DEPARTMENT OF THE AIR FORCE
97TH AIR MOBILITY WING (AETC)
ALTUS AIR FORCE BASE OKLAHOMA

21 April 2025

MEMORANDUM FOR Ms. Hillary Young
Chief Engineer Land Protection Division
Oklahoma Department of Environmental Quality
P.O. Box 1677
Oklahoma City, Oklahoma 73101-1677

FROM: 97 AMW/CC
100 Inez Blvd, Bldg 1
Altus AFB, Oklahoma 73523

SUBJECT: Proposed Class II Permit Modification

1. In accordance with Permit Provisions I.3.b. and I.4.(Attachment 1), Altus AFB is requesting the Oklahoma Department of Environmental Quality (ODEQ) to review the proposed modifications to Attachment 3 - AAFB Performance Monitoring Program and Attachment 4 – AAFB Performance Monitoring Program Tables and Figures--Groundwater Management Units and Monitoring Well Maps). Altus AFB will still meet the Resource Conservation and Recovery Act (Attachment 2 - RCRA) permit requirements. The modifications are explained below.

2. Altus AFB proposes changing Attachment 3 (AAFB Performance Monitoring Program) and its respective tables and figures, Attachment 4 (AAFB Performance Monitoring Program Tables and Figures).

3. Using updated information collected from the previous two three-year periods (six years total), Altus AFB proposes changes to the sampling frequency, monitoring schedule, and number of sampling locations of sentinel wells, body-of-plume wells, and source wells. No changes are proposed for the point-of-compliance (POC) wells. The proposed Performance Monitoring Program removes several wells as sampling data collected from the previous sampling events was either duplicative with other nearby wells or the analytical results have been less than the Maximum Contaminant Level (MCL) under the Safe Drinking Water Act. Eliminating these monitoring wells will have no effect on the capability of the existing Performance Monitoring System to demonstrate Altus AFB is meeting its goals.

4. If you have any questions or comments, my point of contact for this is Mr. Michael Ruhl at 580-481-7346 or via email at michael.ruhl.2@us.af.mil.

JEFFREY M. MARSHALL, Colonel, USAF
Commander

AIRMEN - MISSION - CULTURE

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LAND PROTECTION DIVISION
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ATTACHMENT 3
ALTUS AIR FORCE BASE
PERFORMANCE MONITORING PROGRAM

ATTACHMENT 3
ALTUS AIR FORCE BASE PERFORMANCE MONITORING PROGRAM

INTRODUCTION

Altus AFB, the United States Environmental Protection Agency (USEPA), Region VI, and the Oklahoma Department of Environmental Quality (ODEQ) have agreed to implement four groundwater management units (GWMUs) at Altus AFB to manage environmental releases characterized in the *Draft Resource Conservation and Recovery Act (RCRA) Facility Investigation/Investigation Analysis/Corrective Measures Study Report (Draft RFI/CMS Report)* for Altus AFB (Earth Tech, 2002). The four GWMUs, as shown on **Figure 1** in Attachment 4, required further remedial action and/or performance monitoring, as described in the *Final Corrective Measures Implementation (CMI) Plan, Appendix B (CMI Performance Monitoring Plan)* for Altus AFB (Earth Tech, 2009). The *CMI Performance Monitoring Plan* was approved by the USEPA Region VI on January 30, 2009, and the ODEQ on February 23, 2009. The requirements of the 2009 *CMI Performance Monitoring Plan* were fulfilled in 2012 with: 1) the completion of the defined 3-year monitoring period; 2) the CMI performance review at Altus AFB in 2011; and 3) the submission and acceptance of the *Plume Stability Assessment Report for Altus Air Force Base* (Earth Tech, 2012). The outcome of the CMI performance review was ODEQ concurrence that the groundwater plumes were stable or shrinking.

A Class 2 Permit Modification, proposing changes to the existing performance monitoring program was submitted on March 27, 2013, and approved by ODEQ (ODEQ, 2017). The 2013 Class 2 Permit modification optimized the compliance monitoring network resulting in a reduction of the total number of wells sampled and reassignment of the sampling frequency of a subset of monitoring wells.

The Resource Conservation and Recovery Act Correct Action Permit No. 9571824045-CA (Permit) Section III.B. lists three corrective action strategy (CAS) performance standards Altus AFB is required to meet, including: 1) Source Control Performance Standard; 2) Statutory and Regulatory Performance Standard; and 3) Final Risk Goal Performance Standard. Altus AFB will use surface water and groundwater contaminant concentrations in determining if the groundwater plumes continue to meet the final corrective action objective (CAO) defined in the Permit (i.e., plume containment). The monitoring system will consist of a compliance monitoring network. The goal of this Permit Attachment is to optimize the existing compliance monitoring well network and surface water sampling locations for the purpose of monitoring compliance with the CAOs.

A. COMPLIANCE MONITORING PROGRAM

The current Compliance Monitoring Network consists of groundwater monitoring wells and surface water sampling locations as shown in Attachment 4 on **Figures 2, 3, 4** and **5** and listed in **Table 1 Master List of Monitoring Wells Listed Alphanumerically** (includes all wells from the current Compliance Monitoring Network and indicates the proposed optimization changes). **Tables 2a, 2b, 3, 4, 5a** and **5b**

list the Optimized sampling locations (groundwater and surface water) by GWMU. **Figure 6** shows the base-wide optimized Compliance Monitoring Network and the Fall 2023 Trichloroethylene (TCE) plume footprint. **Figure 7** presents the optimized Compliance Monitoring Network at GWMU 1 and GWMU 2 and the Fall 2023 Carbon Tetrachloride plume footprint. Carbon Tetrachloride has not been detected above MCLs at GWMU 3 or GWMU 4. **Table 6** graphically summarized the proposed optimization changes. The Compliance Monitoring Network is designed to address Permit Section III.B.2.b., by monitoring contaminant levels in surface water and groundwater until said concentrations are conclusively demonstrated to be stable or shrinking. The Compliance Monitoring Network is as follows:

1. As described in the *CMI Performance Monitoring Plan*, the Compliance Monitoring Network consists of four types of groundwater monitoring wells:
    a. Point-of-compliance (POC) wells are located at or near the most downgradient limit of the Altus AFB Institutional Controls (ICs). The purpose of the POC wells is to demonstrate that levels of contaminant concentrations are less than the federal maximum contaminant levels (MCLs) for drinking water at the POC, demonstrating that the groundwater exposure within the plume is under the control of Altus AFB.
    b. Sentinel wells located immediately upgradient of the POC wells. The sentinel wells are intended to provide an early indication of plume migration that may potentially result in the exceedance of a contaminant MCL at a POC well.
    c. Body-of-plume wells located within the body of the plumes. The purpose of the body-of-plume wells is to provide information on contaminant concentrations within the plume.
    d. Source area wells located at or within the known or suspected source areas of the plumes. The purpose of the source area wells is to provide data about the contaminant degradation processes and rates.
2. The surface water monitoring locations are POC locations located at the downstream limits of Altus AFB ICs. There are two surface water POC locations. One is located within Southern Unnamed Tributary of Stinking Creek on the south side of Highway 62, and the other is located where Stinking Creek exits the eastern base boundary.

The Compliance Monitoring Network sampling frequency is as follows:

a. POC wells shall be sampled semiannually;
b. Sentinel wells shall be sampled annually or triennially;
c. Select body-of-plume wells shall be sampled annually or triennially;
d. Source area wells shall be sampled annually or triennially; and
e. Surface water POC locations shall be sampled semiannually.

The Compliance Monitoring Program will be evaluated for optimization by the Permitee prior to each CMI Performance Review. The optimization process may include optimizing: 1) the number of monitoring wells, which may require monitoring wells be removed or added to the Program; 2) the sampling frequency for each well; and/or 3) the analytical suite for each well. The intent of the optimization is to collect only the data necessary to measure the progress toward achieving the primary

groundwater CAO of plume containment at Altus AFB. Any optimization of the Compliance Monitoring Program would require the approval of the Administrative Authority.

B. COMPLIANCE MONITORING SAMPLING AND ANALYSIS

1. All samples obtained from the Compliance Monitoring Network shall be analyzed for Volatile (or purgeable) Organic Compounds (VOCs) by USEPA Method SW8260C (Appendix IX). The specific parameters are listed in Table 7.2.4-1 of Part II of the *Final Performance Monitoring Sampling and Analysis Plan* for Altus AFB (Earth Tech AECOM, 2009) and approved by the ODEQ on December 24, 2008.
2. Field measurements of field parameters including pH, temperature, dissolved oxygen, oxidation reduction potential and specific conductivity shall be measured and recorded at the time of each sample collection. Samples will be obtained in accordance with the *Final Performance Monitoring Sampling and Analysis Plan, Part I Field Sampling Plan*.
3. Data validation shall be completed in accordance with the approved *Part II Quality Assurance Project Plan*, contained in the *Final Performance Monitoring Sampling and Analysis Plan*. The results of the analysis shall be presented in the annual Conceptual Site Model (CSM) Report required by Permit Section III.D.
4. If problems are identified with either the field sampling procedures or the laboratory QA/QC, the need to resample shall be at the discretion of the Administrative Authority.
5. The groundwater elevation shall be measured before each sample collection.
6. Data collected from the compliance monitoring activities may be used to update the Conceptual Site Model (CSM), as stipulated in Permit Section III.D.

C. COMPLIANCE MONITORING DATA EVALUATION

1. Analytical data collected for each individual well and surface water sampling location shall be evaluated to determine if the plume is stable. Permit Section III.B.2.b. requires conclusive demonstration of a stable or shrinking plume. Acceptable methodology for demonstration of plume stability includes:
    a. A non-parametric statistical procedure such as the Mann-Kendall Trend Analysis;
    b. A parametric statistical procedure such as linear regression analysis; and
    c. Numerical flow and transport modeling.
2. The analytical data collected from the compliance monitoring activities may be used to update the Conceptual Site Model (CSM), as required under Permit Section III.D.
3. In accordance with Permit Section III.C.1.d., the CMI Plan requires a review every three years to measure the effectiveness of the remedy in meeting the CAOs. Adjustments to data collection shall be made, as necessary.

D. REPORTING

As required by Permit Section III.C.1.d, every three (3) years the effectiveness of the remedy shall be reviewed to determine if the selected remedy is meeting the CAOs listed in Permit Section III.B.2. This review will be documented in a CMI Performance Review Report every third year. The CMI Performance Review Reports will contain:

a. A review and update (as necessary) of the conceptual site model (CSM), with new information collected;
b. A comprehensive assessment of plume stability;
c. An assessment of in situ attenuation rates;
d. A summary or graphical representation of the statistical analyses conducted;
e. A summary or graphical representation of the evaluation of the geochemical indicator parameters (e.g., iso-concentration maps of contaminant concentrations over time);
f. A table summary of groundwater elevations;
g. Groundwater flow direction and velocities and the equations, calculations, and parameters used to make the calculations; and
h. Contour maps depicting iso-concentrations of COCs and plume boundaries.

In the years between CMI Performance Reviews, a concise annual report will be prepared that contains:

a. A review and update (as necessary) of the CSM, with new information collected;
b. A narrative summary of groundwater and surface water data;
c. A table summary of groundwater and surface water detections;
d. A summary or graphical representation of the statistical analyses conducted; and
e. A table summary of groundwater elevations.

The annual data reports and CMI Performance Review Reports shall be submitted to the Administrative Authority by October 31 each year following the annual CMI review meeting.

E. References

Earth Tech. 2002. *Draft Resource Conservation and Recovery Act Facility Investigation, Investigation Analysis, Corrective Measures Study Report; Altus Air Force Base, Oklahoma.* November.

Earth Tech. 2009. *Final Appendix B Corrective Measures Implementation (CMI) Performance Monitoring Plan; Altus Air Force Base, Oklahoma. April.*

Earth Tech. 2009. *Final Performance Monitoring Work Plan; Altus Air Force Base, Oklahoma.* June.

Earth Tech. 2009. *Final Performance Monitoring Sampling and Analysis Plan; Altus Air Force Base, Oklahoma.* June.

Earth Tech AECOM, 2012. *Final Plume Stability Assessment Report for Altus Air Force Base, Oklahoma.* February.

Oklahoma Department of Environmental Quality (ODEQ). 2008. Letter from the Oklahoma Department of Environmental Quality approving the Draft Performance Monitoring Work Plan, Draft Performance Monitoring Health and Safety Plan, and Draft Performance Monitoring Sampling and Analysis Plan. December.

ODEQ. 2009. Letter from the Oklahoma Department of Environmental Quality approving the Final CMI Work Plan and Appendices A through F. February.

ODEQ. 2010. *Resource Conservation and Recovery Act Corrective Action Permit No. 9571824045-CA, Altus Air Force Base, Oklahoma.* January.

ODEQ. 2017. Letter from the Oklahoma Department of Environmental Quality approving the Class 2 Permit Modification: Optimization of groundwater monitoring EPA ID# OK9571824045; RCRA Corrective Action Permit #9571824045-CA. March.

United States Environmental Protection Agency (USEPA). 2009. Letter from the United States Environmental Protection Agency approving the Final CMI Work Plan and Appendices A through F. January.

ATTACHMENT 4
ALTUS AIR FORCE BASE
PERFORMANCE MONITORING PROGRAM TABLES AND FIGURES

ATTACHMENT 4

GWMU 4

GWMU 2

GWMU 3

GWMU 1

35R

35L

TAXIWAY F

TAXIWAY C

TAXIWAY M

TAXIWAY N

TAXIWAY E2

TAXIWAY E1

TAXIWAY B

TAXIWAY A

TAXIWAY D

350 175 0 350 700

Feet

N

Legend

- Plume Footprint
- GWMU
- Altus Installation Boundary

NOTE:
The groundwater plumes shown are a general representation of the plumes that occur across the Upper, Lower, and Intermediate (where present) aquifer zones; the plumes were first presented in the 2002 RFI Report.

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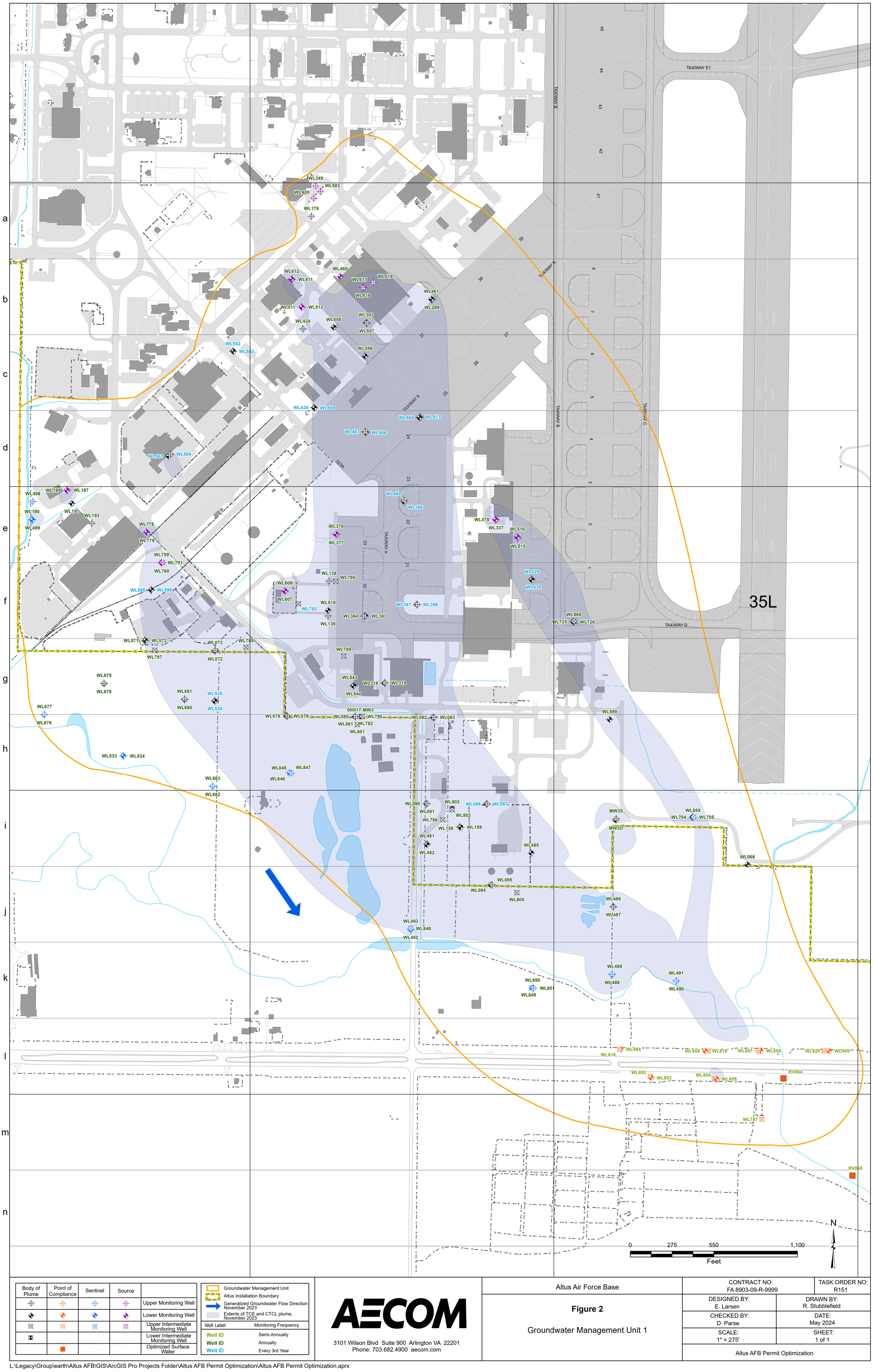
Figure 1

Groundwater Management Units

CONTRACT NO: FA 8903-09-R.9999	TASK ORDER NO: R151
DESIGNED BY: B. Perrigo	DRAWN BY: R. Stubblefield
CHECKED BY: D. Parse	DATE: July 2024
SCALE: 1" = 275'	SHEET: 1 of 1
Altus AFB 2024 PM	

Layout: Figure 1-2 Groundwater Management Units_Fall_2023
Path:L:\Legacy\Group\earth\Altus AFB\GIS\ArcGIS Pro Projects Folder\Altus AFB 2024 PM\Altus AFB 2024 PM.aprx



Body of Plume	Point of Compliance	Sentinel	Source	
⊕	⊕	⊕	⊕	Upper Monitoring Well
◆	◆	◆	◆	Lower Monitoring Well
⊠	⊠	⊠	⊠	Upper Intermediate Monitoring Well
⊠				Lower Intermediate Monitoring Well
	■			Optimized Surface Water

- Groundwater Management Unit
- Altus Installation Boundary
- Generalized Groundwater Flow Direction November 2023
- Extents of TCE and CTCL plume, November 2023

Well Label	Monitoring Frequency
Well ID	Semi-Annually
Well ID	Annually
Well ID	Every 3rd Year

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Figure 2

Groundwater Management Unit 1

CONTRACT NO: FA 8903-09-R-9999	TASK ORDER NO: R151
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SCALE: 1" = 275'	SHEET: 1 of 1

Altus AFB Permit Optimization

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A B C D

1 2 3 4 5

WL763 WL766 WL234 WL755 WL581 WL582 WL240 WL241 WL757 WL242 WL539

TAXIWAY F
UNUSABLE TAXIWAY
UNUSABLE TAXIWAY
TAXIWAY C
TAXIWAY B-2
TAXIWAY B-1
TAXIWAY B
TAXIWAY E1
TAXIWAY A
TAXIWAY N

Body of Plume	Point of Compliance	Sentinel	Source	
				Upper Monitoring Well
				Lower Monitoring Well
				Upper Intermediate Monitoring Well
				Lower Intermediate Monitoring Well

- Groundwater Management Unit
- Altus Installation Boundary
- Generalized Groundwater Flow Direction November 2023
- Extents of TCE and CTCL plume, November 2023

Well Label	Monitoring Frequency
Well ID	Annually
Well ID	Every 3rd Year

35L

N

500 250 0 500

1 Inch = 500

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FIGURE 3

Groundwater Management Unit 2

CONTRACT NUMBER: W912BV-20-C-0016

DESIGNED BY	DRAWN BY
E. Larsen	R. Stubblefield
CHECKED BY	DATE
E. Larsen	12/9/2024
SCALE	SHEET
As Shown Above	1 of 1

FILE: Altus AFB Permit Optimization

Layout: Figure 3 GWMU2 Monitoring Network 1117 Portrait
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C B E F

1 2 3 4

TAXIWAY N

TAXIWAY E2

TAXIWAY E2

928

35R

35L

WL708

WL709

WL721 WL720

WL729 WL730

WL751

WL752

WL753 WL754

492 493 493

455 454

491 490 494 489 495 488 496 487 497 486

479 476 476

Body of Plume	Point of Compliance	Sentinel	Source	
⊕	⊕	⊕	⊕	Upper Monitoring Well
⊕	⊕	⊕	⊕	Lower Monitoring Well
⊠	⊠	⊠	⊠	Upper Intermediate Monitoring Well
⊠				Lower Intermediate Monitoring Well

Groundwater Management Unit

Altus Installation Boundary

Generalized Groundwater Flow Direction November 2023

Extents of TCE Plume, November 2023

Well Label	Monitoring Frequency
Well ID	Annually
Well ID	Every 3rd Year

N

500 250 0 500

1 Inch = 500 Feet

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FIGURE 4

Groundwater Management Unit 3

CONTRACT NUMBER: W912BV-20-C-0016

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E. Larsen	R. Stubblefield
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E. Larsen	12/9/2024
SCALE	SHEET
As Shown Above	1 of 1

FILE: Altus AFB Permit Optimization

Layout: Figure 4 GWMU 3 Monitoring Network 1117 Portrait
Path: L:\Legacy\Group\earth\Altus AFB\GIS\ArcGIS Pro Projects Folder\Altus AFB Permit Optimization\Altus AFB Permit Optimization.aprx

D E F

1 2 3 4

WL110 WL015 WL123 WL068 WL250 WL021 WL249 OU-1-01 WL566 WL590 WL591 WL455 WL454 OU-1-06 WL453 WL527 WL528 WL812 WL272 WL253 WL359 WL254 WL060 WL276 WL458 WL459 WL279 WL280 RV015 WL061 WL062 WL814 WL816

TAXIWAY M

TAXIWAY E2

35R

Body of Plume	Point of Compliance	Sentinel	Source	
⊕	⊕	⊕	⊕	Upper Monitoring Well
⊕	⊕	⊕	⊕	Lower Monitoring Well
⊠	⊠	⊠	⊠	Upper Intermediate Monitoring Well
⊠				Lower Intermediate Monitoring Well
	■			Optimized Surface Water

- Groundwater Management Unit
- Altus Installation Boundary
- Generalized Groundwater Flow Direction November 2023
- Extents of TCE Plume, November 2023

Well Label	Monitoring Frequency
Well ID	Semi-Annually
Well ID	Annually
Well ID	Every 3rd Year

N

500 250 0 500

1 Inch = 500 Feet

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FIGURE 5

Groundwater Management Unit 4

CONTRACT NUMBER:	W912BV-20-C-0016
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CHECKED BY	E. Larsen
DATE	12/9/2024
SCALE	As Shown Above
SHEET	1 of 1
FILE:	Altus AFB Permit Optimization

Layout: Figure 5 GWMU4 Monitoring Network 1117 Portrait
Path: L:\Legacy\Group\earth\Altus AFB\GIS\ArcGIS Pro Projects Folder\Altus AFB Permit Optimization\Altus AFB Permit Optimization.aprx

GWMU 1

GWMU 2

GWMU 3

GWMU 4

35L

35R

TAXIWAY F

TAXIWAY C

TAXIWAY E2

TAXIWAY E1

TAXIWAY N

TAXIWAY M

TAXIWAY D

N

350 175 0 350 700

Feet

Body of Plume	Point of Compliance	Sentinel	Source	
⊕	⊕	⊕	⊕	Upper Monitoring Well
◆	◆	◆	◆	Lower Monitoring Well
⊠	⊠	⊠	⊠	Upper Intermediate Monitoring Well
⧈				Lower Intermediate Monitoring Well
	■			Optimized Surface Water

Groundwater Management Unit

Altus Installation Boundary

Well Label	Monitoring Frequency
Well ID	Semi-Annually
Well ID	Annually
Well ID	Every 3rd Year
Well ID	Dropped from Program

Fall 2023 Upper Zone Plume
- TCE: 5 - 50 µg/L
- TCE: 50 - 500 µg/L
- TCE: 500 - 5000 µg/L
- TCE: >5000 µg/L

Fall 2023 Lower Zone Plume
- TCE: 5 - 50 µg/L
- TCE: 50 - 500 µg/L
- TCE: 500 - 5000 µg/L
- TCE: >5000 µg/L

Fall 2023 UIZ Plume
- TCE: 5 - 50 µg/L
- TCE: 50 - 500 µg/L
- TCE: >500 µg/L

NOTE:
The groundwater plumes shown are a general representation of the plumes that occur across the Upper, Lower, and Intermediate (where present) aquifer zones: the plumes were first presented in the 2002 RFI Report.

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Figure 6

Proposed Base Wide Optimized Monitoring Network
(Iso-Concentration Map of Trichloroethylene Plume)

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SCALE: 1" = 350'	SHEET: 1 of 1
Altus AFB Permit Optimization	

Layout: Figure 6 Optimised Groundwater Management Units_Fall_2023
Path:L:\Legacy\Group\earth\Altus AFB\GIS\ArcGIS Pro Projects Folder\Altus AFB Permit Optimization\Altus AFB Permit Optimization.aprx

GWMU 2
AOC-2-C-5 / SS013
GWMU 3
SWMU 21 / SS010
SS022
GWMU 1
AOC6/SS016
SS017
SS018
SS023
35L
TAXIWAY E1
TAXIWAY A
TAXIWAY B
TAXIWAY C
TAXIWAY D
WL755
WL581
WL582
WL240
WL241
WL757
WL242
WL539
WL349
WL583
WL400
WL178
WL612
WL611
WL460
WL619
WL617
285
WL618
WL461
WL289
WL511
WL512
WL555
WL303
WL507
WL424
WL552
WL553
WL556
WL430
WL559
WL413
WL468
WL467
WL466
WL504
WL503
WL469
WL386
WL478
WL337
WL516
WL515
WL378
WL377
WL138
WL790
WL608
WL607
WL792
WL519
WL139
WL387
WL388
WL383
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WL629
WL630
WL860
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WL677
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WL845
WL847
WL846
WL683
WL682
WL078
WL079
WL081
WL080
WL782
WL795
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WL801
WL082
WL083
WL599
WL090
WL091
WL802
WL086
WL087
WL786
WL803
WL159
WL158
WL481
WL482
WL485
WL095
WL094
WL805
MW3S
MW3D
WL704
WL859
WL705
WL066
WL486
WL487
WL493
WL848
WL492
WL489
WL488
WL491
WL490
WL850
WL849
WL851
WL818
WL494
WL858
WL819
WL857
WL856
WL820
WL495
WL852
WL853
WL854
WL855
WL787
N
200 100 0 200 400
Feet

Body of Plume	Point of Compliance	Sentinel	Source	
⊕	⊕	⊕	⊕	Upper Monitoring Well
⊕	⊕	⊕	⊕	Lower Monitoring Well
⊠	⊠	⊠	⊠	Upper Intermediate Monitoring Well
⊠				Lower Intermediate Monitoring Well
	■			Optimized Surface Water

Groundwater Management Unit
Altus Installation Boundary

Well Label	Monitoring Frequency
Well ID	Semi-Annually
Well ID	Annually
Well ID	Every 3rd Year
Well ID	Dropped from Program

Fall 2023 CTCL Upper Zone Plume
CTCL: >5 µg/L

Fall 2023 CTCL Lower Zone Plume
CTCL: 5 - 50 µg/L
CTCL: 50 - 500 µg/L
CTCL: 500 - 5000 µg/L
CTCL: >5000 µg/L

Fall 2023 CTCL UIZ Plume
CTCL: 5 - 50 µg/L
CTCL: >50 µg/L

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Figure 7

Proposed GWMU 1 and GWMU 2 Optimized Monitoring Network
(Iso-Concentration Map of Carbon Tetrachloride Plume)

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DESIGNED BY: B. Perrigo	DRAWN BY: R. Stubblefield
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SCALE: 1" = 350'	SHEET: 1 of 1

Altus AFB Permit Optimization

Layout: Figure 7 Proposed GWMU Monitoring Locations Fall_20231
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Table 1
Master List of Monitoring Wells Listed Alphanumerically

Well ID	GWMU	Monitoring Frequency	Site	Location Type	Well Screen Interval	Basewide Grid
000I17-MW3	1	Annual	SS017	Body	UIZ	B-5 (g)
MW3D	1	Annual	SS017	Body	Lower	C-6 (i)
MW3S	1	Annual	SS017	Body	Upper	C-6 (i)
OU-1-01	4	Triennial*	LF004	Source	Upper	E-2
OU-1-06	4	Annual	LF004	Body	Lower	E-2
RV015	4	Semi-annual	LF004	POC	Surface Water	F-3
RV064	1	Semi-annual	SS017	POC	Surface Water	C-6 (m)
RV065	1	Semi-annual	SS017	POC	Surface Water	C-7
WL015	4	Annual	FT003	Source	Upper	D-1
WL021	4	Triennial	LF004	Body	Upper	E-1
WL060	4	Semi-annual	LF004	POC	Upper	F-2
WL061	4	Semi-annual	LF004	POC	Lower	F-3
WL062	4	Semi-annual	LF004	POC	Upper	F-3
WL066	1	Annual	SS017	Body	Lower	C-6 (i)
WL068	4	Triennial*	FT003	Body	Upper	D-2
WL072	1	Triennial*	SS018	Body	Lower	A-5 (g)
WL073	1	Triennial*	SS018	Body	Upper	A-5 (g)
WL078	1	Annual	SS017	Body	Lower	B-5 (g)
WL079	1	Annual	SS017	Body	Upper	B-5 (g)
WL080	1	Annual	SS017	Body	Lower	B-5 (g)
WL081	1	Annual	SS017	Body	Upper	B-5 (g)
WL082	1	Annual	SS017	Body	Lower	B-5 (h)
WL083	1	Annual	SS017	Body	Upper	B-5 (h)
WL086	1	Triennial	SS017	Body	Lower	B-6 (i)
WL087	1	Triennial	SS017	Body	Upper	B-6 (i)
WL090	1	Annual	SS017	Body	Lower	B-6 (i)
WL091	1	Annual	SS017	Body	Upper	B-6 (i)
WL094	1	Annual	SS017	Body	Lower	B-6 (j)
WL095	1	Annual	SS017	Body	Upper	B-6 (j)
WL110	4	Annual	FT003	Source	Lower	D-1
WL123	4	Triennial*	FT003	Body	Lower	D-2
WL138	1	Annual	SS017	Body	Upper	B-5 (f)
WL139	1	Annual	SS017	Body	Upper	B-5 (f)
WL158	1	Annual	SS017	Body	Upper	B-6 (j)
WL159	1	Annual	SS017	Body	Lower	B-6 (j)
WL178	1	Triennial*	SS022	Body	Upper	B-4 (a)
WL187	1	Annual	SS018	Source	Upper	A-5 (e)
WL189	1	Annual	SS018	Source	Lower	A-5 (e)
WL190	1	Triennial	SS018	Sentinel	Upper	A-5 (e)
WL191	1	Triennial*	SS018	Body	Lower	A-5 (e)
WL193	1	Triennial*	SS018	Body	Upper	A-5 (e)
WL234	2	Triennial	FT005	Body	Upper	C-2
WL240	2	Annual	AOC 2 C-5	Source	Upper	B-3
WL241	2	Annual	AOC 2 C-5	Source	Lower	B-3

Table 1
Master List of Monitoring Wells Listed Alphanumerically (Continued)

Well ID	GWMU	Monitoring Frequency	Site	Location Type	Well Screen Interval	Basewide Grid
WL242	2	Not included in PM	AOC 2 C-5	Body	Upper	C-3
WL249	4	Annual	LF004	Source	Lower	E-2
WL250	4	Annual	LF004	Source	Upper	E-2
WL253	4	Annual	LF014	Body	Upper	E-2
WL254	4	Annual	LF014	Body	Lower	E-2
WL272	4	Triennial*	LF004	Body	Lower	E-2
WL276	4	Triennial	LF004	Sentinel	Upper	F-2
WL279	4	Triennial	LF004	Sentinel	Lower	F-3
WL280	4	Triennial	LF004	Sentinel	Upper	F-3
WL289	1	Triennial*	SS022	Body	Upper	B-4 (b)
WL303	1	Annual	SS022	Body	Lower	B-4 (b)
WL318	1	Annual	SS017	Body	Lower	B-5 (g)
WL319	1	Annual	SS017	Body	Upper	B-5 (g)
WL337	1	Annual	SS023	Source	Upper	B-5 (e)
WL349	1	Not included in PM	SS022	Source	Upper	B-4 (a)
WL359	4	Annual	LF014	Body	Upper	E-2
WL377	1	Annual	SS017	Source	Upper	B-5 (e)
WL378	1	Annual	SS017	Source	Lower	B-5 (e)
WL383	1	Annual	SS017	Body	Lower	B-5 (f)
WL384	1	Annual	SS017	Body	Upper	B-5 (f)
WL386	1	Not included in PM	SS022	Body	Lower	B-5 (e)
WL387	1	Triennial	SS017	Body	Lower	B-5 (f)
WL388	1	Triennial	SS017	Body	Upper	B-5 (f)
WL400	1	Triennial*	SS022	Source	Upper	B-4 (a)
WL413	1	Triennial	SS022	Body	Upper	B-4d
WL424	1	Annual	SS022	Body	Upper	B-4 (b)
WL430	1	Not included in PM	SS022	Body	Upper	B-4 (c)
WL453	4	Annual	LF004	Body	Upper	E-2
WL454	4	Triennial*	LF004	Body	Lower	E-2
WL455	4	Triennial*	LF004	Body	Upper	E-2
WL458	4	Semi-annual	LF004	POC	Lower	F-2
WL459	4	Semi-annual	LF004	POC	Upper	F-2
WL460	1	Triennial*	SS022	Source	Lower	B-4 (b)
WL461	1	Annual	SS022	Body	Lower	B-4 (b)
WL466	1	Triennial	SS022	Body	Lower	B-4d
WL467	1	Triennial	SS022	Body	Upper	d-4d
WL468	1	Triennial	SS022	Body	Lower	B-4d
WL469	1	Not included in PM	SS022	Body	Upper	B-5 (e)
WL478	1	Annual	SS023	Source	Lower	B-5 (e)
WL481	1	Annual	SS017	Body	Upper	B-6 (j)
WL482	1	Annual	SS017	Body	Lower	B-6 (j)
WL485	1	Annual	SS017	Body	Lower	B-6 (i)
WL486	1	Annual	SS017	Body	Lower	C-6 (j)
WL487	1	Annual	SS017	Body	Upper	C-6 (j)

Table 1
Master List of Monitoring Wells Listed Alphanumerically (Continued)

Well ID	GWMU	Monitoring Frequency	Site	Location Type	Well Screen Interval	Basewide Grid
WL488	1	Annual	SS017	Sentinel	Lower	C-6 (k)
WL489	1	Annual	SS017	Sentinel	Upper	C-6 (k)
WL490	1	Annual	SS017	Sentinel	Lower	C-6 (k)
WL491	1	Annual	SS017	Sentinel	Upper	C-6 (k)
WL492	1	Annual	SS017	Sentinel	Lower	B-6 (j)
WL493	1	Annual	SS017	Sentinel	Upper	B-6 (j)
WL494	1	Semi-annual	SS017	POC	Lower	C-6 (l)
WL495	1	Semi-annual	SS017	POC	Lower	C-6 (l)
WL498	1	Triennial*	SS018	Sentinel	Upper	A-5 (e)
WL499	1	Annual	SS018	Sentinel	Lower	A-5 (e)
WL503	1	Triennial	SS022	Body	Lower	A-4 (b)
WL504	1	Not included in PM	SS022	Body	Upper	A-4 (b)
WL507	1	Annual	SS022	Body	Upper	B-4 (b)
WL511	1	Annual	SS022	Source	Upper	B-4 (b)
WL512	1	Annual	SS022	Source	Lower	B-4 (b)
WL515	1	Annual	SS023	Source	Upper	B-5 (e)
WL516	1	Annual	SS023	Source	Lower	B-5 (e)
WL519	1	Annual	SS017	Body	Lower	B-5 (f)
WL527	4	Triennial	LF004	Body	Upper	E-2
WL528	4	Triennial	LF004	Body	Lower	E-2
WL533	1	Triennial*	SS018	Sentinel	Upper	A-5 (h)
WL534	1	Triennial*	SS018	Sentinel	Lower	A-5 (h)
WL535	1	Triennial	SS018	Body	Upper	A-5 (g)
WL536	1	Triennial	SS018	Body	Lower	A-5 (g)
WL539	2	Not included in PM	AOC 2 C-5	Body	Lower	C-3
WL543	1	Triennial*	SS017	Body	Upper	B-5 (g)
WL544	1	Triennial*	SS017	Body	Lower	B-5 (g)
WL552	1	Not included in PM	SS022	Body	Upper	A-4 (c)
WL553	1	Not included in PM	SS022	Body	Lower	A-4 (c)
WL555	1	Annual	SS022	Body	Lower	B-4 (b)
WL556	1	Triennial*	SS022	Body	Lower	B-4 (c)
WL559	1	Triennial	SS022	Body	Lower	B-4 (c)
WL566	4	Annual	LF004	Source	Lower	E-2
WL571	1	Annual	SS018	Body	Upper	A-5 (f)
WL572	1	Annual	SS018	Body	Lower	A-5 (f)
WL581	2	Triennial	AOC 2 C-5	Body	Upper	B-3
WL582	2	Triennial	AOC 2 C-5	Body	Lower	B-3
WL583	1	Annual	SS022	Source	Upper	B-4 (a)
WL590	4	Triennial	LF004	Body	Upper	E-2
WL591	4	Triennial	LF004	Body	Lower	E-2
WL595	1	Triennial	SS018	Body	Upper	A-5 (f)
WL596	1	Triennial	SS018	Body	Lower	A-5 (f)
WL599	1	Annual	SS023	Body	Lower	C-5 (h)
WL607	1	Annual	SS017	Source	Upper	B-5 (f)

Table 1
Master List of Monitoring Wells Listed Alphanumerically (Continued)

Well ID	GWMU	Monitoring Frequency	Site	Location Type	Well Screen Interval	Basewide Grid
WL608	1	Annual	SS017	Source	Lower	B-5 (f)
WL611	1	Annual	SS022	Source	Upper	B-4 (b)
WL612	1	Annual	SS022	Source	Lower	B-4 (b)
WL617	1	Annual	SS022	Source	Lower	B-4 (b)
WL618	1	Annual	SS022	Source	Upper	B-4 (b)
WL619	1	Annual	SS022	Source	Upper	B-4 (b)
WL629	1	Triennial	SS023	Body	Upper	B-5 (f)
WL630	1	Triennial	SS023	Body	Lower	B-5 (f)
WL676	1	Not included in PM	SS018	Sentinel	Lower	A-5 (g)
WL677	1	Not included in PM	SS018	Sentinel	Upper	A-5 (g)
WL678	1	Triennial*	SS018	Body	Lower	A-5 (g)
WL679	1	Triennial*	SS018	Body	Upper	A-5 (g)
WL680	1	Annual	SS018	Body	Lower	A-5 (g)
WL681	1	Annual	SS018	Body	Upper	A-5 (g)
WL682	1	Triennial*	SS018	Sentinel	Lower	A-5 (h)
WL683	1	Triennial*	SS018	Sentinel	Upper	A-5 (h)
WL704	1	Triennial*	SS023	Body	Upper	C-6 (i)
WL705	1	Annual	SS023	Body	Lower	C-6 (i)
WL708	3	Annual	SS024	Source	Upper	D-4
WL709	3	Annual	SS024	Source	Lower	D-4
WL720	3	Triennial	SS024	Source	Upper	D-4
WL721	3	Triennial	SS024	Source	Lower	D-4
WL725	1	Annual	SS023	Body	Upper	C-5 (f)
WL726	1	Annual	SS023	Body	Lower	C-5 (f)
WL729	3	Annual	SS024	Body	Upper	D-4
WL730	3	Annual	SS024	Body	Lower	D-4
WL751	3	Triennial	SS024	Sentinel	Upper	D-4
WL752	3	Triennial	SS024	Sentinel	Lower	D-4
WL753	3	Annual	SS024	Sentinel	Upper	D-4
WL754	3	Annual	SS024	Sentinel	Lower	D-4
WL755	2	Annual	AOC 2 C-5	Body	Lower	B-3
WL757	2	Triennial	AOC 2 C-5	Body	Lower	B-3
WL759	1	Annual	SS018	Source	Upper	A-5 (e)
WL760	1	Annual	SS018	Source	Lower	A-5 (e)
WL763	2	Triennial	FT005	Body	Lower	B-2
WL766	2	Triennial	FT005	Body	Lower	C-2
WL778	1	Annual	SS018	Source	Upper	A-5 (e)
WL779	1	Annual	SS018	Source	Lower	A-5 (e)
WL782	1	Annual	SS017	Body	LIZ	B-5 (g)
WL785	1	Annual	SS018	Body	UIZ	A-5 (g)
WL786	1	Annual	SS017	Body	UIZ	B-6 (j)
WL787	1	Semi-annual	SS017	POC	UIZ	C-7
WL789	1	Annual	SS017	Body	UIZ	B-5 (g)
WL790	1	Annual	SS017	Body	UIZ	B-5 (f)

Table 1
Master List of Monitoring Wells Listed Alphanumerically (Continued)

Well ID	GWMU	Monitoring Frequency	Site	Location Type	Well Screen Interval	Basewide Grid
WL791	1	Annual	SS018	Source	UIZ	A-5 (e)
WL792	1	Triennial	SS017	Body	UIZ	B-5 (f)
WL795	1	Annual	SS017	Body	UIZ	B-5 (g)
WL797	1	Annual	SS018	Body	UIZ	A-5 (g)
WL801	1	Annual	SS017	Body	UIZ	B-5 (h)
WL802	1	Annual	SS017	Body	LIZ	B-6 (i)
WL803	1	Annual	SS017	Body	UIZ	B-6 (i)
WL805	1	Annual	SS017	Body	UIZ	B-6 (j)
WL812	4	Annual	LF004	Body	UIZ	E-2
WL814	4	Semi-annual	LF004	POC	UIZ	F-3
WL816	4	Semi-annual	LF004	POC	UIZ	F-3
WL818	1	Semi-annual	SS017	POC	UIZ	C-6 (l)
WL819	1	Semi-annual	SS017	POC	UIZ	C-6 (l)
WL820	1	Semi-annual	SS017	POC	UIZ	C-6 (l)
WL845	1	Annual	SS017	Sentinel	UIZ	B-5 (h)
WL846	1	Annual	SS017	Sentinel	Lower	B-5 (h)
WL847	1	Annual	SS017	Sentinel	Upper	B-5 (h)
WL848	1	Annual	SS017	Sentinel	UIZ	B-6 (j)
WL849	1	Triennial*	SS017	Sentinel	UIZ	B-6 (k)
WL850	1	Triennial*	SS017	Sentinel	Lower	B-6 (k)
WL851	1	Triennial*	SS017	Sentinel	Upper	B-6 (k)
WL852	1	Semi-annual	SS017	POC	UIZ	C-6 (l)
WL853	1	Semi-annual	SS017	POC	Lower	C-6 (l)
WL854	1	Semi-annual	SS017	POC	UIZ	C-6 (l)
WL855	1	Semi-annual	SS017	POC	Lower	C-6 (l)
WL856	1	Semi-annual	SS017	POC	Lower	C-6 (l)
WL857	1	Semi-annual	SS017	POC	Upper	C-6 (l)
WL858	1	Semi-annual	SS017	POC	Lower	C-6 (l)
WL859	1	Triennial*	SS023	Sentinel	UIZ	C-6 (i)
WL860	1	Annual	SS023	Body	UIZ	C-5 (f)

* Frequency change

Table 2a
Optimized Monitoring Wells for GWMU 1

Well ID	Site	Screen Interval	Designation	Frequency	Basewide Grid
000I17-MW3	SS017	UIZ	Body	Annual	B-5 (g)
MW3D	SS017	Lower	Body	Annual	C-6 (i)
MW3S	SS017	Upper	Body	Annual	C-6 (i)
WL066	SS017	Lower	Body	Annual	C-6 (i)
WL072	SS018	Lower	Body	Triennial	A-5 (g)
WL073	SS018	Upper	Body	Triennial	A-5 (g)
WL078	SS017	Lower	Body	Annual	B-5 (g)
WL079	SS017	Upper	Body	Annual	B-5 (g)
WL080	SS017	Lower	Body	Annual	B-5 (g)
WL081	SS017	Upper	Body	Annual	B-5 (g)
WL082	SS017	Lower	Body	Annual	B-5 (h)
WL083	SS017	Upper	Body	Annual	B-5 (h)
WL086	SS017	Lower	Body	Triennial	B-6 (i)
WL087	SS017	Upper	Body	Triennial	B-6 (i)
WL090	SS017	Lower	Body	Annual	B-6 (i)
WL091	SS017	Upper	Body	Annual	B-6 (i)
WL094	SS017	Lower	Body	Annual	B-6 (j)
WL095	SS017	Upper	Body	Annual	B-6 (j)
WL138	SS017	Upper	Body	Annual	B-5 (f)
WL139	SS017	Upper	Body	Annual	B-5 (f)
WL158	SS017	Upper	Body	Annual	B-6 (j)
WL159	SS017	Lower	Body	Annual	B-6 (j)
WL178	SS022	Upper	Body	Triennial	B-4 (a)
WL187	SS018	Upper	Source	Annual	A-5 (e)
WL189	SS018	Lower	Source	Annual	A-5 (e)
WL190	SS018	Upper	Sentinel	Triennial	A-5 (e)
WL191	SS018	Lower	Body	Triennial	A-5 (e)
WL193	SS018	Upper	Body	Triennial	A-5 (e)
WL289	SS022	Upper	Body	Triennial	B-4 (b)
WL303	SS022	Lower	Body	Annual	B-4 (b)
WL318	SS017	Lower	Body	Annual	B-5 (g)
WL319	SS017	Upper	Body	Annual	B-5 (g)
WL337	SS023	Upper	Source	Annual	B-5 (e)
WL377	SS017	Upper	Source	Annual	B-5 (e)
WL378	SS017	Lower	Source	Annual	B-5 (e)
WL383	SS017	Lower	Body	Annual	B-5 (f)
WL384	SS017	Upper	Body	Annual	B-5 (f)
WL387	SS017	Lower	Body	Triennial	B-5 (f)
WL388	SS017	Upper	Body	Triennial	B-5 (f)
WL400	SS022	Upper	Source	Triennial	B-4 (a)
WL413	SS022	Upper	Body	Triennial	B-4d
WL424	SS022	Upper	Body	Annual	B-4 (b)
WL460	SS022	Lower	Source	Triennial	B-4 (b)
WL461	SS022	Lower	Body	Annual	B-4 (b)
WL466	SS022	Lower	Body	Triennial	B-4d

Table 2a
Optimized Monitoring Wells for GWMU 1 (Continued)

Well ID	Site	Screen Interval	Designation	Frequency	Basewide Grid
WL467	SS022	Upper	Body	Triennial	d-4d
WL468	SS022	Lower	Body	Triennial	B-4d
WL478	SS023	Lower	Source	Annual	B-5 (e)
WL481	SS017	Upper	Body	Annual	B-6 (j)
WL482	SS017	Lower	Body	Annual	B-6 (j)
WL485	SS017	Lower	Body	Annual	B-6 (i)
WL486	SS017	Lower	Body	Annual	C-6 (j)
WL487	SS017	Upper	Body	Annual	C-6 (j)
WL488	SS017	Lower	Sentinel	Annual	C-6 (k)
WL489	SS017	Upper	Sentinel	Annual	C-6 (k)
WL490	SS017	Lower	Sentinel	Annual	C-6 (k)
WL491	SS017	Upper	Sentinel	Annual	C-6 (k)
WL492	SS017	Lower	Sentinel	Annual	B-6 (j)
WL493	SS017	Upper	Sentinel	Annual	B-6 (j)
WL494	SS017	Lower	POC	Semi-annual	C-6 (l)
WL495	SS017	Lower	POC	Semi-annual	C-6 (l)
WL498	SS018	Upper	Sentinel	Triennial	A-5 (e)
WL499	SS018	Lower	Sentinel	Annual	A-5 (e)
WL503	SS022	Lower	Body	Triennial	A-4 (b)
WL507	SS022	Upper	Body	Annual	B-4 (b)
WL511	SS022	Upper	Source	Annual	B-4 (b)
WL512	SS022	Lower	Source	Annual	B-4 (b)
WL515	SS023	Upper	Source	Annual	B-5 (e)
WL516	SS023	Lower	Source	Annual	B-5 (e)
WL519	SS017	Lower	Body	Annual	B-5 (f)
WL533	SS018	Upper	Sentinel	Triennial	A-5 (h)
WL534	SS018	Lower	Sentinel	Triennial	A-5 (h)
WL535	SS018	Upper	Body	Triennial	A-5 (g)
WL536	SS018	Lower	Body	Triennial	A-5 (g)
WL543	SS017	Upper	Body	Triennial	B-5 (g)
WL544	SS017	Lower	Body	Triennial	B-5 (g)
WL555	SS022	Lower	Body	Annual	B-4 (b)
WL556	SS022	Lower	Body	Triennial	B-4 (c)
WL559	SS022	Lower	Body	Triennial	B-4 (c)
WL571	SS018	Upper	Body	Annual	A-5 (f)
WL572	SS018	Lower	Body	Annual	A-5 (f)
WL583	SS022	Upper	Source	Annual	B-4 (a)
WL595	SS018	Upper	Body	Triennial	A-5 (f)
WL596	SS018	Lower	Body	Triennial	A-5 (f)
WL599	SS023	Lower	Body	Annual	C-5 (h)
WL607	SS017	Upper	Source	Annual	B-5 (f)
WL608	SS017	Lower	Source	Annual	B-5 (f)
WL611	SS022	Upper	Source	Annual	B-4 (b)
WL612	SS022	Lower	Source	Annual	B-4 (b)
WL617	SS022	Lower	Source	Annual	B-4 (b)

Table 2a
Optimized Monitoring Wells for GWMU 1 (Continued)

Well ID	Site	Screen Interval	Designation	Frequency	Basewide Grid
WL618	SS022	Upper	Source	Annual	B-4 (b)
WL619	SS022	Upper	Source	Annual	B-4 (b)
WL629	SS023	Upper	Body	Triennial	B-5 (f)
WL630	SS023	Lower	Body	Triennial	B-5 (f)
WL678	SS018	Lower	Body	Triennial	A-5 (g)
WL679	SS018	Upper	Body	Triennial	A-5 (g)
WL680	SS018	Lower	Body	Annual	A-5 (g)
WL681	SS018	Upper	Body	Annual	A-5 (g)
WL682	SS018	Lower	Sentinel	Triennial	A-5 (h)
WL683	SS018	Upper	Sentinel	Triennial	A-5 (h)
WL704	SS023	Upper	Body	Triennial	C-6 (i)
WL705	SS023	Lower	Body	Annual	C-6 (i)
WL725	SS023	Upper	Body	Annual	C-5 (f)
WL726	SS023	Lower	Body	Annual	C-5 (f)
WL759	SS018	Upper	Source	Annual	A-5 (e)
WL760	SS018	Lower	Source	Annual	A-5 (e)
WL778	SS018	Upper	Source	Annual	A-5 (e)
WL779	SS018	Lower	Source	Annual	A-5 (e)
WL782	SS017	LIZ	Body	Annual	B-5 (g)
WL785	SS018	UIZ	Body	Annual	A-5 (g)
WL786	SS017	UIZ	Body	Annual	B-6 (j)
WL787	SS017	UIZ	POC	Semi-annual	C-7
WL789	SS017	UIZ	Body	Annual	B-5 (g)
WL790	SS017	UIZ	Body	Annual	B-5 (f)
WL791	SS018	UIZ	Source	Annual	A-5 (e)
WL792	SS017	UIZ	Body	Triennial	B-5 (f)
WL795	SS017	UIZ	Body	Annual	B-5 (g)
WL797	SS018	UIZ	Body	Annual	A-5 (g)
WL801	SS017	UIZ	Body	Annual	B-5 (h)
WL802	SS017	LIZ	Body	Annual	B-6 (i)
WL803	SS017	UIZ	Body	Annual	B-6 (i)
WL805	SS017	UIZ	Body	Annual	B-6 (j)
WL818	SS017	UIZ	POC	Semi-annual	C-6 (l)
WL819	SS017	UIZ	POC	Semi-annual	C-6 (l)
WL820	SS017	UIZ	POC	Semi-annual	C-6 (l)
WL845	SS017	UIZ	Sentinel	Annual	B-5 (h)
WL846	SS017	Lower	Sentinel	Annual	B-5 (h)
WL847	SS017	Upper	Sentinel	Annual	B-5 (h)
WL848	SS017	UIZ	Sentinel	Annual	B-6 (j)
WL849	SS017	UIZ	Sentinel	Triennial	B-6 (k)
WL850	SS017	Lower	Sentinel	Triennial	B-6 (k)
WL851	SS017	Upper	Sentinel	Triennial	B-6 (k)
WL852	SS017	UIZ	POC	Semi-annual	C-6 (l)
WL853	SS017	Lower	POC	Semi-annual	C-6 (l)
WL854	SS017	UIZ	POC	Semi-annual	C-6 (l)

Table 2a
Optimized Monitoring Wells for GWMU 1 (Continued)

Well ID	Site	Screen Interval	Designation	Frequency	Basewide Grid
WL855	SS017	Lower	POC	Semi-annual	C-6 (l)
WL856	SS017	Lower	POC	Semi-annual	C-6 (l)
WL857	SS017	Upper	POC	Semi-annual	C-6 (l)
WL858	SS017	Lower	POC	Semi-annual	C-6 (l)
WL859	SS023	UIZ	Sentinel	Triennial	C-6 (i)
WL860	SS023	UIZ	Body	Annual	C-5 (f)

Table 2b
Optimized Surface Water Locations for GWMU 1

Well ID	Site	Sampling Interval	Designation	Frequency	Basewide Grid
RV064	SS017	Surface Water	POC	Semi-annual	C-6 (m)
RV065	SS017	Surface Water	POC	Semi-annual	C-7

Table 3
Optimized Monitoring Wells for GWMU 2

Well ID	Site	Screen Interval	Designation	Frequency	Basewide Grid
WL234	FT005	Upper	Body	Triennial	C-2
WL240	AOC 2 C-5	Upper	Source	Annual	B-3
WL241	AOC 2 C-5	Lower	Source	Annual	B-3
WL581	AOC 2 C-5	Upper	Body	Triennial	B-3
WL582	AOC 2 C-5	Lower	Body	Triennial	B-3
WL755	AOC 2 C-5	Lower	Body	Annual	B-3
WL757	AOC 2 C-5	Lower	Body	Triennial	B-3
WL763	FT005	Lower	Body	Triennial	B-2
WL766	FT005	Lower	Body	Triennial	C-2

Table 4
Optimized Monitoring Wells for GWMU 3

Well ID	Site	Screen Interval	Designation	Frequency	Basewide Grid
WL708	SS024	Upper	Source	Annual	D-4
WL709	SS024	Lower	Source	Annual	D-4
WL720	SS024	Upper	Source	Triennial	D-4
WL721	SS024	Lower	Source	Triennial	D-4
WL729	SS024	Upper	Body	Annual	D-4
WL730	SS024	Lower	Body	Annual	D-4
WL751	SS024	Upper	Sentinel	Triennial	D-4
WL752	SS024	Lower	Sentinel	Triennial	D-4
WL753	SS024	Upper	Sentinel	Annual	D-4
WL754	SS024	Lower	Sentinel	Annual	D-4

Table 5a
Optimized Monitoring Wells for GWMU 4

Well ID	Site	Screen Interval	Designation	Frequency	Basewide Grid
OU-1-01	LF004	Upper	Source	Triennial	E-2
OU-1-06	LF004	Lower	Body	Annual	E-2
WL015	FT003	Upper	Source	Annual	D-1
WL021	LF004	Upper	Body	Triennial	E-1
WL060	LF004	Upper	POC	Semi-annual	F-2
WL061	LF004	Lower	POC	Semi-annual	F-3
WL062	LF004	Upper	POC	Semi-annual	F-3
WL068	FT003	Upper	Body	Triennial	D-2
WL110	FT003	Lower	Source	Annual	D-1
WL123	FT003	Lower	Body	Triennial	D-2
WL249	LF004	Lower	Source	Annual	E-2
WL250	LF004	Upper	Source	Annual	E-2
WL253	LF014	Upper	Body	Annual	E-2
WL254	LF014	Lower	Body	Annual	E-2
WL272	LF004	Lower	Body	Triennial	E-2
WL276	LF004	Upper	Sentinel	Triennial	F-2
WL279	LF004	Lower	Sentinel	Triennial	F-3
WL280	LF004	Upper	Sentinel	Triennial	F-3
WL359	LF014	Upper	Body	Annual	E-2
WL453	LF004	Upper	Body	Annual	E-2
WL454	LF004	Lower	Body	Triennial	E-2
WL455	LF004	Upper	Body	Triennial	E-2
WL458	LF004	Lower	POC	Semi-annual	F-2
WL459	LF004	Upper	POC	Semi-annual	F-2
WL527	LF004	Upper	Body	Triennial	E-2
WL528	LF004	Lower	Body	Triennial	E-2
WL566	LF004	Lower	Source	Annual	E-2
WL590	LF004	Upper	Body	Triennial	E-2
WL591	LF004	Lower	Body	Triennial	E-2
WL812	LF004	UIZ	Body	Annual	E-2
WL814	LF004	UIZ	POC	Semi-annual	F-3
WL816	LF004	UIZ	POC	Semi-annual	F-3

Table 5b
Optimized Monitoring Wells for GWMU 4

Well ID	Site	Sampling Interval	Designation	Frequency	Basewide Grid
RV015	LF004	Surface Water	POC	Semi-annual	F-3

Table 6 Summary of Proposed Optimization Changes

Current Permit Well List (Sampling frequency: lt green is Semiannual, dark green is Annual, lt blue is Triennial)	Proposed Modification (colored cell reflects change: red is Remove, lt blue is Triennial, dark green is Annual)	Location Type or Groundwater Zone	Site	GWMU	Designation	Map Grid Location	Rationale
RV015	No Change - Semiannual	Surface Water	LF004	GWMU 4	POC	F-3	No change in sampling frequency
RV064	No Change - Semiannual	Surface Water	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
RV065	No Change - Semiannual	Surface Water	SS017	GWMU 1	POC	C-7 (n)	No change in sampling frequency
000I17-MW3	No Change - Annual	UIZ	SS017	GWMU 1	Body	B-5 (g)	Robust historical data set; limited data variability over time
MW3D	No Change - Annual	Lower	SS017	GWMU 1	Body	C-6 (i)	Robust historical data set; limited data variability over time
MW3S	No Change - Annual	Upper	SS017	GWMU 1	Body	C-6 (i)	Robust historical data set; limited data variability over time
OU-1-01	**CHANGE to Triennial**	Upper	LF004	GWMU 4	Source	E-2	Robust historical data set; limited data variability over time
OU-1-06	No Change - Annual	Lower	LF004	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL015	No Change - Annual	Upper	FT003	GWMU 4	Source	D-1	Robust historical data set; limited data variability over time
WL021	No Change - Triennial	Upper	LF004	GWMU 4	Body	E-1	Robust historical data set; limited data variability over time
WL060	No Change - Semiannual	Upper	LF004	GWMU 4	POC	F-2	No change in sampling frequency
WL061	No Change - Semiannual	Lower	LF004	GWMU 4	POC	F-3	No change in sampling frequency
WL062	No Change - Semiannual	Upper	LF004	GWMU 4	POC	F-3	No change in sampling frequency
WL066	No Change - Annual	Lower	SS017	GWMU 1	Body	C-6 (i)	Robust historical data set; limited data variability over time
WL068	**CHANGE to Triennial**	Upper	FT003	GWMU 4	Body	D-2	Robust historical data set; limited data variability over time
WL072	**CHANGE to Triennial**	Lower	SS018	GWMU 1	Body	A-5 (g)	Limited data variability over time, NDs or low TCE/daughter
WL073	**CHANGE to Triennial**	Upper	SS018	GWMU 1	Body	A-5 (g)	Limited data variability over time, NDs or low TCE/daughter
WL078	No Change - Annual	Lower	SS017	GWMU 1	Body	B-5 (g)	Robust historical data set; limited data variability over time
WL079	No Change - Annual	Upper	SS017	GWMU 1	Body	B-5 (g)	Robust historical data set; limited data variability over time
WL080	No Change - Annual	Lower	SS017	GWMU 1	Body	B-5 (g)	Robust historical data set; limited data variability over time
WL081	No Change - Annual	Upper	SS017	GWMU 1	Body	B-5 (g)	Robust historical data set; limited data variability over time
WL082	No Change - Annual	Lower	SS017	GWMU 1	Body	B-5 (h)	Robust historical data set; limited data variability over time
WL083	No Change - Annual	Upper	SS017	GWMU 1	Body	B-5 (h)	Robust historical data set; limited data variability over time
WL086	No Change - Triennial	Lower	SS017	GWMU 1	Body	B-6 (i)	Robust historical data set; limited data variability over time
WL087	No Change - Triennial	Upper	SS017	GWMU 1	Body	B-6 (i)	Robust historical data set; limited data variability over time
WL090	No Change - Annual	Lower	SS017	GWMU 1	Body	B-6 (i)	Robust historical data set; limited data variability over time
WL091	No Change - Annual	Upper	SS017	GWMU 1	Body	B-6 (i)	Robust historical data set; limited data variability over time
WL094	No Change - Annual	Lower	SS017	GWMU 1	Body	B-6 (j)	Robust historical data set; limited data variability over time
WL095	No Change - Annual	Upper	SS017	GWMU 1	Body	B-6 (j)	Robust historical data set; limited data variability over time
WL110	No Change - Annual	Lower	FT003	GWMU 4	Source	D-1	Robust historical data set; limited data variability over time
WL123	**CHANGE to Triennial**	Lower	FT003	GWMU 4	Body	D-2	Robust historical data set; limited data variability over time
WL138	No Change - Annual	Upper	SS017	GWMU 1	Body	B-5 (f)	Robust historical data set; limited data variability over time
WL139	No Change - Annual	Upper	SS017	GWMU 1	Body	B-5 (f)	Robust historical data set; limited data variability over time
WL158	No Change - Annual	Upper	SS017	GWMU 1	Body	B-6 (j)	Robust historical data set; limited data variability over time
WL159	No Change - Annual	Lower	SS017	GWMU 1	Body	B-6 (j)	Robust historical data set; limited data variability over time
WL178	**CHANGE to Triennial**	Upper	~~SS010~~ SS022	GWMU 1	Body	B-4 (a)	Transferred to downgradient Site SS022, redundant, COPCs <MCLs
WL187	No Change - Annual	Upper	~~SS016~~ SS018	GWMU 1	Source	A-5 (e)	Transferred to downgradient Site SS018, robust historical data set; limited data variability
WL189	No Change - Annual	Lower	~~SS016~~ SS018	GWMU 1	Source	A-5 (e)	Transferred to downgradient Site SS018, robust historical data set; limited data variability
WL190	No Change - Annual	Upper	~~SS016~~ SS018	GWMU 1	Sentinel	A-5 (e)	Transferred to downgradient Site SS018, robust historical data set; limited data variability
WL191	**CHANGE to Triennial**	Lower	~~SS016~~ SS018	GWMU 1	Body	A-5 (e)	Transferred to downgradient Site SS018, redundant; limited data variability
WL193	**CHANGE to Triennial**	Upper	~~SS016~~ SS018	GWMU 1	Body	A-5 (e)	Transferred to downgradient Site SS018, redundant, TCEs <MCLs since 2019
WL234	No Change - Triennial	Upper	FT005	GWMU 2	Body	C-2	Robust historical data set; limited data variability over time
WL240	No Change - Annual	Upper	AOC 2 C-5	GWMU 2	Source	B-3	Robust historical data set; limited data variability over time

Table 6 Summary of Proposed Optimization Changes (Continued)

Current Permit Well List (Sampling frequency: lt green is Semiannual, dark green is Annual, lt blue is Triennial)	Proposed Modification (colored cell reflects change: red is Remove, lt blue is Triennial, dark green is Annual)	Location Type or Groundwater Zone	Site	GWMU	Designation	Map Grid Location	Rationale
WL241	No Change - Annual	Lower	AOC 2 C-5	GWMU 2	Source	B-3	Robust historical data set; limited data variability over time
WL242	**REMOVE from Permit**	Upper	AOC 2 C-5	GWMU 2	Body	C-3	Robust historical data set; limited data variability over time
WL249	No Change - Annual	Lower	LF004	GWMU 4	Source	E-2	Robust historical data set; limited data variability over time
WL250	No Change - Annual	Upper	LF004	GWMU 4	Source	E-2	Robust historical data set; limited data variability over time
WL253	No Change - Annual	Upper	LF014	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL254	No Change - Annual	Lower	LF014	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL272	**CHANGE to Triennial**	Lower	LF004	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL276	No Change - Triennial	Upper	LF004	GWMU 4	Sentinel	F-2	Robust historical data set; limited data variability over time
WL279	No Change - Triennial	Lower	LF004	GWMU 4	Sentinel	F-3	Robust historical data set; limited data variability over time
WL280	No Change - Triennial	Upper	LF004	GWMU 4	Sentinel	F-3	Robust historical data set; limited data variability over time
WL289	**CHANGE to Triennial**	Upper	SS022	GWMU 1	Body	B-4 (b)	Robust historical data set; limited data variability over time, decreasing trends and <MCLs
WL303	No Change - Annual	Lower	SS022	GWMU 1	Body	B-4 (b)	Robust historical data set; limited data variability over time
WL318	No Change - Annual	Lower	SS017	GWMU 1	Body	B-5 (g)	Robust historical data set; limited data variability over time
WL319	No Change - Annual	Upper	SS017	GWMU 1	Body	B-5 (g)	Robust historical data set; limited data variability over time
WL337	No Change - Annual	Upper	SS023	GWMU 1	Source	B-5 (e)	Robust historical data set; limited data variability over time
WL349	**REMOVE from Permit**	Upper	~~SS010~~ SS022	GWMU 1	Source	B-4 (a)	Transferred to downgradient Site SS022, redundant, all COPCs ND except BZ <MCL since 2009
WL359	No Change - Annual	Upper	LF014	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL377	No Change - Annual	Upper	SS017	GWMU 1	Source	B-5 (e)	Robust historical data set; limited data variability over time
WL378	No Change - Annual	Lower	SS017	GWMU 1	Source	B-5 (e)	Robust historical data set; limited data variability over time
WL383	No Change - Annual	Lower	SS017	GWMU 1	Body	B-5 (f)	Robust historical data set; limited data variability over time
WL384	No Change - Annual	Upper	SS017	GWMU 1	Body	B-5 (f)	Robust historical data set; limited data variability over time
WL386	**REMOVE from Permit**	Lower	SS022	GWMU 1	Body	B-5 (e)	Robust historical data set; limited data variability over time, interior to plume, REDLINE well
WL387	No Change - Triennial	Lower	SS017	GWMU 1	Body	B-5 (f)	Robust historical data set; limited data variability over time
WL388	No Change - Triennial	Upper	SS017	GWMU 1	Body	B-5 (f)	Robust historical data set; limited data variability over time
WL400	**CHANGE to Triennial**	Upper	~~SS010~~ SS022	GWMU 1	Source	B-4 (a)	Transferred to downgradient Site SS022, redundant, nearby WL583 will remain annual
WL413	No Change - Triennial	Upper	SS022	GWMU 1	Body	B-4 (d)	Robust historical data set; limited data variability over time
WL424	No Change - Annual	Upper	SS022	GWMU 1	Body	B-4 (b)	Robust historical data set; limited data variability over time
WL430	**REMOVE from Permit**	Upper	SS022	GWMU 1	Body	B-4 (c)	< MCLs since the RFI, REDLINE, paired with WL559
WL453	No Change - Annual	Upper	LF004	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL454	**CHANGE to Triennial**	Lower	LF004	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL455	**CHANGE to Triennial**	Upper	LF004	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL458	No Change - Semiannual	Lower	LF004	GWMU 4	POC	F-2	No change in sampling frequency
WL459	No Change - Semiannual	Upper	LF004	GWMU 4	POC	F-2	No change in sampling frequency
WL460	**CHANGE to Triennial**	Lower	SS022	GWMU 1	Source	B-4 (b)	Limited data variability over time, TCE NDs or <MCLs since 2019
WL461	No Change - Annual	Lower	SS022	GWMU 1	Body	B-4 (b)	Robust historical data set; limited data variability over time
WL466	No Change - Triennial	Lower	SS022	GWMU 1	Body	B-4 (d)	Robust historical data set; limited data variability over time
WL467	No Change - Triennial	Upper	SS022	GWMU 1	Body	B-4 (d)	Robust historical data set; limited data variability over time
WL468	No Change - Triennial	Lower	SS022	GWMU 1	Body	B-4 (d)	Robust historical data set; limited data variability over time
WL469	**REMOVE from Permit**	Upper	SS022	GWMU 1	Body	B-5 (e)	Robust historical data set; limited data variability over time, interior to plume, REDLINE well
WL478	No Change - Annual	Lower	SS023	GWMU 1	Source	B-5 (e)	Robust historical data set; limited data variability over time
WL481	No Change - Annual	Upper	SS017	GWMU 1	Body	B-6 (j)	Robust historical data set; limited data variability over time
WL482	No Change - Annual	Lower	SS017	GWMU 1	Body	B-6 (j)	Robust historical data set; limited data variability over time
WL485	No Change - Annual	Lower	SS017	GWMU 1	Body	B-6 (i)	Robust historical data set; limited data variability over time

Table 6 Summary of Proposed Optimization Changes (Continued)

Current Permit Well List (Sampling frequency: lt green is Semiannual, dark green is Annual, lt blue is Triennial)	Proposed Modification (colored cell reflects change: red is Remove, lt blue is Triennial, dark green is Annual)	Location Type or Groundwater Zone	Site	GWMU	Designation	Map Grid Location	Rationale
WL486	No Change - Annual	Lower	SS017	GWMU 1	Body	C-6 (j)	Robust historical data set; limited data variability over time
WL487	No Change - Annual	Upper	SS017	GWMU 1	Body	C-6 (j)	Robust historical data set; limited data variability over time
WL488	No Change - Annual	Lower	SS017	GWMU 1	Sentinel	C-6 (k)	Robust historical data set; limited data variability over time
WL489	No Change - Annual	Upper	SS017	GWMU 1	Sentinel	C-6 (k)	Robust historical data set; limited data variability over time
WL490	No Change - Annual	Lower	SS017	GWMU 1	Sentinel	C-6 (k)	Robust historical data set; limited data variability over time
WL491	No Change - Annual	Upper	SS017	GWMU 1	Sentinel	C-6 (k)	Robust historical data set; limited data variability over time
WL492	No Change - Annual	Lower	SS017	GWMU 1	Sentinel	B-6 (j)	Robust historical data set; limited data variability over time
WL493	No Change - Annual	Upper	SS017	GWMU 1	Sentinel	B-6 (j)	Robust historical data set; limited data variability over time
WL494	No Change - Semiannual	Lower	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
WL495	No Change - Semiannual	Lower	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
WL498	**CHANGE to Triennial**	Upper	~~SS016~~ SS018	GWMU 1	Sentinel	A-5 (e)	Transferred to downgradient Site SS018, redundant; limited data variability over time
WL499	No Change - Annual	Lower	~~SS016~~ SS018	GWMU 1	Sentinel	A-5 (e)	Transferred to downgradient Site SS018, robust historical data set; limited data variability over time
WL503	No Change - Triennial	Lower	SS022	GWMU 1	Body	A-4 (d)	Robust historical data set; limited data variability over time
WL504	**REMOVE from Permit**	Upper	SS022	GWMU 1	Body	A-4 (d)	< MCLs since the RFI
WL507	No Change - Annual	Upper	SS022	GWMU 1	Body	B-4 (b)	Robust historical data set; limited data variability over time
WL511	No Change - Annual	Upper	SS022	GWMU 1	Source	B-4 (b)	Robust historical data set; limited data variability over time
WL512	No Change - Annual	Lower	SS022	GWMU 1	Source	B-4 (b)	Robust historical data set; limited data variability over time
WL515	No Change - Annual	Upper	SS023	GWMU 1	Source	B-5 (e)	Robust historical data set; limited data variability over time
WL516	No Change - Annual	Lower	SS023	GWMU 1	Source	B-5 (e)	Robust historical data set; limited data variability over time
WL519	No Change - Annual	Lower	SS017	GWMU 1	Body	B-5 (f)	Robust historical data set; limited data variability over time
WL527	No Change - Triennial	Upper	LF004	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL528	No Change - Triennial	Lower	LF004	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL533	**CHANGE to Triennial**	Upper	SS018	GWMU 1	Sentinel	A-5 (h)	Limited data variability over time, ND or <MCL since RFI
WL534	**CHANGE to Triennial**	Lower	SS018	GWMU 1	Sentinel	A-5 (h)	Limited data variability over time, ND or <MCL since RFI
WL535	No Change - Triennial	Upper	SS018	GWMU 1	Body	A-5 (g)	Robust historical data set; limited data variability over time
WL536	No Change - Triennial	Lower	SS018	GWMU 1	Body	A-5 (g)	Robust historical data set; limited data variability over time
WL539	**REMOVE from Permit**	Lower	AOC 2 C-5	GWMU 2	Body	C-3	Robust historical data set; limited data variability over time
WL543	**CHANGE to Triennial**	Upper	SS017	GWMU 1	Body	B-5 (g)	Limited data variability over time, redundant
WL544	**CHANGE to Triennial**	Lower	SS017	GWMU 1	Body	B-5 (g)	Limited data variability over time, redundant
WL552	**REMOVE from Permit**	Upper	SS022	GWMU 1	Body	A-4 (c)	Limited data variability over time, <MCLs since 2011
WL553	**REMOVE from Permit**	Lower	SS022	GWMU 1	Body	A-4 (c)	Limited data variability over time, <MCLs since 2011
WL555	No Change - Annual	Lower	SS022	GWMU 1	Body	B-4 (b)	Robust historical data set; limited data variability over time
WL556	**CHANGE to Triennial**	Lower	SS022	GWMU 1	Body	B-4 (c)	Robust historical data set; limited data variability over time, interior to plume
WL559	No Change - Triennial	Lower	SS022	GWMU 1	Body	B-4 (c)	Robust historical data set; limited data variability over time
WL566	No Change - Annual	Lower	LF004	GWMU 4	Source	E-2	Robust historical data set; limited data variability over time
WL571	No Change - Annual	Upper	SS018	GWMU 1	Body	A-5 (f)	Robust historical data set; limited data variability over time
WL572	No Change - Annual	Lower	SS018	GWMU 1	Body	A-5 (f)	Robust historical data set; limited data variability over time
WL581	No Change - Triennial	Upper	AOC 2 C-5	GWMU 2	Body	B-3	Robust historical data set; limited data variability over time
WL582	No Change - Triennial	Lower	AOC 2 C-5	GWMU 2	Body	B-3	Robust historical data set; limited data variability over time
WL583	No Change - Annual	Upper	~~SS010~~ SS022	GWMU 1	Source	B-4 (a)	Transferred to downgradient Site SS022, robust historical data set
WL590	No Change - Triennial	Upper	LF004	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL591	No Change - Triennial	Lower	LF004	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL595	No Change - Triennial	Upper	SS018	GWMU 1	Body	A-5 (f)	Robust historical data set; limited data variability over time

Table 6 Summary of Proposed Optimization Changes (Continued)

Current Permit Well List (Sampling frequency: lt green is Semiannual, dark green is Annual, lt blue is Triennial)	Proposed Modification (colored cell reflects change: red is Remove, lt blue is Triennial, dark green is Annual)	Location Type or Groundwater Zone	Site	GWMU	Designation	Map Grid Location	Rationale
WL596	No Change - Triennial	Lower	SS018	GWMU 1	Body	A-5 (f)	Robust historical data set; limited data variability over time
WL599	No Change - Annual	Lower	SS023	GWMU 1	Body	C-5 (h)	Robust historical data set; limited data variability over time
WL607	No Change - Annual	Upper	SS017	GWMU 1	Source	B-5 (f)	Robust historical data set; limited data variability over time
WL608	No Change - Annual	Lower	SS017	GWMU 1	Source	B-5 (f)	Robust historical data set; limited data variability over time
WL611	No Change - Annual	Upper	SS022	GWMU 1	Source	B-4 (b)	Robust historical data set; limited data variability over time
WL612	No Change - Annual	Lower	SS022	GWMU 1	Source	B-4 (b)	Robust historical data set; limited data variability over time
WL617	No Change - Annual	Lower	SS022	GWMU 1	Source	B-4 (b)	Robust historical data set; limited data variability over time
WL618	No Change - Annual	Upper	SS022	GWMU 1	Source	B-4 (b)	Robust historical data set; limited data variability over time
WL619	No Change - Annual	Upper	SS022	GWMU 1	Source	B-4 (b)	Robust historical data set; limited data variability over time
WL629	No Change - Triennial	Upper	SS023	GWMU 1	Body	B-5 (f)	Robust historical data set; limited data variability over time
WL630	No Change - Triennial	Lower	SS023	GWMU 1	Body	B-5 (f)	Robust historical data set; limited data variability over time
WL676	**REMOVE from Permit**	Lower	SS018	GWMU 1	Sentinel	A-5 (h)	Limited data variability over time, redundant, ND since 2011 or <MCL since RFI
WL677	**REMOVE from Permit**	Upper	SS018	GWMU 1	Sentinel	A-5 (h)	Limited data variability over time, redundant, ND since 2011 or <MCL since RFI
WL678	**CHANGE to Triennial**	Lower	SS018	GWMU 1	Body	A-5 (g)	Limited data variability over time, redundant, <MCL since 2019
WL679	**CHANGE to Triennial**	Upper	SS018	GWMU 1	Body	A-5 (g)	Limited data variability over time, redundant, <MCL since 2019
WL680	No Change - Annual	Lower	SS018	GWMU 1	Body	A-5 (g)	Robust historical data set; limited data variability over time
WL681	No Change - Annual	Upper	SS018	GWMU 1	Body	A-5 (g)	Robust historical data set; limited data variability over time
WL682	**CHANGE to Triennial**	Lower	SS018	GWMU 1	Sentinel	A-5 (h)	Limited data variability over time, redundant, ND since 2011 or <MCL since RFI
WL683	**CHANGE to Triennial**	Upper	SS018	GWMU 1	Sentinel	A-5 (h)	Limited data variability over time, redundant, ND since 2011 or <MCL since RFI
WL704	**CHANGE to Triennial**	Upper	SS023	GWMU 1	Body	C-6 (i)	Limited data variability over time, redundant, ND since 2013 or <MCL since RFI
WL705	No Change - Annual	Lower	SS023	GWMU 1	Body	C-6 (i)	Robust historical data set; limited data variability over time
WL708	No Change - Annual	Upper	SS024	GWMU 3	Source	D-4	Robust historical data set; limited data variability over time
WL709	No Change - Annual	Lower	SS024	GWMU 3	Source	D-4	Robust historical data set; limited data variability over time
WL720	No Change - Triennial	Upper	SS024	GWMU 3	Source	D-4	Robust historical data set; limited data variability over time
WL721	No Change - Triennial	Lower	SS024	GWMU 3	Source	D-4	Robust historical data set; limited data variability over time
WL725	No Change - Annual	Upper	SS023	GWMU 1	Body	C-5 (f)	Robust historical data set; limited data variability over time
WL726	No Change - Annual	Lower	SS023	GWMU 1	Body	C-5 (f)	Robust historical data set; limited data variability over time
WL729	No Change - Annual	Upper	SS024	GWMU 3	Body	D-4	Robust historical data set; limited data variability over time
WL730	No Change - Annual	Lower	SS024	GWMU 3	Body	D-4	Robust historical data set; limited data variability over time
WL751	No Change - Triennial	Upper	SS024	GWMU 3	Sentinel	D-4	Robust historical data set; limited data variability over time
WL752	No Change - Triennial	Lower	SS024	GWMU 3	Sentinel	D-4	Robust historical data set; limited data variability over time
WL753	No Change - Annual	Upper	SS024	GWMU 3	Sentinel	D-4	Robust historical data set; limited data variability over time
WL754	No Change - Annual	Lower	SS024	GWMU 3	Sentinel	D-4	Robust historical data set; limited data variability over time
WL755	No Change - Annual	Lower	AOC 2 C-5	GWMU 2	Body	B-3	Robust historical data set; limited data variability over time
WL757	No Change - Triennial	Lower	AOC 2 C-5	GWMU 2	Body	B-3	Robust historical data set; limited data variability over time
WL759	No Change - Annual	Upper	SS018	GWMU 1	Source	A-5 (e)	Robust historical data set; limited data variability over time
WL760	No Change - Annual	Lower	SS018	GWMU 1	Source	A-5 (e)	Robust historical data set; limited data variability over time
WL763	No Change - Triennial	Lower	FT005	GWMU 2	Body	B-2	Robust historical data set; limited data variability over time
WL766	No Change - Triennial	Lower	FT005	GWMU 2	Body	C-2	Robust historical data set; limited data variability over time
WL778	No Change - Annual	Upper	SS018	GWMU 1	Source	A-5 (e)	Robust historical data set; limited data variability over time
WL779	No Change - Annual	Lower	SS018	GWMU 1	Source	A-5 (e)	Robust historical data set; limited data variability over time
WL782	No Change - Annual	LIZ	SS017	GWMU 1	Body	B-5 (g)	Robust historical data set; limited data variability over time
WL785	No Change - Annual	UIZ	SS018	GWMU 1	Body	A-5 (g)	Robust historical data set; limited data variability over time

Table 6 Summary of Proposed Optimization Changes (Continued)

Current Permit Well List (Sampling frequency: lt green is Semiannual, dark green is Annual, lt blue is Triennial)	Proposed Modification (colored cell reflects change: red is Remove, lt blue is Triennial, dark green is Annual)	Location Type or Groundwater Zone	Site	GWMU	Designation	Map Grid Location	Rationale
WL786	No Change - Annual	UIZ	SS017	GWMU 1	Body	B-6 (i)	Robust historical data set; limited data variability over time
WL787	No Change - Semiannual	UIZ	SS017	GWMU 1	POC	C-7 (m)	No change in sampling frequency
WL789	No Change - Annual	UIZ	SS017	GWMU 1	Body	B-5 (g)	Robust historical data set; limited data variability over time
WL790	No Change - Annual	UIZ	SS017	GWMU 1	Body	B-5 (f)	Robust historical data set; limited data variability over time
WL791	No Change - Annual	UIZ	SS018	GWMU 1	Source	B-5 (e)	Robust historical data set; limited data variability over time
WL792	No Change - Triennial	UIZ	SS017	GWMU 1	Body	B-5 (f)	Robust historical data set; limited data variability over time
WL795	No Change - Annual	UIZ	SS017	GWMU 1	Body	B-5 (g)	Robust historical data set; limited data variability over time
WL797	No Change - Annual	UIZ	SS018	GWMU 1	Body	A-5 (g)	Robust historical data set; limited data variability over time
WL801	No Change - Annual	UIZ	SS017	GWMU 1	Body	B-5 (h)	Robust historical data set; limited data variability over time
WL802	No Change - Annual	LIZ	SS017	GWMU 1	Body	B-6 (i)	Robust historical data set; limited data variability over time
WL803	No Change - Annual	UIZ	SS017	GWMU 1	Body	B-6 (i)	Robust historical data set; limited data variability over time
WL805	No Change - Annual	UIZ	SS017	GWMU 1	Body	B-6 (j)	Robust historical data set; limited data variability over time
WL812	No Change - Annual	UIZ	LF004	GWMU 4	Body	E-2	Robust historical data set; limited data variability over time
WL814	No Change - Semiannual	UIZ	LF004	GWMU 4	POC	F-3	No change in sampling frequency
WL816	No Change - Semiannual	UIZ	LF004	GWMU 4	POC	F-3	No change in sampling frequency
WL818	No Change - Semiannual	UIZ	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
WL819	No Change - Semiannual	UIZ	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
WL820	No Change - Semiannual	UIZ	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
WL845	No Change - Annual	UIZ	SS017	GWMU 1	Sentinel	B-5 (h)	Robust historical data set; limited data variability over time
WL846	No Change - Annual	Lower	SS017	GWMU 1	Sentinel	B-5 (h)	Robust historical data set; limited data variability over time
WL847	No Change - Annual	Upper	SS017	GWMU 1	Sentinel	B-5 (h)	Robust historical data set; limited data variability over time
WL848	No Change - Annual	UIZ	SS017	GWMU 1	Sentinel	B-6 (j)	Robust historical data set; limited data variability over time
WL849	**CHANGE to Triennial**	UIZ	SS017	GWMU 1	Sentinel	B-6 (k)	Limited data variability, NDs or <1 ug/L TCE (J or F) in past (2009 and 2019)
WL850	**CHANGE to Triennial**	Lower	SS017	GWMU 1	Sentinel	B-6 (k)	Limited data variability, NDs or <1ug/L CTCL (F or B) in past
WL851	**CHANGE to Triennial**	Upper	SS017	GWMU 1	Sentinel	B-6 (k)	Limited data variability, NDs or <1 ug/L TCE (J) and CTCL (F or B) in past
WL852	No Change - Semiannual	UIZ	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
WL853	No Change - Semiannual	Lower	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
WL854	No Change - Semiannual	UIZ	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
WL855	No Change - Semiannual	Lower	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
WL856	No Change - Semiannual	Lower	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
WL857	No Change - Semiannual	Upper	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
WL858	No Change - Semiannual	Lower	SS017	GWMU 1	POC	C-6 (l)	No change in sampling frequency
WL859	**CHANGE to Triennial**	UIZ	SS023	GWMU 1	Sentinel	C-6 (i)	Robust historical data set; limited data variability, all NDs or <MCLs since installation
WL860	No Change - Annual	UIZ	SS023	GWMU 1	Body	C-5 (f)	Robust historical data set; limited data variability over time
WL872*	**CHANGE to Annual**	UIZ	SS017	GWMU 1	not Permit	C-7 (n)	Downgradient of POC, change to Annual contingent on upgradient well <MCL
WL873*	**CHANGE to Annual**	Lower	SS017	GWMU 1	not Permit	C-7 (n)	Downgradient of POC, change to Annual contingent on upgradient well <MCL

*Locations added to monitor the toe of the plume south of POC location WL787, not currently Permit wells