

February 28, 2017

Mr. Fernando Martinez, Director
Energy, Minerals and Natural Resources Department
Mining and Minerals Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

RE: Submittal of Subpart 3 Minimal Impact New Mining Operations Permit Application for American Magnesium Proposed Minimal Impact Dolomite Mine near Deming, New Mexico.


Director Martinez:

American Magnesium LLC. (AmMg) is pleased to submit to the Energy, Minerals and Natural Resources Department (EMNRD) Mining and Minerals Division (MMD) a new Subpart 3 Minimal Impact New Mining Operations Permit for mining of dolomite located near Deming, New Mexico. Enclosed you will find six (6) copies of the MMD application and six (6) copies of the Plan of Operations (PoO). The PoO will be submitted to the Bureau of Land Management, Las Cruces Field office on March 1, 2017.

AmMg and its Permitting Team have reviewed the requirements for minimal impact new mining operations and have determined that this project meets all the requirements to qualify for a new mine minimal impact permit. AmMg is requesting a new mine permit under the newly revised Mining Act Reclamation Program (MARF) regulations allowing for increased permit acreage for existing and new mining operations involving any of five specified minerals (Dolomite, Garnet, Humate, Perlite and Zeolite). This rule allows for the disturbance of up to 40 acres under minimal impact. This rule change is applicable to all New Mexico counties with the exception of Bernalillo, Dona Ana and Santa Fe. AmMg proposed mining operations will be located in Luna County.

AmMg looks forward to working with the MMD to obtain the required State permits to operate a new dolomite mine near Deming, New Mexico. Should you have any questions, please contact AmMg's permitting lead, Vickie Maranville, CHMM of Amec Foster Wheeler Environment and Infrastructure, Inc. at 505/821-1801 or by email at Vickie.maranville@amecfw.com.

Kind Regards,



David Tognoni, PE
Managing Partner
American Magnesium

REV. DATE: 5/18/09



FOR MMD USE ONLY:

PROJECT NAME: AMERICAN MAGNESIUM
DOLomite MINE

PERMIT #: LU035MN

DATE RECEIVED: 022817

DATE APPROVED: PENDING

LEAD INSPECTOR: J. HOLLEN

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT**

Director

**Mining and Minerals Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505
Telephone: (505) 476-3400**

**SUBPART 3
MINIMAL IMPACT NEW MINING OPERATIONS
PERMIT APPLICATION**

The following information is required under the New Mexico Mining Act (Sections 69-36-1 through 69-36-20, NMSA 1978) and associated rules. The Mining and Minerals Division of the Energy, Minerals and Natural Resources Department is the administrative agency through which this application is to be processed. See §304, Minimal Impact New Mining Operations, of the New Mexico Mining Act Rules, for all regulations associated with Minimal Impact Mining operations.

Permit Application Requirements: (§304.A-C and §601)

- A minimal impact new mining operation will not be considered a minimal impact mining operation if it exceeds **10 acres of disturbed land**, except that pre-existing roads and reclaimed areas within the permit area will not be counted. Reclaimed, for this purpose means all financial assurance has been released, except the amount held to reestablish vegetation pursuant to §1204.
- Permit applications shall be submitted in ample time to have the permit issued before mining operations begin, and operations shall not begin until after the permit is issued.
- Six copies of the completed application need to be submitted.
- Confidential information needs to be **clearly** indicated and submitted separately.

- Check the "YES" or "NO" box for each of the following characteristics as related to the proposed minimal impact mining operation:

YES **NO**

- Located in or having a direct surface impact on wetlands, springs, perennial or intermittent streams, lakes, rivers, reservoirs or riparian areas.
- Located in designated critical habitat areas as determined in accordance with the federal Endangered Species Act of 1973 or in areas determined by the Department of Game and Fish likely to result in an adverse impact on an endangered species designated in accordance with the Wildlife Conservation Act, Sections 17-2-37 through 17-2-46 NMSA 1978 or by the State Forestry Division for the Endangered Plants Act, section 75-6-1 NMSA 1978.
- Located in an area designated as Federal Wilderness Area, Wilderness Study Area, Area of Critical Environmental Concern, or an area within the National Wild and Scenic River System.
- Located in a known cemetery or other burial ground.
- Located in an area with cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties.
- Having or expected to have a direct impact on ground water that has a total dissolved solids concentration of less than 10,000 mg/L, except exploratory drilling intersecting ground water may be performed as a minimal impact operation.
- Expected to use or using cyanide, mercury amalgam, heap leaching or dump leaching in its operations.
- Expected to result in point or non-point source surface or subsurface releases of acid or other toxic substances from the permit area.
- Requiring a variance from any part of these Rules as part of the permit application.

IMPORTANT NOTES!

- If you have checked "YES" to any of the above boxes, the mining operation does not qualify as a minimal impact mining operation. Do not continue to fill out the remainder of this form.
- If you do meet the above requirements and have checked "NO" to **all** of the above boxes, continue filling out this application.
- Obtaining a Mining Act permit does not necessarily satisfy the obligation to obtain permits required by other governmental entities.
- PLEASE FILL IN ALL APPLICABLE INFORMATION AS COMPLETELY AS POSSIBLE.
- PLEASE PRINT OR TYPE ALL INFORMATION.

1. OPERATOR INFORMATION (§304.D.1)

LIST PROJECT NAME: American Magnesium Dolomite Mine

NAME OF APPLICANT: American Magnesium LLC

**ADDRESS: 104 Rinconada
PO Box 684
Elephant Butte, NM 87935-0684**

PHONE #: (575) 741-1527

NAME OF OWNER (if different from applicant's name and address):

ADDRESS:

PHONE #:

NAME OF ON-SITE CONTACT OR OPERATOR'S REPRESENTATIVE:

David Q. Tognoni, PE

**ADDRESS: PO Box 684
Elephant Butte, NM 87935-0684**

PHONE #: (575) 741-1527

2. RIGHT TO ENTER INFORMATION (§304.D.1)

- A. Describe or provide evidence for the basis of the applicant's right to enter the property to conduct the mining and reclamation:

Applicant has an unpatented mining claim for the project area from the Bureau of Land Management. Attached please find copies of the unpatented mining claims [insert names and BLM numbers- I think this could be Mag 15 (NMMC195918), Mag 16 (NMMC195919), Mag 17(NMMC195920), Mag 18 (NMMC195921), Mag 19 (NMMC195922), Mag 20 (NMMC195923), Mag 21 (NMMC195924), or Mag 22 (NMMC195925)]

- B. List the names and addresses of surface and mineral ownership within the proposed permit area:

1. **Surface Owner(s):**

<u>Name</u>	<u>Address</u>	<u>Phone #</u>
Bureau of Land Management	1800 Marquess St. Las Cruces, NM 88005	(575) 525-4300

2. **Mineral Owner(s):**

<u>Name</u>	<u>Address</u>	<u>Phone #</u>
David Q. Tognoni	P.O. Box 644, Elephant Butte, NM 87935	(575) 741-1527

- B. List the author(s), title(s), date(s) and report number(s) of any cultural resource survey report(s) submitted to the agency(ies) or landowner(s) listed above:

Ackerly, Neal W; Resources Survey of American Magnesium LLC Proposed Mine Development, Luna County, New Mexico; August 9, 2016.

3. MAPS (§304.D.2)

- A. Provide a legal description of the site [Township(s), Range(s) and Section(s)]:

This Project is located on public land administered by the BLM, in part of all of Sections 26 and 27, Township 25 South, Range 8 West, NMB&M in Little Florida Mountains Mining District, Luna County, New Mexico. The Project Area includes approximately 44 acres. See attached

maps included in the Plan of Operations, Section 3.7

C. Provide a topographic map(s) of at least 1 inch = 2,000 feet (or appropriate for the size of disturbance) showing the areas of land to be disturbed by the proposed mining and reclamation. Identify general area shown on the map(s) by Township, Range and Section(s). If the area to be mined contains the following features, show them on the map(s):

- Topographic Map at the required scale is attached. Additional figures related to the proposed mining operations are also included in the Plan of Operations.

1. **Boundary of the proposed permit area** with the existing and proposed area of disturbance
2. Previously disturbed areas
3. Perennial, intermittent and ephemeral streams; springs; wetlands; riparian areas; lakes and reservoirs
4. Proposed and existing roads and other access routes
5. Residences
6. Support facilities
7. Cemeteries, burial grounds; cultural resources listed or eligible for listing on either the National Register of Historic Places or the State Register of Cultural Properties
8. Pipelines
9. Oil, gas, water and monitoring wells on and within two miles of the permit area
10. Identify the location of shafts, adits, trenches, ponds, pits, quarries, stockpiles, waste dumps, etc.

4. **ENVIRONMENTAL PERMITS HELD FOR OTHER OPERATIONS (§304.D.3)**

Provide a list of other environmental permits held for other mining operations within the United States and any violations issued for non-compliance with those permits.

NAMES OR TYPES OF ENVIRONMENTAL PERMITS:

Currently there are no environmental permits for the Project. A Plan of Operations was submitted to the BLM on March 1, 2017, and intend to complete the required federal permitting process.

LIST PERMIT VIOLATIONS; NUMBER, TYPE AND ISSUING AGENCY:

None.

5. MINING DESCRIPTION (§304.D.4)

- A. Type of mineral or minerals to be mined: Dolomite/Magnesium
- B. Check the method of proposed mining: X Surface **or** Underground
- C. Describe the sizes and volumes of the facilities to be used:

Surface Disturbing Activity	Disturbance		
	Proposed Phase I (acres)	Subsequent Phases (acres)	Total (acres)
Constructed Roads	0.5	0.5	1.0
Overland Travel	1.0	2.0	3.0
Drill Sites (Pads)	13.0	26.0	39.0
Existing Access Road Needing Rehabilitation	0.5	0.5	1.0
TOTAL*	15.0	29.0	44.0

*No more than 40 acres of disturbance will occur at one time. The mining development project will be phased to reduce the amount of surface disturbance and incorporate rolling reclamation into the project.

Plant Site/Staging Area: No plant required. Laydown area is proposed.

How Many _____ Acreage _____

Pits or Quarries: How Many _____ Acreage _____ Volume (cu.yds.) _____

Stockpiles: How Many _____ Acreage _____ Volume (cu.yds.) _____

Waste Dumps: How Many _____ Acreage _____ Volume (cu.yds.) _____

List the following for **New Road(s):** **No new roads are proposed at this time.**

Length (ft.) _____ Width (ft.) _____

Length (ft.) _____ Width (ft.) _____

List the following for extension or widening of **Existing Road(s):** See below.

Length (ft.) _____ Width (ft.) _____

Length (ft.) _____ Width (ft.) _____

Two routes to the mine site are being considered, referred to as the North Route and the South Route. The North Route is 5.0 miles long, 4.1 miles of which is on BLM land. The South Route is 4.6 miles long, 3.0 miles of which is on BLM land. Based on available information regarding the resource, the estimated duration of mining operations is 30 years. The roads would be used year-round. The road improvements would occur during daylight hours, and would be completed as quickly as possible. See the attached Plan of Operations, Section 2.8, for a detailed discussion on the existing roads.

Other Disturbances: Type

How Many _____ Acreage _____ Volume (cu.yds.) _____

TOTAL ACREAGE TO BE DISTURBED: 40 Acres

D. Describe the type of processing that will be conducted on site:

No ore processing will be conducted on site.

E. Describe the typical equipment to be used for the mining operations: Attached Plan of Operations contains additional detail related to proposed operations. The text below provides a summary of proposed activities.

One reverse circulation rig and one core drilling rig will be used in the Project Area for mine development. Each rig will include the following support vehicles:

- One pipe truck;
- One booster truck;
- One 3,000-gallon water truck;
- One all-terrain support vehicle; and
- One auxiliary air compressor.

The Project work force during resource verification activities will include one three-man crew per shift for each reverse circulation rig, and one two-man crew per shift for the core rig. One to two geologists will supervise drilling operations. One D7 dozer will be required for rehabilitation of an existing access road and for resource verification road construction. One tracked excavator hoe will be required to aid in existing road rehab, for new road construction, and for drill pad construction. Each field vehicle shall be equipped with hand tools, first aid kit, and a fire extinguisher. Water

trucks at the Project Area will be used in the event of a fire. All portable equipment, including drill rigs, support vehicles, and drilling supplies, will be removed from the Project Area during extended periods of non-operation.

During mine operations a comparably-sized work force will be employed to operate the following anticipated equipment, or suitable alternatives, for quarrying the dolomite rock and crushing it for transport off-site:

- Up to 10 haul trucks;
- One 3,000 gallon water truck;
- Two all-terrain support vehicles;
- Storage igloo for blasting storage;
- Excavator;
- Primary crusher, if needed;
- Grader;
- Backhoe; and
- Broadcast seeder for reclamation activities.

Additional details regarding equipment, including the locations where any temporarily stationary equipment will be located, will be provided once mine development and planning is completed. The equipment used will be based on availability and production rates. AmMg plans to conduct blasting, under an approved blasting plan. This plan will be submitted independently by a licensed and permitted blasting contractor. Once the material is blasted, it will be loaded into over the road haul trucks for transportation off-site. Primary crushing may occur onsite if it is deemed necessary prior to loading the haul trucks. The blast and haul operation that is currently planned is similar in nature to a quarry operation, in that the material will be blasted and excavated from the top of the dolomite hill formation, moving toward the valley floor. At this stage of development, it is assumed that the blasting operation will achieve the required size of material to direct loading to the haul vehicles. No additional on-site crushing is proposed at this time, but that will be evaluated as operations proceed. Based on the production rate, it is possible for quarried material to be temporarily stored on-site prior to transport. The area required for any storage of quarried material will be counted as disturbance for purposes of calculations to ensure the Project does not exceed the 40 acre disturbance footprint already discussed

6. CHEMICAL USE (§304.D.4)

A. List all chemicals proposed to be used by the mining operation.

<u>Name:</u>	<u>Use:</u>
<u>500 gallon diesel fuel</u>	<u>heavy equipment</u>
<u>100 gallons gasoline</u>	<u>vehicles</u>
<u>100 pounds lubricant</u>	<u>equipment maintenance</u>
<u>Blasting Components *</u>	<u>Blasting (to be determined and submitted in blasting plan)</u>

- *A blasting plan will be provided and will include all the blasting components required. This plan will be in accordance with MSHA, New Mexico SMIO's regulations, and U.S. Department of Homeland Security requirements. Management of hazardous materials would comply with all applicable Federal, State, and local requirements, including the inventory and reporting requirements of Title III of CERCLA, also known as the Emergency Planning and Community Right to Know Act. All petroleum products, kerosene, and reagents used would be stored in aboveground tanks within a secondary containment area capable of holding 110 percent of the volume of the largest vessel in the area.

7. GROUND WATER INFORMATION (§304.D.5)

A. Provide an estimate of depth to ground water and the total dissolved solids (T.D.S.) concentration.

Depth to ground water (ft.) 4500 feet above MSL T.D.S. concentration _____

B. Describe the source of groundwater information:

The proposed Foothills Dolomite Quarry lies in the south-central portion of the Mimbres basin, a closed basin bounded by mountain ranges on all sides, extending from the Continental Divide to the Black Range and Silver City to the north and south, into the Chihuahua province of Mexico. The primary aquifer in the region is made up of basin fill. Mountain-front recharge and the Mimbres River provide the majority of recharge to the aquifer. Modeled potentiometric surfaces near the western flank of the Florida Mountains are approximately 4500 feet above mean sea level (MSL) or about 300 feet below ground surface (BGS) at the base of the quarry site foothill.

C. Describe any dewatering activities to be conducted during mining operations:
None.

- Water will only be used for dust suppression.

8. PERFORMANCE STANDARDS (§304.D.7)

A. Provide a general description of how the mining and reclamation will be designed and operated using the most appropriate technology and best management practices:

- See attached Plan of Operations for detail. Section 2.4, attached.

B. Provide a general description of how the mining and reclamation will be designed and operated to assure protection of human health and safety, the environment, wildlife, and domestic animals:

- See attached Plan of Operations for detail. Section 3.0, attached.

C. Provide a general description of how the mining and reclamation will be designed and operated to safeguard the public from unauthorized entry into shafts, adits and tunnels and to prevent falls from highwalls or pit edges:

- Not applicable. The process will not result in any of the structures outlined in the section.

D. Provide a general description of how the mining and reclamation will be designed and operated so the disturbed area will not contribute suspended solids above background levels, or where applicable the Water Quality Control Commission's standards, to intermittent and perennial streams:

- See attached Plan of Operations for detail. Section 3.0, attached.

E. Provide a general description of how the mining and reclamation will be designed and operated to control erosion:

- See attached Plan of Operations for detail. Section 3.0, attached.

9. RECLAMATION PLAN (§304.D.8)

The operation will be operated and reclaimed to a self-sustaining ecosystem appropriate for the life zone of the surrounding areas following closure unless conflicting with the approved post-mining land use.

- See attached Plan of Operations, Section 3 .0 for Reclamation Plan Details.

- A. List adjacent land use other than mining (i.e. grazing): Grazing, recreational use.
- B. List the proposed post mining land use (i.e. wildlife): Grazing and recreational use.
- C. Describe how reclamation activities will avoid adverse impact to cultural resources:
- No adverse impacts are anticipated. The quarrying activity will take the resource to the valley floor. See attached Plan of Operations for additional details and preliminary studies.
- D. Describe any backfilling and grading operations to be performed after mining:
- Grading and restoration will be conducted in accordance with the Plan of Operations, attached. Backfilling is not anticipated as the deposit will be removed to the general grade of the valley floor. General contouring, to ensure proper drainage and surface water flow will be conducted at the end of the project.
- E. Describe what mitigation steps will be taken to reconstruct or protect the hydrologic balance of the site after mining:
- Not applicable.
- F. Describe how topsoil or topdressing will be salvaged, stockpiled and distributed for the re-establishment of vegetation:
- Not applicable.
- G. Describe what kind of seed bed preparation will take place prior to seeding. What soil amendments will be added? Scarification of the seed bed needs to take place. Will this involve discing or ripping?
- Discing or ripping is anticipated. Additional details regarding reclamation are included in the attached Plan of Operations.

H. Describe in detail the plant species to be used in the re-establishment of vegetation:

- A native seed mixture, based on the vegetation survey (See Section 2.15.3 of the attached Plan of Operations) will be provided.

Plant Name:

Rate of application (lb/ac)

_____	_____
_____	_____
_____	_____
_____	_____

I. Will the seeds be broadcast or drilled into the seed bed? Hydroseed is proposed.

J. Describe the type of mulch material to be applied after seeding and its application rate: Will be determined prior to reclamation.

K. What structures will be on the site and how will they be removed or reclaimed? (Buildings, portals, adits, shafts, bore holes, ponds, etc.):

- Not applicable. No permanent structures are planned.

L. What roads are part of the mine site and how will they be reclaimed? Please provide an estimate of road square footage and explain if reclamation will involve ripping, scarification, backfilling, recontouring, and retopsoiling, etc.:

- Not applicable.

M. What will be the time frame for reclamation, (e.g. time of year, during mining, after mining, etc)?

- Rolling reclamation is proposed. See attached Plan of Operations for information related to proposed reclamation activities.

Proposed reclamation dates: Begin: ____ / ____ / ____ End: ____ / ____ / ____

10. OTHER REQUIRED PERMITS FOR THIS OPERATION (§304.D.9)

- A. Provide a list of other permits required for the operation and the anticipated schedule for receipt of these.

<u>Permit Name & Issuing Agency</u>	<u>Date or anticipated date of receipt</u>
<u>BLM Plan of Operations</u>	<u>Submitted March 1, 2017</u>

11. FINANCIAL ASSURANCE AND PERMIT FEES (§304.E & F)

- A. Provide a financial assurance estimate based on the cost of reclaiming the site by a third party. Include supporting calculations. Operations with less than 2 acres total disturbance are not required to provide financial assurance.

Project Component	Manpower	Equipment	Material	Total
Mine Planning, including Resource verification Roads and Drill Pads	\$1,783	\$3,800	\$65,340	\$70,923.00

* See Plan of Operations for additional detail.

- B. Attach the permit fees as determined pursuant to Subpart 2. The permit application fee for a minimal impact new mine is \$1,000.00.
- o Permit fee check is attached.

12. CERTIFICATION REQUIREMENT (§304.J.5)

Each application shall be signed **and notarized** by an applicant for the operation with the following certification made:

I certify that I have personally examined and am familiar with the information submitted herein, and based on my inquiry of those individuals responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I agree to comply with the requirements of the permit, these Rules, and the Act. Further, I hereby allow the Director to enter the permit area for the purpose of conducting inspections until release of financial assurance.

Signature of Applicant:

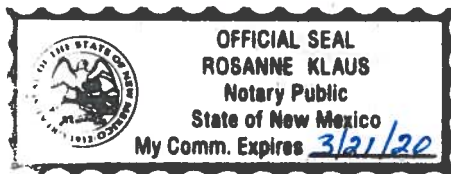


Name (typed or print): David Q. Tognoni

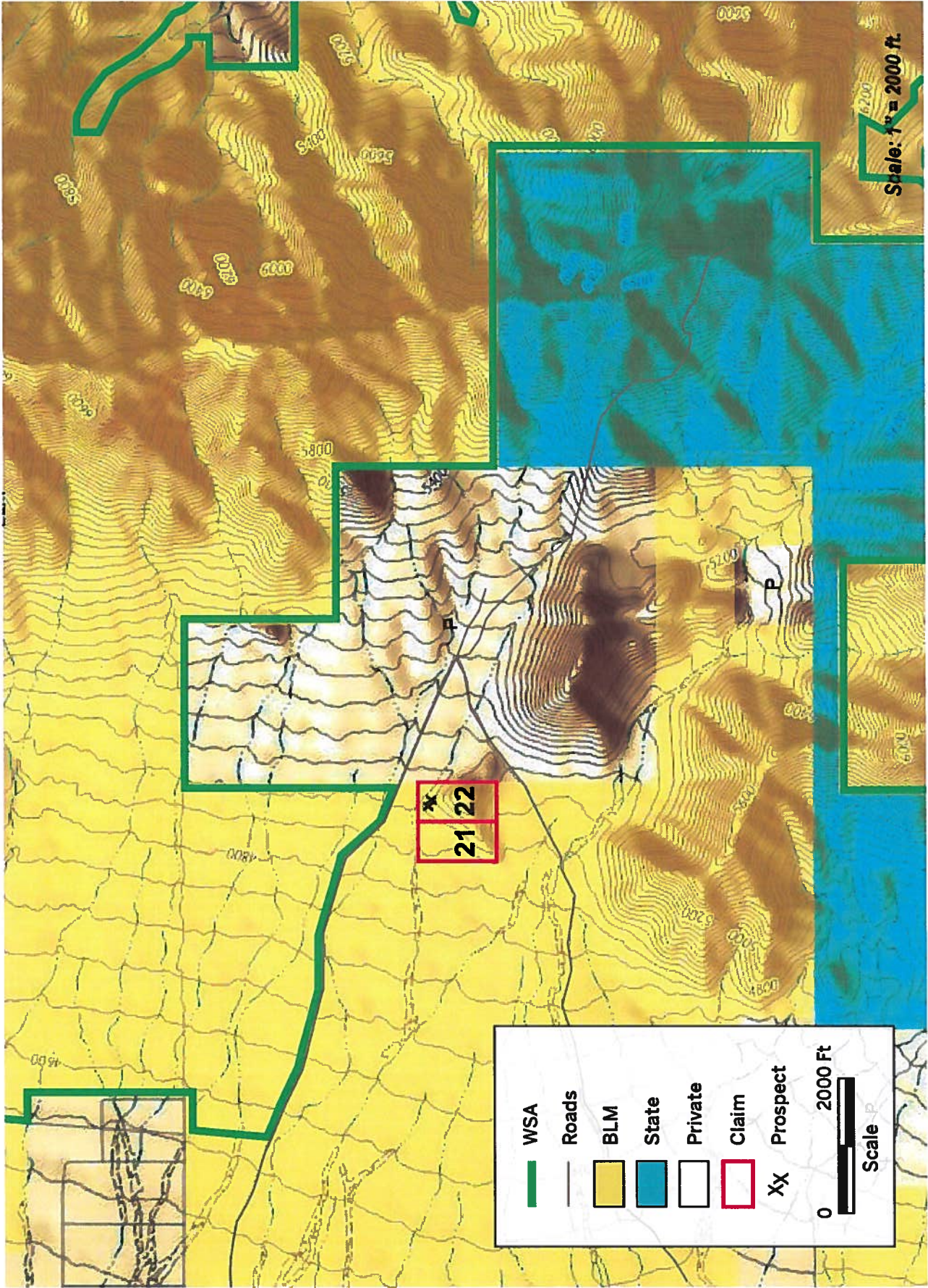
Title/Position: President, American Magnesium LLC

Date: February 28, 2017

Signature of Notary:



— Notary Seal —



Area Topo Map with Property and Claim Boundaries (scale 1" = 2000 ft.)