STORM WATER POLLUTION PREVENTION PLAN
FOR
DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY AT THE
APCC EMPIRE MOUNTAINS LIMESTONE QUARRY

Location:
This project is located in
Sections 19 & 30
Township 17 South, Range 17 East
Within Pima County, Arizona

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1.0 INTRODUCTION

This document serves as the Storm Water Pollution Prevention Plan (SWPPP) for the proposed construction activities at the APCC Empire Mountains Limestone Quarry. Its intent is to provide the means necessary to prevent sediment and other pollutants from entering downstream watercourses. Upon review of this document, acknowledgement by the owner/operator overseeing the project will be required to certify that they have read and taken responsibility for the information presented herein. This certification, the first page in the SWPPP booklet, is to be signed, dated, and stored with the body of the SWPPP.

In addition, a copy of the SWPPP will be maintained either on-site or in another location easily accessible during business hours. A notice shall be posted in a prominent location near the entrance of the construction site that states where a copy of the SWPPP can be obtained, a brief description of the project, the AZPDES AZCON Authorization Number and a contact name and phone number.

2.0 NOTICE OF INTENT

Subsequent to the implementation of the SWPPP, a Notice of Intent (NOI) must be submitted to the Arizona Department of Environmental Quality. All parties who have ownership (operators with operational control over construction plans and specifications), operators with operational control over day-to-day activities, such as the general contractor and sub-contractors, shall file separate NOI's. The operator must maintain a copy of the AZ Construction General Permit, the signed NOI, and the certificate within the SWPPP document. Additional copies of NOI forms are provided with this document.

3.0 IDENTIFICATION OF OPERATORS

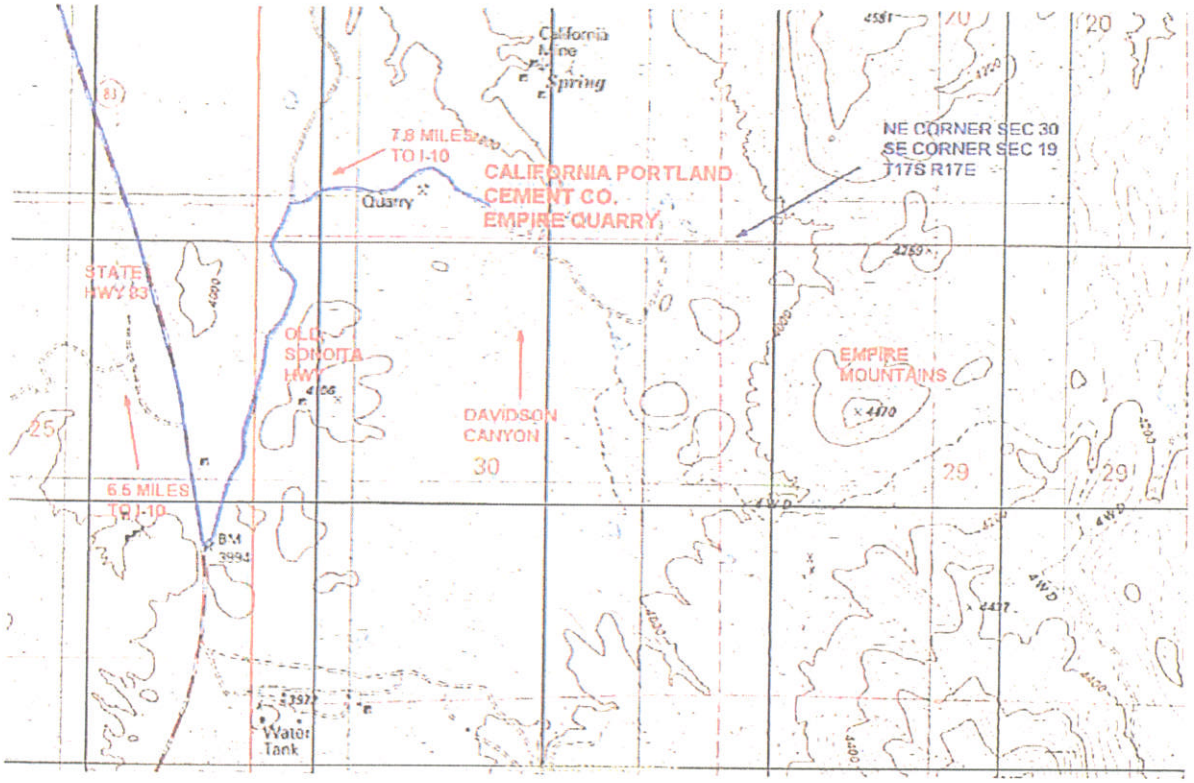
A) David Bittel
Arizona Portland Cement Company
11115 N. Casa Grande Hwy.
Rillito, AZ 85654
Phone Number: 520-682-2221

The SWPPP is a living document, meaning that it will evolve and adjust based on the current site conditions. As such, ownership of the document and overseeing its use will fall under auspices of several parties, including the governing jurisdiction, operators with operational control over construction plans and specifications (Owner/Operator), operators with control over day-to-day activities (Contractor), and all sub-contractors who may be responsible for implementation. While only one party is listed above, identification of all parties that will be held accountable for the SWPPP is required to be in compliance with the Arizona Construction General Permit. Contractor's Certification and Sub-contractor Certification Forms, located in back of this document behind the Certification/Schedule Control Implementation Tab, provide a means for the listing of additional parties that will be accountable for the SWPPP, but as of yet, are not identified. For Responsibility Criteria, see Part III.B of the AZ Construction General Permit.

4.0 LOCATION

The improvements consist of construction of a haul road including fill, excavation and the addition of culverts to maintain the existing drainage patterns. The length of the new haul road is approximately 4750 lineal feet. The project is located in Sections 19 and 30 in Township 17 South, Range 17 East within Pima County, Arizona. Refer to Figure 1 for the General Location Map.

Location Map



5.0 SITE DESCRIPTION

The APCC Empire Mountains Limestone Quarry is located 25 miles southeast of Tucson on the west side of the Empire Mountains adjacent to Davidson Canyon, an ephemeral wash. The vegetation in the area consists of mixed shrubland and grassland and the soil is sparse in the areas where limestone and marble exists. The project is about two miles northwest of the Las Cienegas National Conservation Area which is located on the east of the Empire Mountains. Other historic mining sites are present in the area including the California Mine, a copper/lead/silver/gold mine which operated in the early 1900s, and six other historic mines are located within a two mile radius. A State Grazing Lease covers the project area and other adjacent state lands.

The project is an expansion of an inactive quarry and the development of a new quarry on federal claims (Empire Mt. Quarry Mining and Reclamation Plan, November 2005) and Arizona state mineral leases (Mineral Development Report, Leases 11-25596, 35597, 79816, 79817, June 2004). The purpose of the operation is to provide a source of high-grade calcium carbonate for APCC's cement plant that is located in Rillito, on the north side of Tucson. The calcium carbonate is found primarily as marble (metamorphosed limestone) in the Escabrosa and Martin Formations. The marble of the Escabrosa Formation is exceptionally high quality for use in cement. The project's mining rate is expected to be 400 to 1200 tons per day. The operation will consist of drilling, blasting and loading the broken limestone into 25-ton haulage trucks for the direct haul to Rillito. There will be no screening or other processing operations at the facility. APCC anticipates continuing the limestone operation including the submittal of MSGP NOI at the appropriate time during stabilized activities to cover any potential stormwater discharges.

Currently there is an existing roadway the traverses the property. The new roadway will follow this alignment for approximately 500' and the remaining 4200' will be along a new alignment. The new roadway will be uncurbed roadway and be approximately 30' wide. Construction activities will include the grading of the new alignment, placing fill where necessary and installing culverts to maintain existing drainage patterns. The total area of the project is 148.88 acres, of which 61.73 will be disturbed. The roadway portion of the project will account for approximately 15.48 acres and the mining activities will encompass 46.25 acres.

The widening will not cause an increase in the runoff potential since the surface will not be paved. This potential is most commonly assessed by a runoff coefficient. For the APCC Empire Mountains Limestone Quarry, both the existing runoff coefficient and the runoff coefficient associated with the site after the proposed improvements were calculated to be **0.857**. The runoff coefficient was calculated based on an NRCS Soil Classification of 100% D soil and an imperviousness of 0%.

All runoff exiting the site will be conveyed within Davidson Canyon Wash.

The SWPPP must identify and address any off-site material storage areas or borrow areas used solely by the operator's project. There are currently no off-site storage areas associated with this site.

6.0 SITE MAP

A site map has been completed to scale of the entire site and may be found in the map pockets at the end of the SWPPP booklet. In an effort to demonstrate the changing conditions on-site throughout the scope of the construction project, an Existing Conditions Site Map and a Developed Conditions Site Map have been included.

7.0 NON-STORMWATER DISCHARGES AND POTENTIAL POLLUTANT SOURCES

The use of water within the site is part of the construction process. Water is used in such processes as compaction, cleaning equipment, irrigation, and dust control. Some non-stormwater discharges are allowed under the AZ Construction General Permit in accordance with Parts I.C.2 and IV.E.7. A list of allowable non-stormwater discharges that are known to be on-site may be found behind the Certification\Schedule Control Implementation Tab in the SWPPP booklet. Since the SWPPP is a living document, the operator may make changes to the SWPPP. The following are allowable non-stormwater discharges that the operator may use, these may include: Waters used to control dust (No effluent or other wastewaters), Waters Used for Compacting Soil (No effluent or other wastewaters), Waters used to wash vehicles (No detergents), Potable

Water (e.g., water line flushing), Routine External Building Wash-down (No detergents), Pavement Wash Waters (No spills or leaks of toxic or hazardous materials and no detergents), Discharges from Emergency Fire-Fighting Activities, Fire Hydrant Flushing, Uncontaminated Air Conditioning or Compressor Condensate, Uncontaminated Groundwater, Foundation or Footing Drains (uncontaminated), Potable Water Well Flushing (ephemeral receiving waters), Water used for Drilling and Coring (e.g. for evaluation of foundation materials, uncontaminated), and Water from Dewatering Operations/Foundations. The operator must implement appropriate BMPs for any non-storm water discharge and must describe these BMPs in the SWPPP. The BMPs used on-site are shown on the SWPPP Exhibit and the corresponding details are located behind the BMP Details Tab.

An inventory of potential pollutant sources has been preliminarily completed in a form located behind Certification/Schedule Control Implementation Tab and may include the following: overburden rock and soils, raw limestone, antifreeze, lubricants, concrete, herbicides, fuel, asphalt, fertilizers, wood products, oil, nails, metals, etc. This list is not meant to be inclusive and is subject to amendment based on the anticipated activities associated with construction.

8.0 SCHEDULE OF ACTIVITIES

It is anticipated that the APCC Empire Mountain Limestone Quarry improvements will begin _____ and be completed within a ___-year period. During that time frame, the activities briefly discussed in Section 5.0 will occur. Per the Construction General Permit, a schedule for major grading activities needs to be kept as part of the SWPPP. To assist with this process, a form with a schedule of major activities, associated pollution controls, and operator responsibility can be found behind the Certification/Schedule Control Implementation Tab. This list is not meant to be inclusive, is subject to amendment based on the anticipated activities associated with the construction, and will be filled out by the operator prior to the project disturbance.

9.0 SPILL PREVENTION AND RESPONSE/GOOD HOUSEKEEPING

The procedures outlined in the Best-Management Practices for Basic Good Housekeeping,

located behind the BMP Details Tab, will assist in spill prevention. Other BMPs include designating an area for equipment maintenance, which may constitute refueling and routine upkeep. Additionally, proper storage, handling and disposal of chemicals and materials, as well as, regularly scheduled inspection of storage containers and elevating said containers to reduce corrosion along the bottom will be used to reduce the likelihood of a spill. The operator may choose to use the Washout Area/Concrete Washout or Materials Storage Area as the Equipment Maintenance Procedures Area or modify the SWPPP to create a separate area with similar BMPs, as indicated on Detail SP-1a behind the BMP Details Tab.

In the event of any accidental spill of chemicals or hazardous materials, dial 911. The operator shall report oil or hazardous materials releases in excess of reportable quantities, or that may endanger human health or the environment, within 24 hours to ADEQ (602) 771-4466 and to the local jurisdiction. The SWPPP must be modified within 14 days to describe the release, including date, the apparent cause, and measures to prevent re-occurrence of releases. Additional jurisdictional agencies may be contacted as deemed appropriate by operator and as per local jurisdictional requirements.

10.0 SOIL STABILIZATION

As part of the site construction, numerous areas may be graded prior to actually being constructed upon. These areas have the potential of discharging sediment off-site and should be stabilized as quickly as practical. Exposed cut and fill slopes, stock piles, commercial and residential pads, and graded roadways fall into this category.

At a minimum and in accordance with the Construction General Permit, areas that have been disturbed and will remain inactive temporarily or permanently for a period extending beyond 14 days need to be stabilized to ensure that sediment will not be transported outside the project boundaries by on-site runoff. Stabilization measures including stabilizing slurry, straw matting, filter fabric, rip-rap, concrete, or asphalt can be used. The stabilization measures may be either permanent or temporary depending on need.

To assist with monitoring and maintaining the disturbed areas, the Stabilization Measures form has been provided as part of the Operator forms behind the Certification/Schedule Control Implementation Tab. This form needs to be updated and amended and should correlate with the schedule of activities listed.

11.0 SEDIMENT CONTROL MEASURES AND BEST MANAGEMENT PRACTICES

The overall intent of the pollution prevention plan is to prevent sediment and other pollutants from entering the natural watercourses downstream. To that end, control measures based on best management practices are to be placed within the project boundaries. Details of recommended BMPs to be used on-site and in conjunction with those found on the Site Map may be found behind the BMP Details Tab. A preliminary list of temporary and permanent erosion and sediment controls used on-site may be found behind the Certification/Schedule Control Implementation Tab. This list is subject to amendment by the operator based on the anticipated activities associated with the construction.

A general list of Erosion Control Measures and Best Management Practices is as follows:

A) **Solid Waste Management**: Implemented from start to finish of the project, a means for properly disposing of waste materials by providing clearly labeled receptacles at convenient locations is required. As part of a good house keeping plan, a standard operating procedure for the routine disposal of this material should be implemented. Material should be disposed of in accordance with federal, state and local rules and regulations.

B) **Stabilized Construction Entrance** – Implemented from beginning to end, a means of preventing sediment from tracking onto public streets is required. These measures include a paved or gravel entrance, or designated tire wash area. It should be recognized by the operator that such measures may not fully prevent sediment from exiting the site. As part of the Good House Keeping measures, sediment tracked onto the public streets needs to be cleared and disposed of on a routine basis. The construction entrance also will be maintained and inspected.

C) **Material Storage/Use Area**– Implemented from start to finish, a designated area as far as possible from receiving water is required for the delivery, storage, and mixing of materials. The Material Storage/Use Area should be surrounded by a berm or contain a means for trapping pollutants so no contaminants can leave the designated area.

D) **Hazardous Waste Area** – Implemented from beginning to end, a protected area to store chemicals, paints, solvents, fuel, oil and other potentially toxic materials needs to be provided on-site. This storage site can be designated by the operator though its existence needs to determined and shown on the SWPPP prior to bringing materials on-site. In addition, a complete inventory of all the pollutants that can be expected on-site at any given time needs to provided and stored within the pages of the SWPPP. The form Inventory of On-Site Pollutants, behind the Certification/Schedule Control Implementation Tab, provides a means of documenting the on-site chemicals and other potentially hazardous materials that must be properly stored and disposed of.

Good House Keeping includes storing these materials off the natural ground surface as well as secondary containment for toxic or harmful materials. Containers should be checked routinely for leaks or deterioration. Any spills or leaks should be cleaned up immediately and disposed of in accordance with all applicable rules and regulations. Spills whose volumes exceed the reportable quantities requirements need to be reported. Drums should be clearly labeled and the lids should be secured. Information for spill containment and clean up should be posted, as well as the appropriate contact name and phone number for reporting a spill. To lessen the impact should a spill occur, only amounts of solvents, fuels and oils needed for the completion of the project should be stored on-site.

E) **Concrete Washout**– Implemented from start to finish, a temporary pit or bermed area separated from the maintenance area for washout of concrete trucks, tools, etc. to prevent fresh concrete or cement-laden mortar to enter a storm drainage system and/or receiving

water. Once the concrete has hardened, the concrete waster should be routinely recycled or removed and properly disposed of. It is suggested that the hardened concrete removal should coincide with the removal of other solid waste. There are no anticipated activities onsite that would require the use of concrete. If conditions change and concrete is used, the SWPPP must be modified and updated to show a Concrete Washout Area.

F) **Sanitary Facilities** – Implemented from start to finish, appropriate sanitary facilities need to be located on-site. As part of the Good Housekeeping measures, the facilities are to be located in Material Storage/Use Area where any spill can be contained and should be maintained in accordance with the state guidelines. Facilities that are chemical based are to be elevated off the natural ground and have secondary containment.

G) **Vehicle Parking Area** – Implemented from start to finish, an area designated for parking of personal and construction vehicles needs to be provided and shown on the SWPPP prior to use. This area may change; however, any relocation needs to be updated on the SWPPP. The operator may choose to use the Material Storage/Use Area as the Vehicle Parking Area or modify the SWPPP to create a separate area with similar BMPs.

Vehicle Parking Area should follow the same rules as the material storage or washout areas in terms of containing contaminants. Good House Keeping Practices dictate the use of drip pans or pads under equipment to capture spills. Spills need to be cleaned up and materials used to assist in the absorption of the spill needs to be disposed of in accordance with applicable rules and regulations.

H) **Material Stock Piles** – Implemented from start to finish, an area designated for storing non-toxic construction material is required. This area is to be shown on the SWPPP prior to the placement of such material. Fill material needs to be protected to prevent erosion and ensure that sediment captured in runoff will not be released off-site. No solid materials may be stored within Waters of the United States. There are no Material Stock Piles on-site currently. Should the operator choose to store materials on-site, the SWPPP

must be updated and the appropriate BMPs must be implemented. A complete list of BMP details for Stock Pile management is located behind the BMP Details Tab.

I) **Protection of Trees/ Natural Areas in the Construction Site** – Implemented from beginning to end, a plan to minimize disturbance should be in place prior to the commencement of grading. The non-disturbed areas will be identified on the SWPPP. Stakes identify grading limits and tags or fencing to protect trees and other critical flora should be in place prior to construction.

J) **Dust Control** – Implemented from the beginning to end, a plan to control dust stemming from the disturbed areas within the project limits is required. This plan should be in place prior to the commencement of the project. Care should be taken to ensure that any water used to control dust does not generate runoff. The process will be based on need as determined by the operator. A schedule demonstrating that a dust control plan is being implemented needs to be incorporated into the SWPPP. A log of field conditions, the BMP procedure used to control the dust for each field condition, and how often the procedure is implemented is located behind the Certification/Schedule Control Implementation Tab.

K) **Ponded Water** – Implemented from beginning to end, a plan for the proper disposal of ponded water should be in place. The source of the ponded water can stem from runoff trapped behind an installed erosion measure, designed structure or collected within a low spot within the project boundaries. Though not considered a pollutant, it has the potential of becoming one and should be dispersed via mechanical or other means. Ponded water may be used on-site for dust control, irrigation or be transported off-site and disposed of so that it is not in violation with Arizona Pollutant Discharge Elimination System regulations. It will not be discharged off-site into a downstream watercourse.

As part of the SWPPP for the APCC Empire Mountain Quarry, detail plans have been provided that identify and locate the various control measures that are to be used for erosion and sediment

control. These plans contain the general location of where the measures are to be placed, however, the operator has the ability to add and relocate measures based on the on-site conditions. Any change to the listed measures needs to follow to the distinct requirements listed below:

1) The relocation or addition of an erosion control measure will be performed in compliance with the overall intent of the Arizona Pollution Discharge Elimination System.
2) Any change is properly documented in the SWPPP within 7 days of change.

Removal of an erosion control measure because it no longer serves its intended purpose is left to the discretion of the operator. Here again, the above requirements will apply.

The installation of the measures shall be in accordance with the manufactures specifications or at a minimum based on Best Management Practices. A brief discussion of the installation, implementation and maintenance of these measures is provided in details behind the BMP Details Tab.

The plans and booklet should be reviewed in their entirety as they contain additional information not provided in this text.

12.0 INSPECTIONS

Routine inspection of the measures shown on the plans will be performed in accordance with requirements set forth by the Construction General Permit Part IV-H. *The operator must select one of the inspection frequencies below by marking the appropriate box and indicate the same choice on the Inspection Report.* Inspections will be made:

☐ **Once every 7 calendar days -OR-**

☐ **Once every 14 calendar days AND within 24 hours after a rainfall of 0.5 inches or more.**

In the event that on-site conditions meet the requirements for Reduced Inspection Frequency, AZ Construction General Permit Part IV-H.1.b, a reduced inspection schedule may be used. An on-site rainfall gauge or current NOAA statistics may be used to determine depth of rainfall.

Inspection forms have been provided at the end of this document. The completed inspection forms need to be contained within the SWPPP throughout the course of the project and kept on file for a period of three years from the date the permit expires or is terminated. Inspections must be done by qualified personnel and the name or party responsible and contact information must be provided within the SWPPP. The inspections shall cover all disturbed areas that have not achieved final stabilization, areas that are used for material storage, installed temporary and permanent control measures, all discharge locations, and where vehicles enter and exit the project site. The operator must complete revisions to the SWPPP within **seven** calendar days following inspection. BMPs must be modified or added before the next anticipated storm event, or as soon as practicable.

13.0 MAINTENANCE

Maintenance for erosion and sediment control measures includes repairing or replacing failing sections, removal of the accumulation of sediment, and relocation of obsolete measures. Sediment removal can be performed on an as needed basis. The limits of accumulation are 6 inches behind a protective device (i.e. filter socks, silt fences, or straw bale berms). There are no Sediment Traps being used currently on-site, but should the operator choose to use them, the sediment should be removed when it reduces the storage capacity of the trap by 50%. The sediment may be used within the project or properly disposed of off-site.

14.0 SWPPP MODIFICATIONS

As the project progresses, the SWPPP will need to evolve. Changes in design, completion of construction, and BMP controls will impact measures needed to capture the sediment laden flow. The location of these measures might not necessarily have been identified at the time the SWPPP was created. It is up to the operator to continuously monitor the site and identify the

effectiveness of the SWPPP. Should changes to the SWPPP be necessary, the operator has 15 days to implement a revised measure and update the SWPPP.

15.0 TERMINATION

In order to relinquish the responsibility associated with maintaining the SWPPP and complying with the Arizona Construction General Permit for the APCC Empire Mountain Limestone Quarry improvements, when construction is complete and the site has reached final stabilization, the Operator will be required to file a Notice of Termination. This form can be filed only if the following conditions have been met.

- Final Stabilization has been achieved over the site (70% of the pre-existing vegetative cover has returned or the area has been stabilized by other means).
- Another operator has assumed control over the areas of the site that have not been stabilized.

Filing of the Notice of Termination must be submitted within 30 days to the Arizona Department of Environmental Quality. In addition, a copy must be mailed to the appropriate local jurisdiction.

Engineer Certification of Compliance

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision, as applicable, in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system or those persons directly responsible for gathering the information, I believe the information submitted is true, accurate, and complete. As this SWPPP is a living document, any changes made to this SWPPP after the date of signature will forfeit my responsibility of this document. I am aware that there are significant penalties for submitting false information, including the possibility of fine. In addition, as an owner or operator, I certify that I have reviewed and intend to comply with all terms and conditions stipulated in the 2008 Construction General Permit No. 2008-01 issued by the Director."

Printed Name of Engineer: Michael Daly, P.E.

Signed: _____ Date: _____

Firm Name: Psomas Telephone: 520-292-2300

Address: 800 E. Wetmore Rd, Suite 110

City: Tucson, AZ 85719

Owner/Operator Certification of Compliance

AZ GP Part VII.K.4

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision, as applicable, in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system or those persons directly responsible for gathering the information, I believe the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine. In addition, as an owner or operator, I certify that I have reviewed and intend to comply with all terms and conditions stipulated in the 2008 Construction General Permit No. 2008-01 issued by the Director."

Printed Name: _____ Title: _____

Signed: _____ Date: _____

Note: As per the requirements of AZ GP Part VII.K.2 and Part IV.B, any person signing a document within this SWPPP under the terms of the General Permit shall sign this certification. Any document requiring a signature within this SWPPP or associated attachments must be signed by the person listed above or a duly authorized representative of that person. If a representative is chosen, a signed and dated written authorization must be included in the SWPPP.