FREEPORT-McMoRan

Tyrone Operations
P.O. Box 571
Tyrone, NM 88065

October 17, 2022

Certified Mail #70150640000476263643
Return Receipt Requested

Mr. David Ohori
Energy, Minerals and Natural Resources Department
Mining and Minerals Division
Mining Act Reclamation Program
1220 South St. Francis Drive
Santa Fe, NM 87505

Dear Mr. Ohori:

Re: Request for Modification of Minimal Impact Exploration Permit No. GR083EM

Freeport-McMoRan Tyrone Inc. (Tyrone) received approval for a minimal impact exploration permit, Emma-B, on August 08, 2019, under the permit No. GR083EM. Tyrone applied for two modifications to this permit (Modification 20-1 & Modification 21-1) and received approval from the Mining and Minerals Division (MMD). All holes that were required to be closed under the original permit and the modifications, have been plugged and abandoned. Regrading to approximate their original conditions, seeding, and mulching of the most recent drill pads and roads under Modification 21-1, were completed in June of 2022. Tyrone is requesting a new modification to reflect the reclamation completed to date and add an additional sixteen (16) drill holes and their associated new disturbances.

The new drill holes are labeled EM-22-001R through EM-22-016R and the drill pads are labeled as 47 through 55. Please see the attached spreadsheet for the GPS coordinates of the holes and their associated drill pads. The sixteen holes will be drilled from a total of nine (9) new drill pads. The associated pads and roads will generate approximately 1.5 (one point five) acres of surface disturbance. Up to four of the boreholes will remain open to be used as temporary water quality monitoring wells (temporary wells) and will be permitted through the Office of the State Engineer (OSE).

Per Permit GR083EM Modification 21-1 (Mod. 21-1), $187,680.00 of Financial Assurance (FA) is currently in place to reclaim the drill pads, roads, and exploration boreholes. Tyrone has completed the work associated with Mod. 21-1 and requests that this amount be released and applied to this new modification request.

Tyrone proposes to update the Mod. 21-1 FA amount to $229,922.00 (two hundred twenty-nine thousand nine hundred twenty-two) or an increase of $42,242.00 (forty-two thousand two hundred forty-two). See Table 1 for a summary of the proposed changes. This new total includes 12 boreholes (2 existing temporary wells, 4 proposed temporary wells, and 6 boreholes to be closed) and 9 drill pads. MMD will be provided with the plugging and abandoning records before Tyrone proceeds to the next series of 6 holes. Tyrone will agree to the same terms and conditions as included on the original Emma-B Application.

Table 1: 2022 Financial Assurance Cost Estimate for Exploration Drilling

Description	Unit	Quantity	Unit Rate ($/unit)	Total Cost ($)
FA				
Emma-B Modification FA				
Surface Reclamation Cost (1st acre)	acre	1.00	$ 8,900	$ 8,900
Drill Road & Pad Reclamation	acre	0.54	$ 4,900	$ 2,622
Plug and Abandon Exploration Drill Holes	ft.	15,600	$ 14	$ 218,400
Total Modified FA (2020)				**$ 229,922**
Existing Emma-B FA				
Surface Reclamation Costs (1st acre)	acre	1.00	$ 8,900	$ 8,900
Drill Road & Pad Reclamation	acre	2.20	$ 4,900	$ 10,780
Plug and Abandon Exploration Drill Holes	ft.	12,000	$ 14	$ 168,000
Total Existing FA				**$ 187,680**
Proposed Change in FA				**$ 42,242**

Attached is a map showing the locations of the proposed drill pads and their associated disturbances. Also attached is documentation showing the reclamation performed on the prior surface disturbance. Tyrone also requests that the Emma-B permit expiration date be extended by one (1) year. If this request is granted, the permit will expire one (1) year from the approval the modified Emma-B permit. Attached is a check in the amount of $250.00 for the modification fee.

Please contact Raechel Roberts at (575) 956-3290 or rroberts2@fmi.com if you have questions.

Sincerely,

Thomas Shelley
Environmental Services Manager

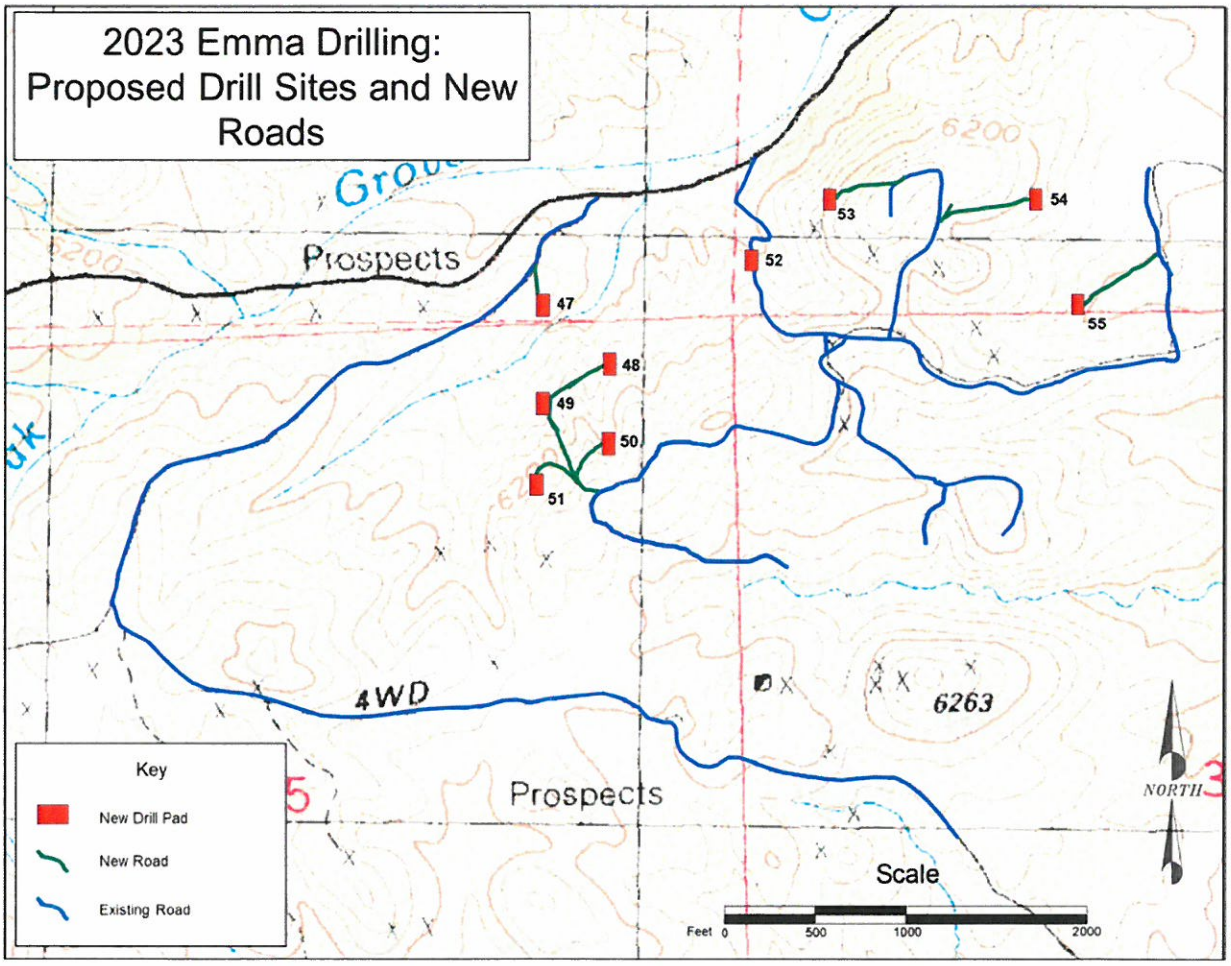
TLS:rmr
Enclosures
Check #0001003735: $250.00
20221017-100

c. Holland Shepherd – MMD

Drill Hole/Exploration Name and GPS Coordinates for Each Site

Proposed Hole ID	Pad ID	Pad #	Northing	Easting	Elevation	Latitude	Longitude	Depth (ft)
EM-23-001R	Alpha	48	2400	15400	6139	32.617866	-108.358217	700
EM-23-003R	Alpha	48	2400	15400	6140	32.617866	-108.358217	700
EM-23-002R	Bravo	50	2000	15400	6187	32.616768	-108.358217	700
EM-23-004R	Bravo	50	2000	15400	6187	32.616768	-108.358217	700
EM-23-005R	Charlie	49	2200	15200	6164	32.617316	-108.358868	700
EM-23-006R	Delta	54	3200	17600	6192	32.619514	-108.35108	700
EM-23-007R	Delta	54	3200	17600	6192	32.619514	-108.35108	800
EM-23-008R	Echo	55	2600	17800	6129	32.618415	-108.350433	700
EM-23-009R	Echo	55	2600	17800	6129	32.618415	-108.350433	700
EM-23-010R	Foxtrot	52	2800	16200	6148	32.618966	-108.35562	700
EM-23-011R	Golf	47	2600	15200	6126	32.618415	-108.358868	700
EM-23-012R	Golf	47	2600	15200	6126	32.618415	-108.358868	700
EM-23-013R	Foxtrot	52	2800	16200	6148	32.618966	-108.35562	800
EM-23-014R	Hotel	53	3200	16600	6194	32.619514	-108.354327	800
EM-23-015R	Hotel	53	3200	16600	6194	32.619514	-108.354327	900
EM-23-016R	India	51	1800	15200	6225	32.61622	-108.358868	800

Project Map


2023 Emma Drilling:
Proposed Drill Sites and New Roads
Prospects
47
48
49
50
51
52
53
54
55
4WD
6263
Prospects
Key
New Drill Pad
New Road
Existing Road
Scale
Feet 0 500 1000 2000
NORTH

2022 Reclamation Documentation

Figure 1. Crimping mulch after seeding (June 2022)

Figure 2. Reclaimed drill pad

FREEPORT-McMoRan

Freeport-McMoRan Inc.
Attention: Accounts Payable
333 N Central Ave, Room 23.306
Phoenix, AZ. 85004

RETURN SERVICE REQUESTED

Check No.	0001003735
Check Date	09/23/2022
Check Amount	$250.00
Vendor No.	0000805500
Payment Reference No.	20607403831899

OD-000005 0001 0001 000011
STATE OF NEW MEXICO
NM ENRGY MNRLS & NAT RES DPT
1220 S SAINT FRANCIS DR
SANTA FE, NM 87505-4225

PLEASE DIRECT ANY INQUIRIES
TO THE AP HELP DESK:
AP@FMI.COM

Invoice Date	Invoice Number	PO#/Freeport Site/ Description	Invoice Amount	Discount Amount	Net Amount
09/21/2022	09212022SL1	FM Tyrone Mining LLC PERMIT NUMBER GR083EM MODIFICA	$250.00		$250.00
		TOTAL			$250.00

⬇ PLEASE FOLD ON PERFORATION AND DETACH HERE ⬇

VERIFY THE AUTHENTICITY OF THIS MULTI-TONE SECURITY DOCUMENT. CHECK BACKGROUND AREA CHANGES COLOR GRADUALLY FROM TOP TO BOTTOM.

FREEPORT MINERALS CORPORATION
333 NORTH CENTRAL AVE
PHOENIX, AZ 85004-2121

FREEPORT-McMoRan

0001003735
September 23, 2022
64-1278/611
VOID AFTER 180 DAYS
PAY IN US DOLLARS

Amount: **Two Hundred Fifty dollars and 00 cents**

$250.00

Pay to the order of
STATE OF NEW MEXICO
NM ENRGY MNRLS & NAT RES DPT

Bank of America N.A.
Atlanta, Dekalb County, Georgia

AUTHORIZED SIGNATURE

⑈0001003735⑈ ⑆061112788⑆ 329999844 5⑈

PART 3
MINIMAL IMPACT EXPLORATION OPERATION

PERMIT APPLICATION

Accompanying instructions for this permit application are available from MMD, and on MMD webpage:

http://www.emnrd.state.nm.us/MMD/MARP/MARPApplicationandReportingForms.htm

Send 6 copies of the completed application to:

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

Webpage: www.emnrd.state.nm.us/MMD/index.htm

CHECK OFF LIST TO DETERMINE YOUR PROJECT'S STATUS AS A MINIMAL IMPACT EXPLORATION OPERATION:

☐ Yes ☑ No My project **will exceed 1000 cubic yards of excavation**, per permit.

☐ Yes ☑ No Surface disturbances for constructed roads, drill pads and mud pits **will exceed 5 acres** total for my project.

☐ Yes ☑ No My project is located in or is expected to have a direct surface impact on wetlands, springs, perennial or intermittent streams, lakes, rivers reservoirs or riparian areas.

☐ Yes ☑ No My project is 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.

☐ Yes ☑ No My project is 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.

☐ Yes ☑ No My project is located in a known cemetery or other burial ground.

☐ Yes ☑ No My project is located in an area with cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties.

☐ Yes ☑ No My project will or is 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.

☐ Yes ☑ No My project is expected to use or using cyanide, mercury amalgam, heap leaching or dump leaching in its operations.

☐ Yes ☑ No My project is expected to result in point or non-point source surface or subsurface releases of acid or other toxic substances from the permit area.

☐ Yes ☑ No My project requires a variance from any part of the Mining Act Rules as part of the permit application.

If you answer yes to any of the above questions, your project does not qualify as a minimal impact exploration operation.

Confidential Information

☐ Yes ☑ No Is any of the information submitted in this application considered by the applicant to be confidential in nature? If yes, please provide this information separately and marked as "confidential."

Timeline

- Exploration applications must be provided no less than 45 days prior to the anticipated date of operations desired by the applicant.
- Renewal applications shall be filed at least 30 days preceding expiration of the current permit. Permits are valid for one year.
- Approved permit is valid for one year from the date of approval.

SECTION 1 – OPERATOR INFORMATION (§304.D.1)

Project Name: Emma-B Amendment

Nearest Town To Project: Tyrone, NM 88065

Applicant Name and Contact Information (entity obligated under the Mining Act):

Name: Freeport McMoRan-Tyrone Mining, LLC

Address: P.O. Box 571 Tyrone, NM 88065

Office Phone: 575-912-5757 Cell Phone: 575-956-3290

Fax Number: _____ Email: rroberts2@fmi.com

Name of On-Site Contact, Representative, or Consultant:

Name: Raechel Roberts

Address: Same as above

Office Phone: same as above Cell Phone: same as above

Fax Number: _____ Email: _____

SECTION 2 – RIGHT TO ENTER INFORMATION (§302.D.1)

A. Describe or attach copies of documents that give the applicant the right to enter the property to conduct the exploration and reclamation, include: lease agreements, access agreements, right of way agreements, surface owner agreements, and claim numbers, if applicable.

Applicants owns all property.

Attachment _____

B. List the names and addresses of surface and mineral ownership within the proposed permit area. If the mineral is federal mineral, indicate as federal mineral, but provide the name of the claim holder or lease holder.

Surface Estate Owner(s):

Name	Address	Phone #
☐ U.S. BLM	_____	_____
	_____	
☐ U.S. Forest Service	_____	_____
	_____	
☐ State of NM	_____	_____
	_____	
☒ Private/Corporate	_____	575-956-3290
Name: Freeport McMoRan Tyr	P.O. Box 571 Tyrone, NM 88065	
☐ Other	_____	_____
Name: _____	_____	

Lease Holder(s) of Surface Estate (if applicable):

Name	Address	Phone #

Mineral Estate Owner(s):

Name	Address	Phone #
☐ Bureau of Land Management		
☐ US Forest Service		
☐ State of NM		
☐ Claim/Lease Holder		

Name: _____

Claim Numbers: _____

☐ Claim/Lease Holder		

Name: _____

Claim Numbers: _____

☒ Other		

Name: Freeport McMoRan-Tyr

C. Has a Cultural Resource Survey been performed on the site? ■ Yes ☐ No

If yes, please provide the author, title, date and report number, and include a copy of the survey with this application, if possible:

Field work is completed and no cultural sites were identified.

Attachment _____

D. Has a wildlife survey or vegetation survey been performed for the permit area?

■ Yes ☐ No If yes, please provide the author, title, date and report number, and include a copy of the survey with this application, if possible:

Field work is completed and no threatened or endangered animal or plant species were identified. If drilling occurs during the period of March 1st through September 1st, a breeding survey will be completed.

Attachment _____

SECTION 3 – MAPS AND PROJECT LOCATION (§302.D.2)

A. Project Location:

Township 19S Range 15W Section 25

Township 19S Range 15W Section 36

Township 19S Range 15W Section 36

List the drill hole/exploration name and the GPS coordinates for each site.

I.D. Number	Northing / Latitude	Easting / Longitude
EM-22-001R	32.617866	-108.358217
EM-22-002R	32.616768	-108.358217
EM-22-003R	32.617866	-108.358217
EM-22-004R	32.616768	-108.358217
EM-22-005R	32.617316	-108.358868
EM-22-006R	32.619514	-108.35108
EM-22-007R	32.619514	-108.35108
EM-22-008R	32.618415	-108.350433
EM-22-009R	32.618415	-108.350433
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EM-22-012R	32.618415	-108.358868
EM-22-013R	32.618966	-108.35562
EM-22-014R	32.619514	-108.354327
EM-22-015R	32.619514	-108.354327
EM-22-016R	32.61622	-108.358868

I.D. Number	Northing / Latitude	Easting / Longitude

Coordinate system used to collect GPS data points:

- ☐ NAD83 Geographic
- ☐ NAD83 UTM Zone 13 (or 12)
- ☐ WGS 1984
- ☐ NAD27 Geographic
- ■ NAD27 UTM Zone 13 (or 12)
- ☐ Other: _____

Attachment _____ (for listing additional boreholes)

B. Maps (see application form instructions for examples of maps to be included):

Are topographic maps included with the application that show the following items:

☒ Yes – The boundary of the proposed exploration project Permit Area

☒ Yes – The proposed exploration locations (i.e., borehole locations)

☒ Yes – Existing roads, new roads and overland travel routes

☒ Yes ☐ N/A – Areas of proposed road improvement

Attachments 4

Are maps or figures included with the application showing the approximate dimensions and locations of drill pads and other disturbances:

☒ Yes – Drill pad dimensions and constructed drill pad locations

Attachments 1

C. Provide detailed driving directions to access the site:

From Silver City, drive 10 miles south on HWY 90S. Turn west onto Tyrone Thompson Canyon country maintained road. Approximately 1 mile west turn onto existing access road. Gate is locked and will require and escort to the area by permittee.

SECTION 4 – EXPLORATION DESCRIPTION (§302.D.3 & 4)

A. Anticipated exploration: Start Date: 1/1/2023 End Date: 7/1/2023

B. List the mineral(s)/element(s) to be explored for: Copper

C. Proposed method(s) of exploration:

☐ **Air drilling (air rotary, coring, etc.):**

_____# of holes _____Depth (ft.) _____Diameter (in.)

_____# of drill pads _____Length (ft.)_____Width (ft.)

Will drill pads be graded/bladed or overland: ☒ Graded/bladed ☐ Overland

Will drill pads need some mechanical leveling (grading/blading): ☐ Yes ☐ No

Approx. Weight of Drill Rig (lbs.) 100,000 Number of Axles: 3

Total length of drill stem that can be carried on the rig:_____

Is a support pipe truck anticipated? ☐ Yes ☐ No _____Weight (lbs.)

Weight of support compressor (lbs.):_____Trailer mounted?_____

Anticipated Drilling Contractor: Layne License No._____

☐ **Mud/fluid drilling:**

16 # of holes 1,500 Depth (ft.) 5" Diameter (in.)

9 # of drill pads 70 Length (ft.) 40 Width (ft.)

Will drill pads be graded/bladed or overland: ☒ Graded/bladed ☐ Overland

Will drill pads need some mechanical leveling (grading/blading): ☒ Yes ☐ No

Will a closed loop system be used or will mud/fluid pits be used? Pits will be used

If mud/fluid pits are proposed:

16 # of pits 10 Length (ft.) _____ Width (ft.) 4 Depth (ft.)

Anticipated excavating equipment: Backhoe

How will excavating equipment be transported to the site (i.e., driven, low-boy, etc.):

Driven

Will mud pits be lined?: ☐ Yes ☐ No

If yes, proposed material to line the mud pits: _____

Approx. Weight of Drill Rig (lbs.) 100,000 Number of Axles: 3

Anticipated Drilling Contractor: Layne License No. _____

☐ **Test pits / exploratory trenches:**

_____ # of pits _____ Length (ft.) 40 Width (ft.) _____ Depth (ft.)

Anticipated excavating equipment: _____

How will excavating equipment be transported to the site (i.e., driven, low-boy, etc.):

☐ **Other methods of exploration** (i.e., cuts, shafts, tunnels, adits, declines, blasting, etc.). Indicate method and details:

TOTAL ACREAGE TO BE DISTURBED DUE TO DRILL PADS = 0.578 **acres**
(to convert to acres, multiply total square footage of drill pads by 0.0000229)

D. Disposal of drill cuttings

If this exploration project is for uranium or other radioactive elements/minerals, applicant agrees to perform a gamma radiation survey at each drill site prior to, and after, exploration activities. Applicant/Owner/Operator agrees to restore gamma radiation levels at each drill site to pre-exploration levels. ☐ Yes ☐ No ☒ N/A

Will excess drill cuttings be buried at each drill site location or within a single disposal pit?
☒ At each drill pad location ☐ Within a single disposal pit

If a single disposal pit is proposed, please provide the following:

Description or GPS coordinates of the proposed cuttings disposal pit location:

Dimensions of the single proposed cuttings disposal pit (length, width, and depth):

_____Length (ft.) _____Width (ft.) _____Depth (ft.)

TOTAL ACREAGE TO BE DISTURBED DUE TO DISPOSAL PIT = _____acres
(to convert to acres, multiply total square footage of disposal pit by 0.0000229)

E. Other Supporting Equipment (check all that apply):

☒	4x4 Trucks/Vehicles	Quantity:	4
☒	Water Truck	Weight (lbs.):	25,000
☐	Geophysical Truck	Weight (lbs.):	
☒	Pipe Truck (rig support)	Weight (lbs.):	65,000
☒	Bulldozer	Type:	Cat D6
☒	Backhoe	Type:	Cat 420
☐	Trackhoe	Type:	
☐	Scaper/Grader	Type:	
☐	Trailers	Quantity/Type:	
☒	Portable Toilet	Quantity:	1
☐	Other	List:	

F. Roads and Overland Travel:

List of new roads to be constructed for this exploration project:

Description of *NEW* Roads	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
Emma-B Amendment Roads	2,780	15	0.95
TOTAL ACRES DISTURBED BY NEW ROAD CONSTRUCTION :			0.95

Describe how new roads will be constructed:

Dozer

List for extension or widening of existing roads:

Description of Modification to *EXISTING* Roads	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
Emma-B Amendment modification of existing roads			
TOTAL ACRES DISTURBED BY ROAD IMPROVEMENTS :			0

Describe how existing roads will be extended or widened:

Existing roads will be bladed for rocks and debris for safe passage.

List for routes of overland travel:

Description of *OVERLAND TRAVEL* Routes	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
TOTAL ACRES DISTURBED BY OVERLAND TRAVEL :			0

G. Support Facilities

Describe (location and size) any support facility disturbances (equipment staging, equipment and material storage and/or lay down areas, vehicle parking, temporary housing and/or trailers) to be created or situated on the site during exploration operations.

H. **TOTAL ACREAGE TO BE DISTURBED BY PROJECT =** 1.528 **acres**
(include all disturbed acreage from drill pads, cuttings disposal pit, new roads, improved roads and overland travel routes)

SECTION 5 – CHEMICAL USE (§302.D.4)

A. Check any and all chemicals that will be used for this project.

■	Drilling Mud (i.e., EZ Mud)	Type/Quantity:	EZ Mud Gold 35 gallon buckets
■	Diesel Fuel	Quantity:	5,300 gallons
☐	Down-hole Lubricants	Type/Quantity:	
☐	Lost Circulation Materials	Type/Quantity:	
■	Oils/Grease	Quantity:	12 tubes of grease/20 gal 15/40
☐	Gasoline	Quantity:	
■	Hydraulic Fluid	Quantity:	8 gallons
☐	Ethylene Glycol	Quantity:	
■	Cement	Type/Quantity:	Portland II / ~560 bags
■	Water	Source:	Tyrone Mine
■	Bentonite	Quantity:	Quick Gel / 56 50lb bags
☐	Fertilizer	Type/Quantity:	
■	Other	Type/Quantity:	Soda Ash / 3 50lb bags

B. Describe, in detail, a plan for the containment, use and disposal of all chemicals listed above:

Drilling products are used down-hole with excess going into sump with water. Portland II cement is used to abandon/lug holes. Petroleum products will be used for equipment and all disposal will be off site.

C. Describe where equipment fueling/refueling will occur:

Drill rig refueling will be done on-site via pickup with fuel tank. Spills will be cleaned up and contaminated soil will be disposed of at Tyrone Mine until final disposal.

D. Describe how hazardous material spills/leaks will be handled:

Any spills/leaks will be reported, cleaned up, and removed from site and sent to appropriate disposal areas.

E. Identify spill cleanup materials that will be kept on-site (check all that apply):

- [x] Bentonite clay or cat litter
- [x] Adsorbent pads, rolls, mats, socks, pillows, dikes, etc.
- [x] Drum or barrel for containing contaminated soil/adsorbent materials
- [ ] Other/list: _____
- [ ] Other/list: _____
- [ ] Other/list: _____

F. Applicant/owner/representative agrees to immediately notify the State of New Mexico immediately of any spills of hazardous materials (see page 1 of this application for phone numbers to notify): [x] Yes [ ] No

SECTION 6 – GROUNDWATER/SURFACE WATER INFORMATION (§302.D.5)

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

Depth to groundwater (ft.): 500 TDS concentration (mg/L): ≤1753mg/L

Describe the source of this information:

B. Will dewatering activities be conducted: ☐ Yes ☒ No

If yes, please describe:

C. Is groundwater anticipated to be encountered during exploration: ☒ Yes ☐ No

If YES:

Have you completed Form WR-07 (Application for permit to drill a well with no consumptive use of water) and mailed it to the District Office of the State Engineer? ☒ Yes

Have you completed Form WD-08 (Well plugging plan of operations) and mailed it to the District Office of the State Engineer? ☒ Yes

Attachment _____ (copies of the completed WR-07 and WD-08 forms)

D. Exploration Borehole Abandonment

Dry Boreholes

☐ Dry hole abandonment (option 1): 100% bentonite pellets/chips (i.e. HOLEPLUG® manufactured by Baroid Industrial Products), dropped from surface then hydrated in place according to the manufacturer's recommendations, emplaced from total depth to within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.

☒ Dry hole abandonment (option 2): Neat cement slurry, mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 2 feet of the original ground surface, followed by 2 feet of topsoil/topdressing.

☐ Dry hole abandonment (option 3): Cement + 6% bentonite slurry, mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 2 feet of the original ground surface, followed by 2 feet of topsoil/topdressing.

☐ Dry hole abandonment (option 4): High-density bentonite clay (≥ 20% active solids; i.e. QUIK-GROUT® manufactured by Baroid Industrial Products), mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.

☐ Dry hole abandonment (option 5): Other materials / describe and justify use:

Wet Boreholes

☐ Wet hole abandonment (option 1): Neat cement slurry, mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 2 feet of the original ground surface, followed by 2 feet of topsoil/topdressing.

☐ Wet hole abandonment (option 2): High-density bentonite clay (≥ 20% active solids; i.e. QUIK-GROUT® manufactured by Baroid Industrial Products), mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.

☐ Wet hole abandonment (option 3): Other sealing material approved by the Office of the State Engineer. Describe and include well plugging plan approval by the State Engineer:

D. Applicant agrees to contain any water produced from the exploration borehole at the drill site and acknowledges that discharge of this water to a watercourse may be a violation of the Federal Clean Water Act: ☒ Yes ☐ No

E. Is any drilling proposed to occur within the channel of any perennial, intermittent, or ephemeral streams? ☐ Yes ☒ No

F. Is any drilling anticipated to occur within 100 feet of any perennial, intermittent, or ephemeral streams? ☐ Yes ☒ No

SECTION 7 – RECLAMATION & OPERATION PLAN (§302.D.6 AND 302.I.K)

A. Salvage/Preservation of Topsoil

Before any grading/blading or similar activities occur in relation to this project, operator agrees to salvage and preserve all topsoil and topdressing for use in future reclamation of this project ☐ Yes ☐ No

Describe how topsoil will be salvaged prior to initiation of exploration activities (check all that apply):

☐ N/A – no construction work will occur, therefore no soil salvage is needed.
■ Excavated from drill pads and stored at each drill pad
■ Excavated from road improvements/construction and stored adjacent to road
■ Excavated from mud/fluid pits and storage at each pit
☐ Other, describe:

B. Erosion Control

Describe the best management practices that will be implemented to control erosion:

☐ Silt fencing Location: _____

☐ Straw waddles Location: _____

☐ Straw bales Location: _____

☐ Ditches/swales Location: _____

■ Berms/dikes/dams Location: Drill pads, roads, and mud pits

☐ Sediment basins Location: _____

☐ Other or N/A Type/Location: _____

C. Wildlife Protection / Noxious Weed Prevention

Will the perimeter of drill pits be fenced to prevent wildlife entrapment? ☒ Yes ☐ No

Proposed pit perimeter fence material:

Temporary plastic tarps over mud pits unless in use. Pits will be backfilled upon completion of drilling.

Describe how the pit perimeter fencing will be installed and secured (i.e., T-posts, wooden stakes, etc.):

Plastic tarps will be placed over mud pits while in use. Mud pits will be covered when drilling is completed.

Will at least one side of the interior of the drill pits be sloped at 3:1 as a ramp for wildlife escape? ☐ Yes ☐ No

If No, will another type of constructed escape ramp be installed? Describe:

Applicant/Owner/Operator commits to pressure-washing or steam-clean all equipment prior to entering the permit area: ☒ Yes ☐ No

D. Reclamation Details

Describe in general how re-contouring or re-establishment of the surface topography will be restored:

Backfill, regrade drill sites, and rip if necessary. Roads will be regraded and ripped to prevent erosion. All sites will be re-seeded.

Describe how the reclamation of portals, adits, drilling fluid/mud and/or waste pits, shafts, ponds, roads and other disturbances will be performed:

N/A

Is seeding of the reclaimed areas proposed: ☒ Yes ☐ No

If no, provide a justification as to why no revegetation is needed:

Plant mix to be used in the re-establishment of vegetation:

☐ US Forest Service specified mix applied through broadcast at their recommended rate
☐ BLM specified mix applied through broadcast at their recommended rate
☒ Other:

Plant Name	Seeding Rate (lbs./acre)
Blue grama	1
Sideoats grama	2
Sand dropseed	0.25
Indian ricegrass	2
Purple prairie clover	2
Scarlet globemallow	1
Winter cover crop of Triticale	10

Broadcast applied or drill-seeded: ☐ Broadcast ☒ Drill-seeded

Scarification Methods (check all that apply):

- ☐ Primary tillage to greater than 6-inches depth of all constructed drill pads and roads
- ☐ Secondary tillage of all constructed drill pads and roads, and/or overland travel routes
- ■ Chain drag or tire drag over seeds in areas used for overland travel
- ☐ Light raking of soil over seeds in areas used for overland travel
- ☐ None
- ■ Other/describe:

Rip with blade 4-6 inches prior to seeding.

Mulch Use:

- ■ Certified weed-free straw mulch will be placed over areas that have been tilled/disced or ripped at a rate of 2 tons per acre, and will be crimped in place
- ☐ No mulch is proposed

E. Reclamation Timeline

Applicant/Owner/Operator commits to reclamation of the disturbed area as soon as possible following the completion or abandonment of the exploration operation, unless the disturbed area is included within a complete permit application for a new mining permit:

■ Yes ☐ No

Anticipated Start of Reclamation:

- ☐ 0-30 days after completion of drilling
- ■ 31-60 days after completion of drilling
- ☐ Other/specify: _____

SECTION 8 – PERMIT FEES AND FINANCIAL ASSURANCE (§302.I.2 AND 5)

A. Financial assurance must be posted with Mining and Minerals Division prior to approval of this application. The acceptable forms of financial assurance are surety bonds, letters of credit, and certificates of deposit. Provide an estimate of, and an instrument for, the proposed financial assurance required by Subpart 3.

☐ Surety Bond
☒ Letter of Credit
☐ Cash Account / Certificate of Deposit

☒ Estimated amount of financial assurance: $229,922

Or

☐ Applicant will provide the amount of financial assurance calculated by MMD.

B. Attach the permit fees as determined pursuant to Subpart 2. The application fee for a minimal impact exploration permit is $500.00.

☐ Money Order/Cashier's Check
☒ Check

Check Number : 0001003735

Financial Institution: Bank of America N.A.

SECTION 9 – CERTIFICATION REQUIREMENT (§302.I.3 & 4)

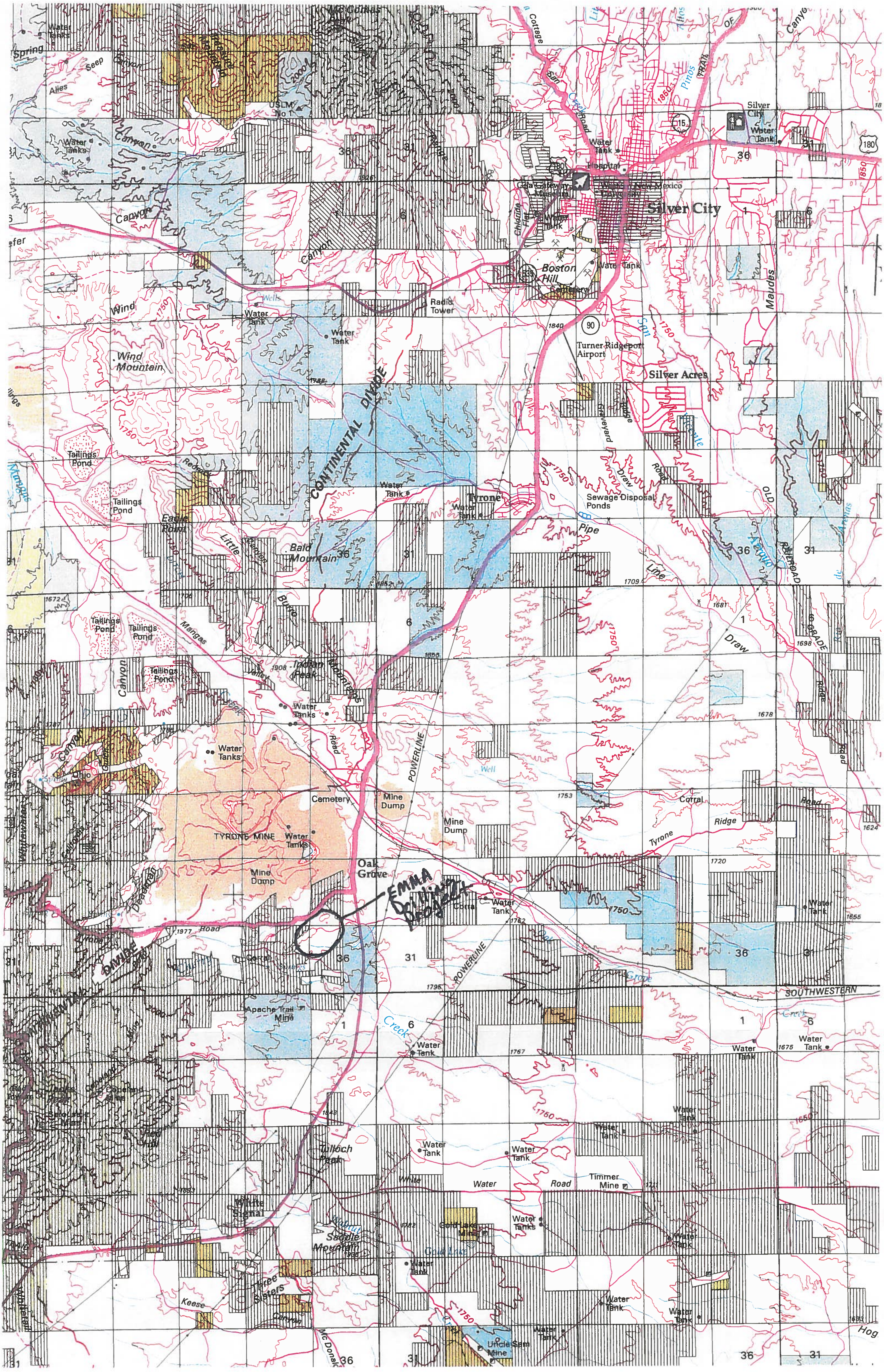
I certify that I have personally examined and am familiar with the information submitted herein, and based on my inquiry of those individuals responsible for obtaining the information; I believe the submitted information is true, accurate, and complete. I agree to comply with the reclamation requirements set forth in this permit application and related correspondence, the New Mexico Mining Act and the Rules. Further, I certify that I am not in violation of any other obligation under the New Mexico Mining Act or the Rules adopted pursuant to that Act and I allow the Director to enter the permit area, without delay, for the purposes of conducting inspections during exploration and reclamation.

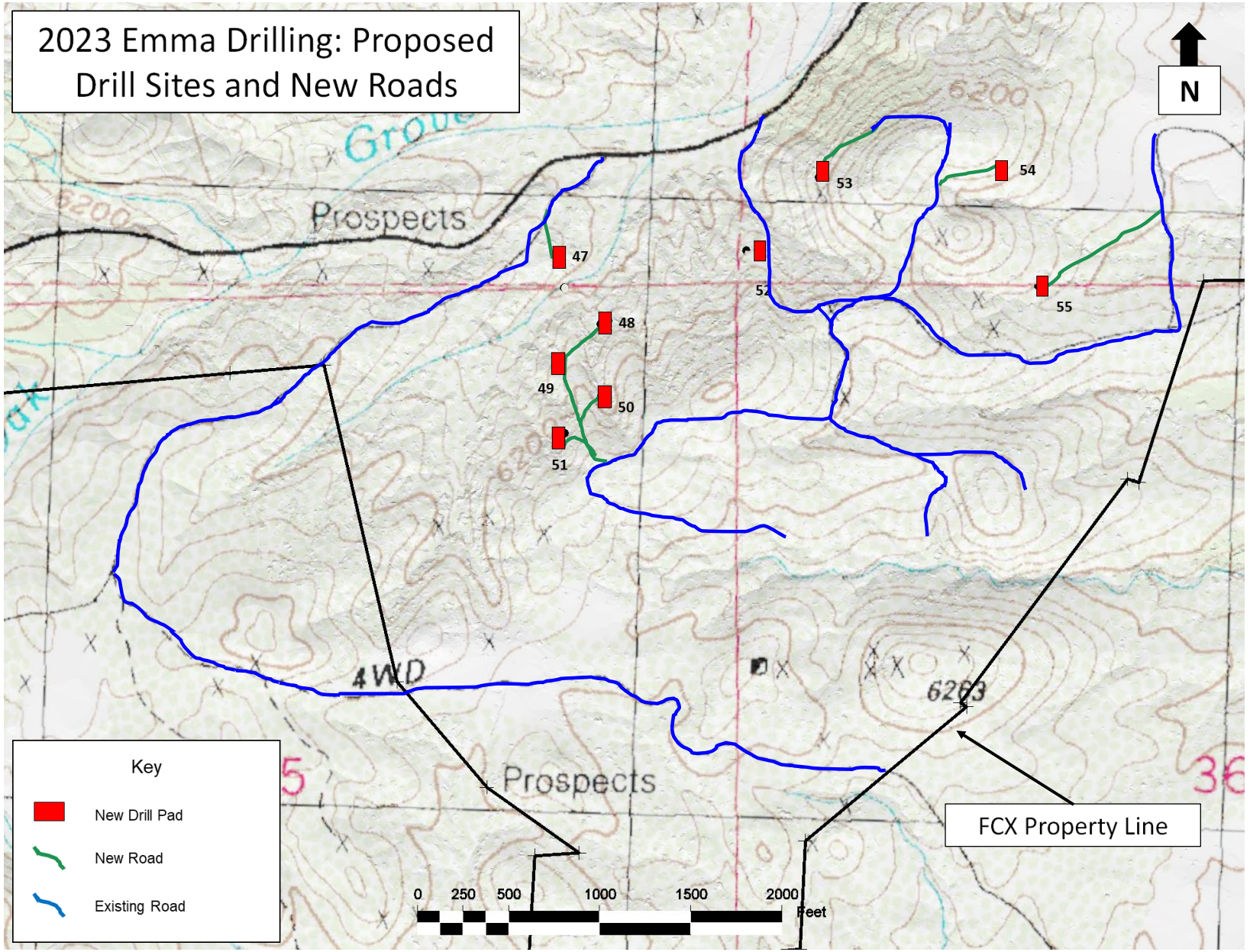
Signature of Permittee or Authorized Agent: _____

Name (type or print): Raechel Roberts

Title/Position: Environmental Scientist II

Date: 11/2/2022


Silver City
Silver Acres
Tyrone
Boston Hill
Western New Mexico University
Gila Gateway Museum
Hospital
Cemetery
Radio Tower
Turner Ridgeport Airport
Sewage Disposal Ponds
Wind Mountain
CONTINENTAL DIVIDE
Bald Mountain
Eagle Point
Indian Peak
Burro Mountains
Tailings Pond
TYRONE MINE
Mine Dump
Oak Grove
Apache Trail Mine
Tulloch Peak
White Signal
Saddle Mountain
Three Sisters
Gold Lake Mine
Uncle Sam Mine
Timmer Mine
Water Tank
Water Tanks
Corral
POWERLINE
SOUTHWESTERN
OLD RAILROAD GRADE
Tyrone Ridge Road
Pipe Line Draw
Graveyard Draw
Mangas
Keese Canyon
Mc Donald
USLM No 1
EMMA Drilling Project


2023 Emma Drilling: Proposed Drill Sites and New Roads
N
Prospects
Prospects
4WD
6200
6263
47
48
49
50
51
52
53
54
55
Key
New Drill Pad
New Road
Existing Road
0 250 500 1000 1500 2000
Feet
FCX Property Line