

**STATE OF ARIZONA**  
**AQUIFER PROTECTION PERMIT NO. P-103892**  
**PLACE ID 9303, LTF 48984**  
**SIGNIFICANT PERMIT AMENDMENT**

**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, Management & Training Corporation is hereby authorized to operate the Sacramento Road Water Reclamation Facility, located in Golden Valley, Arizona, in Mohave County, over groundwater of the Sacramento Valley Basin, in Township 19 N, Range 18 W, Section 22 of the Gila and Salt River Baseline 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:** Sacramento Road Water Reclamation Facility  
**Facility Address:** 4994 West Sonoita Drive  
Golden Valley, Arizona 86413

**Permittee:** Management & Training Corporation  
**Permittee Address:** 500 N. Marketplace Drive  
Centerville, UT 84104

**Facility Contact:** Mike Murphy, Vice President  
**Emergency Phone No.:** (801) 693-2863

**Latitude/Longitude:** 35° 01' 35" N/ 114° 11' 25" W  
**Legal Description:** Township 19N, Range 18W, Section 22, NW¼ of the Gila and Salt River Baseline and Meridian

**1.2 AUTHORIZING SIGNATURE**

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**Henry R. Darwin, Acting Director**  
Water Quality Division  
Arizona Department of Environmental Quality

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2009

**THIS PERMIT SUPERCEDES ALL PREVIOUS PERMITS**

**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)]**

The original Aquifer Protection Permit (APP) for the Sacramento Road WWTP was issued on June 15, 2000 for treating 0.292 million gallons per day (mgd) of wastewater flow from the Kingman State Prison (then referred to as the Black Mountain Correctional Facility). The WWTP consisted of two lined earthen aeration basins, a lined earthen polishing pond, and two lined effluent storage ponds. A third unlined aeration basin, just south of aeration basins 1 and 2, was constructed but was never used. The stored effluent was used to irrigate fiber, seed, and forage crops.

An “other” amendment to the APP was issued on February 24, 2004 to decrease the capacity from 0.292 mgd to 0.182 mgd and to classify the WWTP for Class C reclaimed water. An “other” amendment was issued on November 6, 2008 to re-classify the reclaimed water to Class B. Effluent was used to irrigate fiber, seed, and forage crops and as construction water for the new prison facility.

Amendment Description

This significant permit amendment is to change the treatment process from aerated lagoons to SBR (sequencing batch reactor) treatment, and to expand the treatment capacity from 0.182 mgd to 0.350 mgd. The new SBR Water Reclamation Facility (WRF) consists of existing headworks (grinder and screen with an auger assembly), new headworks (with grinder and screen with an auger assembly), influent pump station, two sequencing batch reactors, post equalization basin, chlorination, and de-chlorination. The existing pump station will be used to deliver effluent for reuse. The WRF is classified as producing Class B+ reclaimed water.

The permittee decommissioned and clean-closed aeration basins 1 and 2 from the aerated lagoon system (as discussed in the following section) and will be using them for recharge basins. As part of the facility expansion, the formerly unused aeration basin will be used as a third recharge basin. The polishing pond and two effluent storage ponds will remain at the facility for future effluent storage. The conversion of the polishing pond to an effluent storage pond will require closure of the polishing pond in accordance with the permit Compliance Schedule (see Section 3.0). Because the two effluent storage ponds will store improved effluent quality, closure of the two ponds will be deferred to final facility closure.

Clean Closure Approval for Aeration Basins 1 and 2

The ADEQ Groundwater Section-Technical Support Unit has reviewed the *Sacramento Road WWTP Aeration Basins 1 and 2, Clean Closure Application*, dated April 28, 2009, prepared by Valentine Environmental Engineers, LLC, and issued clean-closure approval for these basins on September 24, 2009.

All industrial hookups and other non-residential hookups to the treatment system shall be authorized according to the applicable federal, state or local regulations.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Sacramento Road WRF	35° 01' 35" N	114° 11' 25" W
Recharge Basin #1	35° 01' 29" N	114° 11' 24" W
Recharge Basin #2	35° 01' 27" N	114° 11' 24" W
Recharge Basin #3	35° 01' 25" N	114° 11' 22" W
Effluent Storage Pond #1	35° 01' 27" N	114° 11' 31" W

Effluent Storage Pond #2	35° 01' 23" N	114° 11' 31" W
Polishing Pond	35° 01' 27" N	114° 11' 27" W

**Annual Registration Fee [A.R.S. § 49-242]**

The Annual Registration Fee for this permit is established by A.R.S. § 49-242(E) and is payable to the Arizona Department of Environmental Quality (ADEQ) each year. The design flow is 0.350 million gallons per day (mgd).

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

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203(B)(1) and (C)(2). The permittee shall maintain financial capability throughout the life of the facility. The estimated dollar amount demonstrated for financial capability is \$270,000.

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

The WRF was designed and constructed, and shall be operated and maintained to meet the treatment performance criteria which was in effect at the time the original permit was issued.

The facility meets the requirements for pretreatment by conducting monitoring as per A.A.C. R18-9-B204(B)(6)(b)(iii).

**2.2.1 Engineering Design**

The WRF was designed as per the design report prepared by Valentine Environmental Engineers, LLC, dated July 2, 2009 and subsequent sealed submittals. Valentine Environmental Engineers, LLC employs professional engineers registered in the state of Arizona.

**2.2.2 Site-specific Characteristics**

Depth-to-groundwater is approximately 525 to 650 feet below ground surface. Site-specific characteristics were not used in the determination of BADCT for the WRF.

**2.2.3 Pre-operational Requirements**

Not applicable.

**2.2.4 Operational Requirements**

1. Permittee shall maintain a copy of the up-to-date Operations and Maintenance (O & M) Manual at the WRF site at all times and shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.2, Table III - FACILITY INSPECTION (OPERATIONAL MONITORING).
3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form submitted quarterly to the ADEQ Water Quality Compliance Section.

**2.2.5 Reclaimed Water Classification**

**[A.A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 through 307]**

The treatment facility is classified as producing Class B+ reclaimed water and may be used for any allowable Class B or C use under a valid reclaimed water permit.

**2.2.6 Certified Areawide Water Quality Management Plan Conformance**  
**[A.A.C. R18-9-A201(B)(6)(a)]**

Facility operations must conform to the approved Certified Areawide Water Quality Management Plan according to the 208 consistency determination in place at the time of permit issuance.

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

1. The permittee is authorized to operate the WRF with a maximum average monthly flow of 0.350 mgd.
2. The permittee shall notify all users that the materials authorized to be disposed of through the WRF are typical household sewage and pre-treated commercial wastewater and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
3. 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 applicable BADCT pollutant control technologies including liner failure<sup>1</sup>, uncontrollable leakage, overtopping (e.g., exceeding the maximum storage capacity, defined as a fluid level exceeding the crest elevation of a permitted impoundment), of basins, lagoons, impoundments or sludge drying beds, berm breaches, accidental spills, or other unauthorized discharges.
4. Specific discharge limitations are listed in Section 4.2, Tables IA and IB.

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

The POC is established at the following designated location:

<b>POC#</b>	<b>POC Location</b>	<b>Latitude</b>	<b>Longitude</b>
3	Northwest corner of the property	35°01'30" N	114°11'15" W

POC-3 shall be installed as a groundwater well (see Section 3.0, Compliance Schedule). The well shall be monitored to determine compliance with Aquifer Water Quality Standards (AWQS) at the WRF.

The Director may amend this permit to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

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

All monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. 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. The permittee shall consult the most recent version of the ADEQ Quality Assurance Project Plan (QAPP) and Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) PART 136 for guidance in this regard. Copies of laboratory analyses and Chain-of-Custody forms shall be maintained at the permitted facility. Upon request these documents shall be made immediately available for review by ADEQ personnel.

**2.5.1 Pre-Operational Monitoring**

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<sup>1</sup>Liner failure in a single-lined impoundment is any condition that would result in leakage exceeding 550 gallons per day per acre.

Not applicable.

### **2.5.2 Routine Discharge Monitoring**

The permittee shall monitor the wastewater according to Section 4.2, Table IA. Representative samples of the wastewater shall be collected from the effluent storage reservoirs.

### **2.5.3 Reclaimed Water Monitoring**

The permittee shall monitor the reclaimed water parameters listed under Section 4.2, Table 1B in addition to the routine discharge monitoring parameters listed in Section 4.2, Table 1A. Representative samples of the reclaimed water shall be collected from the effluent storage reservoirs.

### **2.5.4 Groundwater Monitoring and Sampling Protocols**

#### **2.5.4.1 Groundwater Sampling Protocols**

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, 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% of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is insufficient 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).

Alternately, 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.

#### **2.5.4.2 POC Well Installation**

One POC well is listed in Section 4.2, Table II. The POC well will be required to be installed within 90 days of permit issuance. The POC well must be constructed to monitor groundwater quality in the uppermost aquifer. Detailed geologic and well construction logs for the well must be submitted to the ADEQ Groundwater Section within 60 days of well installation. Where identification is possible, the logs should note the depth at which groundwater is first encountered in the well. If a well screen greater than sixty (60) feet in length is installed in the well, the permittee must provide justification in the log for the extended screen length.

#### **2.5.4.3 Ambient Groundwater Quality Monitoring for the POC Well**

Eight (8) consecutive quarters or twelve (12) consecutive months of groundwater sampling must be completed to establish existing ambient groundwater quality conditions for evaluating any short-term or long-term changes in water quality. Each quarterly or monthly groundwater sample shall be analyzed for the parameters listed in Section 4.2, Table II.

#### **2.5.4.4 Alert Levels (ALs) for the POC Well**

ALs shall be calculated for all contaminants with an established numeric AWQS at the POC well.

Within ninety (90) days of the receipt of the laboratory analyses for the final quarter or month of the ambient groundwater monitoring period for the POC well referenced in Section 4.2, Table II the permittee shall submit the ambient groundwater data in tabulated form to the Groundwater Section 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 II to be established for the POC well, shall be submitted to the Groundwater Section. The permittee may submit a report with the calculations for each AL and AQL included in the permit for review and approval by the Groundwater Section, or the permittee may defer calculation of the ALs and AQLs by the Groundwater Section. The ALs shall be established and calculated by the following formula, or another method submitted to the Groundwater Section in writing and approved for this permit by the Groundwater Section:

$$AL = \bar{0} + \Phi K$$

Where  $\bar{0}$  = mean,  $\Phi$  = 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 (8) consecutive quarterly sample events, or twelve (12) monthly sample events. The permittee shall not use more than twelve (12) sample rounds in the calculation of a parameter.
2. Any data where the 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 and the AQL at the AWQS.

#### **2.5.4.5 Aquifer Quality Limits for POC Wells**

For each of the monitored analytes for which a numeric aquifer water quality standard (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.

Using the same methodology, ADEQ reserves the right to set ALs or AQLs, where applicable, for those analytes that may have a numeric standard adopted by rule at a future time.

#### **2.5.4.6 Compliance Groundwater Quality Monitoring for POC Wells**

Quarterly compliance groundwater monitoring of 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 II.

The permittee may submit a written request to the Groundwater Section to modify, reduce or delete a monitoring parameter in either the Quarterly or the Biennial Compliance Groundwater Monitoring Table (Section 4.2, Table II) in accordance with the following criteria:

1. The parameter in question has not been detected for at least two (2) consecutive biennial or four (4) consecutive quarterly monitoring periods. The PQL reported by the laboratory shall be less than 80% of the established numeric aquifer water quality standard, and shall not be greater than three times the laboratory method detection limit for that pollutant.
2. The permittee shall submit a written report indicating the parameter(s) proposed for modification, accompanied by supporting data, including laboratory analytical reports and quality assurance/quality control data to the Groundwater Section for review and approval.
3. Upon review, the Groundwater Section will determine if the modification(s) requested is justified and approved. The respective changes, if approved, will require an amendment to the permit.

#### **2.5.4.7 POC Well Replacement**

In the event that one (1) or more of the designated POC wells should become unusable or inaccessible due to damage, a decrease in water levels, or any other event, a replacement POC well shall be constructed and installed within sixty (60) days upon approval by the Groundwater Section.

#### **2.5.5 Facility / Operational Monitoring**

Operational monitoring inspections shall be conducted according to Section 4.2, Table III.

1. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented on the SMRF submitted quarterly to the ADEQ Water Quality Compliance Section, Data Unit. If none of the conditions occur, the report shall say "no event" for a particular reporting period. If the facility is not in operation, the permittee shall indicate this on the SMRF.
2. The permittee shall submit data required in Section 4.2, Table III regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

#### **2.5.6 Surface Water Monitoring and Sampling Protocols**

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

#### **2.5.7 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. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. 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 17<sup>th</sup> Ave.  
Phoenix, AZ 85007  
Phone: (602) 364-0720

### **2.5.8 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 ADEQ Groundwater Section 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 the approved contingency and emergency response plan(s) submitted in the application 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, violation of a discharge limit (DL), AQL, or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

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. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. 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 has 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.

### **2.6.2 Exceeding of Alert Levels/Performance Levels**

#### **2.6.2.1 Exceeding of Performance Levels Set for Operational Conditions**

1. If an operational performance level (PL) set in Section 4.2, Table III has been exceeded the permittee shall:
  - a. Notify the ADEQ Water Quality Compliance Section within five days of becoming aware of the exceedance.
  - b. Submit a written report within 30 days after becoming aware of the exceedance. The report shall document all of the following:
    - (1) A description of the exceedance and its cause;
    - (2) the period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;
    - (3) any action taken or planned to mitigate the effects of the exceedance or spill, or to eliminate or prevent recurrence of the exceedance or spill;

- (4) any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS; and
  - (5) any malfunction or failure of pollution control devices or other equipment or process.
2. The facility is no longer on alert status once the operational indicator no longer indicates that a PL 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 Alert Levels (ALs) Set for Discharge Monitoring**

1. If an AL set in Section 4.2, Table IA has been exceeded, the permittee shall immediately investigate to determine the cause. 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 exceedance;
  - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and
  - c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the exceedance, the permittee shall sample individual waste streams composing the wastewater for the parameters in question, if necessary to identify the cause of the exceedance.
2. 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.
3. Within 30 days of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, Data Unit, along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

##### **2.6.2.2.1 Exceeding Permit Flow Limit**

1. If the AL for average monthly flow in Section 4.2, Table IA has been exceeded, the permittee shall submit an application for an APP amendment to expand the WRF or submit a report detailing the reasons that expansion is not necessary.
2. Acceptance of the report instead of an application for expansion requires ADEQ approval.

#### **2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring**

##### **2.6.2.3.1 Alert Levels for Indicator Parameters**

Not required at time of permit issuance.

##### **2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards**

Not required at time of permit issuance.

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

Not required at time of permit issuance.

**2.6.3 Discharge Limit Violation**

1. If a DL set in Section 4.2, Tables IA or IB has been violated, the permittee shall immediately investigate to determine the cause of the violation. 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 violation;
  - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and
  - c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the violation, the permittee shall sample individual waste streams composing the wastewater for the parameters in violation, if necessary to identify the cause of the violation.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ 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 an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

2. The permittee shall comply with the freeboard requirements as specified in Section 4.2, Table III (Facility Inspections) to prevent the overtopping of an impoundment or sludge drying bed. If an impoundment or sludge drying bed is overtopped, the permittee shall follow the requirements in Section 2.6.5.3 and the reporting requirements of Section 2.7.3.
3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

**2.6.4 Aquifer Quality Limit Violation**

Not applicable.

**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**

**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 ADEQ Northern Regional Office at (928) 779-0313 and the ADEQ Water Quality Compliance Section at (602) 771-4497 within 24 hours of discovering the discharge

of hazardous material which: a) has the potential to cause an AWQS or AQL exceedance, 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 ADEQ Northern Regional Office at (928) 779-0313 and the ADEQ Water Quality Compliance Section at (602) 771-4497 within 24 hours of discovering the discharge of non-hazardous material which: a) has the potential to cause an AQL exceedance, or; b) 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 reported under Sections 2.6.5.2 and 2.6.5.3 to the ADEQ Northern Regional Office and the ADEQ Water Quality Compliance Section (see Section 2.7.5) within thirty 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 Section 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; and/or
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 ADEQ Water Quality Compliance Section, 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 SMRF provided by ADEQ. The completed SMRF shall be submitted to the Water Quality Compliance Section, Data Unit.
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 quarter, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.
3. The tables contained in Section 4.0 list the parameters to be monitored and the frequency for reporting results for compliance monitoring. Monitoring and analytical methods shall be recorded on the SMRF.

The permittee reserves the right to request a relaxation of the monitoring frequency for metals and volatile organic compounds through a permit amendment if the data indicate that water quality standards are being achieved consistently.

4. In addition to the SMRF, the information contained in A.A.C. R18-9-A206(B)(1) shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

### **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 shift 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 R18-9-A206(B)(2).

### **2.7.3 Permit Violation and Alert Level Status Reporting**

1. The permittee shall notify the Water Quality Compliance Section in writing (by mail or by fax - see Section 2.7.5) within five 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.
2. The permittee shall submit a written report to the Water Quality Compliance Section 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 Facility Inspection/Operational Monitoring**

The permittee shall complete the SMRF provided by the Department to reflect facility inspection requirements designated in Section 4.2, Table III and submit to the ADEQ Water Quality Compliance Section, Data Unit quarterly along with other reports required by this permit. Facility

inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.

#### **2.7.4.2 Reporting to Reclaimed Water End Users**

If the treatment facility is classified for reclaimed water under this permit, the permittee shall submit the reclaimed water monitoring results as required in Section 4.2, Table IB and flow volumes to any of the following in accordance with A.A.C. R18-9-703(C)(2)(c):

1. Any reclaimed water agent who has contracted for delivery of reclaimed water from the permittee; and
2. Any end user who has not waived interest in receiving this information.

#### **2.7.4.3 Annual Groundwater Report**

Each year the permittee shall submit an Annual Report to the Water Quality Compliance Section Manager and the Groundwater Section Manager.

Appropriate components of the report required by this Section shall be sealed by an Arizona registered professional geologist or registered professional engineer, in accordance with Arizona Board of Technical Registration (BTR) requirements. The report shall include the following:

1. Quarterly groundwater monitoring summary tables of results for each POC well and Alert Well in separate tables;
2. All groundwater AL and AQL exceedances verified during the one year reporting period; and,
3. Annual analysis of groundwater withdrawal rates in the area. An evaluation is required to determine if the groundwater gradient changes due to groundwater withdrawal rates in the area. If the groundwater gradient is anticipated to flow in a direction other than northeast, additional POCs shall be proposed in the annual report.

The annual report summarizing the results of groundwater monitoring for the calendar year shall be submitted in accordance with the table in Section 2.7.6.

#### **2.7.5 Reporting Location**

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality  
Water Quality Compliance Section, Data Unit  
Mail Code 5415B-1  
1110 West Washington Street  
Phoenix, Arizona 85007  
Phone (602) 771-4681

All documents required by this permit to be submitted to the Water Quality Compliance Section shall be directed to both of the following addresses:

Arizona Department of Environmental Quality  
Water Quality Compliance Section  
Mail Code 5415B-1  
1110 West Washington Street  
Phoenix, Arizona 85007  
Phone (602) 771-4497  
Fax (602) 771-4505

-AND-

Arizona Department of Environmental Quality  
Northern Regional Office  
1801 West Route 66, Suite 117  
Flagstaff, Arizona 86001  
Phone (928) 779-0313  
Fax (928) 773-2700

All documents required by this permit to be submitted to the Groundwater Section shall be directed to:

Arizona Department of Environmental Quality  
Groundwater Section  
Mail Code 5415B-3  
1110 West Washington Street  
Phoenix, Arizona 85007  
Phone (602) 771-4428

### **2.7.6 Reporting Deadline**

The following table lists the quarterly report due dates:

<b>Monitoring conducted during quarter:</b>	<b>Quarterly Report due by:</b>
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

The following table lists the semi-annual and annual report due dates:

<b>Monitoring conducted:</b>	<b>Report due by:</b>
Semi-annual: January-June	July 30
Semi-annual: July-December	January 30
Annual: January-December	January 30

### **2.7.7 Changes to Facility Information in Section 1.0**

The Groundwater Section and Water Quality Compliance Section 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 Water Quality Compliance Section and the Northern Regional Office before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

1. If applicable, direct the wastewater flows from the facility to another state-approved wastewater treatment facility;
2. Correct the problem that caused the temporary cessation of the facility; and

3. Notify the ADEQ Water Quality Compliance Section and the Northern Regional Office with a monthly facility status report describing the activities conducted on the treatment facility to correct the problem.

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 Water Quality Compliance Section and the Northern Regional Office 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 Water Quality Compliance Section and the Northern Regional Office of the intent to cease operation without resuming activity for which the facility was designed or operated.

#### **2.9.1 Closure Plan**

Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater Section, 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 Section 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 AWQS at the applicable POC;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remedial or mitigation measures are necessary to achieve compliance with Title 49, Ch. 2; 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 Section.

In the event clean-closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Section 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**

A specific post-closure plan may be required upon the review of the closure plan.

**2.10.2 Post-closure Completion**

Not required at the time of permit issuance.

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

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Groundwater Section. A copy of the cover letter must also be submitted to the ADEQ Water Quality Compliance Section.

<b>WATER RECLAMATION FACILITY</b>	
<b>Description</b>	<b>Due by:</b>
The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the facility is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharging under this permit and within 90 days of completion of construction.

<b>GROUNDWATER MONITORING</b>		
<b>Component</b>	<b>Due by:</b>	<b>Description</b>
Installation of POC Well	Within 90 days of permit issuance	The POC well must be installed at the location approved by the Groundwater Section, in accordance with all ADWR requirements. Geologic and well construction logs must be submitted to the Groundwater Section within 60 days of well installation. The log must include the ADWR well registration number, and the as-built cadastral and latitude/longitude coordinate for the well. The well must be screened in the uppermost aquifer. The well screen shall extend a maximum of ten (10) feet above and 50 feet below the top of the aquifer. If a longer well screen interval is used, the permittee must provide an explanation in the well logs for using the longer screen.
Ambient Water Quality Monitoring	Within 120 days of permit issuance	The POC well must be sampled for ambient water quality for eight (8) consecutive quarters or 12 consecutive monthly rounds. The first sample event must be completed within 60 days of well installation. Sample the well for all parameters listed in Table II.
Alert Levels (ALs) and Aquifer Quality Limits (AQLs) for the POC well	Within 90 days of completion of ambient water quality monitoring at the POC well	Submit within 90 days following completion of ambient sampling periods at the POC well, copies of all laboratory analytical reports, field notes, QA/QC procedures used in collection and analysis of the samples, and a report including the statistical calculations of the ALs and AQLs to the Groundwater Section. ALs and AQLs will be calculated and established only for parameters that have numeric AWQSSs. Incorporation of these data into the permit constitutes an "other" amendment to the permit.
<b>CLOSURE PLAN FOR POLISHING POND</b>		
Polishing Pond	Within 90 days of permit issuance	Submit, for Groundwater Section review and approval, a closure plan for the polishing pond, that complies with the requirements of A.A.C. R18-9-A209(B)(1)(a).

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#### 4.0 TABLES OF MONITORING REQUIREMENTS

##### 4.1 PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)

Not applicable.

##### 4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA  
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	After dechlorination basin prior to recharge basins			35° 01' 27" N	114° 11' 22" W
Parameter	AL <sup>2</sup>	DL <sup>3</sup>	Units	Sampling Frequency	Reporting Frequency
Total Flow <sup>4</sup> : Daily <sup>5</sup>	Not Established <sup>6</sup>	Not Established	mgd <sup>7</sup>	Daily	Quarterly
Total Flow: Average Monthly	0.3325	0.350	mgd	Monthly <sup>8</sup>	Quarterly
Flow: Recharge Daily	Not Established	Not Established	mgd	Daily	Quarterly
Flow: Recharge Average Monthly	0.3325	0.350	mgd	Monthly	Quarterly
Flow: Reuse Daily	Not Established	Not Established	mgd	Daily	Quarterly
Flow: Reuse Average Monthly	0.3325	0.350	mgd	Monthly	Quarterly
Fecal Coliform: Single sample maximum	Not established	23.0	CFU or MPN <sup>9</sup>	Daily	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week <sup>10</sup>	Not established	Non-detect <sup>11</sup>	CFU or MPN	Daily	Quarterly
Total Nitrogen <sup>12</sup> : Five-sample rolling geometric mean	8.0	10.0	mg/l	Monthly <sup>13</sup>	Quarterly

<sup>2</sup>AL = Alert Level

<sup>3</sup>DL = Discharge Limit

<sup>4</sup>Total flow for all methods of disposal combined (recharge and reuse).

<sup>5</sup>Flow shall be measured using a continuous recording flow meter which totals the flow daily.

<sup>6</sup>Not Established means monitoring is required but no limits have been specified.

<sup>7</sup>mgd = million gallons per day

<sup>8</sup>Monthly = Calculated value = Average of daily flows in a month.

<sup>9</sup>CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample.

For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

<sup>10</sup>**Week** means a seven-day period starting on Sunday and ending on the following Saturday.

<sup>11</sup>If at least four (4) of seven (7) samples in a week are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of seven (7) samples in a week have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).

<sup>12</sup>Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.

<sup>13</sup>A Five-Month Geometric Mean of the results of the five (5) most recent samples

**TABLE IA**  
**ROUTINE DISCHARGE MONITORING (continued)**

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Metals (total):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

**TABLE IA**  
**ROUTINE DISCHARGE MONITORING (continued)**

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Volatile Organic Compounds (VOCs):</b>					
Benzene	0.004	0.005	mg/l	Annually	Annually
Carbon tetrachloride	0.004	0.005	mg/l	Annually	Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Annually	Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Annually	Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Annually	Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Annually	Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Annually	Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Annually	Annually
Dichloromethane	0.004	0.005	mg/l	Annually	Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Annually	Annually
Ethylbenzene	0.56	0.7	mg/l	Annually	Annually
Monochlorobenzene	0.08	0.1	mg/l	Annually	Annually
Styrene	0.08	0.1	mg/l	Annually	Annually
Tetrachloroethylene	0.004	0.005	mg/l	Annually	Annually
Toluene	0.8	1.0	mg/l	Annually	Annually
Trihalomethanes (total) <sup>14</sup>	0.08	0.1	mg/l	Annually	Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Annually	Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Annually	Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Annually	Annually
Trichloroethylene	0.004	0.005	mg/l	Annually	Annually
Vinyl Chloride	0.0016	0.002	mg/l	Annually	Annually
Xylenes (Total)	8.0	10.0	mg/l	Annually	Annually

<sup>14</sup>Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

**TABLE 1A**  
**DISCHARGE MONITORING (continued)**

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Indicator Parameters / Major Cations and Anions:</b>					
pH (field)	Monitor <sup>15</sup>	Monitor	S.U.	Quarterly	Quarterly
Iron	Monitor	Monitor	mg/l	Quarterly	Quarterly
Manganese	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Organic Carbon	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Dissolved Solids	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sodium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Potassium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Calcium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Magnesium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Chloride	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sulfate	Monitor	Monitor	mg/l	Quarterly	Quarterly
Alkalinity	Monitor	Monitor	mg/l	Quarterly	Quarterly
Specific Conductivity (field)	Monitor	Monitor	µmhos/cm	Quarterly	Quarterly

<sup>15</sup> Monitoring required, but no limits established.

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE IB  
RECLAIMED WATER MONITORING - CLASS B+<sup>16</sup>**

Sampling Point Number	Sampling Point Identification		Latitude	Longitude
1	After dechlorination basin prior to recharge basins		35° 01' 27" N	114° 11' 22" WP
Parameter	DL	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen <sup>17</sup> : Five-sample rolling geometric mean	10.0	mg/l	Monthly <sup>18</sup>	Quarterly
Fecal Coliform: Single-sample maximum	800	CFU or MPN <sup>19</sup>	Daily <sup>20</sup>	Quarterly
Fecal Coliform: Four of last seven samples	200 <sup>21</sup>	CFU or MPN	Daily	Quarterly

<sup>16</sup> Monitoring under Table IB is in addition to routine discharge monitoring under Table IA.

<sup>17</sup> Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

<sup>18</sup> A five-month geometric mean of the results of the five most recent samples.

<sup>19</sup> CFU = Colony Forming Units per 100 ml. MPN = Most Probable Number per 100 ml. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

<sup>20</sup> For fecal coliform, “daily” sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each seven-day period are obtained and analyzed.

<sup>21</sup> If at least four of the last seven samples are equal to or less than 200 CFU or MPN per 100 ml, report “yes” in the appropriate space on the SMRF (indicating that the standard has been met). If at least four of the last seven samples are greater than 200 CFU or MPN per 100 ml, report “no” in the appropriate space on the SMRF (indicating that the standard has **not** been met).

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE II  
GROUNDWATER MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	POC Well			35° 01' 30" N	114° 11' 15" W
Parameter	AL <sup>22</sup>	AQL <sup>23</sup>	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen <sup>24</sup> :	Not Established <sup>25</sup>	Not Established	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	Not Established	Not Established	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
Total Coliform	Absence	Absence	P/A <sup>26</sup>	Monthly	Quarterly

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<sup>22</sup>AL = Alert Level

<sup>23</sup>AQL = Aquifer Quality Limit

<sup>24</sup>Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

<sup>25</sup>Not Established means monitoring is required but no limits have been specified.

<sup>26</sup>P/A = Presence or absence of total coliforms in a 100-milliliter sample.

**TABLE II**  
**GROUNDWATER MONITORING (continued)**

<b>Parameter</b>	<b>AL</b>	<b>AQL</b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
<b>Metals (total):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

**TABLE II**  
**GROUNDWATER MONITORING (continued)**

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
<b>Volatile Organic Compounds (VOCs)</b>					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) <sup>27</sup>	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

<sup>27</sup>Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

**TABLE II**  
**GROUNDWATER MONITORING (continued)**

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
<b>Indicator Parameters / Major Cations and Anions:</b>					
pH (field)	Monitor <sup>28</sup>	Monitor	S.U.	Quarterly	Quarterly
Iron	Monitor	Monitor	mg/l	Quarterly	Quarterly
Manganese	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Organic Carbon	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Dissolved Solids	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sodium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Potassium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Calcium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Magnesium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Chloride	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sulfate	Monitor	Monitor	mg/l	Quarterly	Quarterly
Alkalinity	Monitor	Monitor	mg/l	Quarterly	Quarterly
Specific Conductivity (field)	Monitor	Monitor	µmhos/cm	Quarterly	Quarterly

<sup>28</sup> Monitoring required, but no limits established.

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE III  
FACILITY INSPECTION (Operational Monitoring)**

<b>Pollution Control Structures/Parameter<sup>29</sup></b>	<b>Performance Levels</b>	<b>Inspection Frequency</b>	<b>Reporting Frequency</b>
Pump Integrity	Good working condition	Weekly	Quarterly
Treatment Plant Components	Good working condition	Weekly	Quarterly
Berm Integrity of Recharge Basins	No visible structural damage, breach, or erosion of embankments	Weekly	Quarterly
Berm Integrity of Effluent Storage Ponds	No visible structural damage, breach, or erosion of embankments	Weekly	Quarterly
Berm Integrity of Polishing Pond	No visible structural damage, breach, or erosion of embankments	Weekly	Quarterly
Liner Integrity of Effluent Storage Ponds	No cracks or leaks that would exceed a leakage rate of 550 gpd/acre	Weekly	Quarterly
Liner Integrity of Polishing Pond	No cracks or leaks that would exceed a leakage rate of 550 gpd/acre	Weekly	Quarterly
Freeboard - Recharge Basins	Two (2) vertical feet	Weekly	Quarterly
Freeboard - Effluent Storage Ponds	Two (2) vertical feet	Weekly	Quarterly
Freeboard - Polishing Pond	Two (2) vertical feet	Weekly	Quarterly

<sup>29</sup> Identify which treatment plant component, recharge basin, or effluent storage pond exceeds a performance level on the SMRF.

**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:          | November 18, 2008  |
| 2. Final Engineering Review, dated: | September 17, 2009 |
| 3. Final Hydrologic Review, dated:  | September 24, 2009 |
| 4. Public Notice, dated:            | October 1, 2009    |
| 5. Public Hearing, dated:           | Not applicable.    |
| 6. Responsiveness Summary, dated:   | Not applicable.    |

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## **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 upon the amount of daily influent or discharge of pollutants in gpd as established by A.R.S. § 49-242(D).

### **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 AWQS at the applicable 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(D), 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 activity 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. §§ 41-1009, 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 Section 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).