

SEP 10 2024



**HAYHOOK/DAVIDSON 60 ACRE  
QUARRY RECLAMATION PLAN Rev 1**

**Submitted to: Arizona State Mine Inspector**

**Spencer Materials**

**August 29, 2024**

SEP 10 2024

# HAYHOOK/DAVIDSON 60 ACRE QUARRY RECLAMATION PLAN Rev 1

Prepared for:

**SPENCER MATERIALS**

7225 N Mona Lisa Suite 202  
Tucson, AZ 85741

Submitted to Arizona State Mine Inspector  
1700 West Washington, 4th Floor  
Phoenix, AZ 85007

Prepared By:



**HAYHOOK/DAVIDSON 60 ACRE QUARRY RECLAMATION PLAN Rev 1**

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## **1.0 INTRODUCTION**

This report presents the Reclamation Plan (Plan) for the Hayhook/Davidson Rock Quarry for submittal to the Arizona State Mine Inspector in compliance with the Mined Land Reclamation Act (MLRA). The quarry is on private lands leased by Spencer Materials from Davidson Rock Products, LLC.

Twenty acres of the Project Quarry are currently being mined for specific governmental projects under A.R.S 27-1203.01. An additional 20 acres of the project site will be mined for a variety of non-government projects as well as government contracts and will not be under the current federal project exemption.

The aggregate quarry is located just west of Three Points, Arizona. The Quarry site (Project) lies approximately 30 miles west of downtown Tucson, south of Highway 86 on Hayhook Ranch Road (Figure 1).

The project site has approximately 20 acres of existing disturbance, from past aggregate operations and existing exempt operations. Components of the past operation include an open pit, support roads, and a few areas where materials were processed before 2020. The Quarry is located entirely on private land owned by Davidson Rock Products, LLC within a portion of Section 14, Township 16 South, Range 9 East, Gila and Salt River Meridian, Pima County, Arizona.

The current features and layout of the Site (as of November 2023) are shown in Figure 2.

The final 60-acre mine facilities will include:

- One open pit
- Stockpiles of crushed and screened material
- Supporting infrastructure including roads, equipment, crushers, screens, scales, trailers, office trailer, porta potties, tanks, piping, and vehicles.

## **1.1 OPERATOR INFORMATION**

Applicant/Owner/Operator and Regulatory Contact:

Spencer Materials (EIN 93-3799872)

7225 N Mona Lisa Suite 202

Tucson, AZ 85741

Patrick Spencer, Managing Owner: Phone: 520-219-0498

E-mail [pspencer@spencerconstructionaz.com](mailto:pspencer@spencerconstructionaz.com)

The operator's field representative is Mr. Xavier Burrola, Plant Manager for Spencer Materials, whose telephone number is below:

Mr. Xavier Burrola's Telephone: 520-633-1460

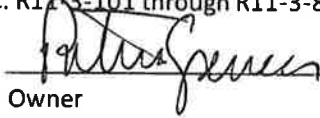
## 1.2 PREPARER

Mary Darling, CEO  
Darling Geomatics  
9040 S. Rita Road, Ste. 2350  
Tucson, AZ 85747  
Phone 520-298-2725; E-mail [marydarling@darlingltd.com](mailto:marydarling@darlingltd.com)

## 1.3 RESPONSIBILITY STATEMENT

Spencer Materials assumes responsibility for the reclamation of surface disturbances that are attributable to the entire mining unit at the Hayhook/Davidson Rock Quarry, consistent with A.R.S. §§ 27-1201 through 27-1297 and A.A.C. R11-3-101 through R11-3-820.

Signature



Date

8/29/24

Patrick Spencer, Owner  
Spencer Materials

## 1.4 TENTATIVE SCHEDULE

The pit is currently being used by Spencer Materials for federal projects under an exemption from State reclamation requirements. As on September 1, 2024 or as soon as this plan is approved by the State Mine Inspector, Spencer Materials will begin activities outside of the federal project exemption that trigger this Reclamation Plan. Those activities include sale of materials to nonfederal contractors and private individuals. The excavation and concurrent reclamation will occur over a 10 year period.

October 1, 2024      Begin activities under this Reclamation Plan that are not covered by the current federal exemption

September 1-30, 2024      Cease mining operations, remove equipment/buildings/ complete final reclamation

## 2.0 TOPOGRAPHY AND SURFACE WATER HYDROLOGY

The 60-acre Project Site to be mined is within the NW portion of Pima County Assessor's Parcel 301-18-003B, which totals approximately 3,517.45 acres. The Site has an average elevation of approximately 2,600 feet above mean sea level. Stormwater runoff from the Site will drain northeast toward the Altar Valley Wash River and ultimately to the Santa Cruz River.

## 2.1 GEOLOGY

Based on the San Pedro, Arizona, U.S. Geological Survey 7.5-minute quadrangle, the Project Site is in the Sonoran Desert sub-province of the Basin and Range Province. The Basin and Range Province in Arizona is characterized by alluvium-filled basins of various widths, bounded by steeply sloping, northwest-southeast trending mountain ranges that formed as a result of normal faulting related to extension of the earth's crust.

## 2.2 HYDROGEOLOGY

The project area is within the Avra Valley sub-basin of the Tucson Active Management Area (AMA). The Avra Valley sub-basin comprises 2,167 square miles within Pima, Pinal, and Santa Cruz counties. The long, thin basin is located west of Tucson and includes the Altar and Avra valleys, which are divided by State Route 86. Population centers are exurban areas of the Tucson metropolitan area, most of Town of Marana, and unincorporated communities including Arivaca, Three Points, Red Rock, and Sasabe. Much of the sub-basin, especially Altar Valley, is public land and sparsely populated.

Land ownership in the Avra Valley consists of State Trust land (45 percent) and federal lands (26 percent) managed by the Bureau of Land Management, the U.S. Fish and Wildlife Service, the U.S. Forest Service, private land (22 percent), and tribal lands (7 percent) belonging the Tohono O'odham Nation and the Pascua Yaqui Tribe, which covers approximately 4,000 square miles in central Arizona. The Site is located in the Gila River Watershed, within the Eloy sub-basin. The basin floor is generally level, and there are primary and secondary channels draining to the northwest toward the Gila River.

## 2.3 FLOOD ZONE

According to flood hazard maps published by the Federal Emergency Management Agency (FEMA), it appears that the Project parcel lies within Zone X, a flood insurance rate zone used for areas located outside of the 0.2% annual chance floodplain, where purchase of flood insurance is not required.

## 2.4 WILDLIFE AND PLANTS

Per the attached USFWS report and map, there is no critical habitat for any federally protected species. There is no potential habitat for the endangered jaguars (*Panthera onca*), which is defined as dense vegetation with water, such as riparian corridors. The site and surrounds are too arid.

Potential habitat for Sonoran Pronghorn Antelope (*Antilocapra americana sonoriensis*) may exist but the property is surrounded by a fence that creates a barrier to antelope. There are experimental populations for this subspecies of antelope, but they are considerably west of this project site. See <https://awcs.azgfd.com/species/mammals/antilicapra-americana-sonoriensis>.

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The project does not support habitat for the threatened cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*) because there are no saguaro cacti or large trees for roosting and nesting.

No stream or ponds or dense riparian habitat is present to support California least terns (*Sternula antillarum browni*), southwestern willow flycatchers (*Empidonax traillii extimus*) yellow-billed cuckoos (*Coccyzus americanus*), Sonoyta mud turtles (*Kinosternon sororiense longifemorale*), or Gila topminnows including the Yaqui (*Poeciliopsis occidentalis*).

No milkweed or other lush vegetation or moist habitat is available for Monarch butterflies (*Danaus plexippus*) to do more than fly over the site.

Native plants including the endangered Arizona eryngo and Pima pineapple cactus (*Coryphantha scheeri var. robustispina*) were surveyed for and are not present.

## 2.5 CLIMATE

The climate at the Project Site is arid to semi-arid, typical of the Arizona Sonoran Desert. Winter low temperatures generally range between 35-45°F, albeit with a few freezes annually. The hot season lasts for 3.7 months, from May 25 to September 16, with an average daily high temperature above 94 F. The hottest month of the year in Three Points is July, with an average high of 99F and low of 75 F. The cool season lasts for 3.2 months, from November 22 to February 28, with an average daily high temperature below 72 F. The coldest month of the year is December, with an average low of 41°F and high of 66°F.

Winter daytime high temperatures range from 65- 75°F. Summer daytime temperatures typically range between 100-110°F. Temperatures above 115°F are not uncommon. Summertime low temperatures are usually above 70°F. Average annual precipitation is 9.2 inches, falling primarily in high-intensity, short-duration events. The Project Site is affected by the North American Monsoon, which brings brief heavy downpours and gusty winds in the latter half of the summer. Severe monsoon events may cause haboobs and flash flooding.

## 3.0 PROPOSED POST MINING LAND USE

Post-aggregate mining use will consist of naturalized open space consistent with surrounding uses. Reclamation would return final topography of the Site for use as open space and groundwater recharge.

The following facilities will be used after mining at Hayhook/Davidson Quarry:

- Dirt roads that are necessary to access the property including dirt roads to provide access for security patrols to the overall Site.
- Security fences to allow area to revegetate without significant trespass vehicular traffic.

### **3.1 DESCRIPTION OF MINING UNITS & PROPOSED DISTURBANCE**

The Project will include the following mining units and operations:

- Open pit mine;
- Sediment ponds;
- Material stockpiles;
- Crusher and conveyors;
- Wash plant;
- Scale and scale house.

The total disturbance footprint of the mine operations is estimated to be approximately 60 acres. A map of the facilities is presented in Figure 3.

### **3.2 GENERAL**

Spencer Materials plans to mine the alluvial material from the quarry to produce a variety of products including sand, gravel and aggregate over an approximate 10-year duration. It is estimated that 6.4 million tons will be mined from the pit over 10 years. The final configuration is discussed in more detail below.

The site will continue to be contoured to control stormwater runoff in the pit area.

### **3.3 MINING METHODS**

Mining at the quarry will be performed as an open pit operation. The planned total pit depth will be approximately 20 feet, with 1:1 or 1:2 slopes depending on the stability of the rock. The pit development will be typical of sand and gravel operation. The Operator plans to mine material by blasting existing rocks to break material into smaller pieces for movement with dozers, excavators and front-end loaders. Any overburden will be pushed into piles at the edges of the pit for later use during reclamation as topsoil/cover material on the slopes.

The pit setback from the property boundary is at least 50 feet on all sides. All disturbances will be inside the property boundary.

The materials processing plant will consist of a crusher, screens, conveyor belts, a washing plant and generators. The plant will be configured to produce a variety of products ranging from sand to cobbles. The crushed rock will be moved within the mining area as required to minimize material hauling. The material will be carried by conveyors and front-end loaders to stockpiles for removal from the Site. Boulders suitable for sale as decorative rock will be stockpiled in as-mined condition.



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Stockpiles will change as material is added and removed. Company trucks, customer trucks or contract haulers will be loaded by front-end loader from the stockpiles. The trucks are then weighed and dispatched to the customer's location. Materials remaining in stockpiles at the end of the life of the mine will be used to backfill the pit slopes or to fill in low spots on the surface.

Accumulation of water in the pit is not anticipated due to the arid climate, a deep-water table and diversion of stormwater run by perimeter berms. The evaporation rate for the area exceeds the precipitation which will prevent accumulation of runoff water from direct precipitation on the pit. However, during reclamation, slopes will be contoured to capture rainwater to perpetuate groundwater recharge.

From information available in the Altar Valley watershed, the permanent water table is deeper than 140 feet, more than the planned final pit depth of 20 feet.

### 3.4 ACREAGE AFFECTED BY EACH TYPE OF SURFACE DISTURBANCE

The area of disturbance for each unit is detailed in Table 1 below.

Description	Acres Disturbed
Final Pit	40
Facilities (Temp Office, Parking Lot)	2
Stockpiles, Equipment Yard	18
<b>TOTAL</b>	<b>60</b>

Table 1: Disturbance Acreage

### 4.0 PROPOSED RECLAMATION MEASURES TO ACHIEVE POST MINING LAND USE

This section describes the reclamation for the quarry to assure post mine land use is acceptable to the private landowner and State Mine Inspector. Spencer Materials plans to perform concurrent reclamation during operation by backfilling side slopes in mined out areas with excess material and overburden. The area of disturbance over the course of the project is estimated to be 60 acres, but due to concurrent reclamation the actual number of disturbed acres at any one time will be less than or equal to 50 acres.

Concurrent reclamation will include backfilling and grading as needed to obtain stable configuration after an area is mined out and no further activities will take place there. The pit slopes will be raked to bring coarse material to the surface to reduce erosion potential and promote vegetation growth.

Other reclamation measures slope stability, erosion control, recontouring, revegetation, road reclamation where requested by the landowner, access restrictions and maintenance.

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Post-aggregate mining use will consist of naturalized open space consistent with surrounding uses. Reclamation would return final topography of the Site to a slight depression that facilitates water recharge into the groundwater basin.

**4.1 EQUIPMENT AND MATERIALS MANAGEMENT**

Spencer Materials will remove all equipment on site by loading onto trailers, towing or driving it away. Similarly, concrete slabs if any, buildings and structures will be removed to salvage or a landfill. Scrap metal, wood, tires, and other debris will be removed. All these materials that can't be salvaged for use elsewhere will be disposed of in an appropriate facility such as Ryan Field Transfer Station, a distance of about 30 miles west of the mine.

Mobile fuel and mobile water tanks will be removed. The soil under the fuel tanks will be checked for contamination and contaminated soil removed and disposed of at an approved off-site facility. Spencer Materials will coordinate with the State Hazardous Materials Coordinator as to proper disposition of any hazardous materials.

Non-inert materials (e.g., switches, fluids, oils, petroleum contaminated soils, etc.) will be disposed of at the Ryan Field Transfer Station or other suitable location.

Above-ground power lines, if any, on the Site will be salvaged. Buried electrical lines installed by the Operator, if any, will be removed and salvaged.

The well, if one exists, will be closed as required by the Arizona Department of Water Resources unless directed otherwise by the private landowner. Buried waterlines will be removed and salvaged or disposed of in a landfill. Surface waterlines will be removed and the materials salvaged.

**4.2 EXISTING AND FINAL TOPOGRAPHY**

The pit will be mined at a slope suitable for safe practice. The planned slopes of the operating and reclaimed pit will be at 1H:1V or 1H:2V, which is within an acceptable factor of safety.

**4.3 NARRATIVE DESCRIPTION OF ROADS**

The existing perimeter road just inside the 80 acre fenced area where the 60-acre project sits will remain in place to facilitate road maintenance and access to the land. The access road through the gate on the north side of the property will be obliterated during reclamation.

## 4.4 EROSION CONTROL PLAN

Storm water drainage controls will be established as part of a site stormwater protection plan, which will be updated if necessary, as conditions change. Surface water at the mine will be entirely from direct precipitation. The disturbed areas will be re-graded to control runoff. The runoff from the regraded areas will be discharged to the depression created during excavation.

Specific erosion control measures include:

- Collection of storm water in the pit;
- Riprap lined discharge points where erosion control is required;
- A stormwater channel and downdrains on the pit slopes;
- Coarse material on the final pit slopes exposed by raking; and
- Earthen berms to prevent storm water from flowing off site.

## 4.5 EROSION CONTROL AND STABILITY

Material remaining in stockpiles will be used as fill to smooth out the pit slopes and to backfill sediment ponds on the surface as required. The final pit slopes will be 1H:1V or 1H:2V.

Following removal of buildings and equipment and re-contouring, disturbed areas that have potential for vegetation will be prepared for reseeding. Available topsoil will be spread as needed. In order to minimize runoff and erosion, recontoured disturbed areas that have potential for revegetation will be rough-graded and ripped to leave a permeable, hummocky surface to encourage the formation of shallow ponding and increase infiltration and vegetation growth.

## 4.6 REVEGETATION, CONSERVATION, CARE AND MONITORING OF REVEGETATED AREAS

Topsoil material stockpiled during mining will be used to cover disturbed areas where revegetation is possible to facilitate plant growth.

Unless directed otherwise by the private landowner, the perimeter road will remain and the access road currently going to the center of the existing excavation will be recontoured to match the surroundings and prevent erosion. Revegetation will include both native and non-native species to:

- Stabilize surfaces to reduce the potential for erosion.
- Blend into the surroundings.

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Surfaces will be ripped, scarified (harrowed) or raked prior to applying mulch and seed. Natural rainfall will provide moisture to the plants. Spencer Materials will monitor the site for one year to assure success of vegetation.

### **4.7 RESTRICTING PUBLIC ACCESS TO PITS, ADITS, SHAFTS, AND OTHER SURFACE FEATURES**

Spencer constructed a perimeter fence around approximately 80 acres of the property. The 60-acre disturbance area is within the fenced area. The fence will be maintained during reclamation to keep people and animals away from the pit. Signs warning of the falling hazard can be posted at 300' intervals if recommended by the State and/or landowner.

Unauthorized vehicle access will be prevented by continuing to utilize the substantial lockable gate at the entrance of the fenced area, off Hayhook Ranch Road. The access road inside the fence will be obliterated during reclamation if requested by the State and/or landowner.

All dirt roads surrounding the Site will be posted at the boundary with "Stop - Road Closed" signage prominently displayed. Posted "No Trespassing" signage is in place at locations where people might enter the pit area. The access controls of signage and fencing/berms will be maintained by Spencer Materials for one year post mining.

### **5.0 RECLAMATION SCHEDULE**

The Project Quarry is currently being mined for specific governmental projects under A.RS 27-1203.01.

Concurrent reclamation of the Hayhook/Davidson Quarry will take place during operations. The remaining reclamation will take place at the end of the lease, in approximately 2034.

The final reclamation measures will be completed within six months of the cessation of mining and material production. Equipment and buildings will be removed within 90 days. Complete reclamation under this scenario will require approximately six months, except for monitoring. Spencer Materials (or its reclamation contractor) will monitor reclamation quarterly for the first year to take remedial actions that might be needed.

### **6.0 RECLAMATION COST ESTIMATE**

This section presents the basis of the estimated reclamation costs for the quarry. The costs are detailed in Table 2 and 3.

#### **Reclamation Area**

Pit: 1250' x 1400'

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Facilities:	3
Tanks > 55 gallons (water or fuel):	1
Tanks > 55 gallons (chemicals):	1
Non-Metal Scrap	40 cubic yards
Recyclable Metal Scrap	40 cubic yards
Mobile Equipment & Vehicles	5 vehicles

Assumptions:

- Distance to Landfill/Recycler 36 miles
- Distance to Equipment Rental 46 miles

Equipment Rental, Operating Other Direct Costs	Op Hours	Mob Hours	Total Hours	>1 day (\$)	Daily (\$)	Rental (\$)	Fuel etc. (\$)	Operator (\$)	Total (\$)
Cat 938 Wheel Loader	5	3	8	1,527		1,527	25	158	1,710
Cat 12 Motor Grader	18	3	21		4,483	4,483	188	648	5,319
Cat D6 Dozer	30	3	33	2,135		2,135	523	1,047	3,706
John Deere 332 w/ HD Tiller	25	3	28		2,719	2,719	125	989	3,833
Kenworth 4000 gal water truck	43	3	46		4,868	4,868	643	864	6,376
International 4200 Truck Crane	2	3	5	1,674		1,674	10	63	1,747
Labor Cost (Except Equip. Opn & Flat Fees)	2,156								2,156

**Direct Costs**

**\$24,847**

Equip Mob/demob hauling			2,835						
Loading etc. (flat fee)			1,000						
Misc Hauling			1,640						
Landfill Fees			1,832						
Materials			6,312						
Disposal Fees (Contract)			2,374						

**Subcontract & Materials**

**\$15,993**

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<b>Equipment Rental, Operating Other Direct Costs</b>									<b>Total (\$)</b>
Contractor Admin Cost (10% of direct cost)			10%						2,485
Contractor Admin Cost (% of subcontractor & Materials Cost)			10%						1,599
Contractor Profit (% of Direct Cost)			10%						2,485
Liability, % of Labor			1.5%						32
<b>Contractor</b>									<b>\$47,442</b>
State Contract Mgmt Fee % of Total Contract			17.1%						8,113
State Indirect Costs % of State Contract Mgmt Fee			21.8%						1,769
<b>TOTAL RECLAMATION COST</b>									<b>\$57,323</b>

**Table 2. Reclamation Cost Calculations**

**Reclamation Bond Calculation: \$57,323**

**BASIS OF ESTIMATED COSTS**

The reclamation costs are based on the quantities calculated from the conceptual design. The extent of the pit, roads and facilities that will be reclaimed and those that will remain for the post-mining land use described above. Hourly rates for labor and equipment are based on 2024 federal reclamation bond numbers published by BLM (<https://www.blm.gov/documents/arizona/public-room/report/reclamation-bond-calculation-spreadsheet-2018-bond-estimator>).

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### **Remove Equipment**

Equipment will be removed by Spencer Materials for use at another quarry or for storage by Spencer Materials. The removal cost if Spencer Materials was not involved was calculated based on haulage to the Ryan Field Transfer Station.

### **Structures. Slabs. Foundations. Asphalt. Scrap and Tire Removal**

The only structure to be removed is a mobile scale house. There is no permanent structure at Hayhook.

If temporary structures besides the scale house are erected or associated platforms and walkways, they will be evaluated for salvageability, and will either be disassembled by unbolting panels, columns and beams for salvage and reuse or by hot torch cutting if determined that recycling is the most logical option. Equipment used for disassembly or disposal will include a manlift and a loader. Materials will be loaded and removed depending on their final destination.

Asphalt, if any, to be ripped with CAT 12 motor grader or D6 and loaded with front-end loader. Asphalt will be disposed of in an appropriate facility.

Tires loaded and hauled to the Pima County Waste Tire Collection Site, 5301 W Ina Rd, Tucson, AZ 85743, or similar facility.

Scrap metal loaded and hauled to Arizona Recycles LLC, 902 E Hughes Access Rd, Tucson, AZ 85756, or similar facility.

Non-metal scrap: Load onto trucks and haul to Ryan Field Transfer Station, or similar facility.

### **Reclaiming Disturbed Areas**

The pit walls will be mined to a final slope of between 1H:1V and 2H:1V. Material remaining in stockpiles will be used to fill in low areas at the surface, areas on the pit floor and slopes as needed to create a natural appearing terrain. If necessary to assist with contouring, downdrains will be added in the corners of the pit to convey runoff to the pit floor. Re-grading will be accomplished by local cut-to-fill. Detailed cost estimates are included in Table 2.

Disturbed ground in the materials processing area will be rough-graded and ripped to leave a permeable, hummocky surface to encourage vegetation growth and minimize erosion. The disturbed surfaces will be recontoured and scarified to loosen material and allow for revegetation. Approximately 20 acres will be ripped using a Caterpillar 12 or equivalent motor grader with a ripper. The production rate used for the grader is approximately 10,000 square feet per hour.

Roads that are not needed for post mining land use will be recontoured to match the surroundings and prevent erosion.

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### **Topsoil**

Place topsoil up to 1-foot thick on the regraded areas outside of the pit as needed. Stockpiled material will be used for topsoil. The unit cost is based on hauling the topsoil with dump trucks and spreading it to the required thickness with dozers. A grader will be used to finish grade the topsoil surface for drainage. The purpose of the topsoil is to provide a layer for vegetation growth that is erosionally stable.

### **Erosion Control**

Riprap will be placed in down drains and energy dissipaters. Grout, if needed, will be obtained from ready-mix. The unit costs are based on using riprap from the Site. Riprap will be placed with a front end loader and shaped with a backhoe.

To minimize runoff and erosion, disturbed areas excluding the pit slopes will be rough-graded and ripped to leave a permeable, hummocky surface to encourage the formation of shallow ponding and increase infiltration and vegetation growth.

### **Revegetate**

The area for revegetation, approximately 20 acres, includes reclaimed access roads, disturbed and bare work areas, backfilled ponds and structure footprints after demolition. The unit cost is based on a quote from a local vendor. Simple hydroseed will be applied on flat areas and two layers of hydroseed with tackifier on sloped surfaces to prevent erosion and enhance growth. Two unit costs have been applied to the estimated areas of flat and sloped ground to be revegetated.

Revegetation will include both native and non-native species. The non-native species will be non-invasive. Revegetation will be used to:

- Stabilize surfaces to reduce the potential for erosion; and
- Blend the disturbed surfaces into the natural surroundings.

Surfaces will be ripped or scarified (harrowed) prior to applying mulch, fertilizer and seed.

### **Access Restrictions**

Unauthorized access will be prevented by adding fencing, berms, signs and gates.

The property boundary is currently fenced on all sides. The fencing appears adequate to restrict access after closure.

Access roads will be scarified to loosen material and allow for revegetation. Road reclamation will be completed with a Caterpillar grader or dozer with a ripper. Detailed cost estimates are included in Table 2.



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### **Post Reclamation Maintenance**

Maintenance costs for the site consist of inspection and repair of eroded areas, roads and fencing. It was assumed that 5 percent of the total reclaimed area would require repair due to erosion. The repair work would be carried out in the first year. The costs were converted to a present value for a post reclamation period of 1 year.

### **Roads**

Some access roads will be maintained to allow for inspection and maintenance, if requested by the State and/or landowner.

Inspection of access roads: The unit cost is based on one inspector/foreman and a four-wheel drive pick-up truck. Maintenance of access roads. The unit cost is based on regarding a Cat 140 HM motor grader.

### **Soil Covers and Vegetation**

Portions of the revegetated surfaces may not initially vegetate successfully and will need to be repaired for the first year.

Inspection of surface and vegetation will occur for the first year. The unit cost is based on one inspector/foreman and a four-wheel drive pick-up truck.

Revegetation Repair, Year 1. The unit cost is based on using a Cat 140 HM motor grader to repair erosion and scarify the existing surface material to prepare for revegetation. Revegetation will include mulch and hydroseed.

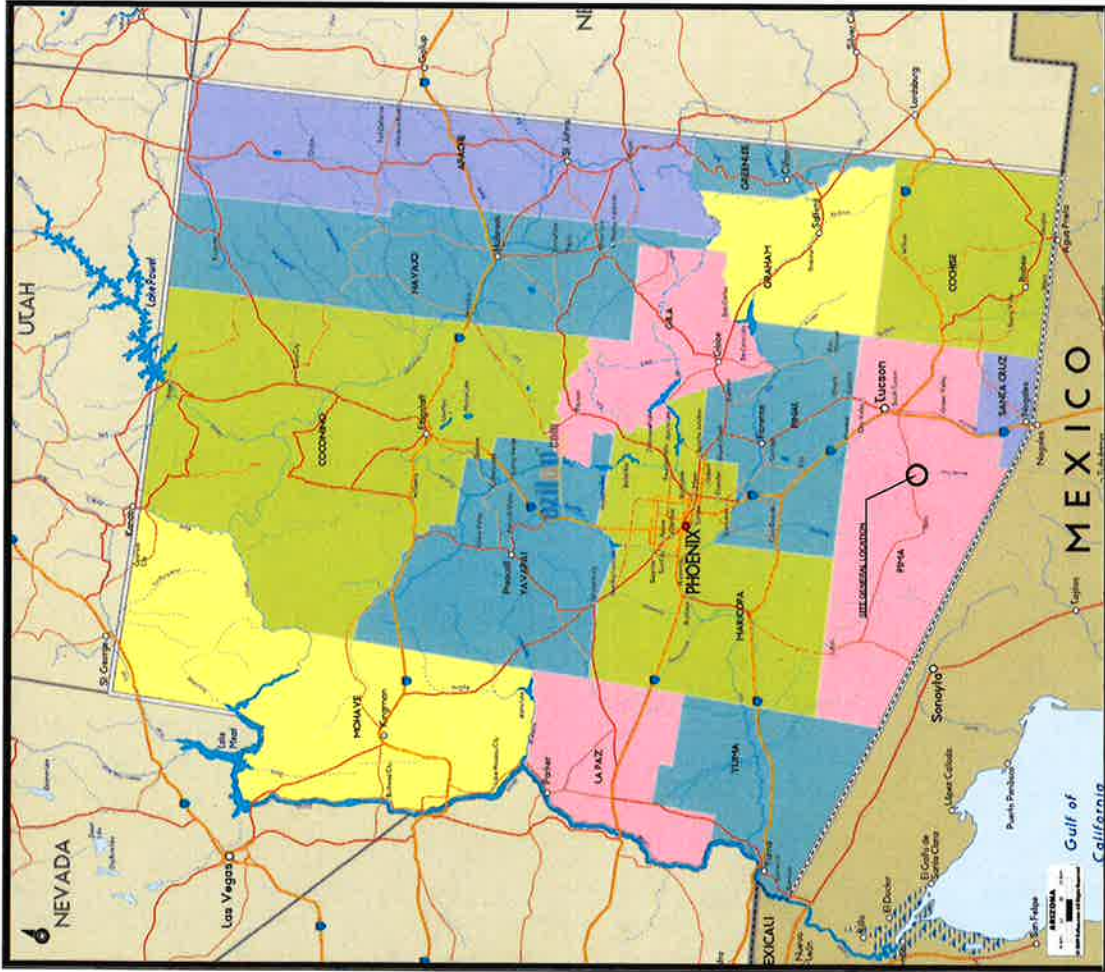
### **Fences and Signs**

Fences and signs will be inspected and maintained for the first year to ensure access is effectively restricted.

Inspection of fences and signs. The unit cost is based on one inspector/foreman and a four-wheel drive pick-up truck.

**Appendix**

## Figures



**HAYHOOK / DAVIDSON  
QUARRY PROJECT  
LOCATION**

SECTION 14  
TOWNSHIP 18 RANGE 1 EAST  
COUNTY OF MARICOPA  
PIMA COUNTY, ARIZONA

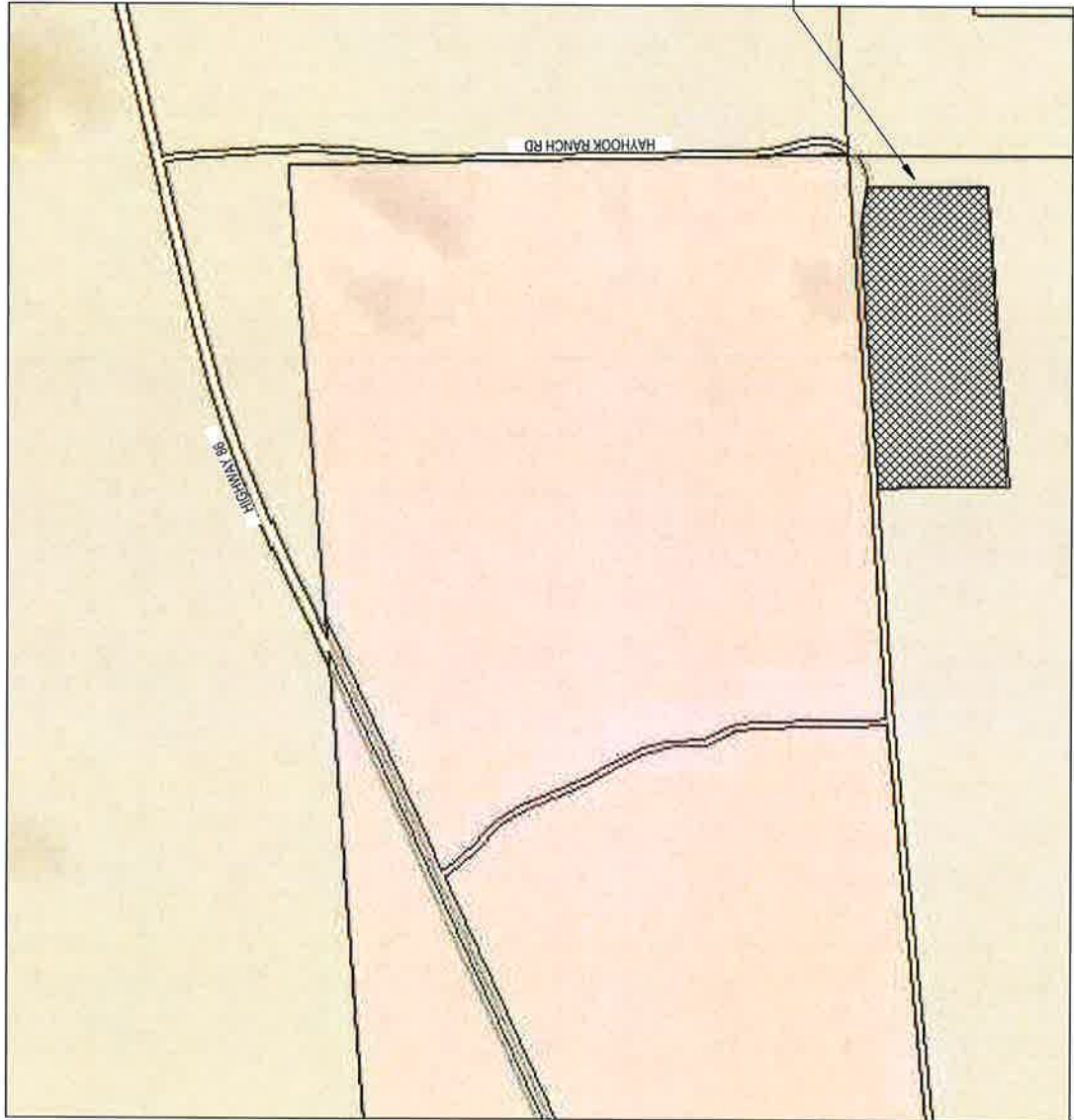
DATE: 12/19/2023  
DRAWN BY: JAM  
CHECKED BY: JAM  
SCALE: NTS 1"=100'  
REVISION DATE:

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**SHEET**  
1 OF 1

PARCEL 301-16-003D SECTION 14,  
 TOWNSHIP 16 SOUTH, RANGE 9 EAST,  
 GILA AND SALT RIVER MERIDIAN  
 PIMA COUNTY, ARIZONA



LOCATION MAP  
 SHOWING THE LOCATION OF  
 TOWNSHIP 16 SOUTH, RANGE 9 EAST,  
 GILA AND SALT RIVER MERIDIAN,  
 PIMA COUNTY, ARIZONA

PROJECT AREA

		SHEET <b>1 OF 1</b>
<b>HAYHOOK DAVIDSON          QUARRY PROJECT          LOCATION</b>		DATE: 12/19/2023 DRAWN BY: JAV CHECKED BY: JMD SCALE: AS SHOWN JOB NO: 2302-037-001 REVISION DATE:
A SECTION OF <b>TOWNSHIP 16 RANGE 9 EAST,          GILA AND SALT RIVER MERIDIAN,          PIMA COUNTY, ARIZONA</b>		

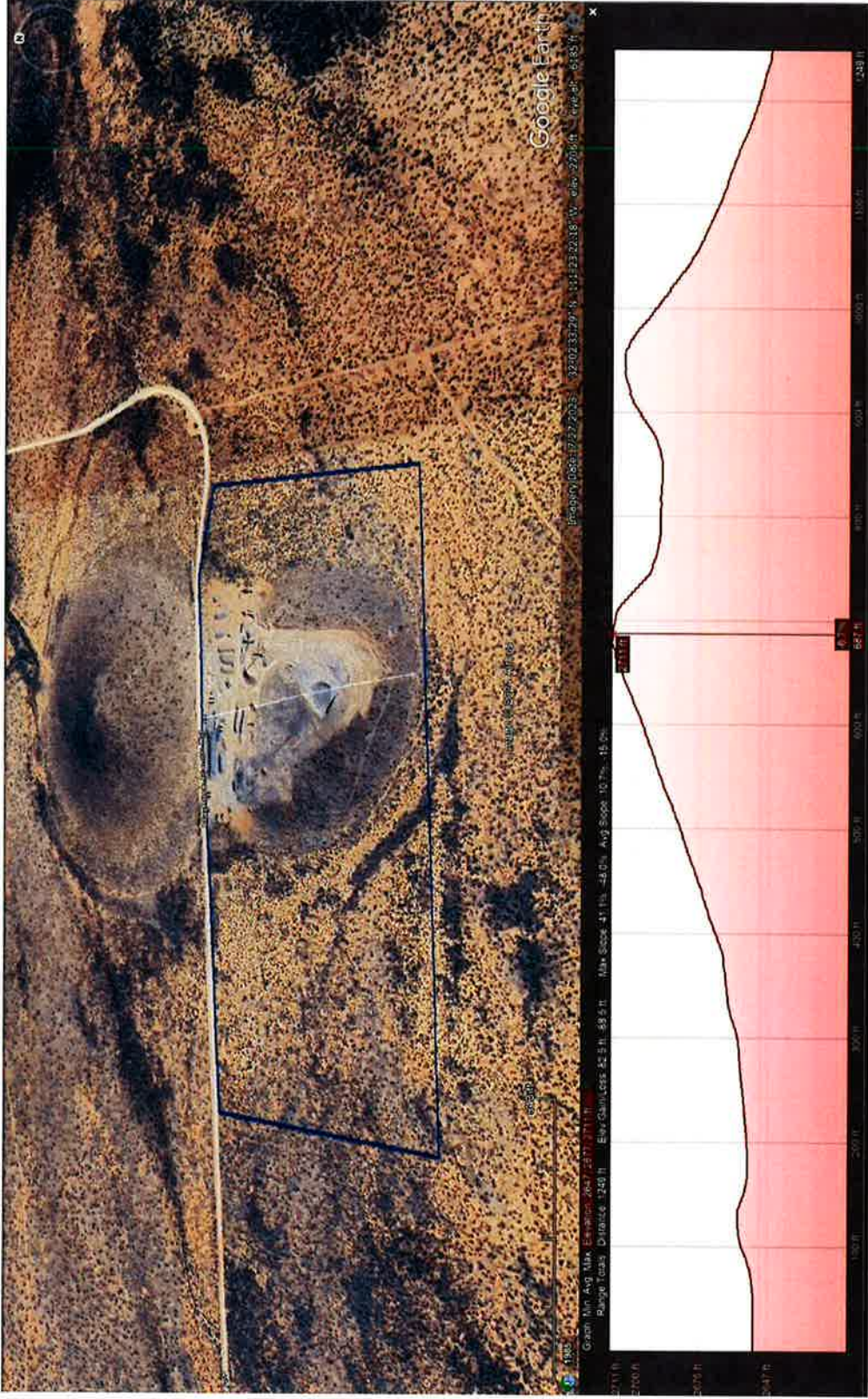
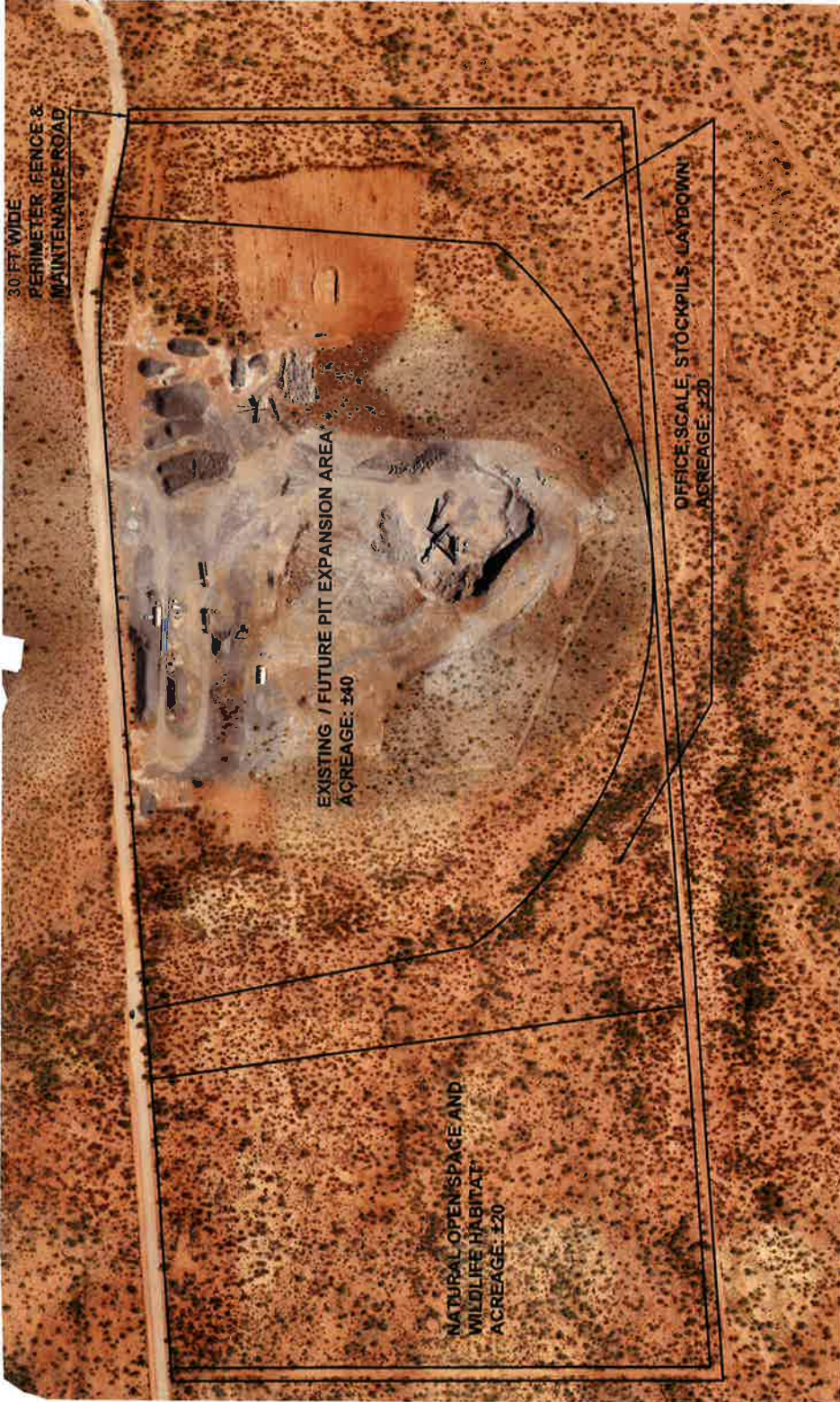


Figure 3. Hayhook Quarry - Elevational Profile for Proposed 60 Acre Project, 40 acres of which will be the area of excavation.



\*NO THREATENED, ENDANGERED, OR SPECIAL STATUS SPECIES

HAYHOOK/DAVIDSON  
 QUARRY AERIAL VIEW  
 APPROXIMATE BOUNDARY

DATE: 08/22/2024  
 DRAWN BY: HMC  
 CHECKED BY: MD  
 SCALE: N.T.S.  
 JOB NO: SDC-EP3001  
 REVISION DATE: 08/28/2024

A PORTION OF  
 SECTION 14,  
 TOWNSHIP 16 RANGE 9 EAST,  
 COUNTY OF PIMA,  
 PIMA COUNTY, ARIZONA



840 S. RITA ROAD  
 TULSA, OK 74117  
 (918) 486-2929 (O)  
 (918) 486-2929 (F)  
 www.darling.com

SHEET  
 1 OF 1