# RECLAMATION AND CLOSURE PLAN

DOME VALLEY MINING, LLC
DOME VALLEY MATERIAL SOURCE

SUBMITTED TO THE STATE MINE
INSPECTOR'S OFFICE FOR REVIEW AND
APPROVAL IN ACCORDANCE WITH
ARIZONA REVISED STATUTE
TITLE 27 - CHAPTER 6
STATE MINE INSPECTOR AGGREGATE
MINED LAND RECLAMATION

**SEPTEMBER 2024** 

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	1.0 ADMINISTRATIVE INFORMATION	
Company:	Dome Valley Mining, LLC	
Contact:	Don Peterson Dome Valley Mining, LLC 1636 E 20TH ST STE A Yuma, AZ 85365 DonP@dpeyuma.com	51
Applicant:	Don Peterson Dome Valley Mining, LLC 1636 E 20TH ST STE A Yuma, AZ 85365 DonP@dpeyuma.com	
Permit Technical Consultant:	Jill Himes, Himes Consulting LLC 3301West Genoa Way Chandler, AZ 85226 (480) 899-5708 (602) 499-9253 (cell) jillhimes@cox.net	At the state of th
Landowner:	Dome Valley Mining, LLC 1636 E 20TH ST STE A Yuma, AZ 85365	
Parcel No:	184-29-001	
Operator:	Dome Valley Mining, LLC	
	1	

#### 2.0 INTRODUCTION

#### 2.1 PURPOSE AND SCOPE

Dome Valley Mining, LLC proposes to conduct aggregate mining and processing at their property northeast of Yuma in Yuma County, Arizona. The Dome Valley Material Source is located within Section 29 in Township 8 South, Range 19 West, Gila and Salt River Meridian.

The purpose of this Mine Reclamation and Closure Plan (MRCP) is to present the details of rehabilitation of the Dome Valley Material Source in Yuma County, Arizona concurrent with or after mining operations have ceased in accordance with the Arizona Aggregate Mined Lands Act (AAMLRA) (Arizona Revised Statutes [A.R.S.] §27-1201 as authorized by A.R.S. § 27-1204. This plan has been developed pursuant to the format and content prescribed in the Arizona Aggregate Mined Lands Reclamation Rules (Arizona Administrative Code {A.A.C}, R11-3-101, et seq.). The MRCP addresses environmental, technical and operational issues that are identified in those documents.

#### 2.2 RECLAMATION STATEMENT OF RESPONSIBILITY

Dome Valley Mining, LLC assumes responsibility for the reclamation of surface disturbances that are attributable to the aggregate mining unit consistent with A.R.S §. 27-1201 and A.C.C. R11-3-501 pursuant to that chapter. All areas that have been disturbed at the site will be reclaimed to a safe and stable condition when mine operations conclude.

Donald R. Peterson 8-27-24

Signature

Date

Manager/Owner

Title

#### 2.3 RECLAMATION APPROACH

Dome Valley Mining, LLC will reclaim areas surrounding and within the excavated areas necessary to accomplish the post-mining land use of open space. The goals of the mine plan and reclamation measures are to provide for a safe, stable, and sustainable site once mining has ceased. Reclamation will take place concurrently to the degree possible, but no later than the cessation of mining activities.

# 2.4 CURRENT OWNERSHIP AND LAND USE INCLUDED IN THE AGGREGATE MINING UNIT

Dome Valley Mining, LLC is planning to continue to conduct aggregate mining and processing operations for commercial use at the Dome Valley Material Source. Mining has been conducted at the site sporadically since the early 1990's. The site includes approximately 70 acres, as shown in Table 1 below, and in Figure 3. The extraction/processing operation consists of mining to remove aggregate material as described in A.R.S. § 27-441. At the Dome Valley Material Source, the process includes the use of a screen, crusher, and other mobile equipment for the support of production, and other construction material related operations. Proposed operations would include excavation, screening, crushing, stockpiling, loading, and hauling. Existing access is from a Mohawk Valley Irrigation District right of way to the south. Land use onsite consists of mining, processing, and open space. Dome Valley Mining, LLC has estimated the removal of up to 4.35 million cubic yards over a period of 20 years.

Vegetation communities in the project vicinity are lower Colorado subdivision of the Sonoran Desert as described by Brown (1994). The majority of the vegetation onsite is very sparse and dominated by creosotebush (Larrea tridentata). Approximately 20 acres are previously-disturbed from gravel mining. The majority of vegetation occurs within or adjacent to the small washes within and near the property. Vegetation observed includes paloverde (Cercidium floridum), ironwood (Olneya tesota), brittlebush (Encelia farinosa), catclaw acacia (Acacia greggii), sweetbush (Bebbia juncea), ocotillo (Fonquieria splendens), and buckhorn cholla (Cylindropuntia acanthocarpa). Honeysweet (Tidestromia suffruticosa), a few salt cedar (Tamarix ramosissima), and silverleaf nightshade (Solanum eleagnifolium) occur within the disturbed areas. The site occurs within the Arizona Game and Fish Department (AGFD) Game Management Unit 41. This unit is managed for bighorn sheep (Ovis canadensis), mule deer (Odocoileus hemionus), dove (Zenaida sp. and Columbina sp.), and quail (Callipepla gambelii). Wildlife and/or wildlife sign observed in the project vicinity includes desert woodrat (Neotoma lepida), desert cottontail (Sylvilagus auduboni), turkey vulture (Cathartes aura), Harris' antelope squirrel (Ammospermophilus harrisii), mourning dove (Zenaida macroura), lesser nighthawk (Chordeiles acutipennis), verdin (Auriparus flaviceps), house finch (Haemorhous mexicanus), and tree lizard (Urosaurus ornatus).

Table 1
Existing Surface Disturbance

Feature	Acres
Mining & processing	21.6
Undisturbed	48.4
Total	70.0

#### 2.5 PROPOSED POST-AGGREGATE MINING LAND USE

Proposed post-aggregate mining land use of the site is open space. Current nearby use is open space and agricultural.

# 2.6 DESCRIPTION OF THE AGGREGATE MINING UNIT AND PROPOSED SURFACE DISTURBANCES

Proposed surface disturbances include expanding aggregate mining to the north, and east to a final disturbance of approximately 61.5 acres, as shown in Figure 4. The existing processing area will remain in the mined out area in the southwest corner. Mining will not result in the formation of a pit as material will be removed from mountainous terrain. Slopes 3:1 (horizontal: vertical) (H:V) or flatter are incorporated into the mining plan. Material removal depth varies due to the mountainous terrain but will match adjacent undisturbed areas and slope down to a flat bottom. Removal depth will be up to a maximum of 120 feet below existing ground surface in some areas. The processing area, located within previously-mined areas in the southwest corner, includes a crusher, screen, stockpiles, and an office trailer. Proposed surface disturbances are shown in Table 2 below.

Table 2
Proposed Final Surface Disturbance

Feature	Acres
Mining Area	61.5
Processing Area	8.5
Undisturbed	0
Total	70.0

#### 2.7 EXISTING AND PROPOSED FINAL TOPOGRAPHY

Existing topography and survey information is provided in Figure 3 attached. Existing elevations range from approximately 400 ft above mean sea level (msl) in the central northern portion of the property to approximately 230 ft above msl in the southwestern portion of the property. The mining expansion area is located in a mountainous area with large variations in topography. Proposed final elevations are shown in Figure 4 attached. Proposed final topography of the slopes will have a 3:1 (H:V) slope or flatter to provide a safe slope at the end of mine life.

#### 2.8 A NARRATIVE DESCRIPTION OF ROADS

The existing access road to the parcel is located off-site within a Mohawk Valley Irrigation District right of way, as shown in Figures 3 and 4. Other temporary internal access roads are located within previously-mined areas.

# 2.9 ACREAGE AFFECTED BY EACH TYPE OF SURFACE DISTURBANCE

#### **Area Descriptions:**

## 2.9.1 Mining Area

Aggregate mining at this site would impact an additional approximately 39.9 acres of largely undisturbed areas. As this site is mountainous, removal of material will not result in a pit but will match ground surface levels on the property boundary. Slopes are planned at a maximum of 3:1 (H:V) or flatter. Final build-out is shown in Figure 4.

#### 2.9.2 Processing Area

The processing area is located in the southwest portion of the mining area. The processing area includes a crusher, a screen plant, stockpiles, equipment, a fuel tank, and an office trailer.

#### 2.9.3 Access Roads

The existing off-site access road will not change. Temporary internal access roads may be used over time as mining advances. The existing access road is shown in Figures 3 and 4.

#### 3.0 RECLAMATION

#### 3.1 EQUIPMENT AND STRUCTURE REMOVAL

All equipment on this site is mobile and can be re-located at will throughout the mining process. All mobile equipment will be removed from the site. There are no buildings or structures proposed to be located on the site.

### 3.2 ROADS, POWER LINES, WATERLINES AND FENCES

The off-site access road will be retained for use by the landowner. Internal access roads within the mining and processing areas will be scarified, as shown in Figure 5. There are no powerlines that occur within the site. There are no waterlines within the site. Mobile generators are used on an as-needed basis for the mining equipment which will be removed post-mining. The site is currently gated and partially fenced to limit entry. As no hazardous conditions will remain at the end of reclamation, additional fencing is not proposed per landowner request.

#### 3.3 AREA PREPARATION

Post-mining, the disturbed portions of the site interior will be re-graded and scarified to promote natural revegetation, as shown in Figure 5.

#### 3.4 SLOPE STABILIZATION

Mining incorporates 3:1 (H:V) slopes or flatter to result in stability for the area. No additional physical stabilization will be necessary after mining.

#### 3.5 SOIL CONSERVATION

Natural revegetation on previously disturbed areas in the vicinity has been previously successful. Natural revegetation of the disturbed areas is therefore reasonably expected to be successful without soil amendments. Due to the mountainous and rocky terrain, very little topsoil occurs.

#### 3.6 REVEGETATION

To promote natural revegetation, scarification will be conducted within the disturbed areas to support the open space land use of the site. Since these areas are not proposed to support grazing, fish or wildlife habitat, forestry or recreation post-mining land uses, proposed measures to encourage fish and wildlife habitat are not required to be described further in accordance with A.R.S. §27-1271 (B)(9d).

# 3.7 THE PROPOSED RECLAMATION MEASURES TO ACHIEVE POST MINE LAND USE AND PUBLIC SAFETY

- A. What measures will restrict public access to pits or other hazardous surface features? As the mined slopes are proposed at 3:1 (H:V) or flatter, no hazardous surface features are anticipated to remain after reclamation. Additional fencing is not proposed per landowner request. In addition, all scrap metal, wood, trash and other debris that pose a threat to public safety or create a public nuisance will be removed.
- B. What measures will be taken to address erosion control and stability?

  Site-specific grading will be conducted, as necessary, to address erosion. No permanent piles of mined material or overburden will remain. Slope stability at a 3:1 (H:V) slope or flatter is incorporated into the mining plan.
- C. What measures will be taken to address revegetation, conservation, and the care and monitoring of revegetated areas?
  - Scarification would promote natural revegetation which occurs in the region. As revegetation is not proposed, monitoring of revegetated areas is not required.

#### 3.8 TIMELINE AND PHASING OF RECLAMATION

Mining will begin immediately upon approval, anticipated in late 2024. In accordance with A.R.S. § 27-926, reclamation & monitoring will be completed within one year of cessation of mining. Proposed tentative schedule includes:

- Mining operations are anticipated to continue for 20 years until 2044.
- Reclamation on the processing and related areas will commence immediately upon completion of mining operations and is estimated to be completed within one year (estimated 2050).
- Reclamation includes equipment removal, processing area cleanup, grading, scarification to promote natural revegetation, and annual monitoring (trash removal, natural revegetation monitoring).
- Reclamation will be deemed complete once the reclaimed surfaces have been regraded to a safe and stable condition, scarification has been conducted, access restrictions measures are in place, and ASMI verifies that the owner or operator has fulfilled the requirements of the approved reclamation plan.

#### 3.9 RECLAMATION COSTS - FINANCIAL ASSURANCE

All reclamation costs will be wholly born by the applicant. Financial surety will be obtained by bonding.

#### 4.0 MINE CLOSURE

#### 4.1 MINING AREAS

Reclamation of the mining area will commence immediately upon closure of mining operations. There will be no substantial period between operation and reclamation.

#### 4.2 PROCESSING AND OTHER AREAS

Stockpile areas will be removed by the end of mine life. Reclamation will commence immediately upon completion of mining operations. There will be no substantial period between operation and reclamation.

#### 4.3 PERSONNEL

Personnel employed at this site will be re-assigned to other job sites if possible or assigned to assist with the reclamation process and then re-assigned.

#### 4.4 MONITORING

The closure of operations at this site will be monitored in accordance with the approved conditions of this plan in accordance with the Arizona State Mine Inspector's Office. During reclamation, monitoring will occur annually to remove trash and conduct a general inspection.

## APPENDIX 1

## RECLAMATION COST ESTIMATE

#### **Reclamation Cost Estimate**

#### **Reclamation Cost Estimate Methodology**

Unit costs developed for this Reclamation & Closure Plan are based on ADOT-approved estimating sources. Equipment unit costs are based on Equipment Watch Rental Rate Blue Book, Davis Bacon published labor rates, along with estimated productivity for material movement based primarily on the Caterpillar Handbook (2022). ADOT uses this format and protocol for ADOT contractors.

Material volumes and surface areas have been calculated using the topographic base maps provided and plan projection of outlined areas. The pit contours are all 3:1 or flatter. Final reclamation will consist of scarifying all compacted traffic areas other than the access roads which will remain.

Administrative costs were based on industry-standardized contingency, professional fees to annually inspect and report, as well as indirect costs, contractor profit, and contract administration costs.

#### **Reclamation Cost Estimate Summary**

Estimated costs developed for this Reclamation Plan are summarized below. Detailed breakdown for each reclamation activity follows.

Reclamation Activity	Units	Cost per Unit	Costs (\$)
Direct Costs			
Scarification	70 acres	76.09	5,326.30
Trash Disposal	1	570.04	570.04
Subtotal			5,896.34
Administrative Costs			
Administrative Contingency		10%	589.63
Inspect & Report	1 year	3,000	3,000.00
Indirect Costs		2%	117.93
Contractor Profit		10%	589.63
Contract Administration		10%	589.63
Subtotal			4,886.82
Total			10,783.16

Task 1 - Equipment Watch - Rate for D5 Dozer

DATE: 8/31/2024

QUANTITY 70 acres

TASK: Ripping/scarifying compacted surfaces - 70 acres at 4 acres per hour

3 days (17.5 hours)

TOTAL

UNITS: acres

D5 dozer 160-189 hp \$1,035/day \$3,105.00
Ripper \$39/day \$117.00
Estimated operating costs \$61.26/hr \$1,072.05
Total O & O cost \$4294.05

Transport To & From jobsite

- Yuma local \$900 ea. way \$1,800

Labor from Davis Bacon rates - Yuma County ADOT job

 18
 hrs
 Base rate
 \$17.26 per hour
 \$310.68

 18
 hrs
 Fringes
 \$2.65 per hour
 \$20.65

0 hrs No O/T expected

Duration 3 days
Task Total \$6,425.38

Price per acre for total 70 acres \$91.80



www.equipmentwatch.com

All prices shown in US dollars (\$)

Rental Rate Blue Book®

June 13, 2024

Caterpillar D5 Standard Crawler Dozers

Size Class: 160 - 188 hp Weight N/A

Configuration for D5

Dozer Type Operator Protoction VPAT IROPS

Horsepower Power Mode 170.0 hp Diesel

Blue Book Rates

\*\* PAWA Rate is equal to the monthly ownership cost divided by 176 plus the hoully estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weakly	Dality	Hourly	Hourly	Hourty
Published Rates	USD \$14,795.00	USO \$4,145,00	USD \$1,035.00	USD \$155.00	USD \$61.28	USD \$145.32
Adjustments						
Region ( 100%)		(*)	¥:	120		
Model Year (2024; 100%)			*1	545		
Adjusted Hourly Ownership Cost (100%)	•	200	-	(4.)		
Hourly Operating Cost (100%)						
Total:	USD \$14,795.00	USD \$4,145.00	USD \$1,036.00	USD \$155.00	USD \$61.26	USD \$145,32

Non-Active Use Rates	Hourly
Standby Riste	USD \$44.55
kiling Rate	USD \$108.28

#### Rate Element Allocation

Element	Регоситере	Value
Depraciation (ownerstép)	30%	USD \$4,438.50/mo
Overhaul (ownership)	4796	USD \$5,953.65/mg
CFC (ownership)	13%	USD \$1,923.35/mo
Indirect (ownership)	10%	USD \$1,479.50/mo
Fuel (operating) @ USD 4.03	39.55%	USD \$24.23/hr

Revised Date: 2nd quarter 2024

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book® Print. Visit the Cost Recovery Product Guide on our Help page for more information.



www.equipmentwatch.com

All prices shown in US dollars (\$)

#### Rental Rate Blue Book®

June 13, 2024

Miscellaneous MSR-84H Crawler Tractor Multi-Shank Rippers

Size Class: To 260 hp Weight: 1044 fbs



Configuration for MSR-84H

Horsepower 84.0 Ripper Type Radi

84.0 hp Radial Number Of Shanks Power Mode 3.0 Hydraulic

Blue Book Rates

\*\* FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Waskly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$560.00	USD \$155.00	USD \$39.00	USD \$8.00	USD \$2.42	USD \$5.60
Adjustments						
Region ( 100%)	* 5	5.*S		₹.		
Model Year (2024: 100%)	× .	100		*		
Adjusted Hourly Ownership Cost (100%)	*	592	ž.	*		
Hourly Operating Cost (100%)						
Total:	USD \$560.00	USD \$155.00	USD \$39.00	USD \$6.00	USD \$2,42	USO \$5.60

Non-Active Use Rates	Hourly
Standby Rate	USD \$2.32
Idling Rate	USD \$3.18

#### Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	51%	USD \$285.60/mo
Overhaul (ownership)	27%	USD \$151.20/mo
CFC (ownership)	10%	USO \$56,00/mo
Indirect (ownership)	12%	USD \$67,20/ma

Fuel cost data is not available for these rates.

#### Revised Date: 2nd quarter 2024

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book\* Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for Bronson Barson (bbarson@fisherind.com)

Task 2 - Equipment Watch - Rate for Truck with Trailer

DATE: 8/31/2024 TASK: Miscellaneous Trash Removal – 1 pickup truck with trai UNITS: 1 load QUANTITY: 1 load 0.5 days (4 hours) TOTAL						
Truck Estimated operating costs Trailer Estimated operating costs Total O & O cost		\$14/hour \$25.83/hr \$34/hour \$7.52/hour	\$196 \$103.32 \$136 \$30.08 \$465.40			
Labor from Davis Bacon rates - Yuma County ADOT job						
	Base rate		\$ 69.04			
4 hrs F	ringes	\$2.65 per hour	\$ 10.60			
0 hrs N	No O/T expected					
Trash disposal fe	\$25					
Duration Task Total	0.5 days \$ 570.04					
Price per acre for total 1 load			\$570.04			

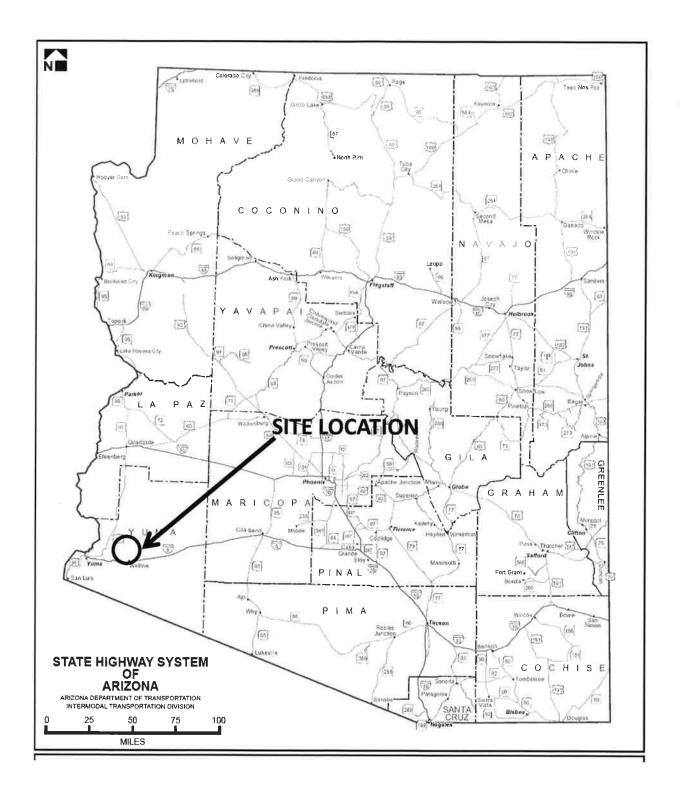


Figure 1. State Map.

Dome Valley Mining, LLC Material Source.

Yuma County, AZ.

CTATE LINE INSPECTOR

SEP 05 2024

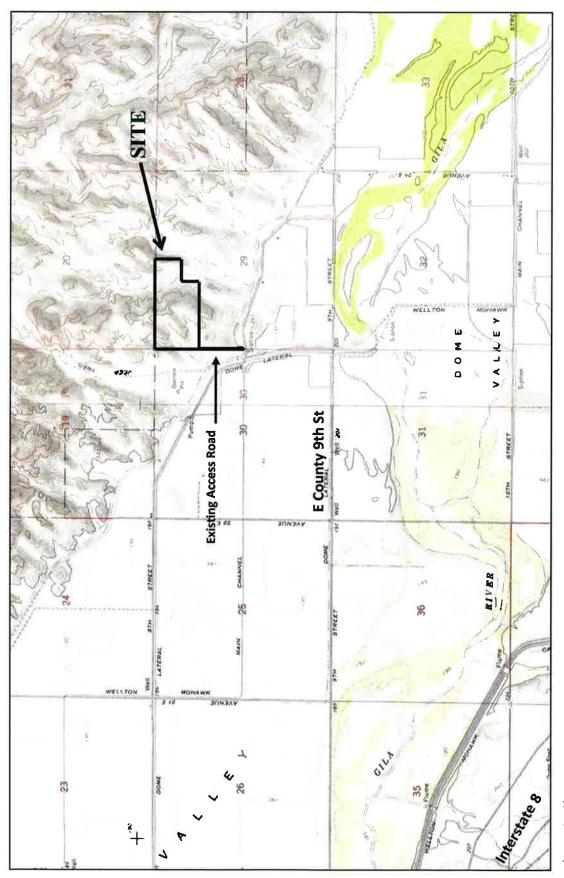


Figure 2. Site Map. Dome Valley Mining, LLC Material Source. Yuma County, AZ.

1 Mile Base Maps: USGS 7.5-Minute Quad Maps: Wellton, AZ and Ligurta, AZ.



SEP 05 2024

