STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-512944
PLACE ID 718 LTF 74980

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A. A. C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, the Arizona Department of Environmental Quality (ADEQ) hereby authorizes Bonanza Mining Company to operate the Harquahala Mine, a gold mine located in an unincorporated area 8 miles south of the Town of Salome, La Paz County, Arizona, over groundwater of the Ranegras Groundwater Basin, in Sections 22, Township 3N, Range 14W of the Gila and Salt River Base Line and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant and as determined at the applicable POC occurs as a result of the discharge from the facility.

1.1 PERMITTEE INFORMATION

Facility Name: Harquahala Mine
Facility Address: 8 miles north of the Hovatter Road exit off of Interstate -10, and 8 miles south of Salome, Arizona

County: La Paz County

Permittee: Bonanza Mining Company
Permittee Address: 65 E. Broadway, Suite 305
Butte, Montana 59701

Annual Registration Fee Flow Rate: 324,000 gallons per day (gpd**)**

Facility Contact: Todd Fayram
Emergency Phone No.: (775) 813-6490

Latitude/Longitude: 33° 40' 10.11" N/113° 35' 34.73" W
Legal Description: Sections 22, Township 3N, Range 14W of the Gila and Salt River Base Line and Meridian.

1.2 AUTHORIZING SIGNATURE

_____

Trevor Baggiore, Director, Water Quality Division
Arizona Department of Environmental Quality

Signed this _____ day of _____, 2020

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

Bonanza Mining Company (Bonanza) will operate the Harquahala Mine to reprocess historical (pre-1986) surface gold bearing ores and tailings. The operation will collect the historic ores and tailings to extract and recover the gold.

Approximately 242,000 cubic yards of historic ores and tailings will be consolidated in controlled areas prior to being sized and placed onto a newly constructed double-lined heap leach pad (approximately 314,000 square foot (sq ft). The gold will be extracted within a newly constructed 242,000 cubic yard heap leach pad by conventional cyanide leaching. The pregnant leach solution will flow into a 4,126,239 gallon double-lined pregnant solution pond, with a maximum operational storage requirement estimated to be 3,965,780 gallons. The extraction operation will consist of loading and hauling; primary and secondary crushing; agglomeration and stacking; heap leaching using cyanide solution, storage of process solutions in a pond; and precious metals recovery using granular activated carbon (GAC). The final phase of the gold extraction from the GAC will be performed off-site. The facility will also include an intermediate stockpile that will be permitted under a Type 2.02 general permit.

The site includes the following permitted discharging facilities:

Facility Name	Latitude	Longitude
Heap Leach Pad	33° 40’ 11.05” N	113° 35’ 30.96” W
Pregnant Solution Pond	33° 40’ 10.09” N	113° 35’ 35.16” W

Annual Registration Fee [A.R.S. § 49-242 and A.A.C. R18-14-104]

The annual registration fee for this permit is payable to ADEQ each year. The permitted flow for fee calculation is 324,000 gallons per day (gpd). If the facility is not yet constructed or is incapable of discharge at this time, the permittee may be eligible for reduced fees under the rule. Send all correspondence requesting reduced fees to the Water Quality Division of ADEQ. Please reference the permit number, LTF number and why reduced fees are requested under the rule.

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The Permittee shall be required to demonstrate financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The Permittee shall be required to maintain financial capability throughout the life of the facility. The closure costs are $194,113, and the post-closure costs for reclamation monitoring and groundwater monitoring for 5 years is $14,401. The financial assurance mechanism was demonstrated through a Cash Deposit per A.A.C. R18-9-A203(C)(7) in the amount of $208,514.

2.2 Best Available Demonstrated Control Technology (BADCT) [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

Facilities regulated by this permit shall be designed, constructed, operated, and maintained to meet requirements specified by A.R.S. §49-243(B) and A.A.C. R18-9-A202(A)(5).

2.2.1 Engineering Design

The BADCT facilities located at this mine site shall include a Heap Leach Pad and the Pregnant Solution Pond, each double-lined and designed to meet Prescriptive BADCT in Section 4.2, Table 4.1.1.

2.2.2 Site-specific Characteristics

Not Applicable.

2.2.3 Pre-operational Requirements

The permittee shall submit a Construction Quality Assurance (CQA) Report to the Groundwater Protection Value Stream following construction of the Heap Leach Pad and Pregnant Solution Pond within 90 days after completion of construction of each facility per Section 3.0 Compliance Schedule, item 3.3. Prior to placement of material on the Heap Leach Pad the permittee shall conduct a stability analysis of the Heap Leach Pad to include scenarios modeling saturated zones of varying thicknesses at the bottom of the pad and at mid-height of the pad, extending across the entire pad footprint, and provide the results to the Groundwater Protection Value Stream per Section 3.0 Compliance Schedule, item 3.4.

2.2.4 Operational Requirements

At a minimum, permitted facilities shall be inspected for performance levels listed in Section 4.2, Table 4.2.2. Results of these inspections shall be documented and maintained on location or upon project completion at the corporate headquarters for 10 years from the date of each inspection, as required by Section 2.7.2 of this permit. If damage is identified during an inspection that could cause or contribute to a discharge, proper repairs shall be promptly performed and documented as described in Section 2.5.2 and Section 2.7.2.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of BADCT pollutant control technologies, including liner failure, uncontrollable leakage, overtopping (e.g., exceeding maximum storage capacity, defined as fluid level exceeding the freeboard of a permitted pond), that result in an unexpected loss of fluid, accidental spills, or other unauthorized discharges. The discharge limitations in this section are not applicable to any discharge caused by precipitation in excess of a single 100-year/24 hour storm event or process overflow during a power outage exceeding 24 hours in duration.

2.3.1 The permittee is restricted to no discharge from the Heap Leach Pad, and the Pregnant Solution Pond.

2.3.1.1 Discharge Limitations for the Future Heap Leach Facility and Diversion Structure

The drainage system for the Heap Leach Facility shall be constructed and operated in a manner to ensure adequate capacity to manage draindown solutions and direct it to the Pregnant Solution Pond, respectively. Residual heap materials and fluids shall not leave the heap liner or overtop the berms.

2.3.1.2 Discharge Limitations for the Pregnant Solution Pond

The Pregnant Solution Pond shall only receive process solution.

2.4 Point of Compliance (POC) [A.R.S. § 49-244]

Well Number	Location Description	Latitude	Longitude	ADWR #	Screen Interval
POC-1	200 ft. West of the Leach Pad	33° 40" 16.67´ N	113° 35" 32.70´ W	TBD	TBD-TBD ft. bgs

Groundwater monitoring is required under this permit per Section 4.2, Table 4.2.4. The Director may amend this permit to designate an additional point or points of compliance if information on groundwater gradient or groundwater usage indicates the need.

2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

Unless otherwise specified in this permit, all monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. Unless otherwise provided, monitoring shall commence the first full monitoring period following permit issuance. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and Chain-of-Custody procedures shall be followed, in accordance with currently accepted standards of professional practice. Copies of laboratory analyses and Chain-of-Custody forms shall be maintained at the permitted facility or upon project completion at the corporate headquarters. Upon request, these documents shall be made immediately available for review by ADEQ personnel.

2.5.1 Pre-Operational Monitoring

Not applicable

2.5.2. Discharge Monitoring

2.5.2.1 Initial Discharge Characterization

The permittee shall collect representative fluid samples from the Pregnant Solution Pond and analyzed for the constituents listed in Section 4.2, Table 4.2.2 of this permit, within ninety days of the start-up of leaching operations. The results shall be reported according to the terms specified in Section 2.7.4.2, within 30 days of receipt of the laboratory analytical results to the Groundwater Protection Value Stream per Section 3.0, Compliance Section, item 3.5.

2.5.3 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.2, Table 4.2.1. If damage is identified during an inspection that could cause or contribute to an unauthorized discharge pursuant to A.R.S. § 49-201(12), proper repairs shall be promptly performed. Results of these inspections and monitoring activities shall be documented and maintained at the facility location for the life of the operation, and as required by Section 2.7.2 of this permit.

2.5.4 Groundwater Monitoring and Sampling Protocols

Compliance groundwater monitoring is required under the terms of this permit. For all sampling methods, static water levels shall be measured and recorded prior to sampling.

Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, and conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80 percent of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as "dry" for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the Self-monitoring Report Form (SMRF).

As an alternative method for sampling, the permittee may conduct the sampling using the low-flow purging method as described in the Arizona Water Resources Research Center, March 1995 *Field Manual for Water Quality Sampling*. The well must be purged until indicator parameters stabilize. Indicator parameters shall include dissolved oxygen, turbidity, pH, temperature, and conductivity.

2.5.4.1 POC Well Replacement

In the event that one or more of the designated POC wells should become unusable or inaccessible due to damage, exceedance of alert level (AL) for water level as required by Section 2.6.2.3.4(3),or any other event, a replacement POC well shall be constructed and installed upon approval by ADEQ. If the replacement well is 50 feet or less from the original well, the ALs and/or aquifer quality limits (AQLs) calculated for the designated POC well shall apply to the replacement well.

2.5.4.2 Ambient Groundwater Monitoring

The permittee shall conduct monthly ambient groundwater monitoring for a total of twelve (12) months in accordance with Section 3.0, Compliance Schedule, item 3.8 of the permit for all constituents listed in Section 4.2, Tables 4.2.3.

Based on the ambient groundwater monitoring results for this well, the permittee shall submit an Ambient Groundwater Monitoring Report in accordance with Section 2.7.4.4 and a request for a permit amendment to incorporate proposed AQLs and ALs in Section 4.2.

2.5.4.2.1 Alert levels for Point of Compliance Wells

ALs shall be calculated for all contaminants with an established numeric AWQS at the POC well per Section 4.2, Table 4.2.3. For any new or replacement POC wells, ALs shall be calculated for all contaminants with an established numeric AWQS, as described below.

As per the compliance schedule item 3.9, following receipt of the laboratory analyses for the final month of the ambient groundwater monitoring period for the POC well referenced in Section 4.2, Table 4.2.3, the permittee shall submit the ambient groundwater data in tabulated form to the Groundwater Protection Value Stream for review. Copies of all laboratory analytical reports, field notes, and the Quality Assurance/Quality Control (QA/QC) procedures used in collection and analyses of the samples for all parameters listed in Section 4.2, Table

4.2.3 to be established for the POC well, shall be submitted to the Groundwater Protection Value Stream. The permittee may submit a report with the calculations for each AL and AQL included in the permit for review and approval by ADEQ, or the permittee may defer calculation of the ALs and AQLs by the Groundwater Protection Value Stream. The ALs shall be established and calculated by the following formula, or another valid statistical method submitted to Groundwater Protection Value Stream in writing and approved for this permit by the Groundwater Protection Value Stream:

$$AL = M + KS$$

Where M = mean, S = standard deviation, and K = one-sided normal tolerance interval with a 95% confidence level (Lieberman, G.J. (1958) Tables for One-sided Statistical Tolerance Limits: Industrial Quality Control, Vol XIV, No. 10). Obvious outliers should be excluded from the data used in the AL calculation.

The following criteria shall be met in establishing ALs in the permit:

1. The AL shall be calculated for a parameter using the analyses from a minimum of eight sample events.
2. Any data where the laboratory Practical Quantitation Limit (PQL) exceeds 80% of the AWQS shall not be included in the AL calculation.
3. If a parameter is below the detection limit, the permittee must report the value as "less than" the numeric value for the PQL or detection limit for the parameter, not just as "non-detect". For those parameters, the permittee shall use a value of one-half the reported detection limit for the AL calculation.
4. If the analytical results from more than 50% of the samples for a specific parameter are non-detect, then the AL shall be set at 80% of the AWQS.
5. If the calculated AL for a specific constituent and well is less than 80% of the AWQS, the AL shall be set at 80% of the AWQS for that constituent in that well.

2.5.4.2.2 Alert levels for Point of Compliance Wells

For each of the monitored analytes for which a numeric AWQS has been adopted, the AQL shall be established as follows:

1. If the calculated AL is less than the AWQS, then the AQL shall be set equal to the AWQS.
2. If the calculated AL is greater than the AWQS, then the AQL shall be set equal to the calculated AL value, and no AL shall be set for that constituent at that monitoring point.

2.5.4.3 Compliance Groundwater Quality Monitoring for POC Wells

Quarterly compliance groundwater monitoring at the POC well shall commence within the first calendar quarter after completion of the ambient groundwater sampling period. For quarterly compliance monitoring, the permittee shall analyze groundwater samples for the parameters listed in Section 4.2, Table 4.2.4.

2.5.5 Surface Water Monitoring and Sampling Protocols

Routine surface water monitoring is not required under the terms of this permit.

2.5.6 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state-approved methods. If no state-approved method exists, then any appropriate EPA-approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. If all methods have detection limits higher than the applicable limit, the permittee shall follow the contingency requirements of Section 2.6 and may propose "other actions" including amending the permit to set higher limits. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification unless exempted under A.R.S. § 36-495.02. For results to be considered valid, all analytical work shall meet quality

control standards specified in the approved methods. A list of Arizona state-certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, Arizona 85007
Phone: (602) 364-0720

2.5.7 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the Groundwater Protection Value Stream for approval prior to installation and the permit shall be amended to include any new monitoring points.

2.6 Contingency Plan Requirements
[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Requirements

At least one copy of this permit and the approved contingency and emergency response plan dated August, 2019, shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

Any AL exceedance, or violation of an AQL, DL, or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3, unless more specific reporting requirements are set forth in Sections 2.6.2 through 2.6.5.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL or DL. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling had been conducted.

The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit.

2.6.2 Exceeding of Alert Levels and Performance Levels

2.6.2.1 Exceeding of Performance Levels Set for Freeboard

In the event that freeboard performance levels established in Section 4.2, Table 4.2.1 in a surface impoundment are not maintained, the permittee shall:

1. As soon as practicable, cease or reduce discharging to the impoundment to prevent overtopping. Remove and properly dispose or recycle to other operations the excess fluid in the reservoir until the water level is restored at or below the permitted freeboard limit.
2. Within 5 days of discovery, evaluate the cause of the incident and adjust operational conditions or identify design improvements to the affected system as necessary to avoid future occurrences.
3. Within 30 days of discovery, initiate repairs to the affected system, structure, or other component as necessary to return the system to compliance with this permit, or remove the affected system(s) from service as specified in Section 2.8 (Temporary Cessation) and Section 2.9 (Closure) of this permit. Record any repair procedures, methods, and materials used to restore the facility to operating condition in the facility log/recordkeeping file.
4. If design improvements are necessary, submit an amendment application within 90 days of discovery.

5. The facility is no longer on alert status once the operational indicator no longer indicates that the freeboard performance level is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.2 Exceeding of Performance Levels Set for Conditions Other Than Freeboard

1. If an operational performance level (PL) listed in Section 4.2, Table 4.2.1 has been observed or noted during required inspection and operational monitoring, such that the result could cause or contribute to an unauthorized discharge as defined in A.R.S. § 49-201(12), the permittee shall immediately investigate to determine the cause of the condition. The investigation shall include the following:
   a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the operational performance condition.
   b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences.
2. The PL exceedance, results of the investigation, and any corrective action taken shall be reported to the Groundwater Protection Value Stream, within 30 days of the discovery of the condition. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, or other actions.
3. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5 and any necessary contingency measures to resolve problems identified by the investigation which may have led to a PL being exceeded. To implement any other corrective action the permittee may choose to obtain prior approval from ADEQ according to Section 2.6.6.

2.6.2.3 Exceeding of Alert Level 1 for Normal Liner Leakage

If the impoundment Alert Level 1 (AL1) has been exceeded, as defined in Section 4.2, Table 4.2.5, the permittee shall take the following actions:

1. Within five (5) days of AL #1 exceedance, notify Groundwater Protection Value Stream in accordance with Section 2.7.6 Permit Violation and Alert Level Status Reporting. Continue monitoring to determine if the leakage rate is increasing.
2. If the leakage rate continues to exceed AL#1 for 15 days following notification of initial AL #1 exceedance, perform a visual inspection of the liner above the solution level, to determine the location of the leaks in the primary liner.
3. Within 45 days of AL #1 exceedance, if liner damage is evident, the permittee shall complete liner repairs.
4. Within 45 days of AL #1 exceedance, if the visual inspection does not identify the location of leaks, formulate a corrective action plan to determine their location and repair them.
5. Within 90 days of AL #1 exceedance and following formulation of a corrective action plan, the permittee shall complete liner repairs.
6. Within 75 days of AL #1 exceedance (if repairs were completed in Step 3), or 120 days of AL #1 exceedance (if corrective action plan was implemented per Steps 4 and 5), if no alert level exceedance is observed for 30 consecutive days, notify Groundwater Protection Value Stream and document assessment and/or repairs in the log book.
7. Within 120 days of AL #1 exceedance (if repairs were completed in Step 3), or 165 days of AL #1 exceedance (if corrective action plan was implemented per Steps 4 and 5), if 30 consecutive days without an AL #1 exceedance is not achieved, notify Groundwater Protection Value Stream and reassess the entire liner system and complete any necessary repairs as described in Steps 2 and 3 (and if necessary Steps 4 and 5 also). Repeat the assessment and liner repair cycle until requirements of Step No. 6 are attained.
8. A liner leakage assessment and repair report shall be included in the next annual report described in Section 2.7.4.1 (Annual Reporting) of this permit. The permittee may also submit the liner leakage assessment report to the ADEQ prior to the annual report due date. This liner leakage assessment and repair report shall be submitted to the Groundwater Protection Value Stream. Upon review of the report, ADEQ may require that the permittee take additional corrective actions to address the problems identified from the assessment of the liner and perform other applicable repair procedures.

2.6.2.4 Exceeding of Alert Level 2 for Liner Failure or Rip

If the Liner Leakage Discharge Limit (AL #2) specified in Section 4.2, Table 4.2.5, the Permittee shall take the following actions:

1. As soon as practicable, cease all discharge to the impoundment, implement control measures to prevent new solution buildup that may subsequently report to the impoundment, and immediately notify Groundwater Protection Value Stream of the AL #2 exceedance.
2. Within 15 days of initial AL #2 exceedance, perform a visual inspection of the liner above the solution level to identify the location of the leak(s). The permittee shall complete liner repairs and discharge to the impoundment shall not be re-initiated until the leak(s) have been identified and repaired.
3. Within 60 days of initial AL #2 exceedance if leaks were found and fixed and if no AL #2 exceedance is observed for 30 consecutive days, submit a liner leakage assessment and repair report to ADEQ. The report shall include the results of the initial liner evaluation, methods used to locate the leak(s), repair procedures and quality assurance/quality control implemented to restore the liner to optimal operational status, and other information necessary to ensure the future occurrence of the incidence will be minimized.
4. Within 30 days of initial AL #2 exceedance if the visual inspection does not identify the location of leaks and AL #2 exceedance continues, formulate a corrective action plan to determine their location and repair them. The corrective action plan will take into account the schedule for a 3rd party contractor to perform electronic leak detection or other methods if required.
5. Within 75 days of initial AL #2 exceedance and following formulation of a corrective action plan, the permittee shall complete liner repairs
6. Within 105 days of AL #2 exceedance and implementation of the corrective action plan per Steps 4 and 5, if no AL #2 exceedance is observed for 30 consecutive days, notify Groundwater Protection Value Stream and document assessment and/or repairs in the log book.
7. Within 105 days of initial AL #2 exceedance, (if repairs were completed in Step 3), or 150 days of AL #2 exceedance (if corrective action plan was implemented per Steps 4, 5, and 6) if 30 consecutive days without an AL #2 exceedance is not achieved, repeat Steps 1 through 7 until AL #2 is not exceeded for 30 consecutive days. When the Steps 1 through 7 are repeated, the notification date is reset. Discharge to the impoundment shall not be re-initiated until the leak(s) have been identified and repaired.
8. Liner leakage assessment and repair reports required by Section 2.6.2.3, shall be referenced in the next annual report described in Section 2.7.4.1 (Annual Reporting) of this permit.

2.6.2.5 Exceeding of Alert Levels (ALs) Set for Discharge Monitoring

Not applicable to this permit

2.6.2.6 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.6.1 Alert Levels for Indicator Parameters

1. If an AL for an indicator parameter set in Section 4.2, Table 4.2.4 has been exceeded, the permittee may conduct verification sampling within 5 days of becoming aware of the AL exceedance. The permittee may use the results of another sample taken between the date of the last sampling event and the date of receiving the result as the verification sample.
2. If verification sampling confirms the AL exceedance or if the permittee opts not to perform verification sampling, then the permittee shall sample for the complete set of listed in Section 4.3, Table 4.3.1 at the frequency specified in that Table.
3. The permittee shall continue testing for this set of pollutants until all indicator parameters have remained below the AL for four consecutive sampling events.
4. If an AL for a pollutant with a Numeric Aquifer Water Quality Standard in Section 2.6.2.6.2 has been exceeded and the requirements in this section for indicator parameters

continue in the same POC well, the permittee shall resume the monitoring frequency specified in Section 4.2, Table 4.2.4 and follow the requirements set in Section 2.6.2.6.2.

2.6.2.6.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

1. If an AL for a pollutant set in Section 4.2, Table 4.2.4 has been exceeded, the Permittee may conduct verification sampling of the pollutant(s) that exceed their respective AL(s) within five (5) days of becoming aware of an AL exceedance. The permittee may use the results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms the AL exceedance or if the Permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring of the pollutant(s) that exceed their respective AL(s) to monthly. In addition, the permittee shall immediately initiate an investigation of the cause of the AL exceedance, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.
3. The Permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Groundwater Protection Value Stream, that although an AL is exceeded, the pollutant(s) that exceed their respective AL(s) are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency, for those pollutant(s) that exceed their respective AL(s), for approval in writing by the Groundwater Protection Value Stream.
4. Within 30 days after confirmation of an AL exceedance for those pollutant(s), the permittee shall submit the laboratory results to the Groundwater Protection Value Stream along with a summary of the findings of the investigation, the cause of the AL exceedance, and actions taken to resolve the problem.
5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, or other actions.
6. The increased monitoring for those pollutant(s), required as a result of ALs exceedance may be reduced to the frequency shown for groundwater monitoring in Section 4.2, Table 4.2.4, if the results of three (3) consecutive monthly sampling events demonstrate that parameter(s) does/do not exceed their respective AL(s).
7. If the increased monitoring required as a result of an AL exceedance for those pollutant(s), continues for more than six (6) sequential sampling events, the Permittee shall submit a second (2nd) report documenting an investigation of the continued AL exceedance within 30 days of the receipt of laboratory results of the sixth (6th) sampling event.

2.6.2.6.3 Alert Levels to Protect Downgradient Users from Pollutants Without Numeric Aquifer Water Quality Standards

Not applicable

2.6.2.6.4 Alert Level for Groundwater Level

Not applicable

2.6.3 Discharge Limit Violation

2.6.3.1 Surface Impoundments: Liner Failure, Containment Structure Failure, or Unexpected Loss of Fluid for a Reason other than Overtopping

In the event of overtopping, liner failure, containment structure failure, or unexpected loss of fluid as described in Section 2.3, the permittee shall take the following actions:

1. As soon as practicable, cease all discharges as necessary to prevent any further releases to the environment, including removal of any fluid remaining in the impoundment as necessary, and capture and containment of all escaped fluids.
2. Within 24-hours of discovery, notify the Groundwater Protection Value Stream.
3. Within five (5) days of discovery of a failure estimate the quantity released, collect representative samples of the fluid remaining in affected impoundments and drainage structures, analyze sample(s) according to Section 4.3, Table 4.3.1 and report in accordance with Section 2.7.3 (Permit Violation and AL Status Reporting). In the 30-day report required under Section 2.7.3, include a copy of the analytical results and forward the report to Groundwater Protection Value Stream.
4. Within 15 days of discovery, initiate an evaluation to determine the cause for the incident. Identify the circumstances that resulted in the failure and assess the condition of the discharging facility and liner system. Implement corrective actions as necessary to resolve the problems identified in the evaluation. Initiate repairs to any failed liner, system, structure, or other component as needed to restore proper functioning of the discharging facility. The permittee shall not resume discharge to the facility until repairs of any failed liner or structure are performed.

   Repair procedures, methods, and materials used to restore the system(s) to proper operating condition shall be described in the facility log/recordkeeping file and available for ADEQ review. Record in the facility log/recordkeeping file the amount of fluid released, a description of any removal method and volume of any fluid removed from the impoundment and/or captured from the release area. The facility log/recordkeeping file shall be maintained according to Section 2.7.2 (Operation Inspection / Log/Recordkeeping File). As soon as practicable, remove fluid remaining in the surface impoundment as necessary to prevent further releases to the subsurface and/or to perform repairs. Record in the facility log/recordkeeping file the amount of fluid removed a description of the removal method, and other disposal arrangements. The facility log/recordkeeping file shall be maintained according to Section 2.7.2 (Operation Inspection / Log/Recordkeeping File).
5. Within 30 days of discovery of the incident, submit a report to Groundwater Protection Value Stream as specified in Section 2.7.3. Include a description of the actions performed in Subsections 1 through 5 listed above. Upon review of the report, Groundwater Protection Value Stream may request additional monitoring or remedial actions.
6. Within 60 days of discovery, conduct an assessment of the impacts to soil and/or groundwater resulting from the incident. If soil or groundwater is impacted such that it could or did cause or contribute to an exceedance of an AQL at the applicable point of compliance, submit to Groundwater Protection Value Stream, for approval, a corrective action plan to address such impacts, including identification of remedial actions and a schedule for completion of activities. At the approval of ADEQ, the permittee shall implement the approved plan.
7. Within 30 days of completion of corrective actions, submit to Groundwater Protection Value Stream, a written report as specified in Section 2.6.6 (Corrective Actions).
8. Upon review of the report, ADEQ may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.3.2 Overtopping of a Surface Impoundment

If overtopping of fluid from a permitted surface impoundment occurs, and results in a discharge pursuant to A.R.S. § 49-201(12), the Permittee shall:

1. As soon as practicable, cease all discharges to the surface impoundment to prevent any further releases to the environment.
2. Within 24 hours of discovery, notify Groundwater Protection Value Stream.
3. Within five (5) days, collect representative samples of the fluid contained in the surface impoundment. Samples shall be analyzed for the parameters specified in Section 4.3, Table 4.3.1. Within 30 days of the incident, submit a copy of the analytical results to Groundwater Protection Value Stream.
4. As soon as practicable, remove and properly dispose of excess water in the impoundment until the water level is restored at or below the appropriate freeboard as described in

Section 4.2, Table 4.2.1. Record in the facility log/recordkeeping file the amount of fluid released, a description of the removal method and volume of any fluid removed from the impoundment and/or captured from the release area. The facility log/recordkeeping file shall be maintained according to Section 2.7.2 (Operation Inspection/LogBook/Recordkeeping File).

5. Within 30 days of discovery, evaluate the cause of the overtopping and identify the circumstances that resulted in the incident. Implement corrective actions and adjust operational conditions as necessary to resolve the problems identified in the evaluation. Repair any systems as necessary to prevent future occurrences of overtopping.
6. Within 30 days of discovery of overtopping, submit a report to Groundwater Protection Value Stream as specified in Section 2.7.3(2) (Permit Violation and Alert Level Status Reporting). Include a description of the actions performed in Subsections 1 through 5 listed above. Upon review of the report, Groundwater Protection Value Stream may request additional monitoring or remedial actions.
7. Within 60 days of discovery, and based on sampling in Item No. 3 above, conduct an assessment of the impacts to the subsoil and/or groundwater resulting from the incident.
8. If soil or groundwater is impacted such that it could cause or contribute to an exceedance of an AQL at the applicable point of compliance, submit to Groundwater Protection Value Stream for approval, a corrective action plan to address such impacts, including identification of remedial actions and/or monitoring, and a schedule for completion of activities. At the direction of Groundwater Protection Value Stream, the permittee shall implement the approved plan.
9. Within 30 days of completion of corrective actions, submit to Groundwater Protection Value Stream, a written report as specified in Section 2.6.6 (Corrective Actions). Upon review of the report, Groundwater Protection Value Stream may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.3.3 Inflows of Unexpected Materials to a Surface Impoundment

If any unexpected materials flow to a permitted surface impoundment, the Permittee shall:

1. As soon as practicable, cease all unexpected inflows to the surface impoundment(s).
2. Within 24-hours of discovery, notify the Groundwater Protection Value Stream.
3. Within five (5) days of the incident, identify the source of the material and determine the cause for the inflow. Characterize the unexpected material and contents of the affected impoundment, and evaluate the volume and concentration of the material to determine if it is compatible with the surface impoundment liner. Based on the evaluation of the incident, repair any systems or equipment and/or adjust operations, as necessary to prevent future occurrences of inflows of unexpected materials.
4. Within 30 days of an inflow of unexpected materials, submit a report to Groundwater Protection Value Stream as specified in Section 2.7.3(2) (Permit Violation and Alert Level Status Reporting). Include a description of the actions performed in Subsections 1 through 3 listed above.
5. Upon review of the report, Groundwater Protection Value Stream may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, mitigation, or other actions.

2.6.3.4 Slope and Berm Failures

If a slope or berm failure occurs, which affects the ability of the facility to operate in accordance with this permit or results in an unauthorized discharge, the permittee shall promptly close the active area in the vicinity of the failure, and conduct a field investigation of the failure to analyze its origin and extent, its impact on the facility operations, temporary and permanent repairs and changes in operational plans considered necessary. Within 30 days of a slope or berm failure, the permittee shall submit a written report, which includes the documentation specified in Section 2.7. 3 (Permit Violation and Alert Level Status Reporting) of this permit. The permittee shall initiate the actions necessary to mitigate the impacts of the failure, consistent with Department approval.

2.6.4 Aquifer Quality Limit Violation

1. If an AQL set in Section 4.2 Table 4.2.4 has been exceeded, the permittee may conduct verification sampling for those pollutant(s) that were above their respective AQL(s) within five (5) days of becoming aware of the AQL exceedance. The permittee may use the results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms that the AQL is violated for those pollutant(s) that were above their respective AQL(s) or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring for those pollutant(s) that were above their respective AQL(s) to monthly. In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted in unexpected discharge.

   The permittee also shall submit a report according to Section 2.7.3(2), which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 90 days or a longer time period if agreed to by Groundwater Protection Value Stream that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, the permittee shall consider and Groundwater Protection Value Stream may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in the Groundwater Protection Value Stream approved contingency plan, or separately approved according to Section 2.6.6.
3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, or other actions.
4. The permittee shall notify any downstream or downgradient users who may be directly affected by the discharge.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. § 49-201(12) and pursuant to A.R.S. § 49-241 That Are Not Addressed Elsewhere in Section 2.6

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. **§** 49-201(12) of suspected hazardous substances (A.R.S. **§** 49-201(19)) or toxic pollutants (A.R.S. **§** 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the Groundwater Protection Value Stream within 24 hours upon discovering the discharge of hazardous material which (a) has the potential to cause an AWQS or AQL to be exceeded, or (b) could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. **§** 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the Groundwater Protection Value Stream within 24 hours of discovering the

discharge of non-hazardous material which has the potential to cause an AQL exceedance, or could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges required to be reported under Sections 2.6.5.2 and 2.6.5.3 to the Groundwater Protection Value Stream within 30 days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in the notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Section 2.6 have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Groundwater Protection Value Stream prior to implementing a corrective action to accomplish any of the following goals in response to exceedance of an AL or violation of an AQL, DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer;
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the Groundwater Protection Value Stream, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements [A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self-Monitoring Report Form

1. The permittee shall complete the Self-Monitoring Reporting Forms (SMRFs) through the myDEQ online reporting system.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a reporting period, the permittee shall enter "not required" on the form, include an explanation.
3. The tables contained in Section 4.2 list the monitoring parameters and the frequencies for reporting results on the SMRF:
   - Table 4.2.4 Groundwater Compliance Monitoring

   The parameters listed in the above-identified tables from Section 4.2 are the only parameters for which SMRF reporting is required.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms, or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and time inspection was conducted;
3. Condition of applicable facility components;

4. Any damage or malfunction, and the date and time any repairs were performed;
5. Documentation of sampling date and time; and
6. Any other information required by this permit to be entered in the log book.

Monitoring records for each measurement shall comply with A.A.C. R18-9-A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Groundwater Protection Value Stream in writing within five (5) days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation or of an AL exceedance for which notification requirements are not specified in Sections 2.6.2 through 2.6.5.
2. The permittee shall submit a written report to the Groundwater Protection Value Stream within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:
    a. Identification and description of the permit condition for which there has been a violation and a description of the cause;
    b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
    c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;
    d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
    e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
    f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

2.7.4.1 Annual Report

If an Alert Level #1 or Alert Level #2 has been exceeded as discussed in Sections 2.6.2.3 and 2.6.2.4, the permittee shall submit an annual report that summarizes the results of the liner assessment. The Liner Leakage Assessment Report shall also include information including but not limited to the following: number and location of holes identified; a table summarizing the exceedances including the frequency and quantity of fluid removed, and corrective actions taken.

When required the annual report is to be submitted by January 30 of each year to cover activities from January 1 through December 31st of the previous year, consistent with Section 2.7.6.

2.7.4.2 Pregnant Solution Pond Characterization Report

The permittee shall submit a Pregnant Solution Pond characterization/monitoring report to the Groundwater Protection Value Stream. The report shall include copies of all laboratory analytical reports, field notes, the QA/QC limits used in collection and analysis of the samples.

2.7.4.3 Well Installation Reports

A well installation report shall be submitted to the Groundwater Protection Value Stream in accordance with Section 3.0, Compliance Schedule, item 3.7 Each well installation report shall be completed in accordance with A.A.C. R12-15-801 et seq. and consist of the following:

- Copies of Arizona Dept. of Water Resources (ADWR) Notice of Intent and all related submittals to ADWR;
- Boring log and well as-built diagram;
- Total depth of well measured after installation;
- Top of well casing or sounding tube (whichever is used as the fixed reference measuring point) and ground surface elevation;
- Depth to groundwater;
- Geophysical logging reports and subsurface sampling results, if any;
- Description of well drilling method;
- Description of well development method;

- If dedicated sampling equipment installed, details on the equipment and at what depth the equipment was installed;
- Summary of analytical results for initial groundwater sample collected after installation;
- Corresponding analytical data sheets; and
- GPS coordinates for each new well.

2.7.4.4 Ambient Groundwater Quality Report

The permittee shall submit an APP amendment application along with ambient groundwater monitoring report as required in accordance with the Section 3.0, Compliance Schedule Item # 3.9. The Ambient Groundwater Monitoring Report shall be submitted for POC well installed that are incorporated into the monitoring program of this permit. The report shall include summary tables of all groundwater quality data collected during the ambient groundwater monitoring period.

Ambient Groundwater Monitoring Report shall include the following:

- Laboratory analytical reports
- Field notes, data sheets and an assessment of groundwater flow
- QA/QC limits used in collection and analysis of the samples
- statistical calculations of ALs and AQLs for the POC wells,
- An assessment of outlier data points as provided in 2.5.3.2.1 (Alert Levels for POC well).

2.7.5 Reporting Location

All Self-Monitoring Report Forms (SMRFs) shall be submitted through the myDEQ portal at:http://www.azdeq.gov/welcome-mydeq

All other documents required by this permit to be submitted to the Groundwater Protection Value Stream shall be directed to:

Arizona Department of Environmental Quality
Groundwater Protection Value Stream
Mail Code 5415B-3
1110 West Washington Street
Phoenix, Arizona 85007
Phone (602) 771-4449

2.7.6 Reporting Deadline

The following table lists the due dates:

Monitoring conducted during quarter:	**Quarterly Report due by:**
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

Monitoring conducted Semi Annually:	**Semi Annual Report due by:**
Semi-Annual: January-June	July 30
Semi-Annual: July-December	January 30

2.7.7 Changes to Facility Information in Section 1.0

The Groundwater Protection Value Stream shall be notified within ten days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person, or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]
The permittee shall give written notice to the Groundwater Protection Value Stream before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

- Submittal of Self-Monitoring Report Forms (SMRFs) is still required; report "temporary cessation" in the comment section.

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Groundwater Protection Value Stream of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]
For a facility addressed under this permit, the permittee shall give written notice of closure to the Groundwater Protection Value Stream of the intent to cease operation without resuming activity for which the facility was designed or operated. Submittal of SMRFs is still required; report "closure in process" in the comment section.

2.9.1 Closure Plan
Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater Protection Value Stream, a closure plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3).

If the closure plan achieves clean-closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean-closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion
Upon completion of closure activities, the permittee shall give written notice to the Groundwater Protection Value Stream indicating that the approved closure plan has been implemented fully and providing supporting documentation to demonstrate that clean-closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean-closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of post-closure stated in this permit:

1. Clean-closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with the AWQS at the applicable POC or, for any pollutant for which the AWQS was exceeded at the time this permit was issued, further action is necessary to prevent the facility from further degrading the aquifer at the applicable POC with respect to that pollutant;
3. Activities are necessary to verify that actions or controls specified as closure requirements in an approved closure plan or strategy are routinely inspected or maintained;
4. Remedial, mitigative or corrective actions or controls are necessary to comply with A.R.S. § 49-201(30) and Title 49, Chapter 2, Article 3; and
5. Further action is necessary to meet property use restrictions.

2.10 Post-closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]
Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Groundwater Protection Value Stream.

In the event clean-closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Protection Value Stream a post-closure plan that addresses post-closure maintenance and monitoring actions at the facility. The post-closure plan shall meet all requirements of A.R.S. §§ 49-201(30) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the post-closure plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the post-closure plan.

2.10.1 Post-Closure Plan

The post-closure plan must assure, to the greatest extent practicable, that any reasonable probability of further discharge from the facility, and of exceeding AWQSs at the applicable POCs, are eliminated. If a modified post-closure plan is deemed to be necessary, the modified plan shall describe all of the following:

1. The duration of the post-closure care;
2. The monitoring procedures to be implemented by the permittee, including monitoring frequency, type, and location;
3. A description of the operating and maintenance procedures to be implemented for aquifer quality protection devices, such as liners, treatment systems, pump back systems, and monitoring wells;
4. A schedule and description of physical inspections to be conducted at the facility following closure;
5. An estimate of the cost of post-closure maintenance and monitoring; and
6. A description of limitations on future land or water uses, or both, at the facility site as a result of facility operations.

2.10.2 Post-Closure Completion

The permittee shall notify the Groundwater Protection Value Stream in writing when post-closure activities have been completed. Upon completion of post-closure activities the permittee shall submit a report to the Groundwater Protection Value Stream summarizing the results of all post-closure activities in the approved post-closure plan including maintenance and monitoring. The report should detail whether additional post-closure monitoring is needed or no further monitoring is needed and all closure requirements have been met.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

Unless otherwise indicated, for each compliance schedule item listed below, the permittee shall submit the required information to the Groundwater Protection Value Stream.

No.	Description	Due by:	Permit Amendment Required?
3.1	The financial assurance mechanism listed in Section 2.1, Financial Capability, is being maintained as per A.R.S. 49-243.N.4 and A.A.C. R18-9-A203(H) for all estimated closure and post-closure costs including updated costs submitted under Section 3.0, No. 2 below. The demonstration shall include a statement that the closure and post-closure strategy has not changed, the discharging facilities listed in the permit have not been altered in a manner that would affect the closure and post-closure costs, and discharging facilities have not been added. The demonstration shall also include information in support of a Cash Deposit as required in A.A.C. R18-9-A203(C)(7).	April 30, 2026 and every 6 years thereafter; for the duration of the permit.	No
3. 2	The permittee shall submit updated cost estimates for facility closure and post-closure, as per A.A.C. R18-9-A201(B)(5) and A.R.S. 49-243.N.2.a, and an updated financial assurance demonstration for the updated cost estimate as per A.A.C. R18-9-A203(C)(7).	April 30, 2026 and every 6 years thereafter; for the duration of the permit.	Yes
3.3	Permittee shall submit a Construction Quality Assurance (CQA) Report following construction of the Heap Leach Pad and Pregnant Solution Pond. The CQA Report shall document that the Heap Leach Pad and Pregnant Solution Pond were built in accordance with the final technical documents, and shall include as-built design drawings and the results of all required quality assurance and quality control (QA/QC) testing.	Within 90 days after completion of construction of each facility	No
3.4	As per Appendix E3 of the application, the permittee shall conduct a stability analysis of the Heap Leach Pad to include scenarios modeling saturated zones of varying thicknesses at the bottom of the pad and at mid-height of the pad, extending across the entire pad footprint, and provide the results to ADEQ. If significant fines content is introduced into the heap leach ore, the free draining assumption may become invalid. Further stability analyses would be required to assess the stability of the saturated heap leach ore pile.	Prior to placement of material on the Heap Leach Pad	No
3.5	The permittee shall collect representative fluid samples from the Pregnant Solution Pond per Section 2.5.2.1 and analyzed for the constituents listed in Section 4.2, Table 4.2.2 of this permit, within ninety (90) days of the start-up of leaching operations. The results shall be reported according to the terms specified in Section 2.7.4.2, within 30 days of receipt of the laboratory analytical results to the Groundwater Protection Value Stream	Within ninety (90) days of the start-up of leaching operations	No
3.6	The permittee shall install the POC well in accordance with all Arizona Department of Water Resources (ADWR) requirements.	Within ninety (90) days issuance of the APP.	No

3.7	The permittee shall submit the well-installation report as required in Sections 2.7.4.3 to the Groundwater Protection Value Stream for Approval.	Within 60 days of the POC Well installation	No
3.8	The permittee shall initiate twelve (12) rounds of monthly ambient groundwater quality monitoring for the POC well per Section 4.2, Table 4.2.3.	Within 30 days of the installation of the POC well	No
3.9	The permittee shall submit an APP amendment application along with Ambient Groundwater Monitoring Report to establish ALs and AQLs for POC well. The Ambient Groundwater Monitoring Report shall include information described in Section 2.7.4.4.	Within 90 days of receipt of all ambient groundwater monitoring laboratory data	Yes
4.0	The permittee shall begin compliance groundwater monitoring for the POC well under Section 4.2, Table 4.2.4.	The first compliance groundwater sample shall be collected within 60 days after the eighth ambient groundwater sampling round has been completed	No

TABLES OF MONITORING REQUIREMENTS

4.1 FACILITY DESIGN INFORMATION

Table 4.1.1 Permitted Facilities and BADCT

4.2 COMPLIANCE AND OPERATIONAL MONITORING

Table 4.2.1 Facility Inspection Monitoring (Log Book)
Table 4.2.2 Discharge Characterization (Pregnant Solution Pond)
Table 4.2.3 Ambient Groundwater Monitoring
Table 4.2.4 Groundwater Quality Monitoring
Table 4.2.5 Leak Collection and Removal System Monitoring (Log Book)

4.3 Contingency Monitoring

Table 4.3.1 Compliance Discharge Characterization for BADCT Failures

4.0 TABLES OF MONITORING REQUIREMENTS and BADCT DEMONSTRATIONS

4.1 FACILITY DESIGN INFORMATION

Table 4.1.1
Permitted Facilities and BADCT

Heap Leach Pad:

This facility will cover an area of approximately 314,000 square feet, and contain approximately 242,000 cubic yards of existing gold bearing ores and tailings. The ore and tailings will be consolidated into controlled areas prior to being sized and placed on the lined leach pad. The liner system for the leach pad shall be placed on 6 inches of prepared subgrade. The bottom liner shall consist of 30-mil scrim laminated low-density polyethylene (LDPE) with LDPE film geomembrane that is equivalent to 60 mil HDPE geomembrane. The upper liner shall consist of an ultra violet (UV) resistant 45-mil double scrim high-density polyethylene (HDPE) with LDPE coating geomembrane. A uniaxial geonet shall be placed between the two liners. The liners shall be secured around the perimeter of the leach pad in an anchor trench that is 2 feet wide and 2 feet deep. A minimum of 18 inches of ¾-inch minus drain rock shall be placed on upper liner. To promote pregnant solution transfer, 3-inch and 6-inch perforated collection pipes will terminate adjacent to the 12-inch pipe, and solution will pass through the drain rock and into the 12-inch collection pipe. Two 12-inch HDPE perforated pipes shall be located in a solution collection channel near the center of the leach pad to convey solutions to the Pregnant Solution Pond. A containment berm shall be constructed 12 feet from and 2 feet higher than the adjacent toe of the leach pad. The containment berm shall be capable of containing run off a 100-year, 24-hour storm and solution drain down and routing the fluids to the Pregnant Solution Pond. Liquid collected in the containment berm will flow by gravity over the double-lined liner system before cascading over this double liner system into the pregnant solution pond. Surface water run-on shall be collected in channels capable of handling stormwater from a 100 year, 24-hour storm event and diverted around the facility. The finish grade (maximum elevation) of the heap leach pile shall not exceed 1,760 feet above mean sea level (AMSL).

Pregnant Solution Pond:

This facility shall be located adjacent to the west side of the Heap Leach Pad. Pregnant solution shall be collected in a double-lined pond having a capacity of 4,126,239 gallons including 2 feet of freeboard. The liner system for the lead pond shall be placed on 6 inches of prepared subgrade overlaid by a 6 inches of geosynthetic clay liner. The bottom liner shall consist of 30-mil scrim laminated LDPE with LDPE film geomembrane that is equivalent to 60 mil HDPE geomembrane. The upper liner shall consist of an UV resistant 45-mil double scrim HDPE with LDPE coating geomembrane. A uniaxial geonet shall be placed between the two liners. The liners shall be secured around the perimeter of the pond in an anchor trench that is 2 feet wide and 2 feet deep. An LCRS sump shall be constructed between the two liners near the southeastern portion of the pond. The LCRS shall be equipped with a dedicated, automatic, fluid-level activated pump capable of pumping 15,500 gallons per day. Surface water run-on shall be collected in channels capable handling stormwater from a 100 year, 24-hour storm event and diverted around the facility.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 4.2.1
FACILITY INSPECTION (OPERATIONAL MONITORING) - LOG BOOK[1]

Facility Name	Required Inspections and Operational Monitoring
Pregnant Solution Pond	**Daily:** • Visually inspect and take appropriate action if any evidence of blocked spillway structures. • Physical inspection of the pond to ensure two (2) feet of freeboard is maintained. **Weekly:** • Visually inspect the LCRS pump to confirm proper operating conditions, and determine the liquid level in the sump. • Evaluate flow rate in the LCRS by averaging the value of daily measurement on a weekly basis; confirm that it is less than the specified AL1 and AL2 (See Table 4.2.2); and take appropriate action if an exceedance is observed. **Quarterly:** Visually inspect and take appropriate action if any evidence of: • Perforated, cut, torn or damaged liner and impairment of anchor trench integrity; • Impairment of embankment integrity as applicable; • Excessive erosion in conveyances and diversions; • Excess accumulation of debris in conveyances and diversions; and • Impairment of access. As applicable at pump locations, inspect pumps, valves and structures for pump operation and structural integrity.
Heap Leach Pad	**Monthly:** Visually inspect and take appropriate action if any evidence of: • Heap Leach Pad including surface cracks, slides, sloughs, or differential settlement affecting slope stability. **Quarterly:** • Visually inspect and evaluate the overall integrity of the leach pad, including a physical appraisal to ensure pad design capacity and safety criteria are not exceeded. • Visually inspect all conveyance ditches that convey solutions from or to the Heap Leach Pad to evaluate the capacity and integrity of the structure. • Visually inspect all stormwater run-on and run-off controls to evaluate the capacity and integrity of the structure. **Other:** • Visually inspect the Heap Leach Pad after major storm/surface water flow events for overall structural integrity and adherence to safety criteria.

[1] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2. In the case of an exceedance, identify which structure exceeds the performance level in the log book.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 4.2.2

DISCHARGE CHARACTERIZATION (PREGNANT SOLUTION POND) No SMRFs

Parameter[2]	Units	Monitoring Frequency[3]
pH (field) and (lab)	Standard Units	One sample
Total Dissolved Solids (TDS)	mg/L	One sample
Specific Conductance (lab) and (field)	umhos/cm	One sample
Temperature - field	Degrees F	One sample
Hardness [4]	Standard Units	One sample
Total Alkalinity	mg/L	One sample
Sulfate	mg/L	One sample
Aluminum	mg/L	One sample
Antimony	mg/L	One sample
Arsenic	mg/L	One sample
Barium	mg/L	One sample
Beryllium	mg/L	One sample
Bicarbonate	mg/L	One sample
Cadmium	mg/L	One sample
Calcium	mg/L	One sample
Carbonate	mg/L	One sample
Chloride	mg/L	One sample
Chromium	mg/L	One sample
Cobalt	mg/L	One sample
Copper	mg/L	One sample
Cyanide (Free)	mg/L	One sample
Fluoride	mg/L	One sample
Hydroxide	mg/L	One sample
Iron	mg/L	One sample
Lead	mg/L	One sample
Magnesium	mg/L	One sample
Manganese	mg/L	One sample
Mercury	mg/L	One sample
Nickel	mg/L	One sample
Nitrite	mg/L	One sample
Nitrate + Nitrite (as N)	mg/L	One sample
Potassium	mg/L	One sample
Selenium	mg/L	One sample
Silver	mg/L	One sample
Sodium	mg/L	One sample
Thallium	mg/L	One sample
Zinc	mg/L	One sample

[2] Metals shall be analyzed as dissolved metals.

[3] One sample shall be taken within ninety (90) days of the start-up of leaching operations as described in Sections 2.5.2.1 and 3.0 Compliance Schedule, item 3.5. The results shall be reported according to the terms specified in Section 2.7.4.2, within 30 days of receipt of the laboratory analytical results to the Groundwater Protection Value Stream.

[4] Hardness may be expressed as the sum of calcium plus magnesium as calcium carbonate (CaCO3)

mg/L = milligrams per liter umhos/cm = micromhos per centimeter

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 4.2.2

DISCHARGE CHARACTERIZATION FOR the PREGNANT SOLUTION POND - (continued)

Parameter	Units	Monitoring Frequency
Gross Alpha (including Radium 226)[5]	pCi/L	One sample
Radium 226+ 228	pCi/L	One sample
Radon 222	pCi/L	One sample
Uranium-total	pCi/L	One sample
Uranium Isotopes	pCi/L	One sample
Total petroleum hydrocarbons	pCi/L	One sample

[5] If the gross alpha particle activity is greater than 15 pCi/L, then calculate adjusted gross alpha particle activity. The adjusted gross alpha particle activity is the gross alpha particle activity, including radium 226, and any other alpha emitters, if present in the water sample, minus radon and total uranium (the sum of the uranium 238, uranium 235 and uranium 234 isotopes). The gross alpha analytical procedure (evaporation technique: EPA Method 900.0) drives off radon gas in the water samples. Therefore, the Adjusted Gross Alpha should be calculated using the following formula: (Laboratory Reported Gross Alpha MINUS Sum of the Uranium Isotopes).

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 4.2.3[6]
AMBIENT GROUNDWATER MONITORING – (No SMRFs)

Sampling Point Number	Sampling Point Identification	Latitude	Longitude
POC Well	200 ft. due west of leach pad	33° 40" 16.67´ N	113° 35" 32.70´ W
Parameter[7]	**Units**	**Sampling Frequency**	**Reporting Frequency**
pH	SU	Monthly	AGMR[8]
Conductivity	µmhos/cm	Monthly	AGMR
Temperature	Degrees F	Monthly	AGMR
Alkalinity	mg/L	Monthly	AGMR
Bicarbonate	mg/L	Monthly	AGMR
Carbonate	mg/L	Monthly	AGMR
Chloride	mg/L	Monthly	AGMR
Fluoride	mg/L	Monthly	AGMR
Magnesium	mg/L	Monthly	AGMR
Potassium	mg/L	Monthly	AGMR
Sodium	mg/L	Monthly	AGMR
Calcium	mg/L	Monthly	AGMR
Hardness	mg/L	Monthly	AGMR
Sulfate	mg/L	Monthly	AGMR
Total Dissolved Solids	mg/L	Monthly	AGMR
Nitrate + Nitrite (as N)[9]	mg/L	Monthly	AGMR
Nitrite	mg/L	Monthly	AGMR
Aluminum	mg/L	Monthly	AGMR
Antimony	mg/L	Monthly	AGMR
Arsenic	mg/L	Monthly	AGMR
Barium	mg/L	Monthly	AGMR
Beryllium	mg/L	Monthly	AGMR
Cadmium	mg/L	Monthly	AGMR
Chromium	mg/L	Monthly	AGMR
Copper	mg/L	Monthly	AGMR
Cyanide (free)	mg/L	Monthly	AGMR
Iron	mg/L	Monthly	AGMR
Lead	mg/L	Monthly	AGMR
Manganese	mg/L	Monthly	AGMR
Molybdenum	mg/L	Monthly	AGMR
Mercury	mg/L	Monthly	AGMR
Nickel	mg/L	Monthly	AGMR
Selenium	mg/L	Monthly	AGMR
Thallium	mg/L	Monthly	AGMR

[6] Commence monitoring under this Table within 30 days of installing the POC well in accordance with Compliance Schedule item 3.8.
[7] Metals shall be analyzed as dissolved metals.
[8] AGMR = Ambient Groundwater Monitoring Report submitted in accordance with Section 2.7.4.4 and the Compliance Schedule item 3.9.
[9] Nitrate+nitrite as N may be determined as the sum of nitrate plus nitrite expressed as N.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 4.2.3
AMBIENT GROUNDWATER MONITORING – (No SMRFs) - (Continued)

Parameter	Units	Sampling Frequency	Reporting Frequency
Zinc	mg/L	Monthly	AGMR
Gross Alpha (including Radium 226)[10,11]	pCi/L	Monthly	AGMR
Radium 226 + Radium 228	pCi/L	Monthly	AGMR

[10] The permittee shall perform ambient monitoring for radionuclides for a minimum of four quarters. If radionuclide concentrations are below the established numeric AWQS during those four quarters, no additional monitoring shall be required and the AQL shall be set at the AWQS and the AL at 80% of the AWQS. If the AWQS is exceeded during any of the four quarterly rounds, then the permittee shall perform a full eight quarters of sampling and propose AQLs and ALs based on statistical assessment of collected data.

[11] If the gross alpha particle activity is greater than 15 pCi/L, then calculate adjusted gross alpha particle activity. The adjusted gross alpha particle activity is the gross alpha particle activity, including radium 226, and any other alpha emitters, if present in the water sample, minus radon and total uranium (the sum of the uranium 238, uranium 235 and uranium 234 isotopes). The gross alpha analytical procedure (evaporation technique: EPA Method 900.0) drives off radon gas in the water samples. Therefore, the Adjusted Gross Alpha should be calculated using the following formula: (Laboratory Reported Gross Alpha MINUS Sum of the Uranium Isotopes).

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 4.2.4[12]

COMPLIANCE GROUNDWATER MONITORING

Sampling Point Number	**Sampling Point Identification**			**Latitude**	**Longitude**
POC Well	200 ft. due west of leach pad			33° 40" 16.67´ N	113° 35" 32.70´ W
Parameter[13]	**AL[14]**	**AQL[15]**	**Units**	**Monitoring Frequency**	**Reporting Frequency**
Groundwater Level (amsl[16])	Reserved[17]	Reserved	Feet	Quarterly	Quarterly
Temperature	Reserved	Reserved	Degrees F	Quarterly	Quarterly
pH (field)	Reserved	Reserved	S.U. [18]	Quarterly	Quarterly
pH (lab)	Reserved	Reserved	S.U.	Quarterly	Quarterly
Specific Conductance (field)	Reserved	Reserved	µmhos/cm	Quarterly	Quarterly
Specific Conductance (lab)	Reserved	Reserved	µmhos/cm	Quarterly	Quarterly
Total Dissolved Solids	Reserved	Reserved	mg/L	Quarterly	Quarterly
Total Organic Carbon	Reserved	Reserved	mg/L	Quarterly	Quarterly
Alkalinity	Reserved	Reserved	mg/L	Quarterly	Quarterly
Sulfate	Reserved	Reserved	mg/L	Quarterly	Quarterly
Antimony	Reserved	Reserved	mg/L	Quarterly	Quarterly
Arsenic	Reserved	Reserved	mg/L	Quarterly	Quarterly
Barium	Reserved	Reserved	mg/L	Quarterly	Quarterly
Beryllium	Reserved	Reserved	mg/L	Quarterly	Quarterly
Cadmium	Reserved	Reserved	mg/L	Quarterly	Quarterly
Calcium	Reserved	Reserved	mg/L	Quarterly	Quarterly
Chloride	Reserved	Reserved	mg/L	Quarterly	Quarterly
Chromium	Reserved	Reserved	mg/L	Quarterly	Quarterly
Copper	Reserved	Reserved	mg/L	Quarterly	Quarterly
Cyanide	Reserved	Reserved	mg/L	Quarterly	Quarterly
Fluoride	Reserved	Reserved	mg/L	Quarterly	Quarterly
Hardness[19]	Reserved	Reserved	mg/L	Quarterly	Quarterly
Hydroxide	Monitor	Monitor	mg/L	Quarterly	Quarterly
Iron	Reserved	Reserved	mg/L	Quarterly	Quarterly
Lead	Reserved	Reserved	mg/L	Quarterly	Quarterly
Magnesium	Reserved	Reserved	mg/L	Quarterly	Quarterly
Manganese	Reserved	Reserved	mg/L	Quarterly	Quarterly
Mercury	Reserved	Reserved	mg/L	Quarterly	Quarterly
Nickel	Reserved	Reserved	mg/L	Quarterly	Quarterly
Nitrate	Reserved	Reserved	mg/L	Quarterly	Quarterly
Nitrite	Reserved	Reserved	mg/L	Quarterly	Quarterly
Nitrate + Nitrite (as N)	Reserved	Reserved	mg/L	Quarterly	Quarterly

[12] Commence monitoring under this Table within 90 days of receipt of all ambient groundwater monitoring laboratory data in accordance with Section 3.0, Compliance Schedule, item 4.0.
[13] Metals shall be analyzed as dissolved metals.
[14] AL = Alert Levels
[15] AQL = Aquifer Quality Limits
[16] amsl = above mean sea level
[17] Reserved = Monitoring is required but no limits have been established. ALs and AQLs shall remain reserved until the submission of the ambient groundwater quality report, in accordance with Section 3.0, Compliance Schedule, item 3.9 and Section 2.7.4.3 of the permit.
[18] S.U. = Standard Units
[19] Hardness may be expressed as the sum of calcium plus magnesium as calcium carbonate (CaCO3)
mg/L = milligrams per liter umhos/cm = micromhos per centimeter

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 4.2.4

COMPLIANCE GROUNDWATER MONITORING - (Continued)

Parameter[20]	**AL**[21]	**AQL**[22]	**Units**	**Monitoring Frequency**	**Reporting Frequency**
Potassium	Monitor	Monitor	mg/L	Quarterly	Quarterly
Sodium	Monitor	Monitor	mg/L	Quarterly	Quarterly
Aluminum	Monitor	Monitor	mg/L	Quarterly	Quarterly
Selenium	Reserved	Reserved	mg/L	Quarterly	Quarterly
Silver	Monitor	Monitor	mg/L	Quarterly	Quarterly
Thallium	Reserved	Reserved	mg/L	Quarterly	Quarterly
Zinc	Monitor	Monitor	mg/L	Quarterly	Quarterly
Adjusted Gross Alpha	Reserved	Reserved	pCi/L	Quarterly	Quarterly
Radium 226 + Radium 228	Reserved	Reserved	pCi/L	Quarterly	Quarterly
Radon 222	Monitor	Monitor	pCi/L	Quarterly	Quarterly
Uranium – total	Monitor	Monitor	mg/L	Quarterly	Quarterly
Uranium Isotopes[23]	Monitor	Monitor	pCi/L	Quarterly	Quarterly
TPH	Monitor	Monitor	mg/L	Quarterly	Quarterly

[20] Metals shall be analyzed as dissolved metals.
[21] AL = Alert Levels
[22] AQL = Aquifer Quality Limits
[23] Uranium Isotope activity results must be used for calculating Adjusted Gross Alpha

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 4.2.5
LEAK COLLECTION AND REMOVAL SYSTEM MONITORING[24] (Log Book) [25]

LCRS Sump	Parameter	Alert Level 1[26] (gpd)	Alert Level 2[27] (gpd)	Monitoring Method[28]	Monitoring Frequency
Pregnant Solution Pond Sump	Liquid Pumped[29]	1,050	7,020	Automated	Daily

[24] If an Alert Level #1 or Alert Level #2 has been exceeded as discussed in Sections 2.6.2.3 and 2.6.2.4, the permittee shall submit an annual report described in Section 2.7.4.1 (Annual Reporting) of this permit. The report shall summarize the results of the liner assessment. The Liner Leakage Assessment Report shall also include information including but not limited to the following: number and location of holes identified; a table summarizing the exceedances including the frequency and quantity of fluid removed, and corrective actions taken.

[25] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2 and report any exceedances as per Section 2.6.2.2. In the case of an exceedance, identify which structure exceeds the performance level in the log book. No SMRFs.

[26] AL#1= Exceedance in Alert Level #1. The permittee shall place into action the requirements presented in 2.6.2.3. Exceedance of an AL is not a violation. If no event occurred, the Permittee shall state the fact in the Log Book.

[27] AL#2 = Exceedance in Alert Level #2. The permittee shall place into action the requirements presented in 2.6.2.4. Exceedance of an AL is not a violation. If no event occurred, the Permittee shall state the fact in the Log Book.

[28] pump and flow meter/totalizer.

[29] The "Liquid Pumped" value to be reported is the amount of liquid pumped from the LCRS sump in gpd.

4.3 CONTINGENCY MONITORING

TABLE 4.3.1
CONTINGENCY DISCHARGE CHARACTERIZATION FOR BADCT FAILURES AND OVERTOPPING[30]

Parameter	Units	Monitoring Frequency[31]
pH (field)	Standard Units	One sample
Total Dissolved Solids (TDS)	mg/L	One sample
Specific Conductance (lab)	umhos/cm	One sample
Hardness [32]	mg/L	One sample
Total Organic Carbon	mg/L	One sample
Alkalinity	mg/L	One sample
Sulfate	mg/L	One sample
Aluminum	mg/L	One sample
Antimony	mg/L	One sample
Arsenic	mg/L	One sample
Barium	mg/L	One sample
Beryllium	mg/L	One sample
Boron	mg/L	One sample
Cadmium	mg/L	One sample
Calcium	mg/L	One sample
Chloride	mg/L	One sample
Chromium	mg/L	One sample
Copper	mg/L	One sample
Fluoride	mg/L	One sample
Hydroxide	mg/L	One sample
Iron	mg/L	One sample
Lead	mg/L	One sample
Magnesium	mg/L	One sample
Manganese	mg/L	One sample
Mercury	mg/L	One sample
Nickel	mg/L	One sample
Nitrate	mg/L	One sample
Nitrite	mg/L	One sample
Nitrate + Nitrite (as N)	mg/L	One sample
Potassium	mg/L	One sample
Selenium	mg/L	One sample
Silver	mg/L	One sample
Sodium	mg/L	One sample
Thallium	mg/L	One sample
Zinc	mg/L	One sample
Adjusted Gross Alpha	pCi/L	One sample
Radium 226 + Radium 228	pCi/L	One sample

30 Monitor under this table per Section 2.6.3.1, Surface Impoundments, Liner Failure, Containment Structure Failure, Unexpected Loss of Fluid, or Section 2.6.3.2, Overtopping of an Impoundment.

31 One sample shall be taken within five (5) days of discovery of an event.

32 Hardness may be expressed as the sum of calcium plus magnesium as calcium carbonate (CaCO3)
mg/L = milligrams per liter umhos/cm = micromhos per centimeter

4.3 CONTINGENCY MONITORING

TABLE 4.3.1
CONTINGENCY DISCHARGE CHARACTERIZATION FOR BADCT FAILURES AND OVERTOPPING -(Continued)

Parameter	Units	Monitoring Frequency
Radon 222	pCi/L	One sample
Uranium – total	mg/L	One sample
Uranium Isotopes	pCi/L	One sample
TPH	mg/L	One sample
Ethylbenzene	mg/L	One sample
Toluene	mg/L	One sample
Xylenes (total)	mg/L	One sample

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. APP Application, dated: August 12, 2019
2. Contingency Plan, dated: August 12, 2019
3. Hydrology memo dated: XXXXXXXX
4. Engineering memo dated: January 21, 2020
5. Financial memo dated: XXXXXXXXX
6. Public Notice, dated: TBD
7. Public Hearing, dated: TBD

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based on the amount of daily influent or discharge of pollutants in gallons per day (gpd) as established by A.R.S. § 49-242.

6.2 Duty to Comply [A.R.S. §§ 49-221 through 263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an Aquifer Water Quality Standard (AWQS) at the applicable point of compliance (POC) for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an AWQS for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability [A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(C), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. the filing of bankruptcy by the permittee; or
2. the entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring stipulated in the permit necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 49-1009, 49-203(B), and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and

inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

6.10 Permit Action: Amendment, Transfer, Suspension, and Revocation [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, suspended, or revoked for cause, under the rules of the Department. The permittee shall notify the Groundwater Protection Value Stream in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

7.2 Severability [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).