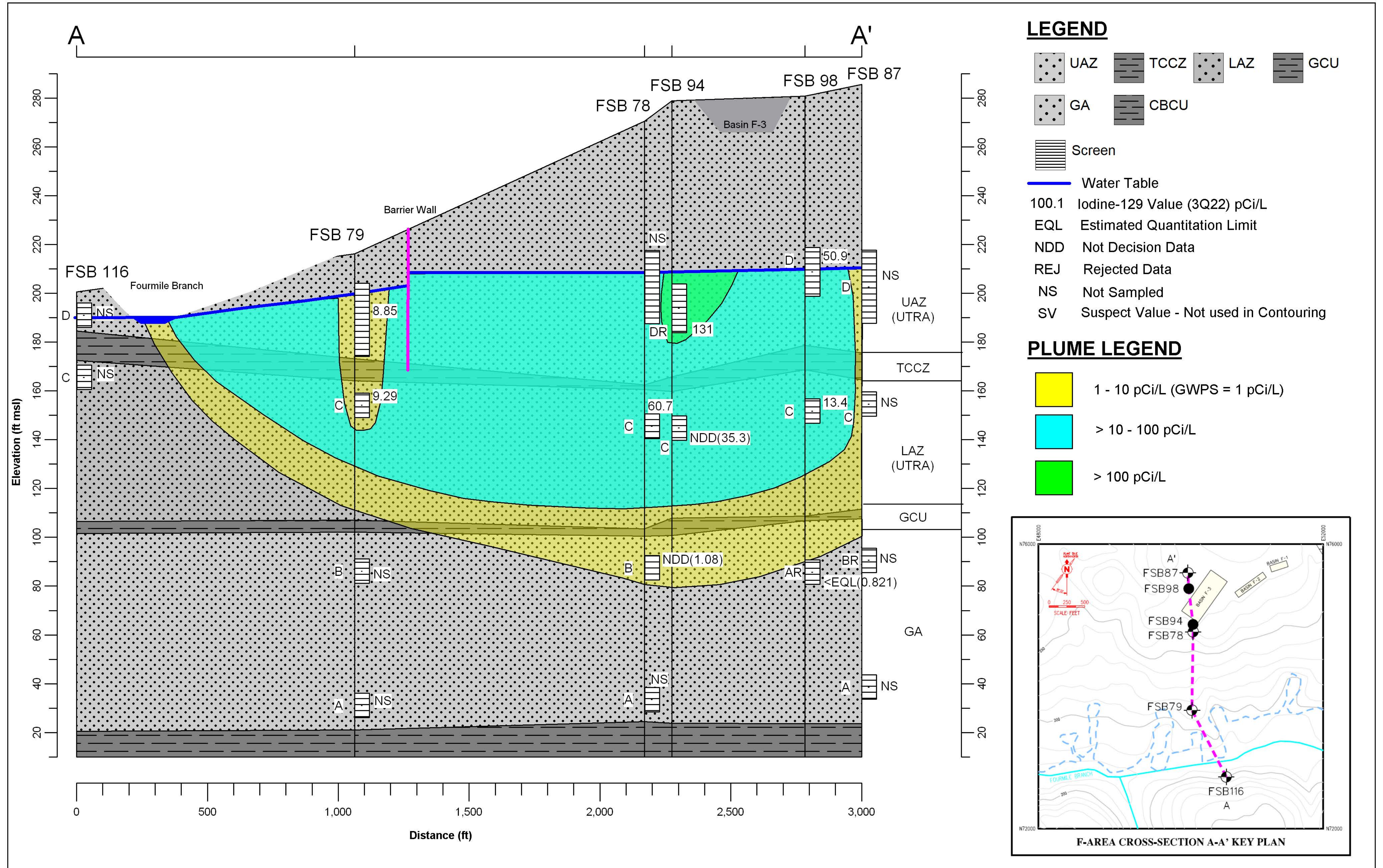
Map 12B.
Tritium F-Area HWMF
Hydrostratigraphic Cross Section D-D'
Third Quarter 2022

Map_12B



Report Number: SRNS-RP-2023-00762
Prepared By: Branden Kramer
Reviewed By: Kevin Boerstler
Approved By: Jeff Thibault
Date: August 31, 2023

Map 13A.
Gross Alpha F-Area HWMF
Hydrostratigraphic Cross Section A-A'
Third Quarter 2022



Report Number: SRNS-RP-2023-00762

Prepared By: Branden Kramer

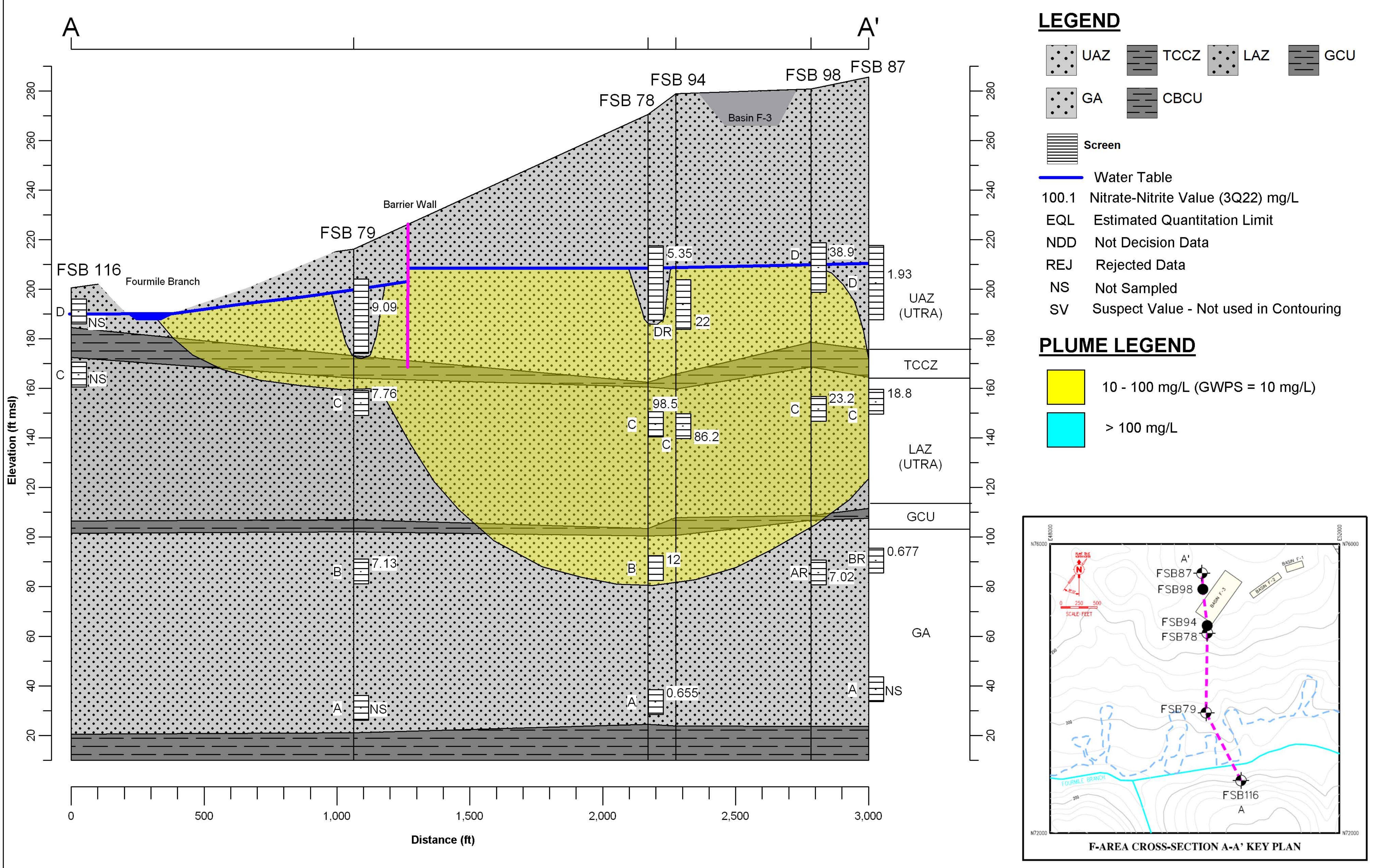
Reviewed By: Kevin Boerstler

Approved By: Jeff Thibault

Date: August 31, 2022

Map 13B.
Iodine-129 F-Area HWMF
Hydrostratigraphic Cross Section A-A'
Third Quarter 2022

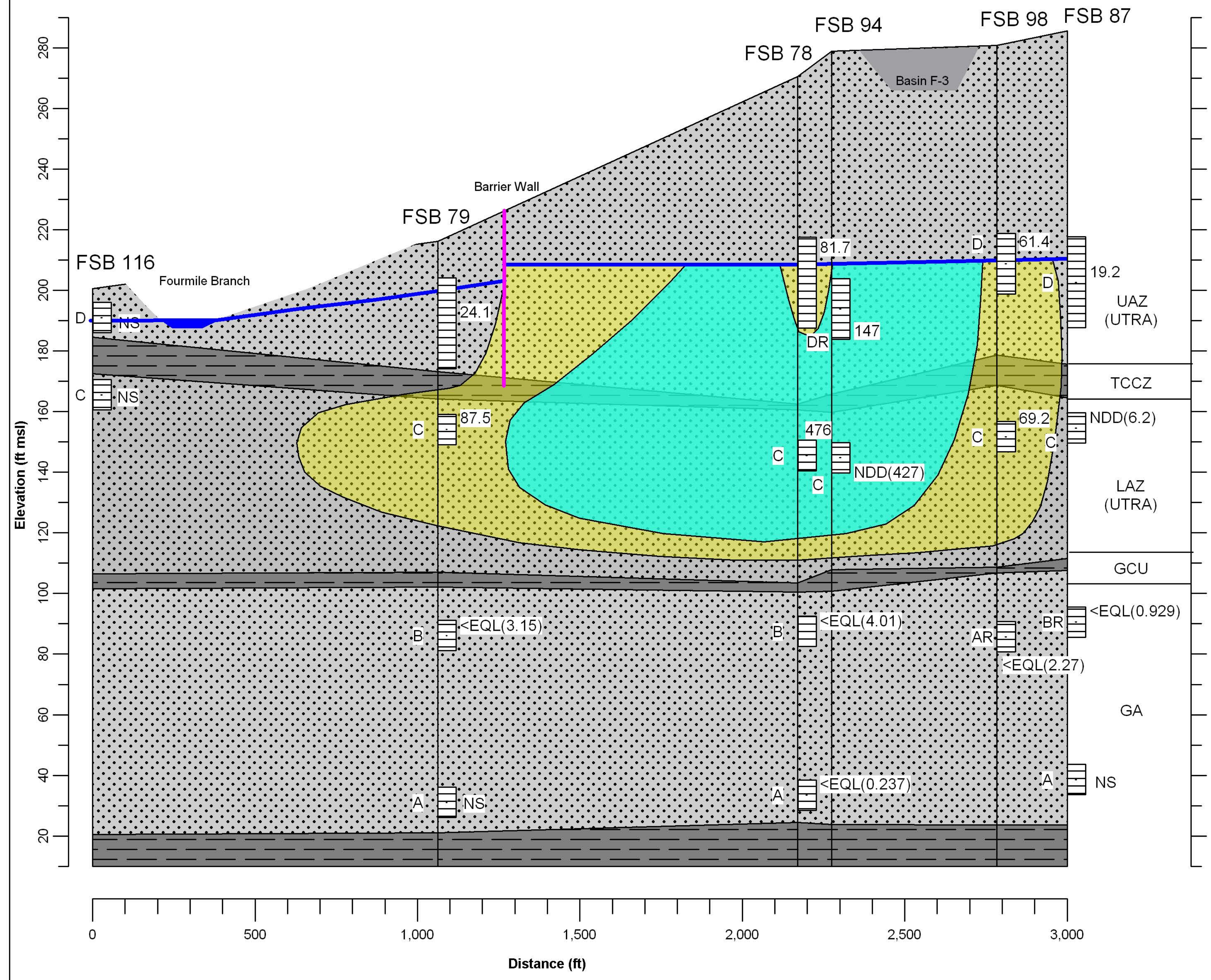
Map_13B



Report Number: SRNS-RP-2023-0762	
Prepared By: Branden Kramer	
Reviewed By: Kevin Boerstler	
Approved By: Jeff Thibault	
Date: August 31, 2023	

Map 13C.
Nitrate-Nitrite F-Area HWMF
Hydrostratigraphic Cross Section A-A'
Third Quarter 2022

Map_13C



LEGEND

▨ UAZ ▤ TCCZ ▨ LAZ ▤ GCU

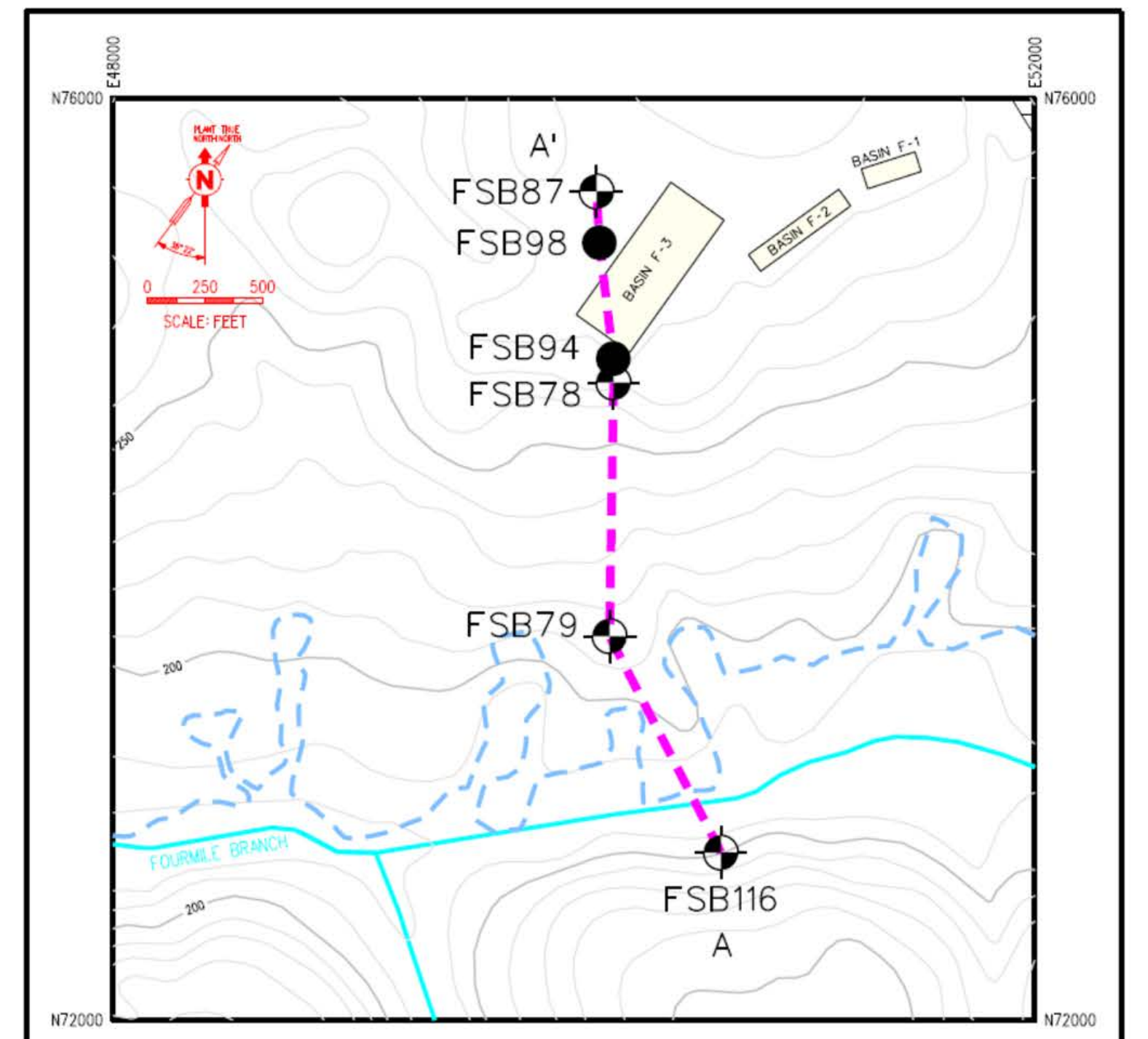
▨ GA ▤ CBCU

▤ Screen

—	Water Table
100.1	Nonvolatile Beta Value (3Q22) pCi/L
EQL	Estimated Quantitation Limit
NDD	Not Decision Data
REJ	Rejected Data
NS	Not Sampled
SV	Suspect Value - Not used in Contouring

PLUME LEGEND

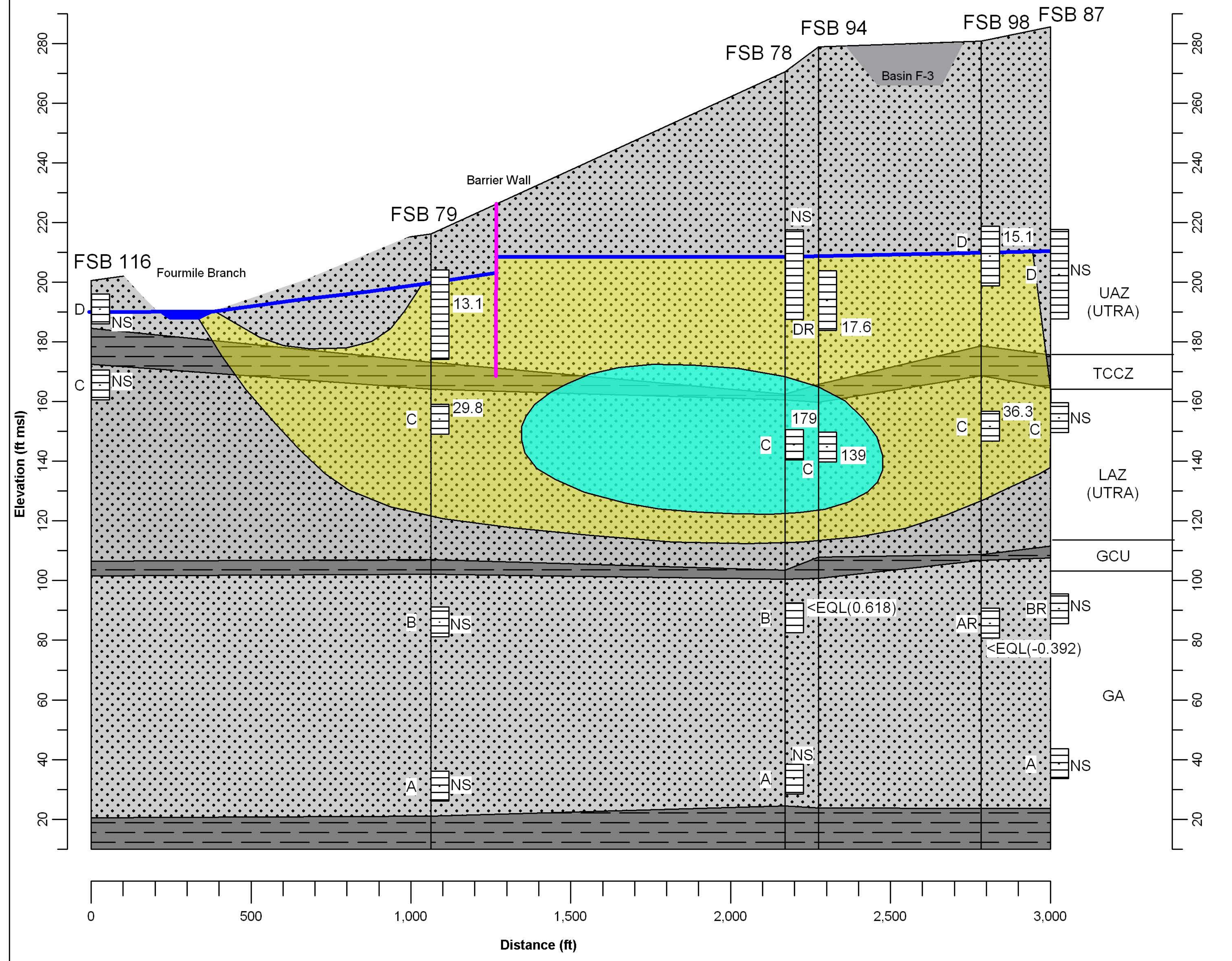
🟨	50 - 100 pCi/L (GWPS = 50 pCi/L)
🟦	> 100 - 1000 pCi/L
🟩	> 1000 pCi/L



F-AREA CROSS-SECTION A-A' KEY PLAN

Report Number: SRNS-RP-2023-00762
Prepared By: Branden Kramer
Reviewed By: Kevin Boerstler
Approved By: Jeff Thibault
Date: August 31, 2023

Map 13D.
Nonvolatile Beta F-Area HWMF
Hydrostratigraphic Cross Section A-A'
Third Quarter 2022

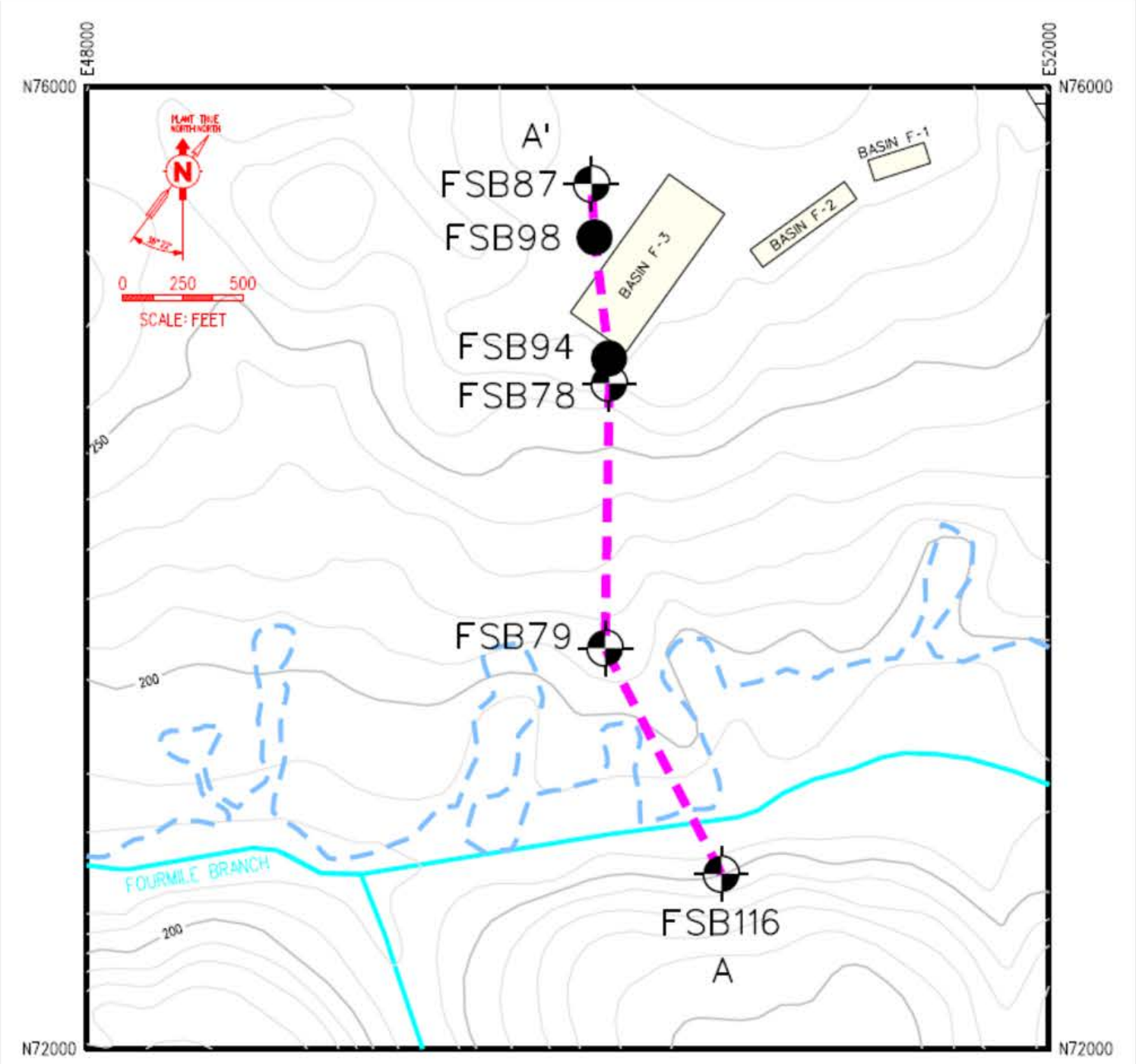


LEGEND

▨	UAZ
▨	TCCZ
▨	LAZ
▨	GCU
▨	GA
▨	CBCU
▤	Screen
—	Water Table
100.1	Strontium-90 Value (3Q22) pCi/L
EQL	Estimated Quantitation Limit
NDD	Not Decision Data
REJ	Rejected Data
NS	Not Sampled
SV	Suspect Value - Not used in Contouring

PLUME LEGEND

🟨	8 - 100 pCi/L (GWPS = 8 pCi/L)
🟦	> 100 pCi/L

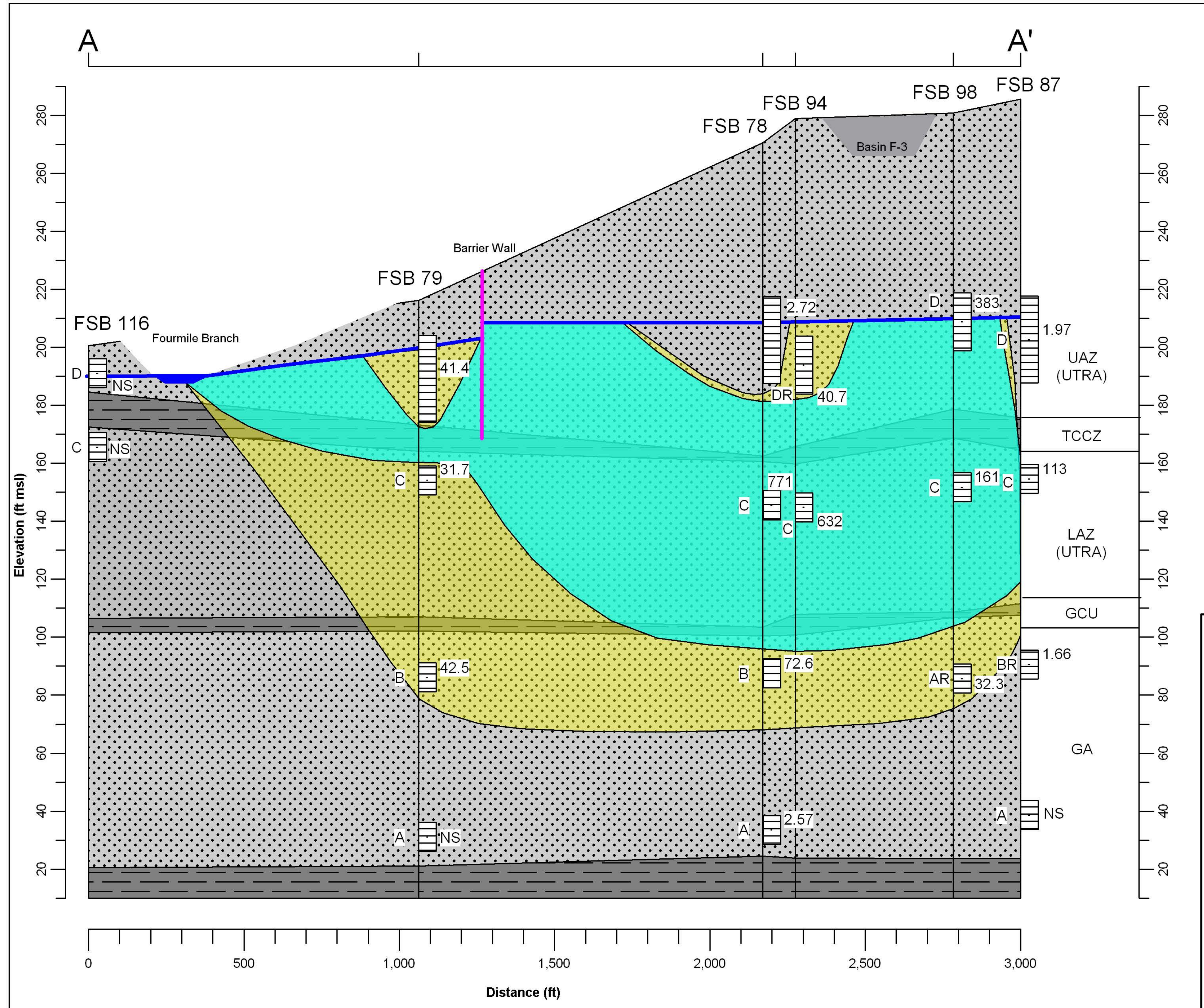


F-AREA CROSS-SECTION A-A' KEY PLAN

Report Number: SRNS-RP-2023-00762
Prepared By: Branden Kramer
Reviewed By: Kevin Boerstler
Approved By: Jeff Thibault
Date: August 31, 2023

Map 13E.
Strontium-90 F-Area HWMF
Hydrostratigraphic Cross Section A-A'
Third Quarter 2022

Map_13E



LEGEND

▨ UAZ ▤ TCCZ ▨ LAZ ▤ GCU

▨ GA ▤ CBCU

▤ Screen

— Water Table

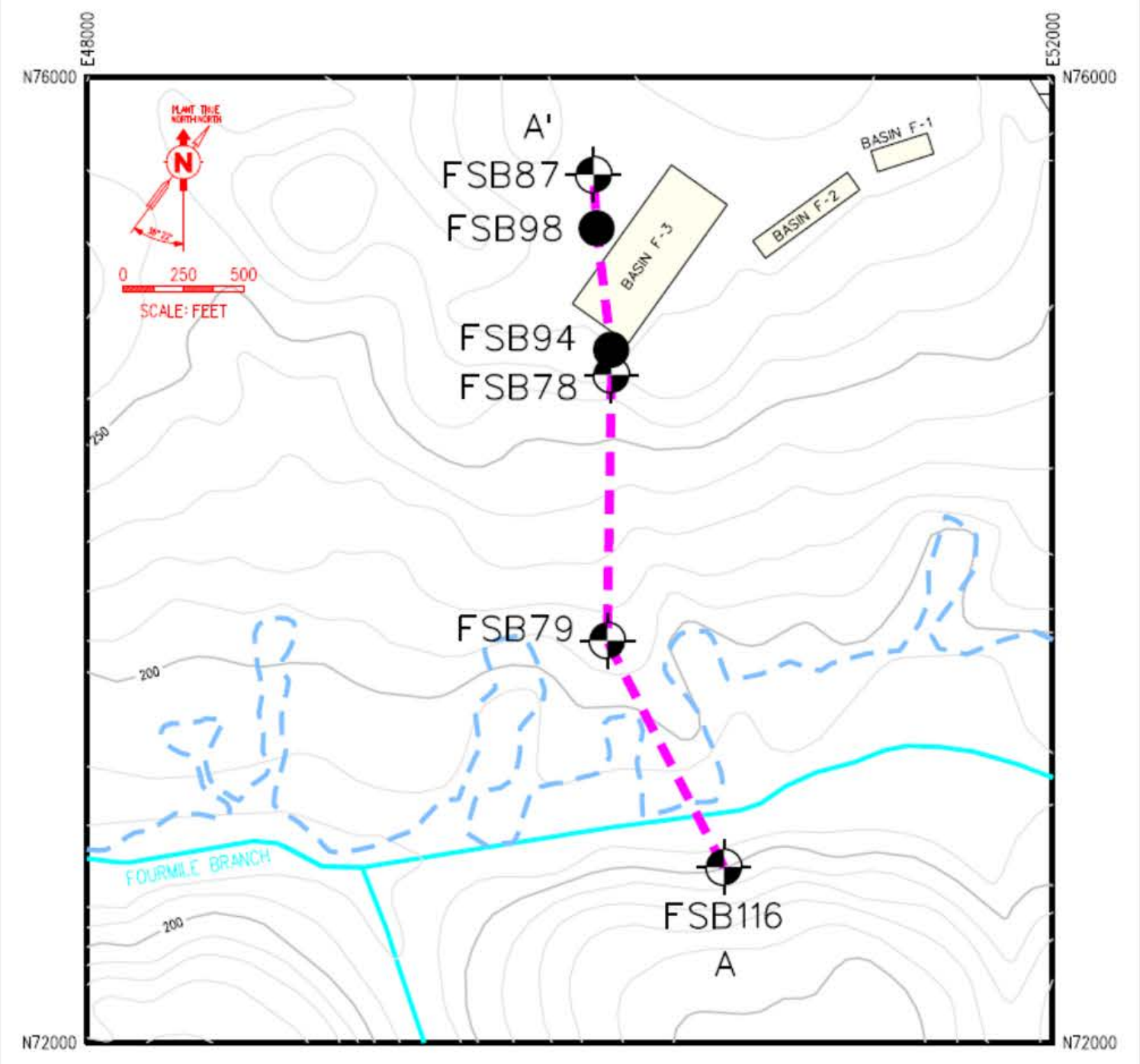
100.1	Tritium Value (3Q22) pCi/mL
EQL	Estimated Quantitation Limit
NDD	Not Decision Data
REJ	Rejected Data
NS	Not Sampled
SV	Suspect Value - Not used in Contouring

PLUME LEGEND

🟨 20 - 100 pCi/mL (GWPS = 20 pCi/mL)

🟦 > 100 - 1000 pCi/mL

🟩 > 1000 pCi/mL

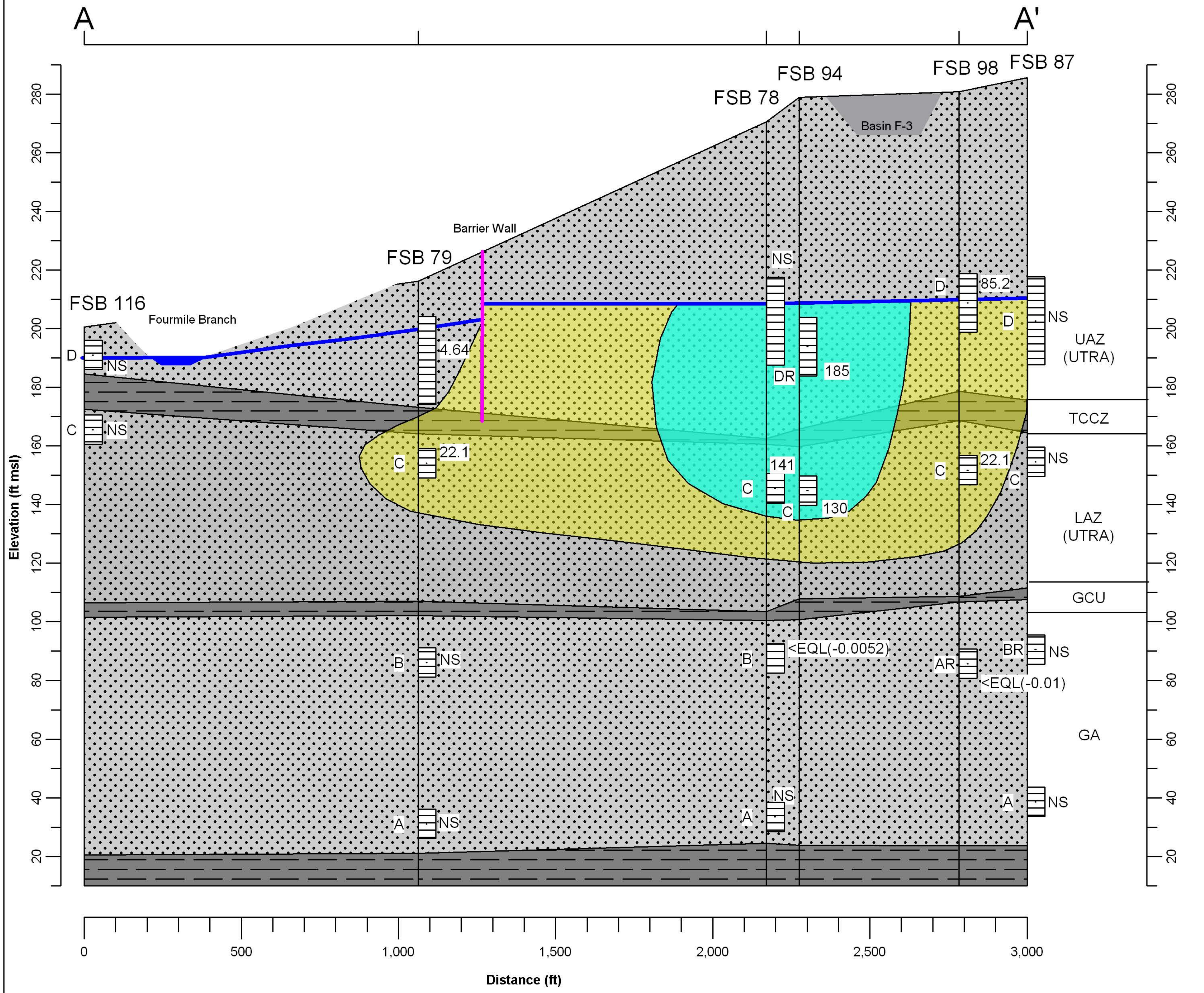


F-AREA CROSS-SECTION A-A' KEY PLAN

Report Number: SRNS-RP-2023-00762
Prepared By: Branden Kramer
Reviewed By: Kevin Boerstler
Approved By: Jeff Thibault
Date: August 31, 2023

Map 13F.
Tritium F-Area HWMF
Hydrostratigraphic Cross Section A-A'
Third Quarter 2022

Map_13F



LEGEND

▨ UAZ ▨ TCCZ ▨ LAZ ▨ GCU

▨ GA ▨ CBCU

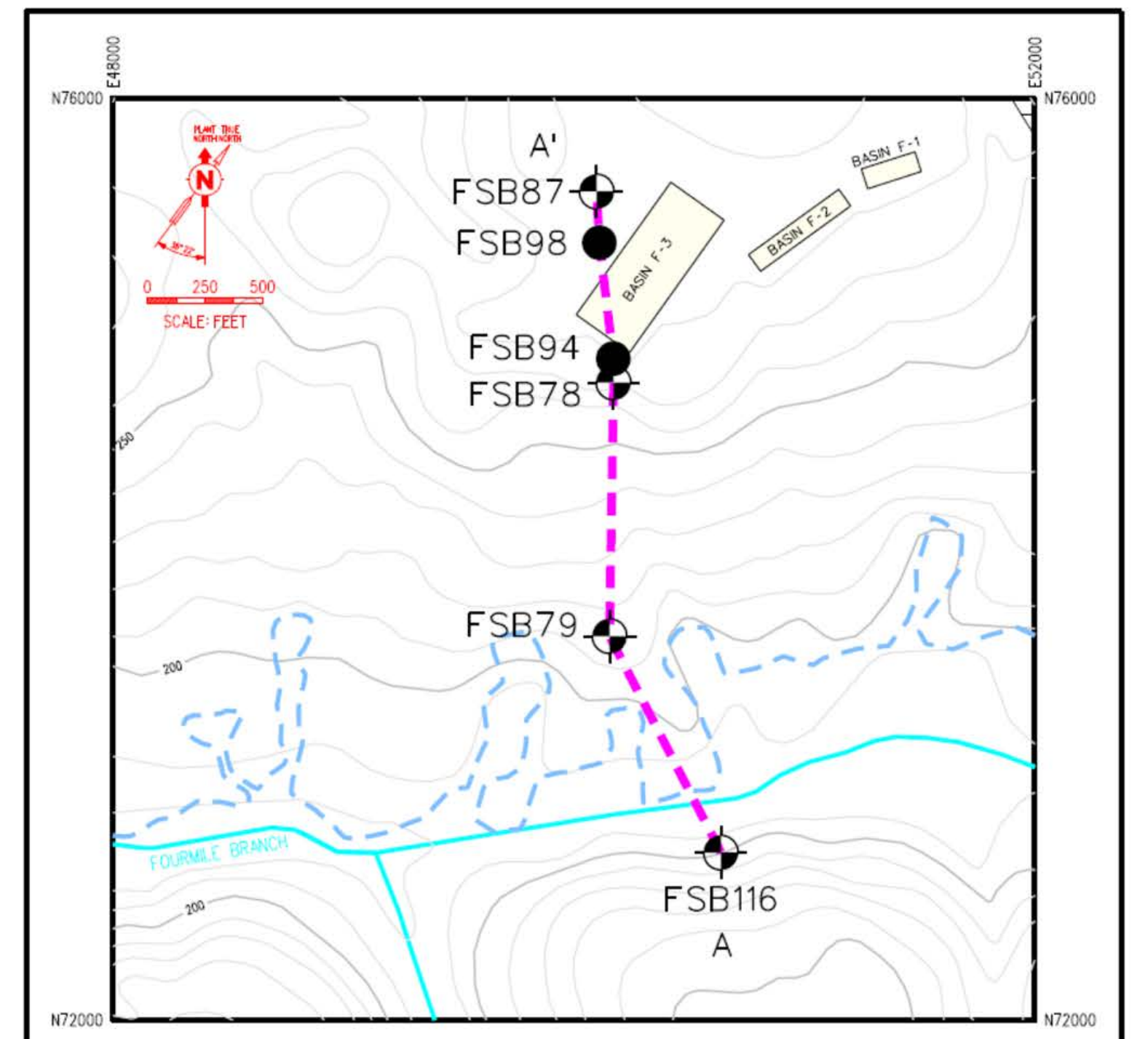
▤ Screen

—	Water Table
100.1	Uranium-238 Value (3Q22) pCi/L
EQL	Estimated Quantitation Limit
NDD	Not Decision Data
REJ	Rejected Data
NS	Not Sampled
SV	Suspect Value - Not used in Contouring

PLUME LEGEND

🟨 15 - 100 pCi/L (GWPS = 15 pCi/L)

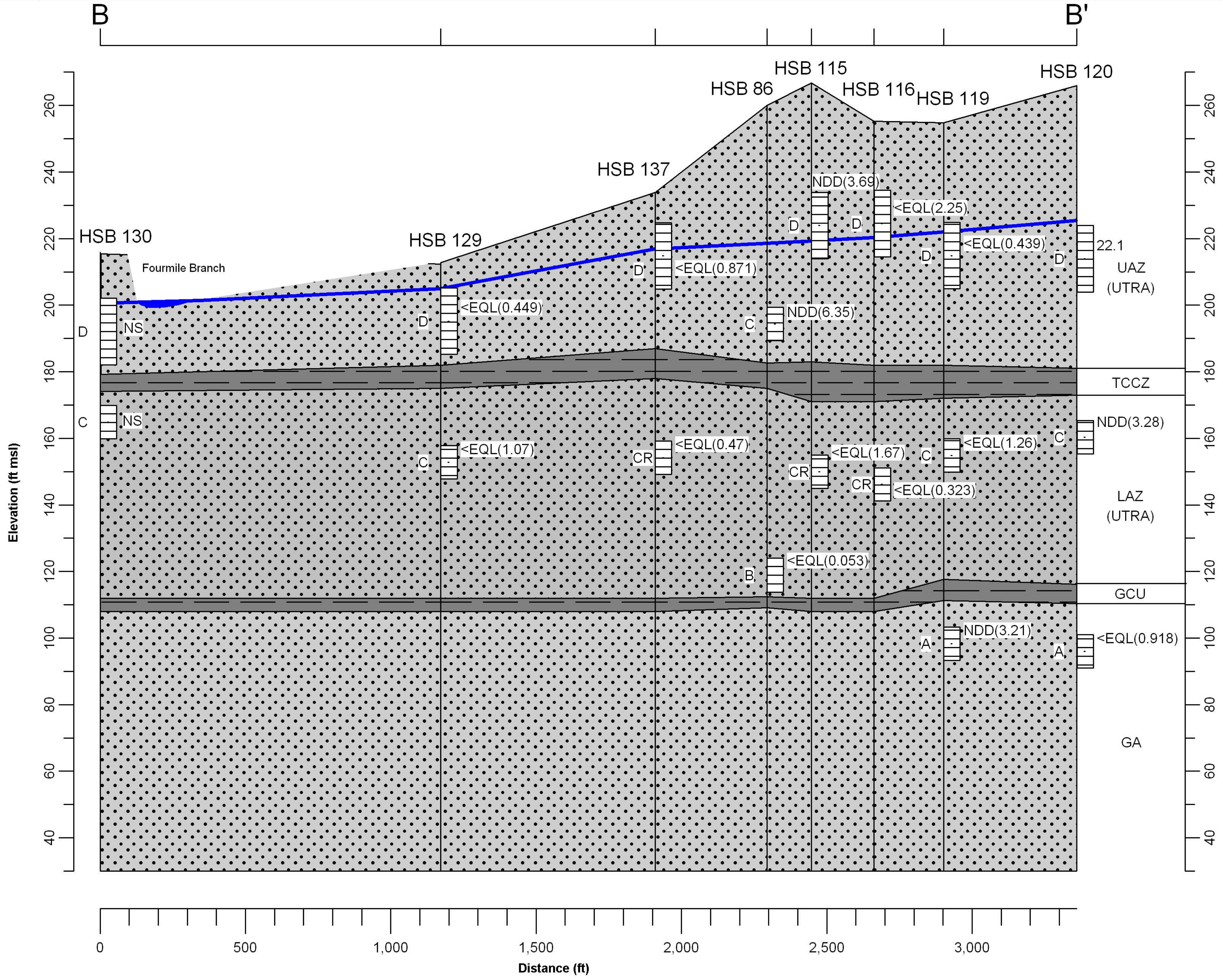
🟦 > 100 pCi/L



F-AREA CROSS-SECTION A-A' KEY PLAN

Report Number: SRNS-RP-2023-00762
Prepared By: Branden Kramer
Reviewed By: Kevin Boerstler
Approved By: Jeff Thibault
Date: August 31, 2023

Map 13G.
Uranium-238 F-Area HWMF
Hydrostratigraphic Cross Section A-A'
Third Quarter 2022

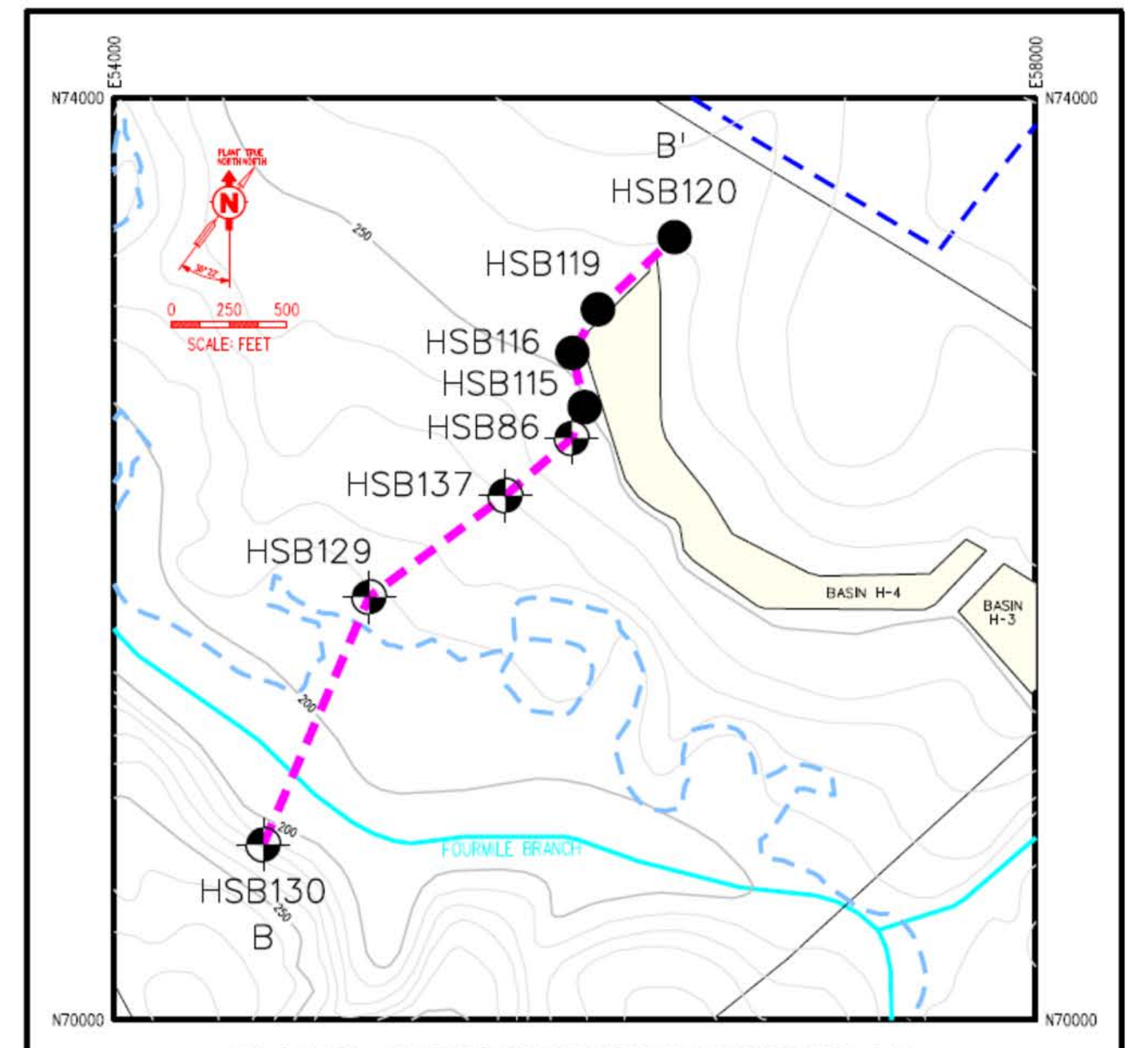


LEGEND

▨	UAZ
▨	TCCZ
▨	LAZ
▨	GCU
▨	GA
▨	CBCU
▤	Screen
—	Water Table
100.1	Gross Alpha Value (3Q22) pCi/L
EQL	Estimated Quantitation Limit
NDD	Not Decision Data
REJ	Rejected Data
NS	Not Sampled
SV	Suspect Value - Not used in Contouring

PLUME LEGEND

🟨	15 - 100 pCi/L (GWPS = 15 pCi/L)
🟦	> 100 pCi/L

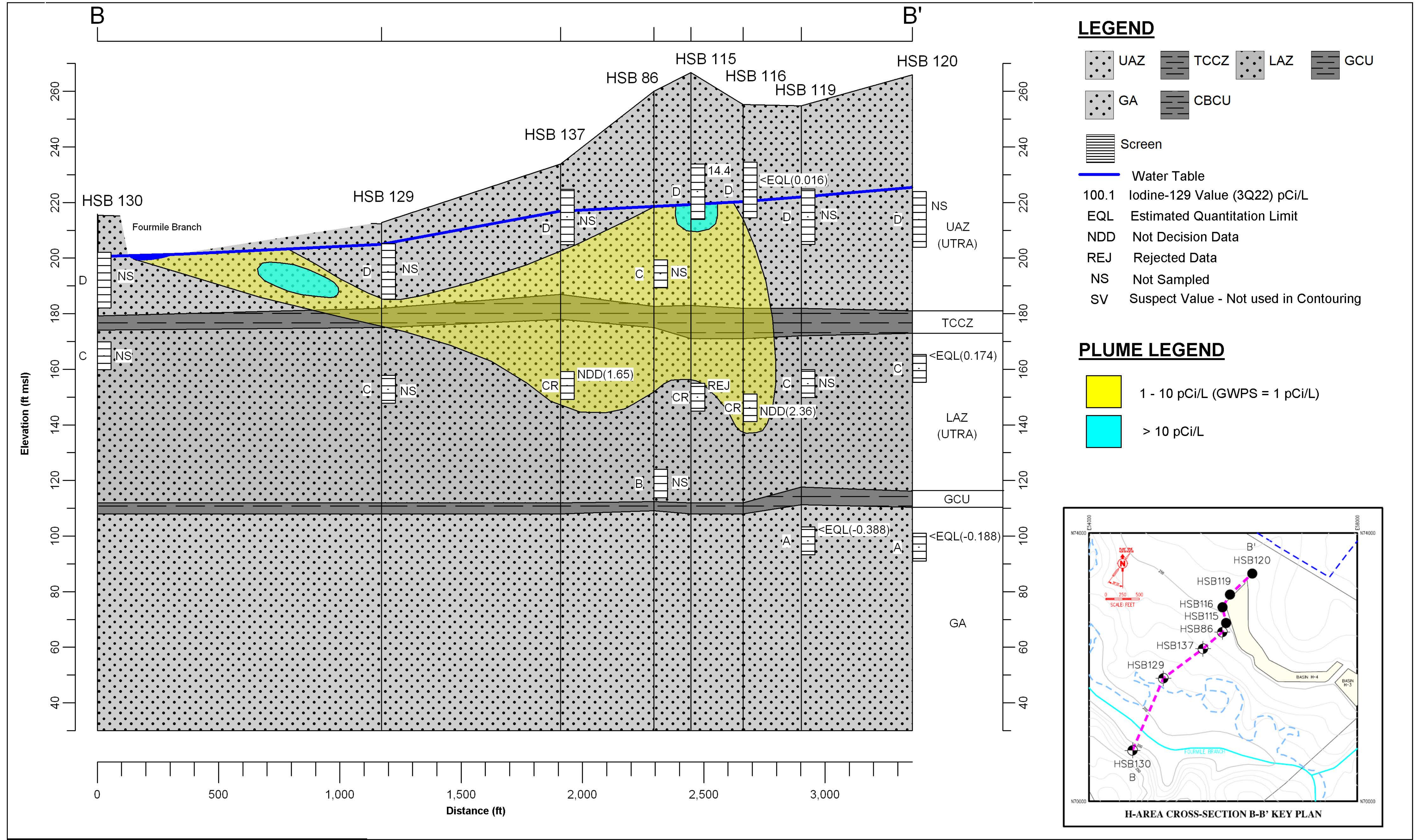


H-AREA CROSS-SECTION B-B' KEY PLAN

Report Number: SRNS-RP-2023-00762	
Prepared By: Branden Kramer	
Reviewed By: Kevin Boerstler	
Approved By: Jeff Thibault	
Date: August 31, 2023	

Map 14A.
Gross Alpha H-Area HWMF
Hydrostratigraphic Cross Section B-B'
Third Quarter 2022

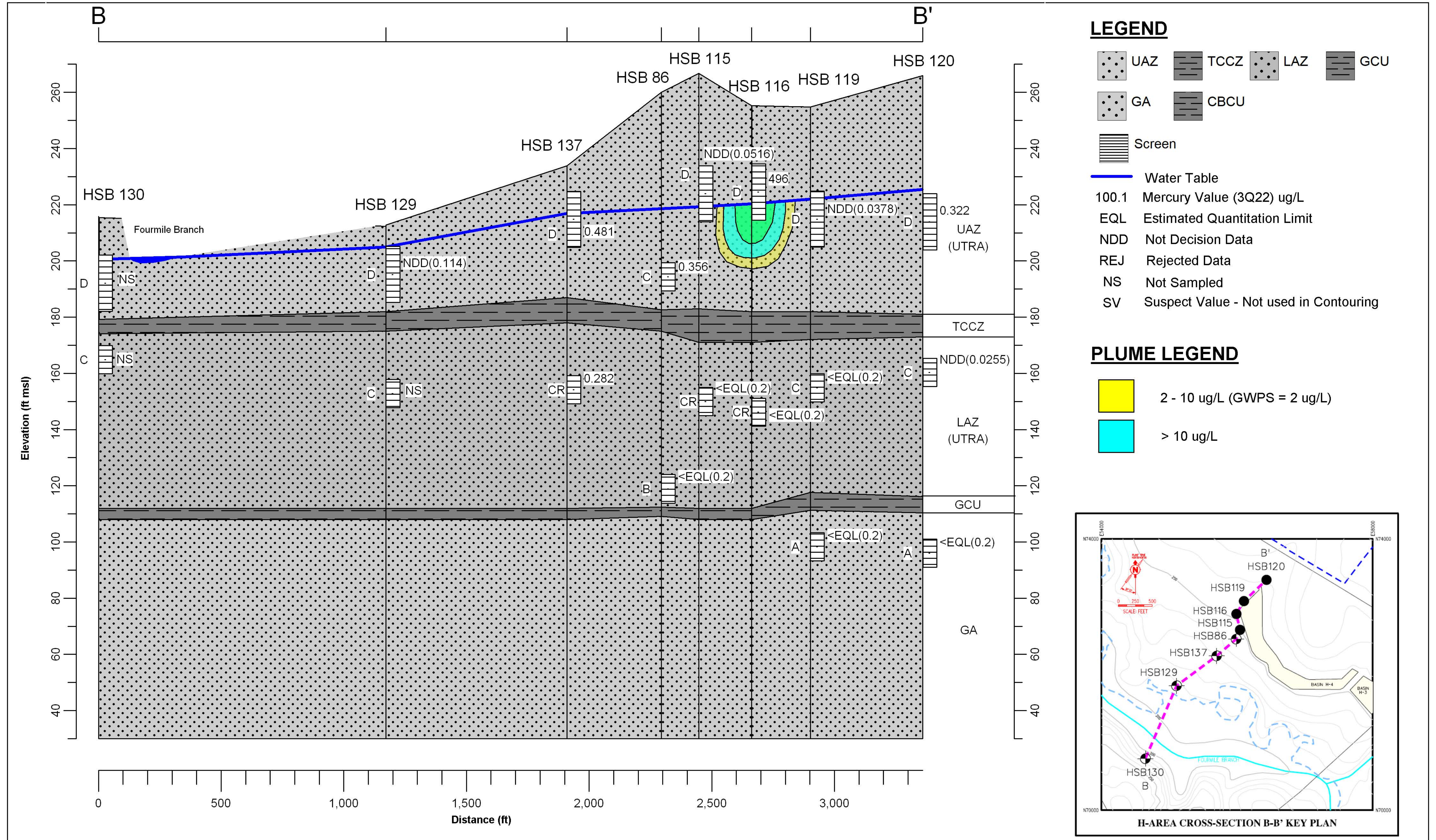
Map_14A



Report Number:	SRNS-RP-2023-00762
Prepared By:	Branden Kramer
Reviewed By:	Kevin Boerstler
Approved By:	Jeff Thibault
Date:	August 31, 2023

Map 14B.
Iodine-129 H-Area HWMF
Hydrostratigraphic Cross Section B-B'
Third Quarter 2022

MAP_14B

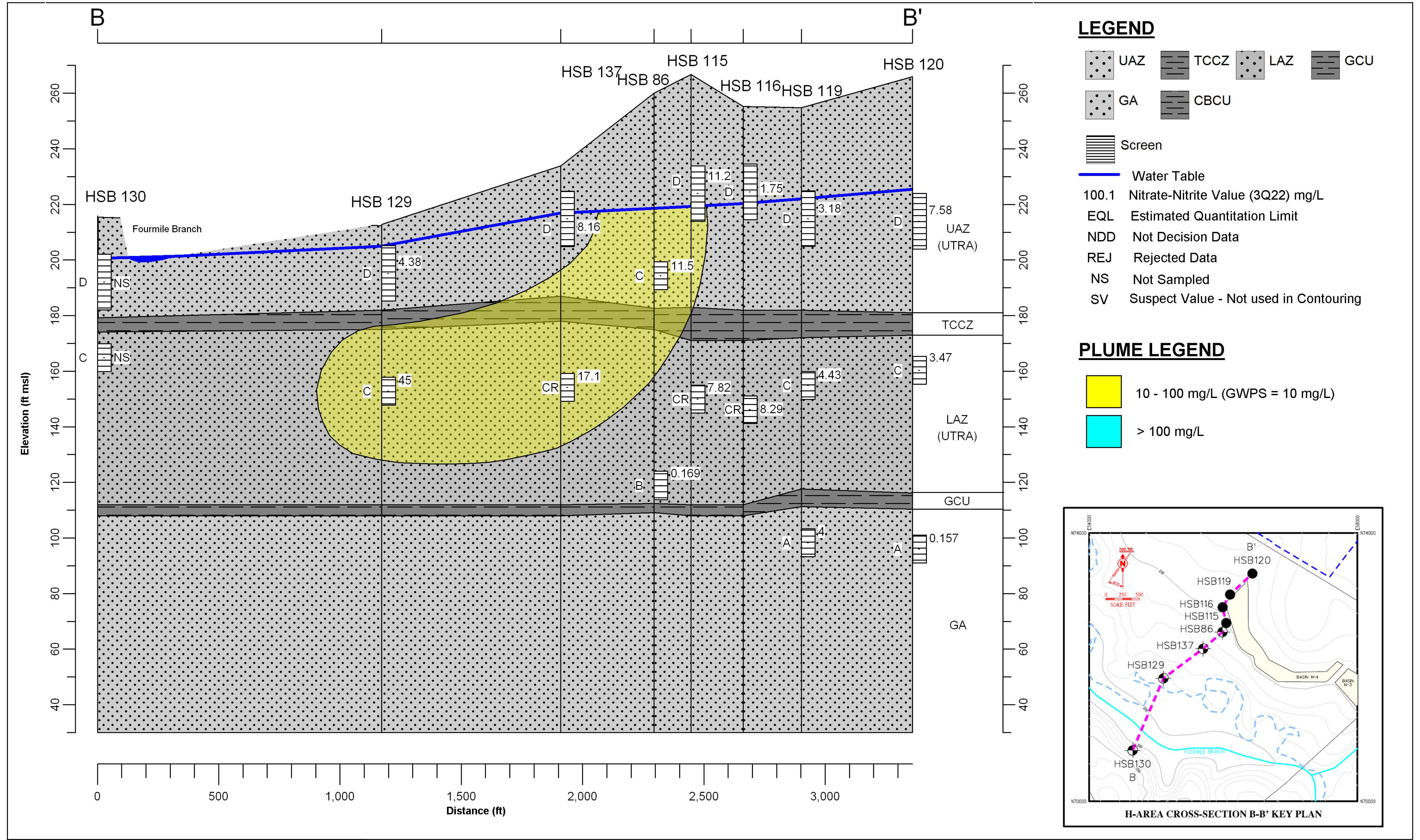


H-AREA CROSS-SECTION B-B' KEY PLAN

Report Number: SRNS-RP-2023-00762	
Prepared By: Branden Kramer	
Reviewed By: Kevin Boerstler	
Approved By: Jeff Thibault	
Date: August 31, 2023	

Map 14C.
Mercury H-Area HWMF
Hydrostratigraphic Cross Section B-B'
Third Quarter 2022

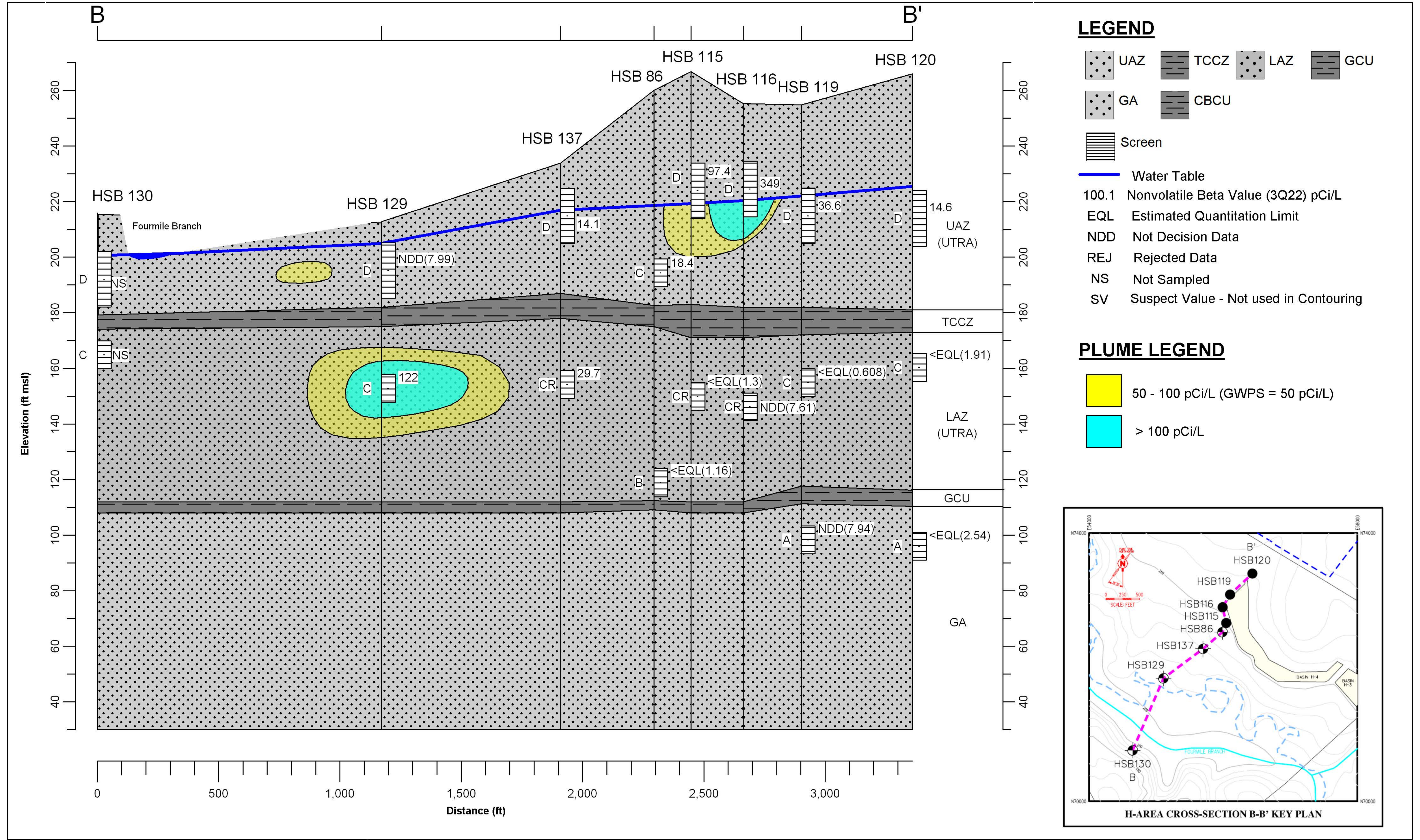
Map_14C



Report Number: SRNS-RP-2023-00762
Prepared By: Branden Kramer
Reviewed By: Kevin Boerstler
Approved By: Jeff Thibault
Date: August 31, 2023

Map 14D.
Nitrate-Nitrite H-Area HWMF
Hydrostratigraphic Cross Section B-B'
Third Quarter 2022

Map_14D

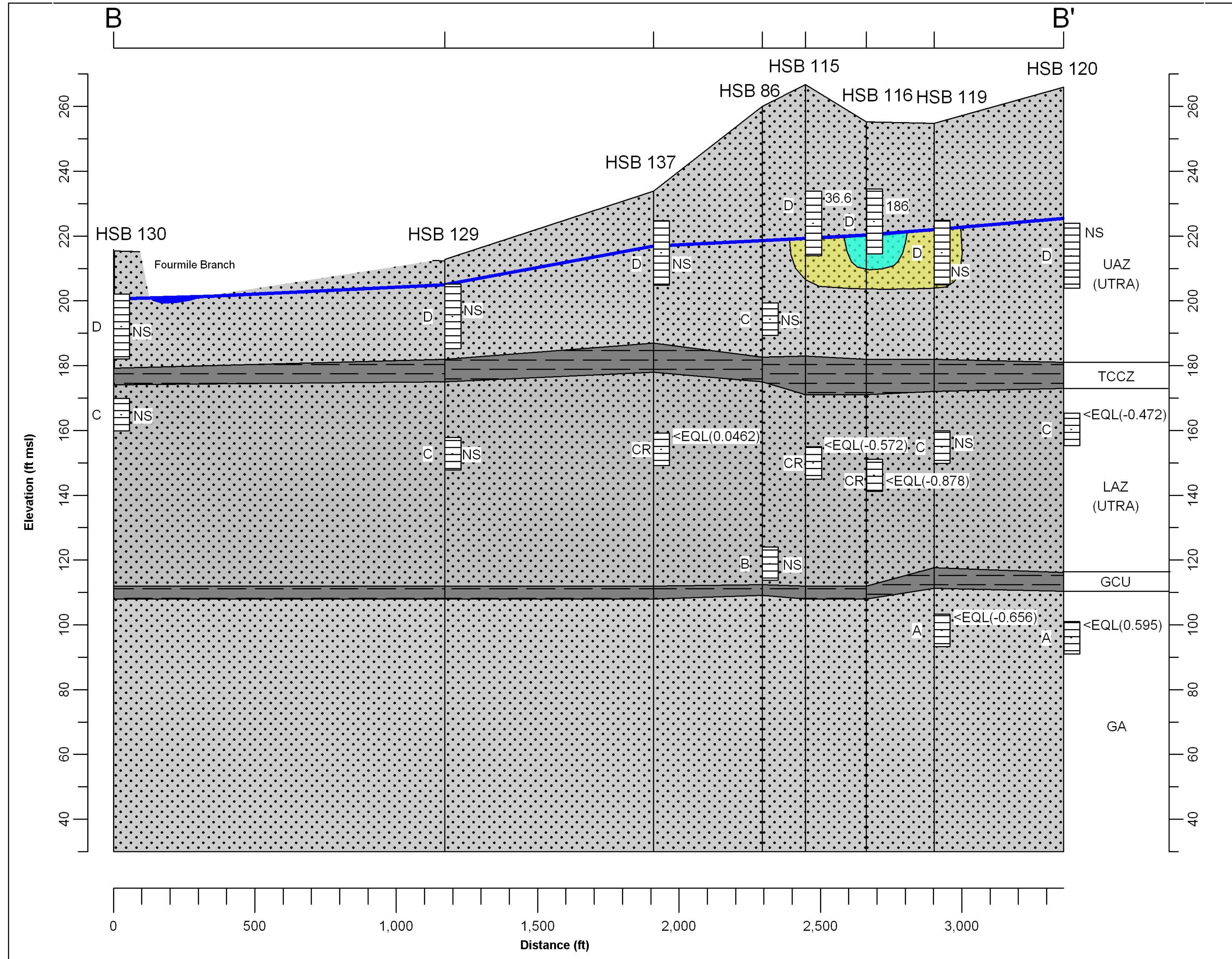


H-AREA CROSS-SECTION B-B' KEY PLAN

Report Number: SRNS-RP-2023-00762
Prepared By: Branden Kramer
Reviewed By: Kevin Boerstler
Approved By: Jeff Thibault
Date: August 31, 2023

Map 14E.
Nonvolatile Beta H-Area HWMF
Hydrostratigraphic Cross Section B-B'
Third Quarter 2022

Map_14E



LEGEND

▨ UAZ ▨ TCCZ ▨ LAZ ▨ GCU

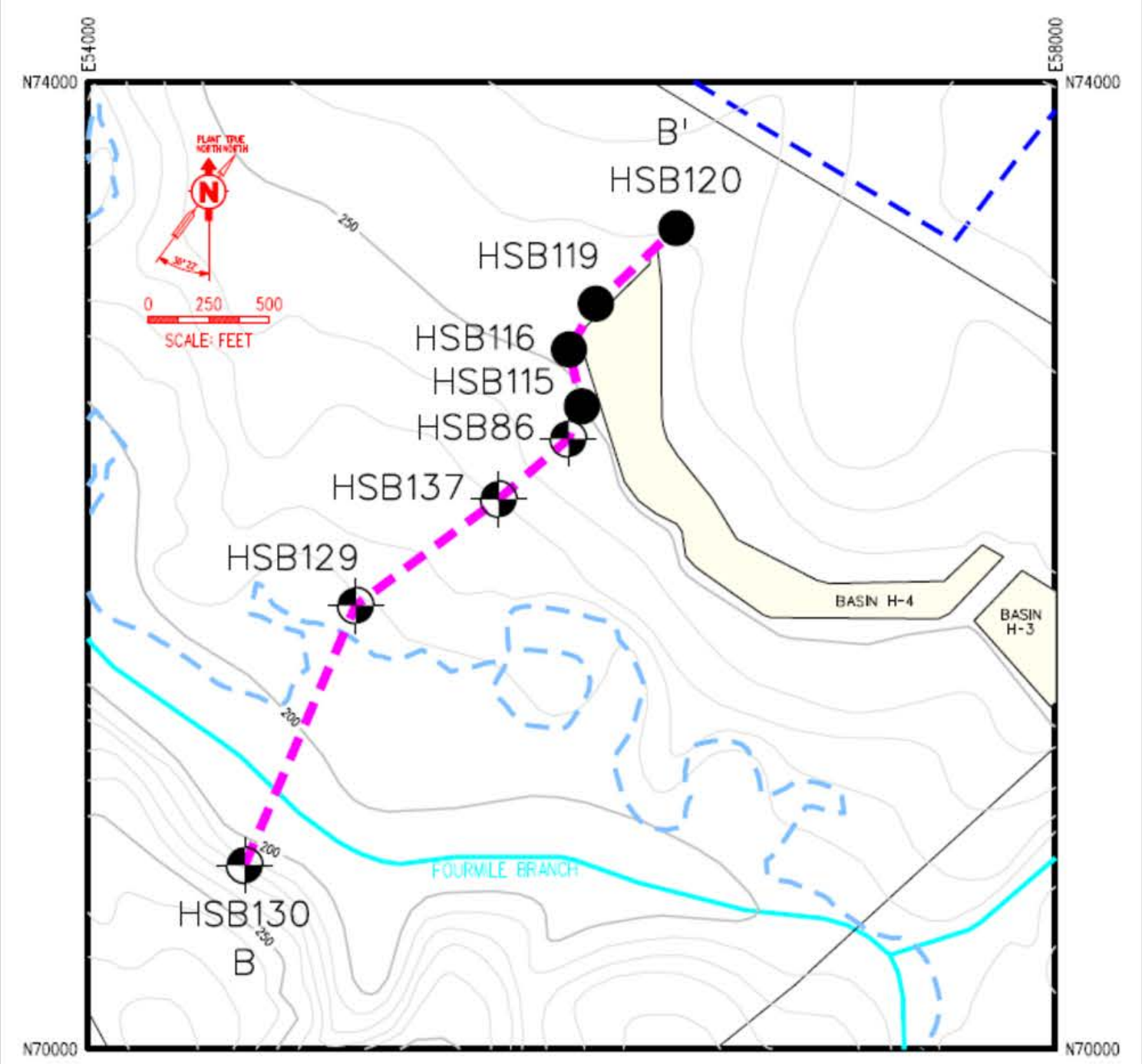
▨ GA ▨ CBCU

▤ Screen

—	Water Table
100.1	Strontium-90 Value (3Q22) pCi/L
EQL	Estimated Quantitation Limit
NDD	Not Decision Data
REJ	Rejected Data
NS	Not Sampled
SV	Suspect Value - Not used in Contouring

PLUME LEGEND

🟨	8 - 100 pCi/L (GWPS = 8 pCi/L)
🟦	> 100 pCi/L

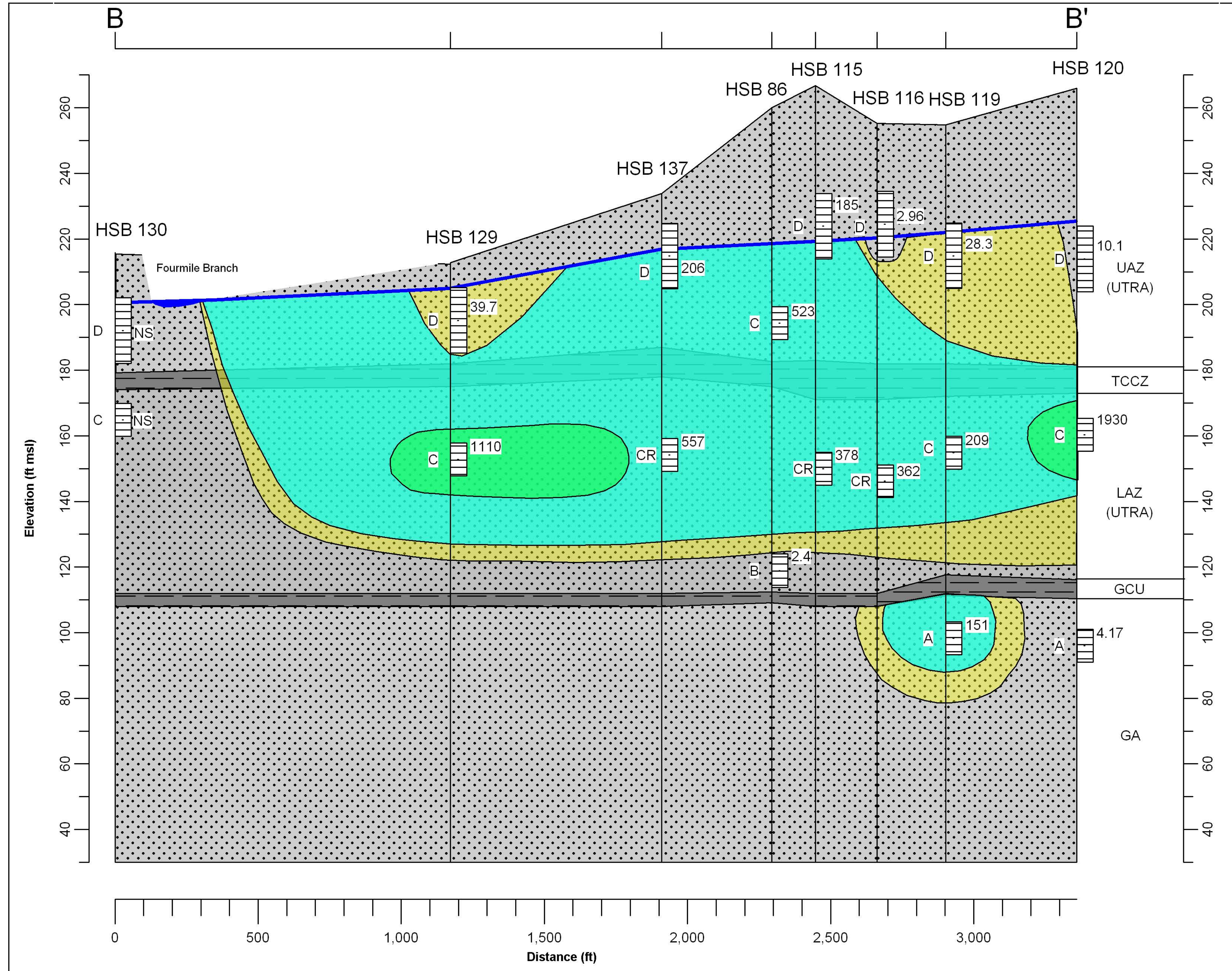


H-AREA CROSS-SECTION B-B' KEY PLAN

Report Number: SRNS-RP-2023-00762	
Prepared By: Branden Kramer	
Reviewed By: Kevin Boerstler	
Approved By: Jeff Thibault	
Date: August 31, 2023	

Map 14F.
Strontium-90 H-Area HWMF
Hydrostratigraphic Cross Section B-B'
Third Quarter 2022

Map_14F



LEGEND

▨ UAZ ▨ TCCZ ▨ LAZ ▨ GCU

▨ GA ▨ CBCU

▤ Screen

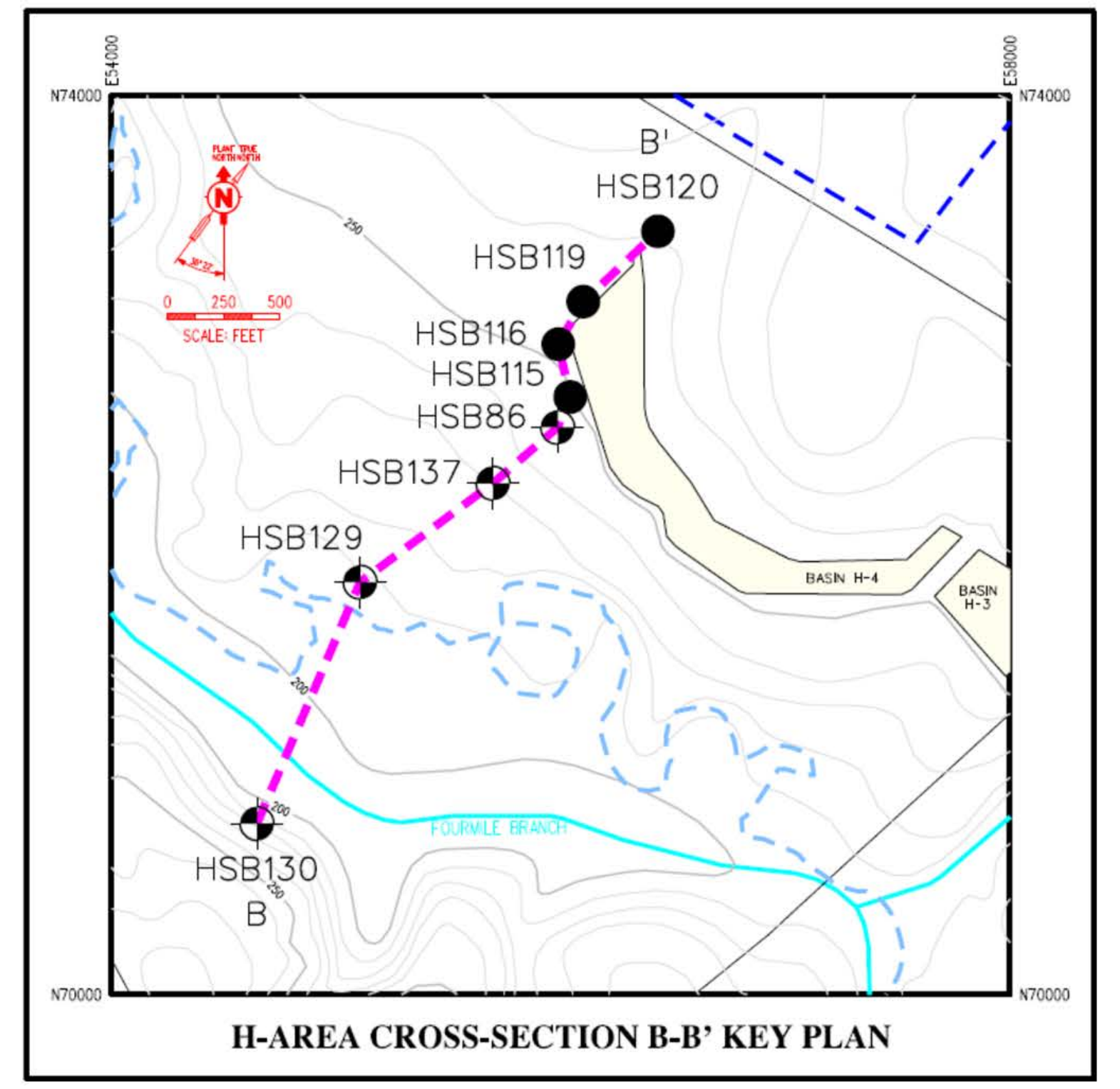
—	Water Table
100.1	Tritium Value (3Q22) pCi/mL
EQL	Estimated Quantitation Limit
NDD	Not Decision Data
REJ	Rejected Data
NS	Not Sampled
SV	Suspect Value - Not used in Contouring

PLUME LEGEND

🟨 20 - 100 pCi/mL (GWPS = 20 pCi/mL)

🟦 > 100 - 1000 pCi/mL

🟩 > 1000 - 10000 pCi/mL



H-AREA CROSS-SECTION B-B' KEY PLAN

Report Number:	SRNS-RP-2023-00762
Prepared By:	Branden Kramer
Reviewed By:	Kevin Boerstler
Approved By:	Jeff Thibault
Date:	August 31, 2023

Map 14G.
Tritium H-Area HWMF
Hydrostratigraphic Cross Section B-B'
Third Quarter 2022

Map_14G