

STATE MINE INSPECTOR

AUG 31 2023



Himes Consulting LLC

August 30, 2023
Reference No. 22-30

Arizona State Mine Inspector
Amanda Lothner, Reclamation Specialist
1700 W. Washington, Suite 403
Phoenix, AZ 85007-2805

Re: Reclamation Plan for Desert Construction, Inc. Hackberry Material Source

Dear Ms. Lothner:

Enclosed is one original and three copies of the Reclamation and Closure Plan for Desert Construction, Inc.'s Hackberry Material Source (aggregate mine) northeast of Kingman near Hackberry in Mohave County, AZ. Also enclosed is the \$3,800 application fee. Please feel free to contact me in regards to any questions.

Sincerely,

A handwritten signature in cursive script that reads "Jill A. Himes".

HIMES CONSULTING, LLC
Jill A. Himes
Biologist

Cc: Tom Fulton, Desert Construction, Inc.

RECLAMATION AND CLOSURE PLAN

DESERT CONSTRUCTION, INC.

HACKBERRY 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**

AUGUST 2023

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1.0 ADMINISTRATIVE INFORMATION

Company: Desert Construction, Inc.

Contact: Tom Fulton
Desert Construction, Inc.
4490 E Hwy 66
Kingman, AZ 86401
(Office) 928 757-2213
(Cell) 928 715-1247
tomfulton@desertconstruction.net

Applicant: Tom Fulton
Desert Construction, Inc.
4490 E Hwy 66
Kingman, AZ 86401
(Office) 928 757-2213
(Cell) 928 715-1247
tomfulton@desertconstruction.net

Permit
Technical
Consultant: Jill Himes, Himes Consulting LLC
3301 West Genoa Way
Chandler, AZ 85226
(480) 899-5708
(602) 499-9253 (cell)
jillhimes@cox.net

Landowner: Tom and Linda Short, Trustees
1424 N Honeymoon Canyon Road
Kingman, AZ 86409-4463

Parcel No: 313-82-001

Operator: Desert Construction, Inc.

2.0 INTRODUCTION

2.1 PURPOSE AND SCOPE

Desert Construction, Inc. proposes to continue to conduct aggregate mining and processing northeast of Kingman near Hackberry, Mohave County, Arizona. The Hackberry Material Source is located within a portion of Section 11 in Township 23 North, Range 14 West, Gila and Salt River Baseline & Meridian.

The purpose of this Mine Reclamation and Closure Plan (MRCP) is to present the details of rehabilitation of the Hackberry Material Source in Mohave 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

Desert Construction, Inc. 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.



8-8-23

Signature

Date

OPERATIONS MANAGER

Title

2.3 RECLAMATION APPROACH

Desert Construction, Inc. 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

Desert Construction, Inc. is conducting aggregate mining and processing operations for commercial use at the Hackberry Material Source. Approximately 32.7 acres are currently disturbed within the mining boundary of approximately 153.7 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 Hackberry 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. Operations include excavation, screening, crushing, stockpiling, loading, and hauling. An existing access road occurs to the west to State Route 66. Land use is currently mining, open space, and grazing. Desert Construction, Inc. has estimated the removal of up to 1.52 million cubic yards over a period of 15 years.

The project vicinity lies within the Great Basin conifer woodland vegetation community as described by Brown (1994). Vegetation is characterized by mesquite (*Prosopis juliflora*), with catclaw acacia (*Acacia greggii*), desert broom (*Baccharis sarothroides*), white bursage (*Ambrosia dumosa*), rubber rabbitbrush (*Chrysothamnus nauseosus*), desert hackberry (*Celtis pallida*), and desert willow (*Chilopsis linearis*). An understory of grasses occurs along with some common weeds including silverleaf nightshade (*Solanum elaeagnifolium*), Russian thistle (*Salsola kali*), and cocklebur (*Xanthium strumarium*). Cacti and succulents observed consist of buckhorn cholla (*Cylindropuntia acanthocarpa*), barrel cactus (*Ferocactus wislizenii*), and yucca (*Yucca* sp.). The site is located with Arizona Game and Fish Department (AGFD)'s Game Management Unit 15A. Species in this unit include antelope, elk, bighorn sheep, mountain lion, mule deer, dove, and quail. Wildlife and/or wildlife sign observed include mourning dove (*Zenaidura macroura*), common raven (*Corvus corax*), red-tailed hawk (*Buteo jamaicensis*), and mule deer (*Odocoileus hemionus*).

Table 1
Existing Surface Disturbance

Feature	Acres
Access Road	1.7
Interior Roads	3.6
Mining Area	17.2
Processing Area	9.0
Staging Area	1.5
Undisturbed	120.7
Total	153.7

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 grazing.

2.6 DESCRIPTION OF THE AGGREGATE MINING UNIT AND PROPOSED SURFACE DISTURBANCES

Approximately 32.7 acres are currently disturbed from existing mining activities. Proposed surface disturbances include aggregate mining to a final disturbance of approximately 66.2 acres. The mining area in the southwestern portion of the site will extend to the southern corner. The mining area on the northeast side of the site will extend out to the north and eastern boundary over the life of the mine to the east, as shown in Figure 4, with 3:1 (H:V) slopes incorporated into their mining plan. The processing area, located on the northwest side will remain the same size and currently includes a crusher, screen, stockpiles, ponds, and an office trailer. Proposed surface disturbances are shown in Table 2 below.

Table 2
Proposed Final Surface Disturbance

Feature	Acres
Access Road	1.7
Interior Roads	3.6
Mining Area 1	52.6
Mining Area 2	13.6
Processing Area	9.0
Staging Area	1.5
Disturbed Area	2.0
Undisturbed Area	69.7
Total	153.7

2.7 EXISTING AND PROPOSED FINAL TOPOGRAPHY

Existing topography and survey information is provided in Figure 3 attached. Existing elevations range from approximately 3,480 feet above mean sea level (msl) in the northwest corner to a peak of 3,581 ft above msl in the northeast corner of the site. Proposed final elevations are shown in Figure 4 attached. Proposed final topography of the slopes will have an overall 3:1 (H:V) slope to provide a safe slope at the end of mine life. Bottom elevations of each mining area will match existing ground elevations in the center of the site.

2.8 A NARRATIVE DESCRIPTION OF ROADS

Existing roadways include the existing access road to the site from Route 66 and several interior dirt access roads. These access roads are not anticipated to change over the life of the mine. Existing access roads are shown in Figures 3 and 4.

2.9 ACREAGE AFFECTED BY EACH TYPE OF SURFACE DISTURBANCE

Area Descriptions:

2.9.1 Mining Area

Aggregate mining at this site would impact approximately 66.2 acres. Final build-out is shown in Figure 4. The mining area in the southwestern portion of the site will extend to the southern corner. The mining area on the northeast side of the site will extend out to the north and eastern boundary over the life of the mine to the east, as shown in Figure 4, with 3:1 (H:V) slopes incorporated into their mining plan. As this site is mountainous, removal of material will not result in a pit but will match ground surface levels on the property boundary with one side slope planned at 3:1 (H:V).

2.9.2 Processing Area

The processing area, located on 9.0 acres in the northwest portion of the site, will remain the same size and currently includes a crusher, screen, stockpiles, conveyors, ponds, and an office trailer.

2.9.2 Staging Area

The staging area occurs to the southeast of the processing area and includes equipment and material storage. This area is not proposed to change in size over the life of the mine.

2.9.3 Access Roads

The existing access road to the site from Route 66 is 1.7 acres. Several interior dirt access roads are 3.6 acres within the site. These access roads are not anticipated to change over the life of the mine. Existing access roads are shown in Figures 3 and 4.

3.0 RECLAMATION

3.1 EQUIPMENT AND STRUCTURE REMOVAL

All proposed equipment on this site is mobile and can be re-located at will throughout the mining process. Mobile equipment will be removed from the site prior to closure for use at other sites. The mobile office trailer will be demolished and removed.

3.2 ROADS, POWER LINES, WATERLINES AND FENCES

The main access road will be retained for use. Interior dirt roads will be scarified for natural revegetation, as shown in Figure 5. There are no powerlines or waterlines that occur within the site. Mobile generators will be used on an as-needed basis for the mining equipment which will be removed post-mining. The site is currently not fenced. As no hazardous conditions will remain at the end of reclamation, fencing is not proposed per landowner request.

3.3 AREA PREPARATION

Post-mining, disturbed areas 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.

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), no hazardous surface features are anticipated to remain after reclamation. 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 from the project site.
- B. What measures will be taken to address erosion control and stability?
Site-specific grading shall 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 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

In accordance with A.R.S. § 27-926, reclamation & monitoring will be completed within 2 years of cessation of mining. Proposed tentative schedule includes:

- Mining operations are anticipated to continue for 15 years until 2038.
- Reclamation on the processing and related areas will commence immediately upon completion of mining operations and is estimated to be completed within 2 years (estimated 2040).
- Year 1 includes equipment removal, processing area cleanup, grading, scarification to promote natural revegetation, and annual monitoring (trash removal, natural revegetation monitoring).
- Year 2 includes annual 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

HACKBERRY MATERIALSOURCE
Reclamation Construction Estimate

8/30/2023

Hackberry Material Source - portions of Section 11, T 23 N, R 14W, G&SRM, Mohave County, Arizona

Excavation areas are approximately 82.3 acres which will be graded and scarified.

There are no concrete pads or infrastructure at the site bu there is one mobile office to be removed.

Unit Price estimates are provided by TLC Excavation, Inc.

Proposed Reclamation Cost Estimation Summary - WorkSheet

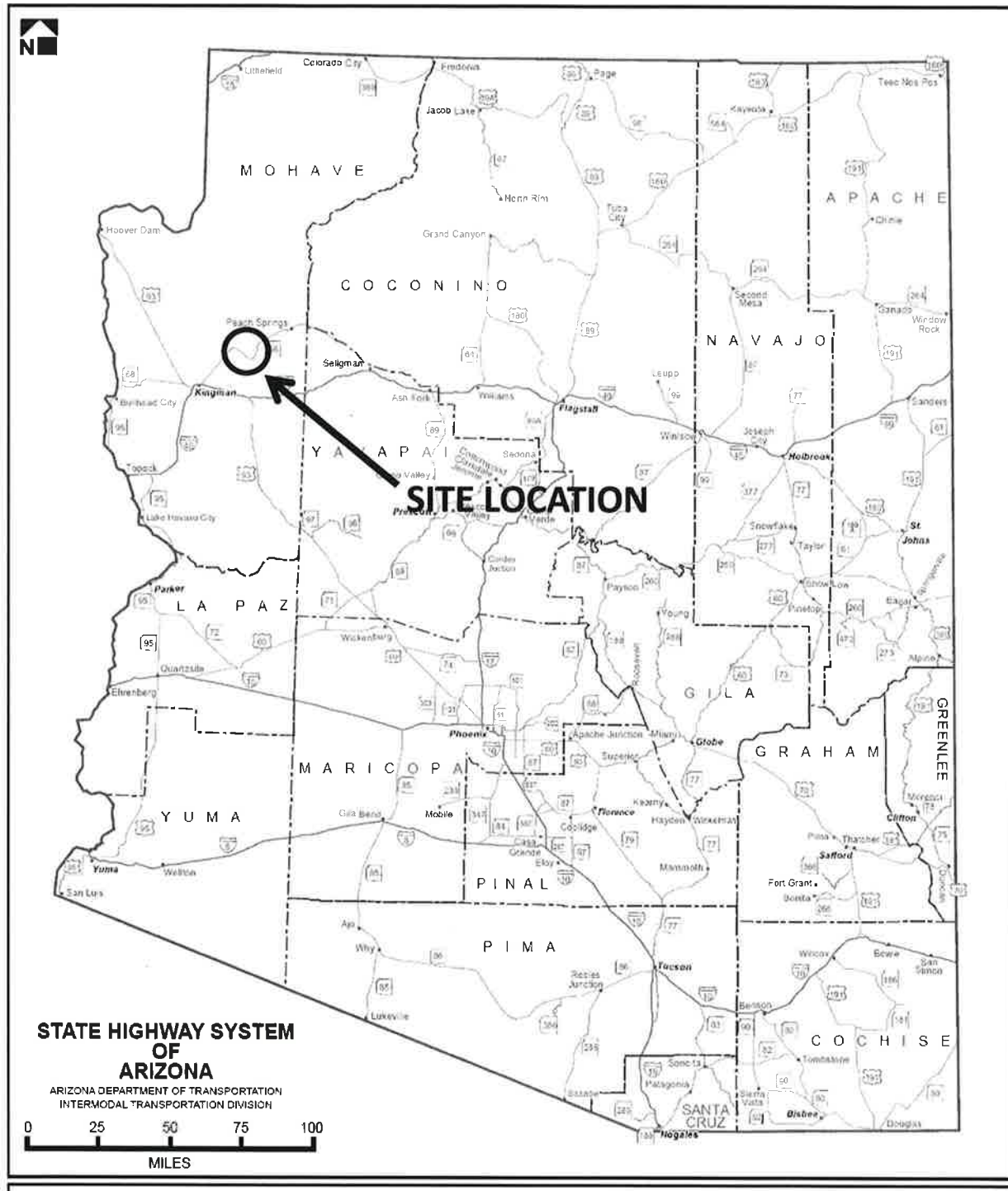
Reclamation Item	Units	Description	Suggested Cost	Number of Units	Reclamation Cost	Reference
Processing and Stockpile Area						
	Acre	Re-Grading & Leveling	\$ 500.00	82.3	\$ 41,150	TLC Excavation Quote
	Acre	Ripping	\$ 607	82.3	\$ 50,000	TLC Excavation Quote
	Acre	Revegetation Cost (Hydro-seed)			\$ -	
	Each	Containerized Trees and Shrubs			\$ -	
Roads (Access)						
(Roads with Side Slope < 30%)	Linear Ft.	Re-Grading and Topsoiling Costs	\$ 500.00	1.7	\$ 900	
(Roads with Side Slope >30%)	Linear Ft.	Re-Grading and Topsoiling Costs			\$ -	
	Acre	Regrading - Ripping			\$ -	
	Acre	Revegetation Cost (Hydro-seed)			\$ -	
Structures						
(Break-up and bury Slab)	Sq. Ft.	Demolition & Removal - Metal Building	\$ 350.00	3.4	\$ 1,200	TLC Excavation Quote
(Break-up and bury Slab)	Sq. Ft.	Demolition & Removal - Masonry Block Building			\$ -	
(Break-up and bury Slab)	Sq. Ft.	Demolition & Removal - Concrete Building			\$ -	
	Linear Mile	Powerline Removal (Single Pole Utility)			\$ -	
	each	Transformer Removal			\$ -	
	Linear Ft.	Demolition - Chain Link Fencing			\$ -	
	Linear Ft.	Demolition - Chain Link Fencing			\$ -	
	Linear Ft.	Removal - 15" Culvert			\$ -	
	Linear Ft.	Removal - 36" Culvert			\$ -	
	Each	Processing Equipment Removal	10,000	1.0	\$ 10,000	P.E. Estimate
Construction						
	Linear Ft.	Construction - Fencing			\$ -	
	Sq. Yard	Install Berm		0.0	\$ -	
Material Haulage for Backfill						
	Cu. Yard	Truck and Loader - 2000Ft. One Way			\$ -	
	Cu. Yard	Dozer and Scraper - 1000Ft. One Way			\$ -	
Care and Maintenance						
	Each	Processing Area Cleanup	\$ 2,000.00	1.0	\$ 2,000	TLC Excavation Quote
	Annual	Site Monitor and Reporting	\$ 750	1.0	\$ 750	P.E. Estimate

Estimated Reclamation Operating and Material \$ 106,000

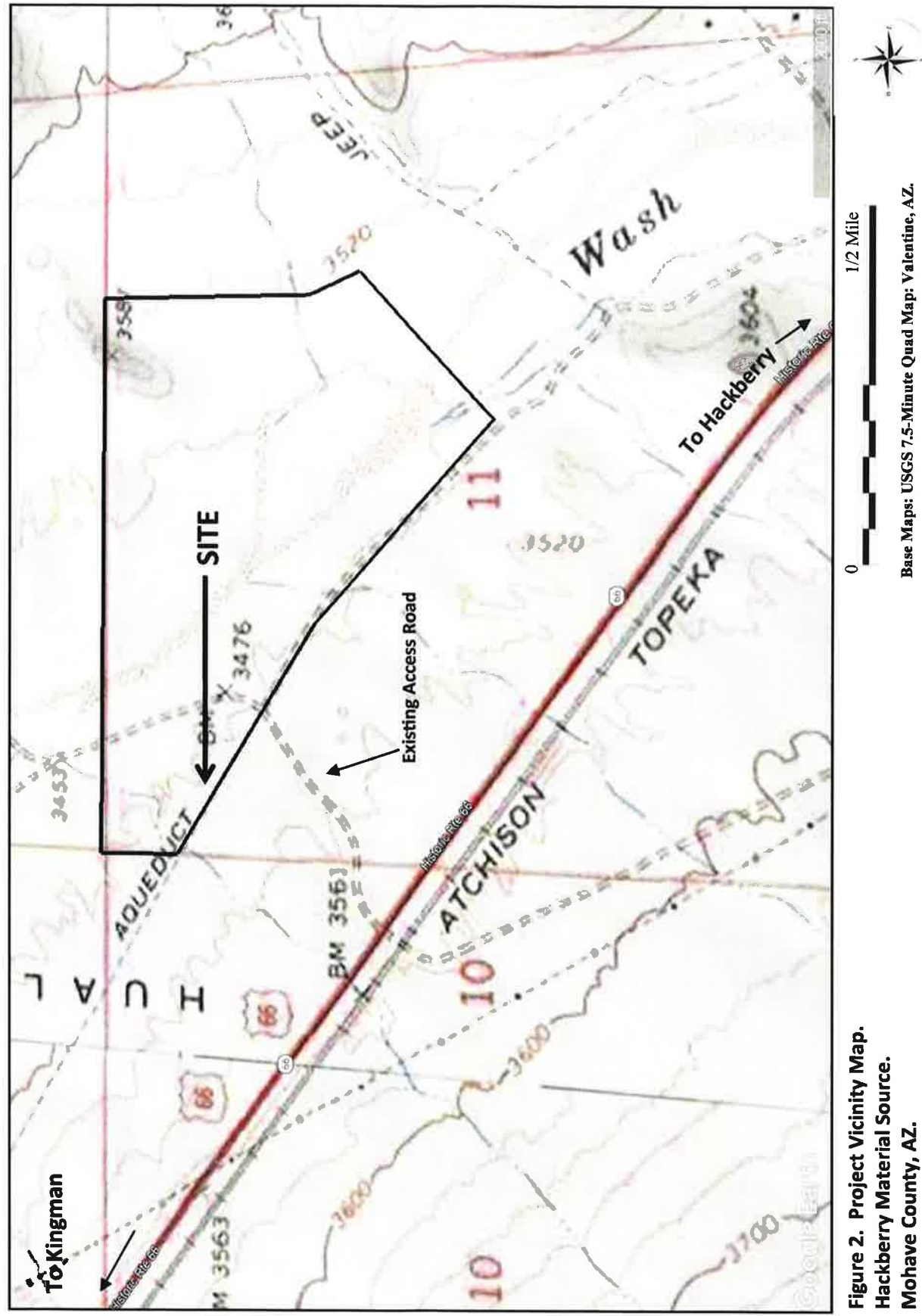
Administrative Costs			
% of O&M Cost	Contingency	10%	\$ 10,600
% of O&M Cost	General Mobilization / De-Mobilization	4%	\$ 4,240
% of O&M Cost	Indirect costs	2%	\$ 2,120
% of O&M Cost	Contractor Profit	10%	\$ 10,600
% of O&M Cost	Contract Administration	10%	\$ 10,600

Total Estimated Financial Assurance \$ 144,160

PREPARED BY: Raymond W. Stadler, P.E.



**Figure 1. State Map.
 Hackberry Material Source.
 Mohave County, AZ.**

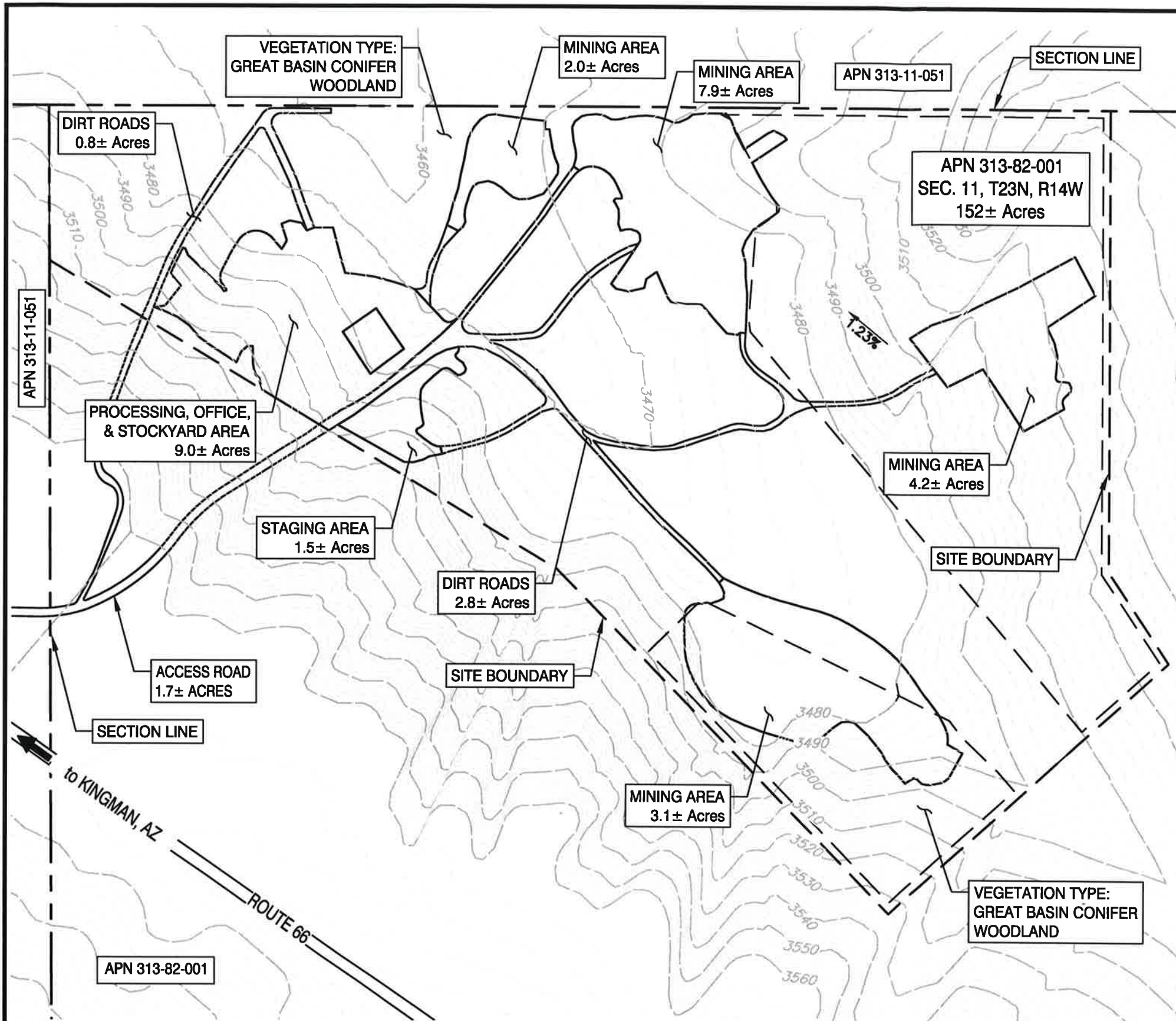


**Figure 2. Project Vicinity Map.
 Hackberry Material Source.
 Mohave County, AZ.**

HACKBERRY MATERIAL SOURCE

MATERIAL SOURCE & PLANT SITE EXISTING CONDITIONS

A PORTION OF SECTION 11, T-23N., R-14W,
of the GILA & SALT RIVER BASE & MERIDIAN
MOHAVE COUNTY, ARIZONA



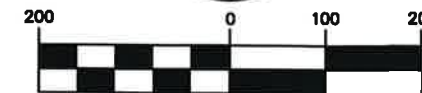
LEGEND

- SECTION LINE
- ACCESS ROAD
- EXISTING 10' CONTOURS
- EXISTING 2' CONTOURS

MATERIAL & PLANT AREAS

EXISTING CONDITIONS

ACCESS ROAD	- 1.7± ACRES
LIMIT OF MINING AREA	
MINING AREA	- 17.2± ACRES
PROCESSING AREA	- 9.0± ACRES
STAGING AREA	- 1.5± ACRES
DIRT ROADS	- 3.6± ACRES
UNDISTURBED AREA	- 120.7± ACRES
	- 152.0± ACRES
TOTAL	- 153.7± ACRES



SCALE: 1" = 400'

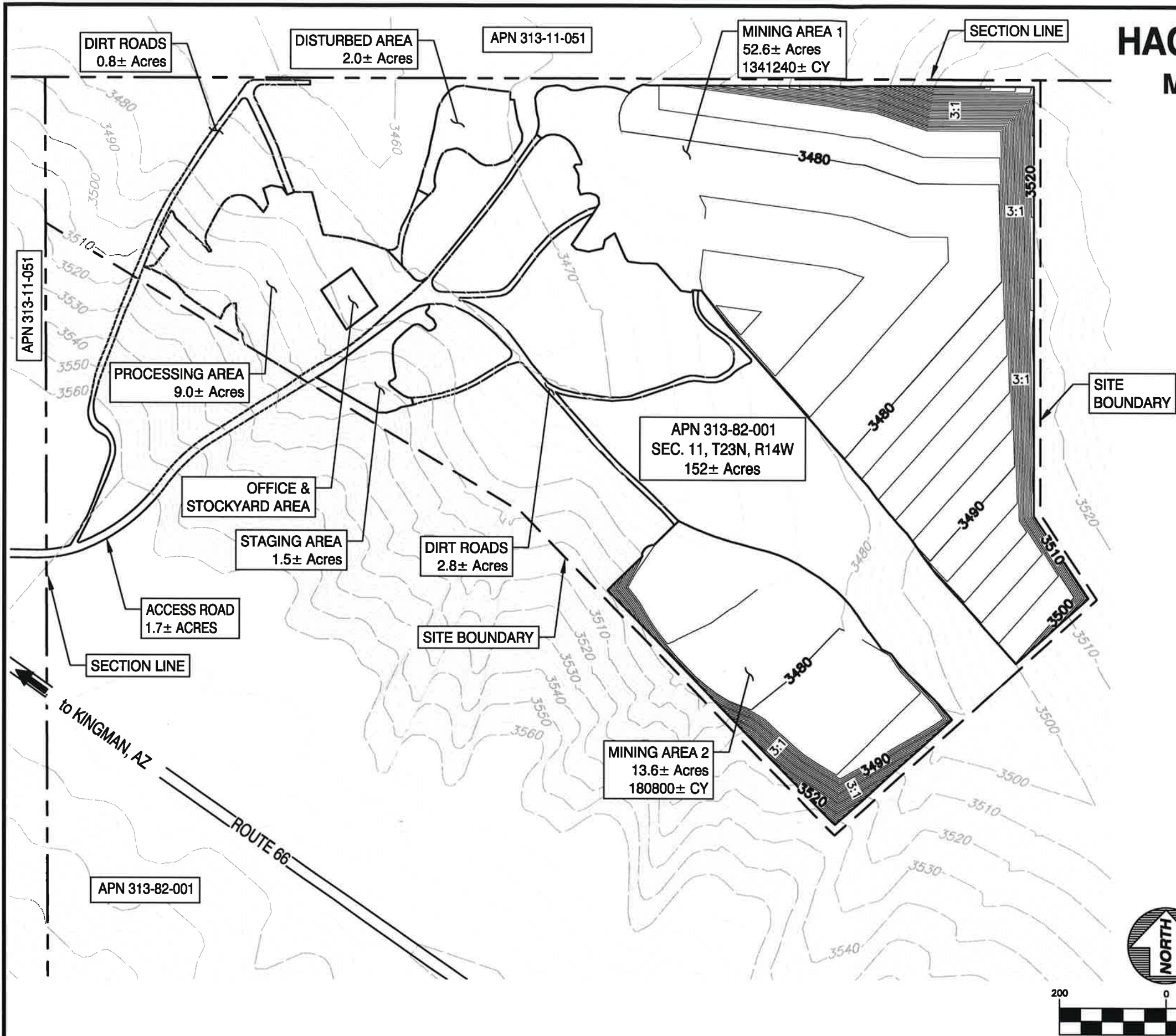
RAYMOND W. STADLER P.E., R.L.S.
2504 AIRFIELD COURT
KINGMAN, ARIZONA 86401
PHONE: (928) 753-8927 * FAX (928) 753-4050

FIGURE 3

HACKBERRY MATERIAL SOURCE

MATERIAL SOURCE & PLANT SITE PROPOSED CONDITIONS

A PORTION OF SECTION 11, T-23N., R-14W,
of the GILA & SALT RIVER BASE & MERIDIAN
MOHAVE COUNTY, ARIZONA



LEGEND

	PROPERTY LINE
	EXISTING 10' CONTOURS
	EXISTING 2' CONTOURS
	PROPOSED 10' CONTOURS
	PROPOSED 2' CONTOURS

MATERIAL & PROCESSING AREAS

ACCESS ROAD	- 1.7± ACRES
PROCESSING AREA	- 9.0± ACRES
STAGING AREA	- 1.5± ACRES
MINING AREA 1	- 52.6± ACRES
MINING AREA 2	- 13.6± ACRES
DIRT ROADS	- 3.6± ACRES
DISTURBED AREA	- 2.0± ACRES
UNDISTURBED AREA	- 69.7± ACRES
TOTAL	- 153.7± ACRES

SOURCE MATERIAL VOLUME

MINING AREA	- 66.2± ACRES
VOLUME MINING AREA 1	- 1,341,240± C.Y.
VOLUME MINING AREA 2	- 180,800± C.Y.
TOTAL AREA	- 66.2± ACRES
TOTAL VOLUME	- 1,522,040± C.Y.

FIGURE 4






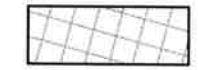
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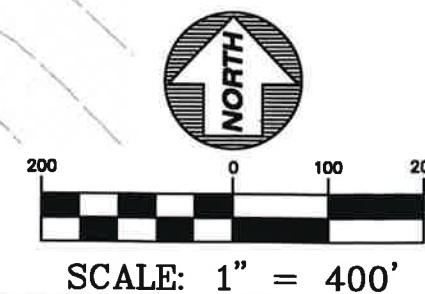
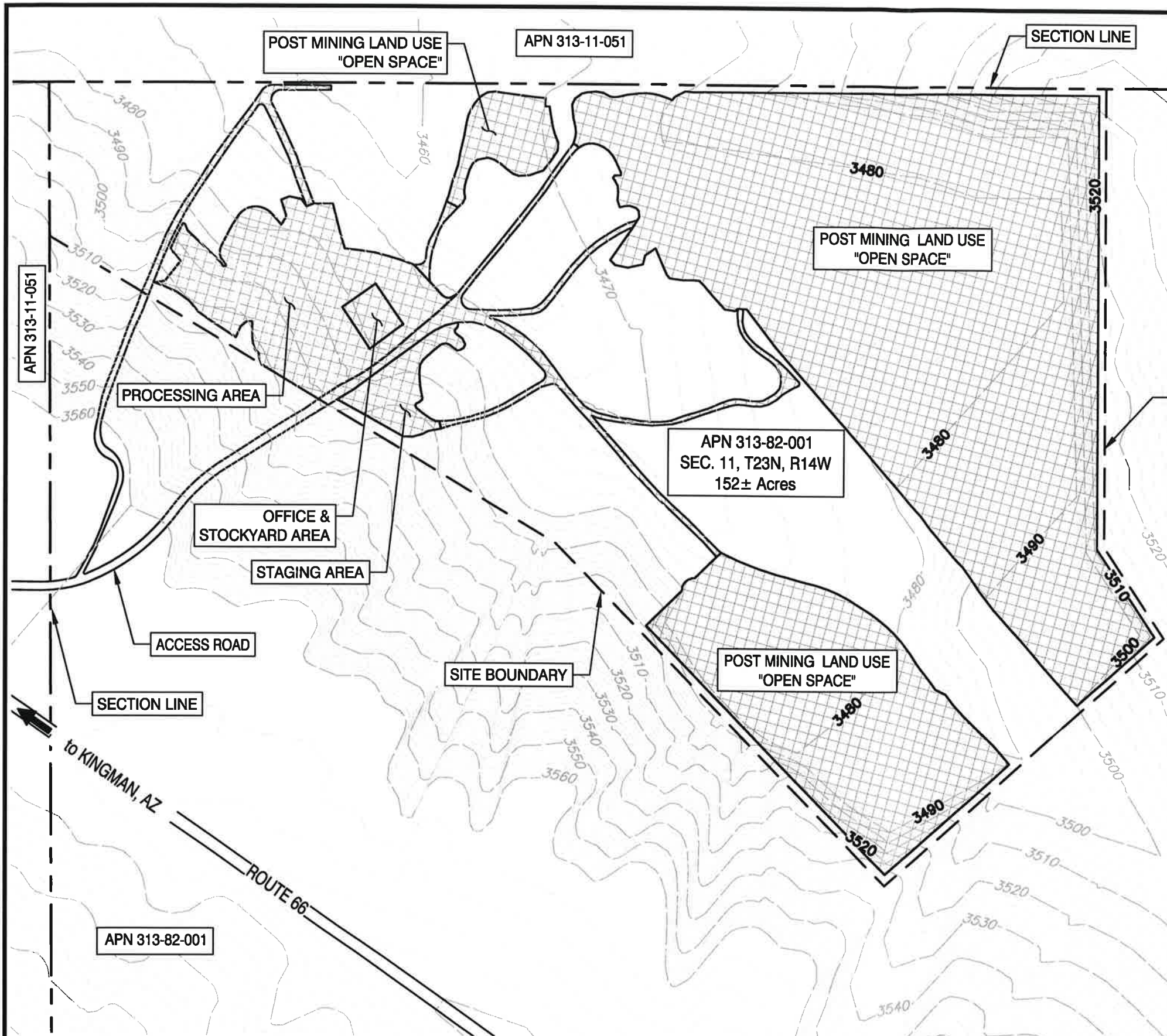
HACKBERRY MATERIAL SOURCE

MATERIAL SOURCE & PLANT SITE RECLAMATION & POST MINING LAND USE MAP "OPEN SPACE"

A PORTION OF SECTION 11, T-23N., R-14W,
of the GILA & SALT RIVER BASE & MERIDIAN
MOHAVE COUNTY, ARIZONA

LEGEND

-  PROPERTY LINE
-  EXISTING 10' CONTOURS
-  EXISTING 2' CONTOURS
-  PROPOSED 10' CONTOURS
-  PROPOSED 2' CONTOURS
-  FINAL GRADING AREA & SCARIFYING



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FIGURE 5