

Prepared for

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**CORRECTIVE ACTION
GROUNDWATER MONITORING PLAN
FLORIDA POWER & LIGHT COMPANY,
GULF CLEAN ENERGY CENTER
GYPSUM STORAGE AREA**

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Project Number FR8309A

June 27, 2025

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LIST OF ACRONYMS

ACM	Assessment of Corrective Measures
CAMP	Corrective Action Groundwater Monitoring Plan
CBR	Closure by Removal
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
EPRI	Electric Power Research Institute
FDEP	Florida Department of Environmental Protection
FPL	Florida Power & Light Company
ft	feet
GCEC	Gulf Clean Energy Center
GSA	Gypsum Storage Area
GWPS	Groundwater Protection Standard
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NAVD88	North American Vertical Datum of 1988
NELAP	National Environmental Laboratory Accreditation Program
ORP	Oxidation-Reduction Potential
QA/QC	Quality Assurance/Quality Control
SAP	Statistical Analysis Plan
SOP	Standard Operating Procedures
SSL	Statistically Significant Level
USEPA	United States Environmental Protection Agency

1. INTRODUCTION

On behalf of Florida Power & Light Company (“FPL”), Geosyntec Consultants, Inc. (“Geosyntec”) prepared this *Corrective Action Groundwater Monitoring Plan* (“CAMP”) for FPL’s Gulf Clean Energy Center (“GCEC” or “Site”) Gypsum Storage Area (“GSA”), a coal combustion residuals (“CCR”) unit. The CAMP outlines the monitoring program required pursuant to 40 Code of Federal Regulations (“CFR”) §257.98 to evaluate the performance of the selected remedy: source control via closure by removal (“CBR”) and long-term groundwater monitoring.

1.1 Facility Background and Description

GCEC is located at 11999 Pate Street in Pensacola, Escambia County, Florida, and is situated on approximately 670 acres. GCEC historically operated as a coal-fired power plant until 2020 when FPL ceased coal-fired operations. A Site location map is provided in **Figure 1**. Site topography ranges from approximately 120 feet (“ft”) relative to the North American Vertical Datum of 1988 (“NAVD88”) on the western portions of the Site and along Pate Street to approximately 5 ft NAVD88 near Clear Creek to the north and Governor’s Bayou to the east. The GSA is located on the northern portion of the Site.

The GSA occupies approximately 15.5 acres and is constructed with an engineered composite liner consisting of 60-mil high-density polyethylene underlain by a geosynthetic clay liner. The GSA began receiving CCR in 2010 and historically received flue-gas desulfurization effluents, process waters, and stormwater. Since 2022, FPL has continued to remove CCR from the GSA for beneficial reuse. The GSA will be closed in accordance with the Florida Department of Environmental Protection (“FDEP”) approved *Supplemental Closure Plan for Gypsum Storage Area* (“Closure Plan”; Geosyntec, 2023a) and in accordance with the closure permit (Permit Number 0432551-003-CP-01; FDEP, 2024).

The CCR groundwater monitoring network wells and piezometers were installed in 2015 and certified on October 17, 2017 and are screened in the uppermost aquifer (**Figure 2**). Groundwater in the uppermost aquifer at the Site is generally encountered between 4 and 15 ft NAVD88 within the Sand and Gravel Aquifer in a laterally extensive water bearing zone of fine to coarse sand. Surface water features near the GSA include Clear Creek to the north/northeast and Governor’s Bayou to the east. Near the GSA, groundwater generally flows east towards Governor’s Bayou and north/northeast towards Clear Creek.

As reported in the *2024 Annual Groundwater Monitoring and Corrective Action Report* (Geosyntec, 2025a), statistical analysis of CCR groundwater monitoring data indicated statistically significant levels (“SSLs”) of radium 226 and 228 (total radium) above its groundwater protection standard (“GWPS”) in downgradient GSA monitoring well MW-201 in the August 2024 assessment monitoring event. SSLs were previously identified at MW-200 and MW-206; however, statistical analysis of total radium has not indicated a total radium SSL at MW-200 and MW-206 since April 2023 and February 2024, respectively. FPL analyzed the source of total radium in the vicinity of the GSA in 2020 (Geosyntec, 2020) and 2023 (Geosyntec, 2024a). Results of these evaluations demonstrate that:

- naturally occurring sources of total radium are present beneath the GSA and contribute to elevated total radium observed downgradient of the GSA; and
- CCR collected from the GSA only contains low levels of total radium, further indicating that total radium downgradient of the GSA is primarily from naturally occurring sources.

As documented in the *Selection of Remedy Report* (Geosyntec, 2025b), concentrations of radium are decreasing, stable, or show no trend. To address the radium SSLs, a remedy was selected in April 2025.

1.2 Description of Remedy

The selected remedy combines source control via CBR and long-term groundwater monitoring. The remedy selection process and the supporting field, laboratory, and desktop evaluations demonstrating the anticipated effectiveness of the remedial approach were detailed in the *Selection of Remedy Report* (Geosyntec, 2025b).

1.2.1 Source Control via Closure by Removal

Source control at the GSA will be achieved by closure per the FDEP-approved closure plan (Geosyntec, 2023a; 2023b, FDEP, 2024) and will comply with the standards for the management of wastes as specified in the CCR Rule by eliminating the potential for CCR release from the GSA to the environment. Additional information on source control is provided in the *Selection of Remedy Report* (Geosyntec, 2025b).

Source control via CBR includes (i) continued dewatering and removal of CCR from the GSA for beneficial reuse, (ii) demolition of existing infrastructure within the GSA, and

(iii) removal of the GSA liner system. Following CBR, additional steps will be taken to verify CCR removal below the liner:

- over-excavation of one foot of soils along the former trench drain corridor and below the former location of the stack riser structure and foundation;
- visual inspection of the subgrade soils of the former GSA liner system for evidence of CCR migration through tears or leaks in the liner based on color discrepancies;
- soil sampling, if needed, for verification of complete removal of CCR and any identified releases of CCR from the GSA;
- restoration grading, to prepare a surface with positive drainage of stormwater away from the closure area; and
- establish final stabilization with vegetation.

1.2.2 Long-Term Groundwater Monitoring

The goal of long-term groundwater monitoring is to verify that total radium concentrations at the GSA either: (i) continue to decline; and/or (ii) reach a level that is consistent with naturally occurring levels of total radium at the GSA. As discussed in Section 1.1, prior investigations indicate the GSA is not the likely source of total radium in groundwater and that total radium may be from a naturally occurring source (Geosyntec, 2025b). As such, total radium levels may remain above the GWPS due to natural Site conditions.

Although total radium levels at the GSA are currently above the current GWPS at select locations, both the Electric Power Research Institute (“EPRI”) (EPRI, 2015) and United States Environmental Protection Agency (“USEPA”) (USEPA, 2015) indicate that natural attenuation processes will have the greatest impact and be most effective after completion of source control activities (e.g., like CBR as discussed above). Natural attenuation mechanisms for total radium are either physical (e.g., dilution, dispersion, flushing, and related processes) or chemical (e.g., sorption, mineral [co]precipitation, or ion exchange) (USEPA, 2015).

Long-term groundwater monitoring at the GSA will be implemented to evaluate total radium levels and/or changes to (geo)chemical or hydrological conditions following

completion of CBR. This CAMP outlines the process to evaluate contingencies, which may be warranted based on changes to groundwater trends and/or geochemical conditions.

1.3 Objectives and Scope

The *Assessment of Corrective Measures* (“ACM”) *Addendum* identified source control via CBR and long-term groundwater monitoring as potentially applicable remedial measures (Geosyntec, 2024b). Remedial evaluations presented in the *Selection of Remedy Report* (Geosyntec, 2025b) indicated the selected remedy (source control via CBR and long-term groundwater monitoring) was a viable remedy for the Site.

This CAMP was prepared to outline the monitoring program to evaluate the performance of the selected corrective action. The CCR Rule at 40 CFR §257.98(a)(1) specifies that the CAMP must:

- meet the requirements of the assessment monitoring program;
- document the effectiveness of the selected remedy; and
- be capable of determining whether or not downgradient concentrations comply with the GWPS.

This CAMP documents the approach for groundwater sampling and analysis at the Site to evaluate the performance of the selected remedy.

2. FIELD SAMPLING AND ANALYTICAL PLAN

This section specifies sampling locations and frequency, sampling methods, laboratory analytical methods, quality assurance/quality control (“QA/QC”), data evaluation, and statistical analysis. The monitoring program in this CAMP aligns with and includes a subset of the wells within the ongoing semi-annual assessment monitoring program for the GSA. A contingency plan is discussed in Section 3.

2.1 Sampling Locations and Frequency

As documented in *Selection of Remedy Report* (Geosyntec, 2025b), concentrations of total radium are decreasing, stable, or without a statistical trend in downgradient monitoring wells. For conditions similar to those observed at the GSA, EPRI guidance recommends that the CAMP include monitoring wells within the plume and/or immediately downgradient of the plume (EPRI, 2015). As such, the following wells will be sampled as part of this CAMP:

- Downgradient CCR monitoring wells: MW-201 (as the location with a current SSL) as well as MW-200 and MW-206 (as locations with former and periodic SSLs).
- Horizontal and vertical delineation locations: PZ-200S, GSA-2S, PZ-200D, PZ-201D, and MW-2032.
- Background CCR monitoring wells: MW-100, MW-101, MW-107, MW-108, MW-306, and MW-307.

Monitoring well details are listed in **Table 1**, while well locations are shown in **Figure 2**. Sampling will occur semi-annually in conjunction with the semi-annual assessment monitoring program. If additional monitoring wells are added to the certified monitoring well network for assessment monitoring at the GSA, these wells will also be incorporated into this CAMP and will be identified in documentation for the updated monitoring well network certification and annual reports.

2.2 Sampling Methods and Laboratory Analysis

This section outlines sampling and analysis procedures that will provide an accurate representation of groundwater quality in background and downgradient CCR monitoring wells.

Prior to sampling, depth to water measurements will be recorded from the wells included in this CAMP. Groundwater samples will be collected in general accordance with FDEP Standard Operating Procedures (“SOP”) FS2200 (FDEP, 2017) and 40 CFR §257.93 of the CCR Rule. Appropriate in-situ field instruments will be used to monitor and record field water quality parameters (pH, specific conductance, dissolved oxygen, oxidation-reduction potential [“ORP”], temperature, and turbidity) during well purging to evaluate stabilization prior to sampling.

Following sample collection, samples will be placed in ice-packed coolers and submitted to an accredited National Environmental Laboratory Accreditation Program (“NELAP”) laboratory that maintains a NELAP certification for all parameters analyzed for this project and is certified to perform analyses by the State of Florida.

Samples will be analyzed for Appendix III and Appendix IV constituents. Sample collection and storage details, as well as analytical methods, are listed in **Table 2**.

2.3 Quality Assurance/Quality Control

This section outlines procedures and techniques for QA/QC in accordance with USEPA guidance (USEPA, 2009). As listed in **Table 2**, QA/QC samples will include the following:

- Field duplicates will be collected at a frequency of one per group of ten or fewer groundwater samples, or one per day if ten samples are not collected.
- Equipment blank samples will be collected and analyzed at a rate of one per ten samples. If dedicated sampling equipment is used, then equipment blank samples will not be collected.
- Field blank samples will be collected and analyzed at a rate of one per ten samples.
- Matrix spike/matrix spike duplicate (“MS/MSD”) samples will be collected and analyzed at a frequency of one per group of 20 or fewer groundwater samples.

These QA/QC samples will be supplemented by the analytical laboratory with additional QA/QC samples per the laboratory’s SOP for each analytical method. Data from these QA/QC samples will be used to evaluate the suitability of the data for its intended purpose.

2.4 Data Evaluation and Statistical Analysis

Statistical analysis of corrective action groundwater monitoring data will be performed using the ProUCL version 5.2.0 statistical software package (USEPA, 2022). ProUCL was developed to help decision makers and project teams make informed decisions at contaminated sites. Additionally, R Project for Statistical Computing (R Core Team, 2024) will be used in tandem with ProUCL to verify the results of the statistical tests and for data visualization. Statistical analysis will be performed in accordance with the *Statistical Analysis Plan* (“SAP”) developed for GCEC (Geosyntec, 2025c).

At least annually:

- Reported analytical concentrations for radium from downgradient wells will be compared to the GWPS as well as naturally occurring radium levels.
- Trend analyses will be performed for each SSL well to evaluate if trends are decreasing, stable, etc. according to the schedule outlined below.

Since the completion of closure activities may result in changes in groundwater and geochemical conditions at the Site, trend tests will begin following closure certification and the completion of four groundwater sampling events, which is expected in the 2027 to 2028 timeframe. The statistical approach for comparing corrective action groundwater monitoring data is consistent with EPRI guidance (EPRI 2015).

3. CONTINGENCY PLAN

As documented in the *ACM Addendum and Selection of Remedy Report*, source control via CBR and long-term groundwater monitoring is expected to effectively address SSLs observed at GCEC (Geosyntec, 2024b; 2025b). Consistent with applicable guidance documents (USEPA, 2015; ITRC, 2010; EPRI, 2015) and 40 CFR §257.98(b), this CAMP includes a remedial decision framework to evaluate contingencies. Contingency actions may range in scope from additional desktop or field evaluations to selection and implementation of alternative corrective measures.

If the selected remedy (source control via CBR and long-term groundwater monitoring) is not performing as anticipated after the first five consecutive years following closure certification, as evidenced by decreasing trends of SSLs and/or concentrations at or below naturally occurring levels, Site conditions will be reevaluated. A five-year duration is warranted to allow time to observe the effects of the source control measures at downgradient wells and for potential long-term changes to hydraulic and/or geochemical conditions to be realized. Groundwater conditions will continue to be monitored via the assessment monitoring program, including the monitoring outlined in this CAMP, before and after closure certification.

Evaluation of Site conditions will be constituent-specific to assess whether there are changes that require further study to understand the anticipated long-term success of the corrective action. This, for example, may include one or more of the following:

- Additional data collection to evaluate geochemical conditions (e.g., major ions, pH, ORP) and geochemical and/or transport modeling to understand if conditions have changed that would affect chemical or physical attenuation mechanisms.
- A review and potentially a field assessment of post-closure hydraulic conditions to assess if observed conditions are comparable to pre-closure groundwater flow conditions.

If these evaluations indicate that conditions are no longer sufficient to meet remedial objectives, alternative remedial technologies may need to be considered (including but not limited to the alternatives presented in the 2019 *ACM* (Geosyntec, 2019)). If this contingency step were to occur, the ACM process may need to be revisited to incorporate updated Site conditions.

Sampling under this CAMP will occur semi-annually in conjunction with the semi-annual assessment monitoring program. While unlikely, more frequent sampling may be employed under certain conditions including but not limited to the following:

- to enable faster completion of statistical evaluation for wells and/or after the completion of source control activities; and/or
- to assess groundwater conditions if substantial changes in geochemical conditions or SSL concentration trends are identified.

If additional monitoring wells are added to the certified GSA monitoring well network for the assessment monitoring programs, these monitoring wells will be incorporated into this CAMP. Additional monitoring wells added to the certified GSA monitoring well network will be identified in documentation for the updated monitoring well network certification and annual groundwater monitoring and corrective action reports. Any additional monitoring wells added to the certified network will be sampled at the same frequency, using the same field methods, and analyzed with the same laboratory analytical procedures as those outlined herein. In addition, analytical results from additional wells, if added to the certified network, would be evaluated and statistically analyzed using methods outlined herein.

The above contingency actions assume SSLs remain limited to radium at the GSA. If SSLs for radium and/or other Appendix IV parameters are observed at downgradient CCR groundwater monitoring wells, the following will occur:

- An evaluation of geochemical and hydraulic conditions to assess the suitability of long-term groundwater monitoring to meet remedial objectives;
- If applicable, addition of the SSL location and/or constituent to the monitoring program outlined under this CAMP;
- Evaluation of the nature and extent (delineation) of the SSL constituent; and
- Evaluation if the selected remedy is applicable for SSLs for other Appendix IV constituents beyond radium; if the selected remedy is not appropriate, a separate ACM will be performed for that SSL in accordance with 40 CFR §257.96.

4. REPORTING

Data collection and evaluation under this CAMP will be documented in each year's *Annual Groundwater Monitoring and Corrective Action Report*, which will include status updates on remedy implementation progress and any changes to the anticipated implementation schedule. Following closure certification and completion of four groundwater sampling events, updated trend analyses will also be reported in the *Annual Groundwater Monitoring and Corrective Action Report*.

Corrective action will be considered complete when concentration confidence intervals statistically decline below the GWPS or concentrations reach a level consistent with naturally occurring levels of total radium at the GSA for a three consecutive year period. At such time, notification of remedy completion is due within 30 days per 40 CFR §257.98(e).

5. REFERENCES

- EPRI, 2015. *Groundwater Monitoring Guidance for the Coal Combustion Residuals Rule*. Palo Alto, CA. 3002006287 November 2015.
- FDEP, 2017. *Department of Environmental Protection Standard Operating Procedures for Field Activities*. DEP-SOP-001/01. Florida Department of Environmental Protection. January 2017.
- FDEP, 2024. *Notice of Final Agency Action, Permit Number 0432551-003-CP-01*. June 2024.
- Geosyntec Consultants, 2019. *Assessment of Corrective Measures Report*. Gulf Power Company, Plant Crist, Gypsum Storage Area. June 2019.
- Geosyntec Consultants, 2020. *Alternate Source Demonstration for Gypsum Storage Area*. Gulf Power Company, Plant Crist. June 2020.
- Geosyntec Consultants, 2023a. *Supplemental Closure Plan for Gypsum Storage Area*. Florida Power and Light Company, Gulf Clean Energy Center. March 2023.
- Geosyntec Consultants, 2023b. *Permit Application to Close a Coal Combustion Unit – Gypsum Storage Area*. Florida Power and Light Company, Gulf Clean Energy Center. March 2023.
- Geosyntec Consultants, 2024a. *2023 Annual Groundwater Monitoring and Corrective Action Report for Gypsum Storage Area*. Florida Power & Light Company, Gulf Clean Energy Center. January 2024.
- Geosyntec Consultants, 2024b. *Assessment of Corrective Measures Addendum*. Florida Power and Light Company, Gulf Clean Energy Center, Gypsum Storage Area. August 2024.
- Geosyntec Consultants, 2025a. *2024 Annual Groundwater Monitoring and Corrective Action Report for Gypsum Storage Area*. Florida Power & Light Company, Gulf Clean Energy Center. January 2025.
- Geosyntec Consultants, 2025b. *Selection of Remedy Report for Gypsum Storage Area*. Florida Power & Light Company, Gulf Clean Energy Center. April 2025.

- Geosyntec Consultants, 2025c. *Statistical Analysis Plan*. Florida Power & Light Company, Gulf Clean Energy Center. June 2025.
- ITRC, 2010. *A Decision Framework for Applying Monitored Natural Attenuation Processes to Metals and Radionuclides in Groundwater*. APMR-1. Washington, D.C.: ITRC, Attenuation Processes for Metals and Radionuclides Team. December 2010.
- R Core Team, 2024. *R: A language and environment for statistical computing*. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>.
- USEPA, 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance*. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March 2009.
- USEPA, 2015. *Use of Monitored Natural Attenuation for Inorganic Contaminants in Groundwater at Superfund Sites*. Office of Solid Waste and Emergency Response, Directive 9283.1-36. August.
- USEPA, 2022. Statistical Software ProUCL 5.2.0 for Environmental Applications for Data Sets with and without Non-detect Observations. <https://www.epa.gov/land-research/proucl-software>.

TABLES

TABLE 1: GROUNDWATER MONITORING LOCATION DETAILS
Florida Power & Light Company - Gulf Clean Energy Center Gypsum Storage Area, Pensacola, Florida

Monitoring Location	Installation Date	Northing	Easting	Ground Elevation	Top of Casing Elevation	Top of Screen Elevation	Bottom of Screen Elevation	Designation
Gypsum Storage Area - CCR Groundwater Monitoring Network								
MW-100	11/11/2015	578116.11	1107316.00	99.84	103.03	-5.16	-15.16	Background
MW-101	11/10/2015	577158.45	1107724.27	105.10	108.00	-1.90	-11.90	Background
MW-107	11/17/2015	577201.66	1107442.83	111.40	114.71	1.40	-8.60	Background
MW-108	11/17/2015	576208.36	1107577.06	80.51	83.54	-4.49	-14.49	Background
MW-201	11/11/2015	581138.29	1108637.91	52.45	52.12	3.15	-6.85	Downgradient
MW-206	2/9/2016	581888.48	1108613.37	26.25	29.11	1.25	-8.75	Downgradient
MW-306	11/19/2015	578417.11	1106200.44	67.61	70.56	-12.39	-22.39	Background
MW-307	11/19/2015	578209.77	1106865.99	101.11	104.18	-8.89	-18.89	Background
Groundwater Monitoring Locations for Delineation								
MW-200	11/11/2015	581703.17	1108041.005	17.20	20.13	-2.80	-12.80	Delineation
PZ-200S	2/5/2019	581853.34	1108016.45	5.09	8.31	-19.83	-24.83	Delineation
GSA-2S	4/13/2017	582073.8	1108707.19	21.03	24.00	-20.97	-30.97	Delineation
PZ-200D	1/29/2019	581775.39	1108002.66	8.89	12.03	-125.97	-135.97	Delineation
PZ-201D	2/6/2019	581161.53	1108641.12	52.02	52.00	-131.98	-136.98	Delineation
MW-2032	6/24/2009	581996.86	1108509.35	18.94	20.77	-77.06	-82.06	Delineation

Notes:

1. Northing and easting are in feet relative to the State Plane Florida North Datum of 1983.
2. Elevations are in feet relative to the North American Vertical Datum of 1988.
3. Designations are relative to CCR Unit.
4. If additional monitoring wells are added to the certified monitoring well network for assessment monitoring at the GSA, these wells will also be incorporated into this CAMP.

TABLE 2: SAMPLING AND ANALYSIS SUMMARY
Florida Power & Light Company - Gulf Clean Energy Center Gypsum Storage Area, Pensacola, Florida

Parameter	Analytical Method ¹	No. of Samples	Field Duplicates ²	Field Blanks ³	Equipment Blanks ³	MS/MSD ⁴	Total ⁵	Container Type	Preservation (Cool to 4 °C for all samples)	Sample Hold Time from Collection Date
Metals										
Metals ⁶	6020	14	2 ⁷	1	1	1	19	plastic	HNO ₃ to pH<2	6 months
Mercury	7470A	14	2	1	1	1	19	plastic	HNO ₃ to pH<2	28 days
Inorganic Parameters										
Fluoride	300 or SM 4500	14	2	1	1	1	19	plastic	Cool to 4 °C	28 days
Chloride	SM 4500	14	2	1	1	1	19	plastic	Cool to 4 °C	28 days
Sulfate	SM 4500	14	2	1	1	1	19	plastic	Cool to 4 °C	28 days
Total Dissolved Solids	SM 2540 C	14	2	1	1	1	19	plastic	Cool to 4 °C	7 days
Radium										
Radium 226	9315	14	2	1	1	1	19	plastic	HNO ₃ to pH<2	6 months
Radium 228	9320	14	2	1	1	1	19	plastic	HNO ₃ to pH<2	28 days
Field Parameters										
pH	SM 4500-H+ B	14	N/A	N/A	N/A	N/A	14	flow-through cell	none	immediately
Dissolved Oxygen	SM 4500-O/405.1	14	N/A	N/A	N/A	N/A	14	flow-through cell	none	immediately
Temperature	SM 2550	14	N/A	N/A	N/A	N/A	14	flow-through cell	none	immediately
Oxidation-Reduction Potential	SM 2580 B	14	N/A	N/A	N/A	N/A	14	flow-through cell	none	immediately
Specific Conductance	SM 2510 B	14	N/A	N/A	N/A	N/A	14	flow-through cell	none	immediately
Turbidity ⁸	SM 2130 B	14	N/A	N/A	N/A	N/A	14	flow-through cell/ hand-held turbidity meter	none	immediately
Depth to Water	N/A	14	N/A	N/A	N/A	N/A	14	N/A	none	immediately

Notes:

¹ Analytical method numbers are from SW-846 unless otherwise indicated. Analytical methods may be updated with more recent versions as appropriate.

² Field duplicates will be collected at a frequency of one per group of ten groundwater samples, or one per day if ten samples are not collected.

³ Field blanks will be collected at a rate of one per ten samples; Equipment blanks will be collected at a rate of one per ten samples, if non-dedicated equipment is used.

⁴ Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples will be collected at a frequency of one per group of 20 or fewer investigative samples per CCR unit/multi-unit. Additional volume to be determined by laboratory.

⁵ Total refers to the total number of samples and QA/QC samples.

⁶ Metals = antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, cobalt, lead, lithium, molybdenum, selenium, thallium.

Metals may be analyzed via ICP/ICP-MS USEPA methods 6010 or 6020 depending on laboratory instrument availability.

⁷ Two days sampling event assumed. May need to be adjusted according to Note 2.

⁸ The target sample turbidity is less than 5 NTU. However, samples with a turbidity above 5 NTU can be collected if a minimum of 5 well volumes have been purged and the turbidity trend is not decreasing.

< = less than

°C = degrees Celsius

HNO₃ = nitric acid

N/A = not applicable

NTU = nephelometric turbidity unit

FIGURES



