

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/MARPAApplicationandReportingForms.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 (drill pads, mud pits, and roads will not be counted in excavated materials).
- ☐ 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

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: 575-313-0913

Fax Number: _____ Email: tbays@fmi.com

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

Name: Ty Bays

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.

Applicant 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 #
<input type="checkbox"/> U.S. BLM	_____	_____

<input type="checkbox"/> U.S. Forest Service	_____	_____

<input type="checkbox"/> State of NM	_____	_____

<input checked="" type="checkbox"/> Private/Corporate	_____	_____
Name: Freeport McMoRan Tyrone Mining, LLC P.O. Box 571 Tyrone, NM 889065	_____	<u>575-912-5757</u>
<input type="checkbox"/> Other	_____	_____

Name: _____

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

Name	Address	Phone #
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Mineral Estate Owner(s):

Name	Address	Phone #
<input type="checkbox"/> Bureau of Land Management	_____	_____

<input type="checkbox"/> US Forest Service	_____	_____

<input type="checkbox"/> State of NM	_____	_____

<input type="checkbox"/> Claim/Lease Holder	_____	_____
Name: _____	_____	
Claim Numbers: _____		
<input type="checkbox"/> Claim/Lease Holder	_____	_____
Name: _____	_____	
Claim Numbers: _____		

☒ Other All Private surface and mineral owned by Freeport

McMoRan- Tyrone Mining, LLC _____

Name: _____

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:

A review of the files and data show no known burial sites or cultural sites on this land.

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:

A breeding bird survey will be conducted just prior to construction if construction occurs during the period of May 1 thru August 31. Surveys of soil, vegetation and wildlife for the Tyrone Mine area are summarized in Sections 2.6 and 2.9 of the Revised Closure/Closeout Plan Tyrone Mine dated April 30, 1999 and are applicable to the proposed exploration area.

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_____ Range_____ Section_____

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

I.D. Number	Northing / Latitude	Easting / Longitude	I.D. Number	Northing / Latitude	Easting / Longitude
1	32' 36' 42.57	108'21' 22.47	24	32'36'50.44	108'21'13.64
2	32'36' 46.59	108'21' 18.42	25	32'36'50.49	108'21'18.27
4	32'36' 54.28	108'21' 8.76	26	32'37'6.15	108'21'3.92
5	32'36' 54.40	108'21' 13.56	27	32'36'58.20	108'21'4.03
7	32'36' 54.51	108'21'18.26	28	32'37'2.17	108'21'4.00
8	32'36'58.29	108'21'8.78			
9	32'36'58.43	108'21'18.14			
10	32'36'58.39	108'21'13.39			
11	32'37'2.41	108'21'22.74			
12	32'37'2.42	108'21'18.08			
13	32'37'6.21	108'21'8.63			
14	32'37'10.26	108'21'13.22			
16	32'37'2.32	108'21'13.34			
17	32'37'6.20	108'21'13.20			
18	32'36'42.58	108'21'18.42			
19	32'36'46.44	108'21'13.67			
23	32'36'50.35	108'21'8.94			

Coordinate system used to collect GPS data points:

- ☐ NAD83 Geographic
☐ NAD83 UTM Zone 13 (or 12)

☐ NAD27 Geographic
☐ NAD27 UTM Zone 13 (or 12)

☐ WGS 1984

☐ 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 county maintained road. Approximately 1 mile west turn onto existing access road. Gate is locked and will require an escort to the area by permittee.

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

A. Anticipated exploration: Start Date: 8-1-18 End Date: 12-31-18

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

C. Proposed method(s) of exploration:

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

21 # of holes 1300 Depth (ft.) 6" Diameter (in.)

21 # 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

Approx. Weight of Drill Rig (lbs.) 65,000 lbs Number of Axles: Track mounted

Total length of drill stem that can be carried on the rig: 400' (20' pipe) 8800 lbs.

Is a support pipe truck anticipated? ☒ Yes ☐ No 65,000 Weight (lbs.)

Weight of support compressor (lbs.): N/A Trailer mounted? N/A

Anticipated Drilling Contractor: Layne Christensen License No. WD -1728

☐ **Mud/fluid drilling:**

_____ # 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

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

If mud/fluid pits are proposed:

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

Anticipated excavating equipment: _____

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

Will mud pits be lined?: ☐ Yes ☐ No

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

Approx. Weight of Drill Rig (lbs.) _____ Number of Axles: _____

Anticipated Drilling Contractor: _____ License No. _____

☐ **Test pits / exploratory trenches:**

_____ # of pits _____ Length (ft.) _____ 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 = 1.41 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):

<input checked="" type="checkbox"/> 4x4 Trucks/Vehicles	Quantity:	<u>4 4X4 trucks</u>
<input checked="" type="checkbox"/> Water Truck	Weight (lbs.):	<u>25,000</u>
<input type="checkbox"/> Geophysical Truck	Weight (lbs.):	_____

<input checked="" type="checkbox"/>	Pipe Truck (rig support)	Weight (lbs.):	65,000
<input checked="" type="checkbox"/>	Bulldozer	Type:	Cat D6
<input checked="" type="checkbox"/>	Backhoe	Type:	Cat 420
<input type="checkbox"/>	Trackhoe	Type:	
<input type="checkbox"/>	Scaper/Grader	Type:	
<input type="checkbox"/>	Trailers	Quantity/Type:	
<input checked="" type="checkbox"/>	Portable Toilet	Quantity:	1
<input type="checkbox"/>	Other	List:	

F. Roads and Overland Travel:

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

Description of <i>NEW</i> Roads	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
North of Wash	2,316	15	1.14
South of Wash	2,391	15	.82
TOTAL ACRES DISTURBED BY NEW ROAD CONSTRUCTION :			1.96

Describe how new roads will be constructed: Bulldozer will push them in following GPS
staked points from map.

List for extension or widening of existing roads:

Description of Modification to <i>EXISTING</i> Roads	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)

None			
TOTAL ACRES DISTURBED BY ROAD IMPROVEMENTS :			0

Describe how existing roads will be extended or widened: Existing roads will be bladed of rocks and fallen debris as need to for safe passage.

List for routes of overland travel:

Description of <i>OVERLAND TRAVEL</i> Routes	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
TOTAL ACRES DISTURBED BY OVERLAND TRAVEL :			

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.

None on site

H. **TOTAL ACREAGE TO BE DISTURBED BY PROJECT** = 3.37 **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.

<input checked="" type="checkbox"/> Drilling Mud (i.e., EZ Mud)	Type/Quantity:	EZ Mud Gold 3 5 gallon buckets
<input checked="" type="checkbox"/> Diesel Fuel	Quantity:	7,500 gallons
<input type="checkbox"/> Down-hole Lubricants	Type/Quantity:	
<input type="checkbox"/> Lost Circulation Materials	Type/Quantity:	
<input checked="" type="checkbox"/> Oils/Grease	Quantity:	12 tubes of grease/ 25 gal 15/40 oil
<input type="checkbox"/> Gasoline	Quantity:	
<input checked="" type="checkbox"/> Hydraulic Fluid	Quantity:	10 gallons
<input type="checkbox"/> Ethylene Glycol	Quantity:	
<input checked="" type="checkbox"/> Cement	Type/Quantity:	Portland II / 660 50lb bags
<input checked="" type="checkbox"/> Water	Source:	Tyrone Mine
<input checked="" type="checkbox"/> Bentonite	Quantity:	Quick Gel / 66 50lb bags
<input type="checkbox"/> Fertilizer	Type/Quantity:	
<input checked="" type="checkbox"/> Other	Type/Quantity:	Soda Ash/ 2 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 the sump with water.

Portland II cement is used to abandon/plug the hole. Petroleum products will be used to equipment and all disposal will be offsite.

C. Describe where equipment fueling/refueling will occur:

Drill rig refueling will be done on-site via pickup with fuel tank. Soils 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:

Removed and disposed of with licensed PCS containment facility.

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

☒ Bentonite clay or cat litter

☒ Adsorbent pads, rolls, mats, socks, pillows, dikes, etc.

☒ 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): ☒ 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): unknown

Describe the source of this information: Area well logs

- 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 1 (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 ($\geq 20\%$ 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 ($\geq 20\%$ 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): Stockpiled in place and used for reclamation.

☐ 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 fencing. 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.):

T-Posts

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:

Back fill pits regrade drill sites and ripping 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:

Same as roads and drill pads- regrading and seeding.

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 gramma	2.5
Sideoats gramma	4.5
Yellow sweet clover	10
Oats	12

_____	_____
_____	_____
_____	_____
_____	_____

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/disc'd 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: See attached

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 : _____

Financial Institution: _____

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): _____

Title/Position: _____

Date: _____

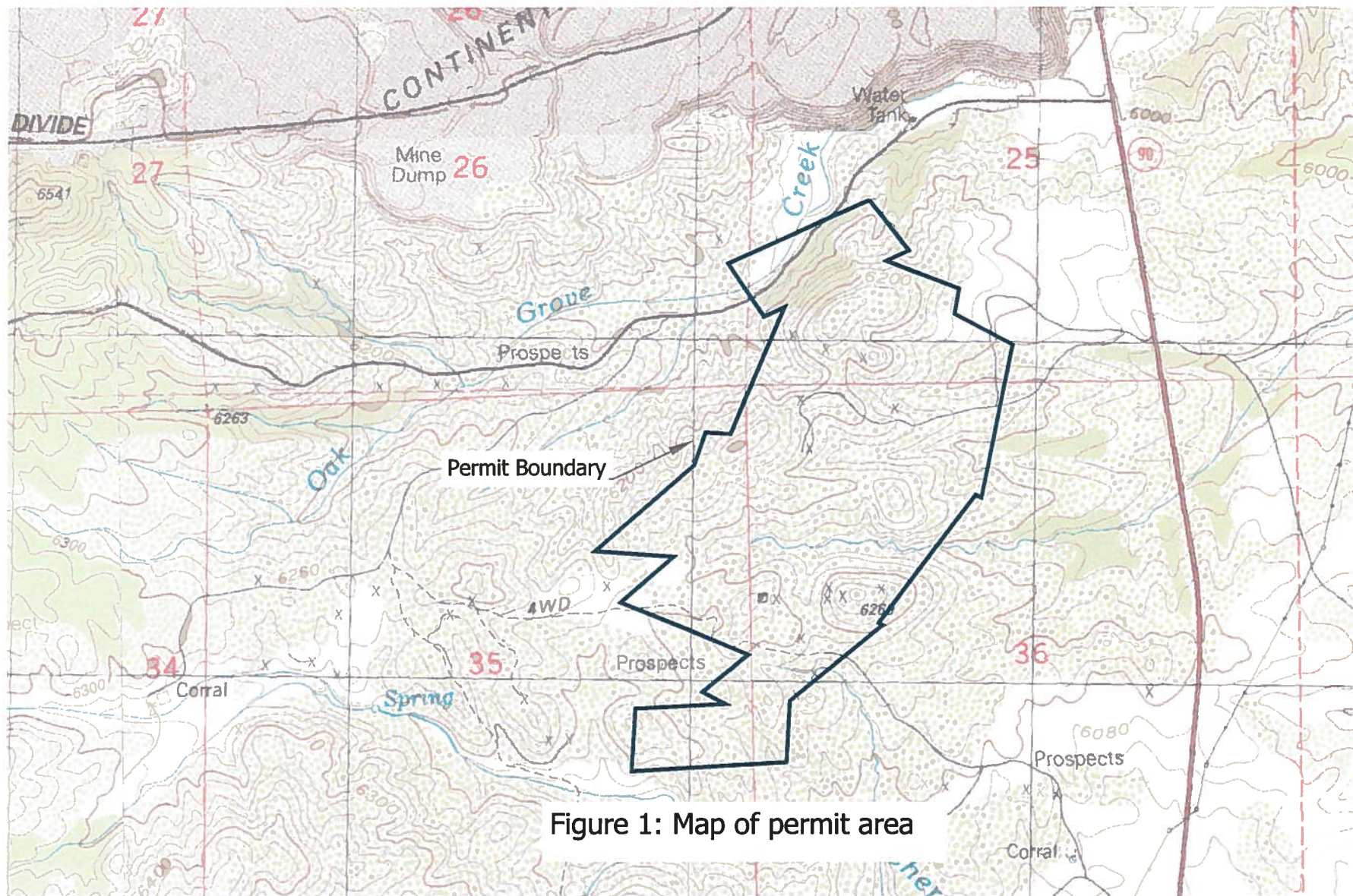
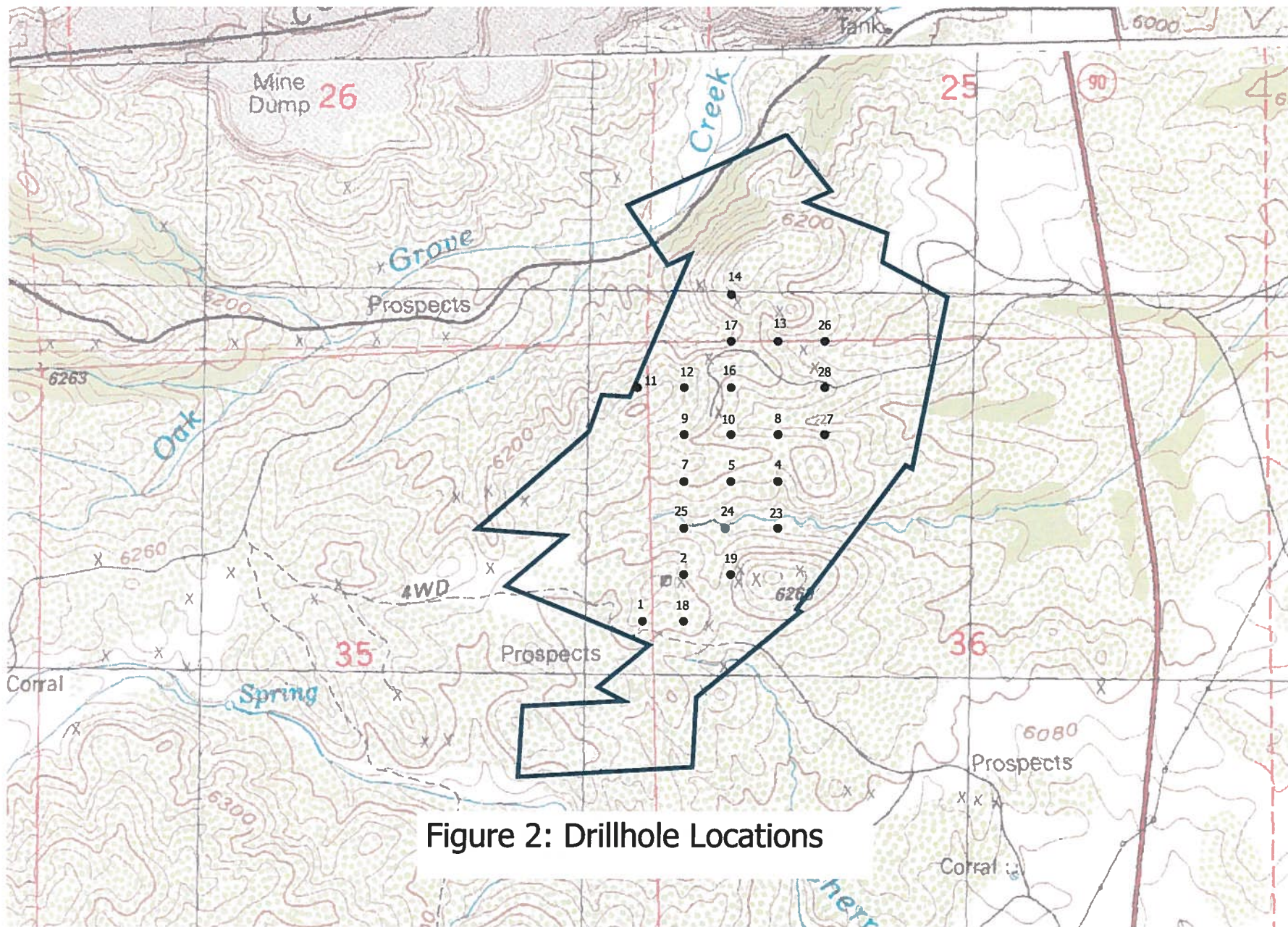
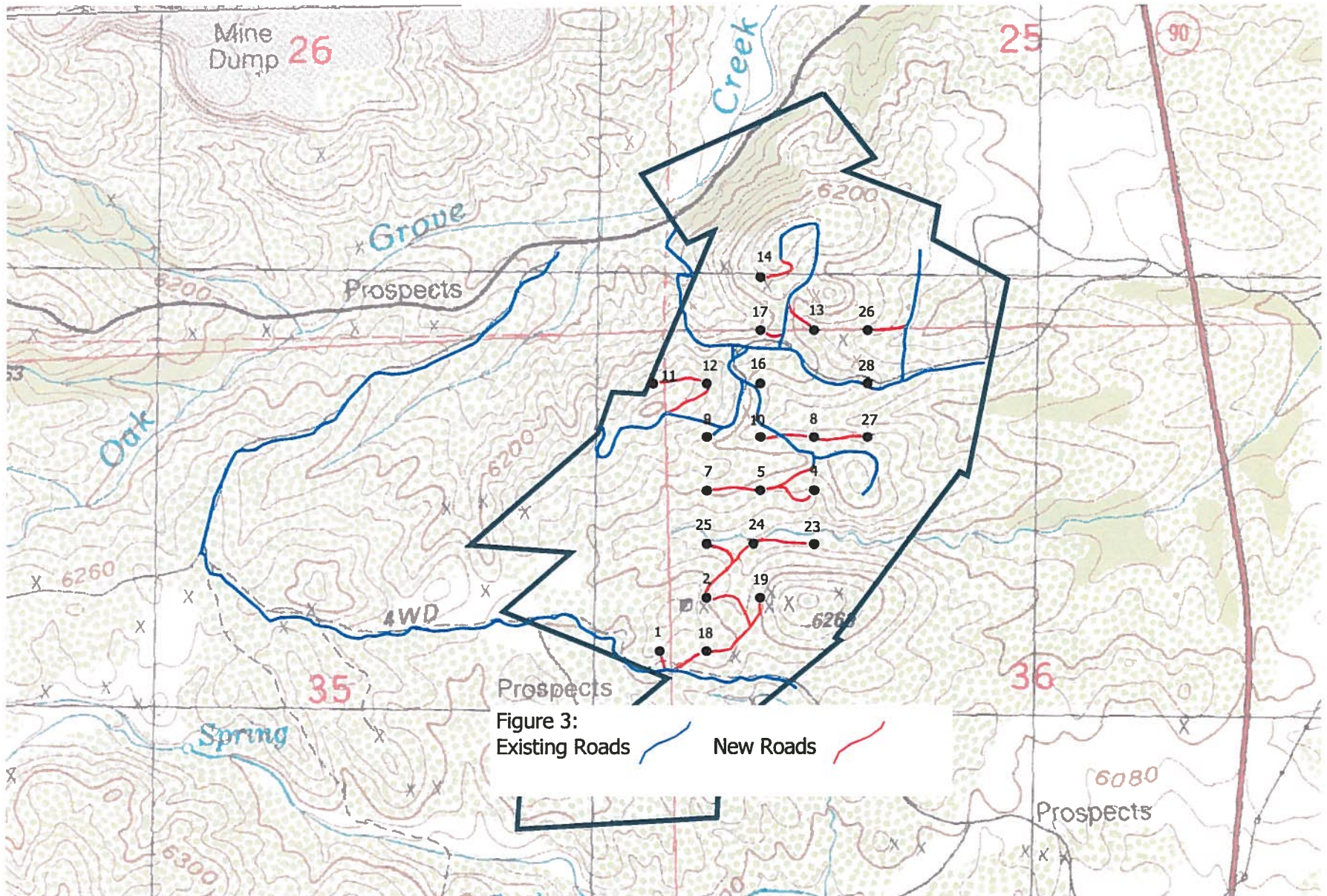


Figure 1: Map of permit area





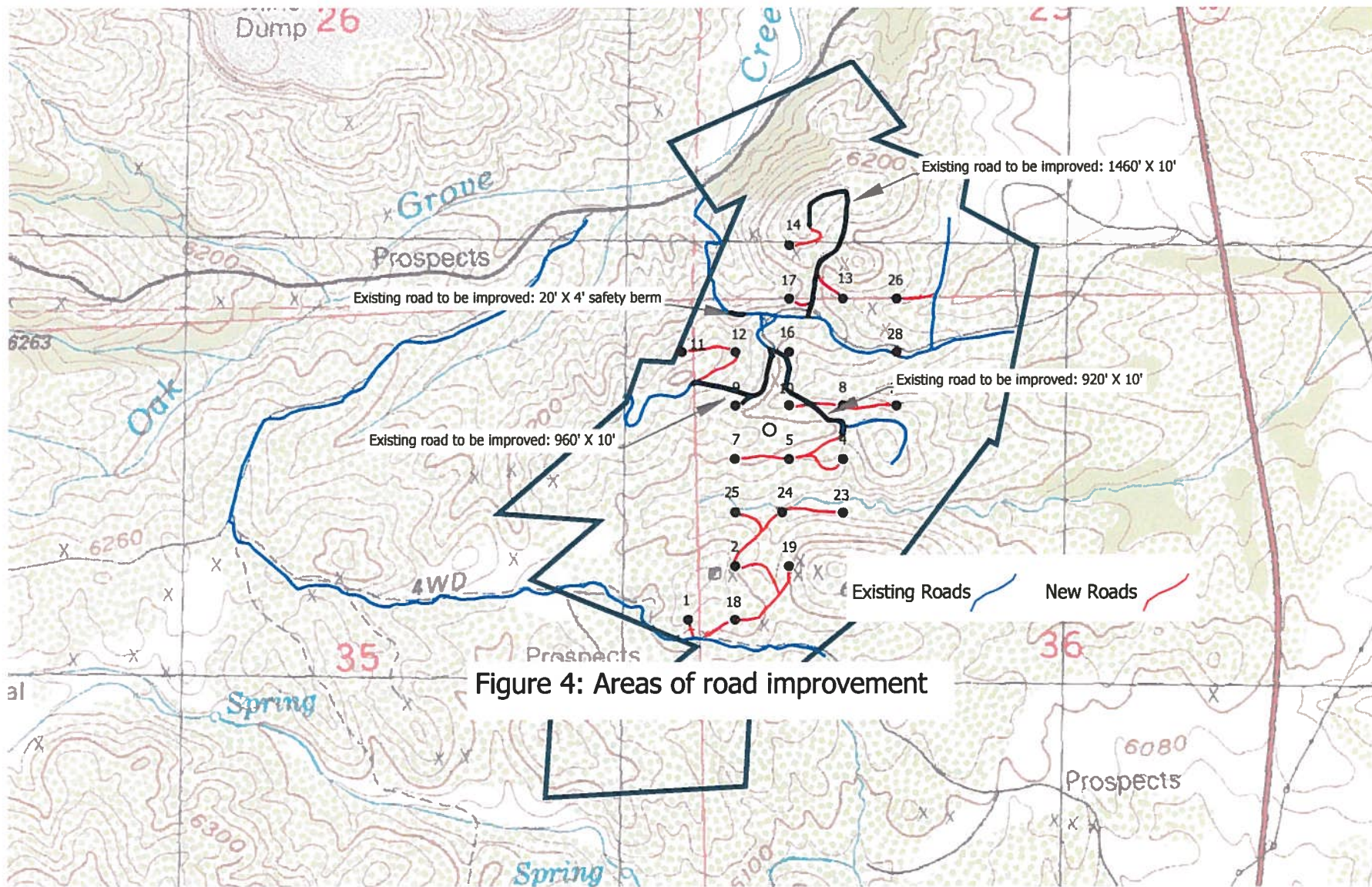


Figure 4: Areas of road improvement

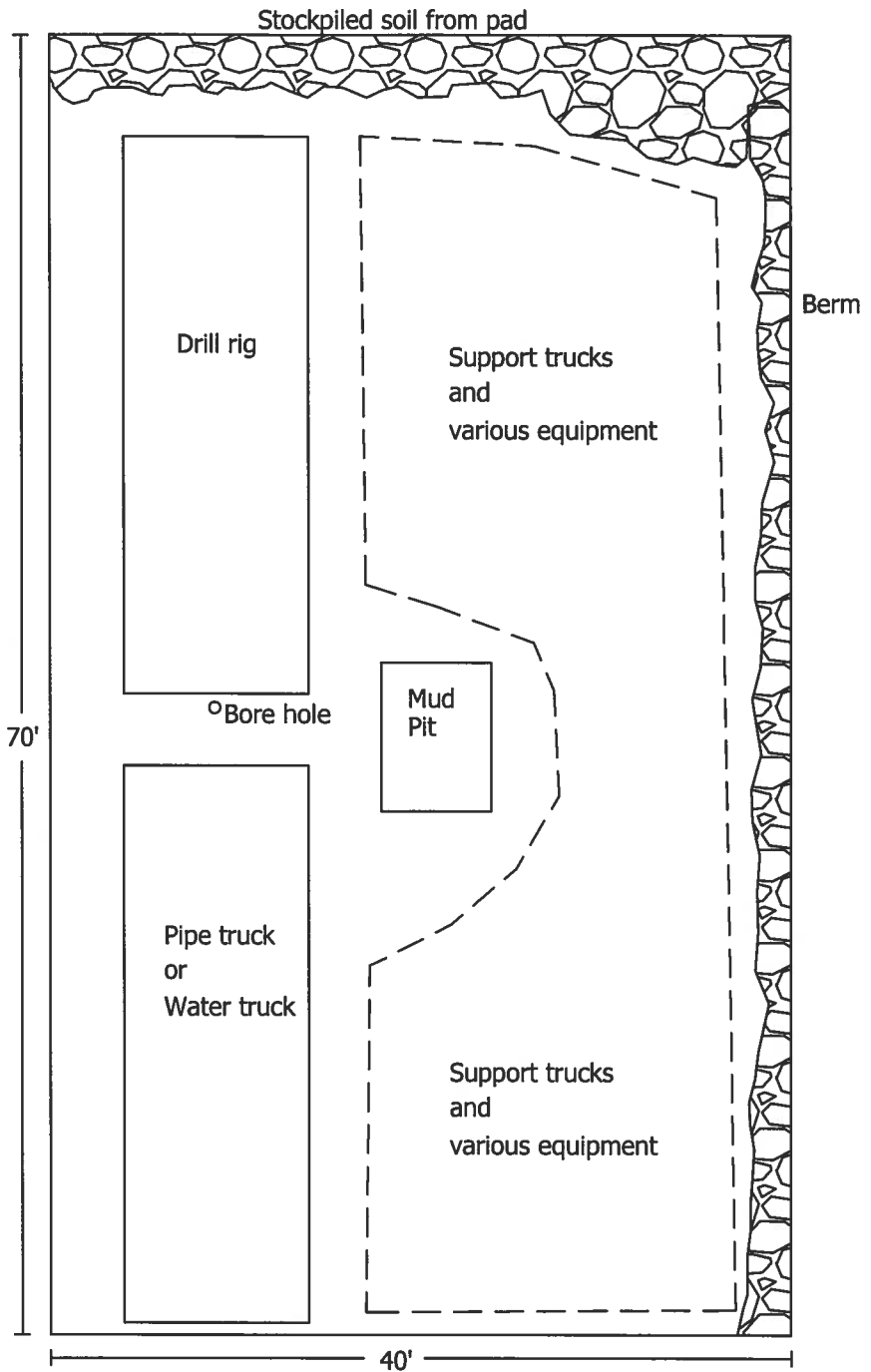


Figure 5: Typical drill pad layout. Drill pads will be constructed for all boreholes in this project

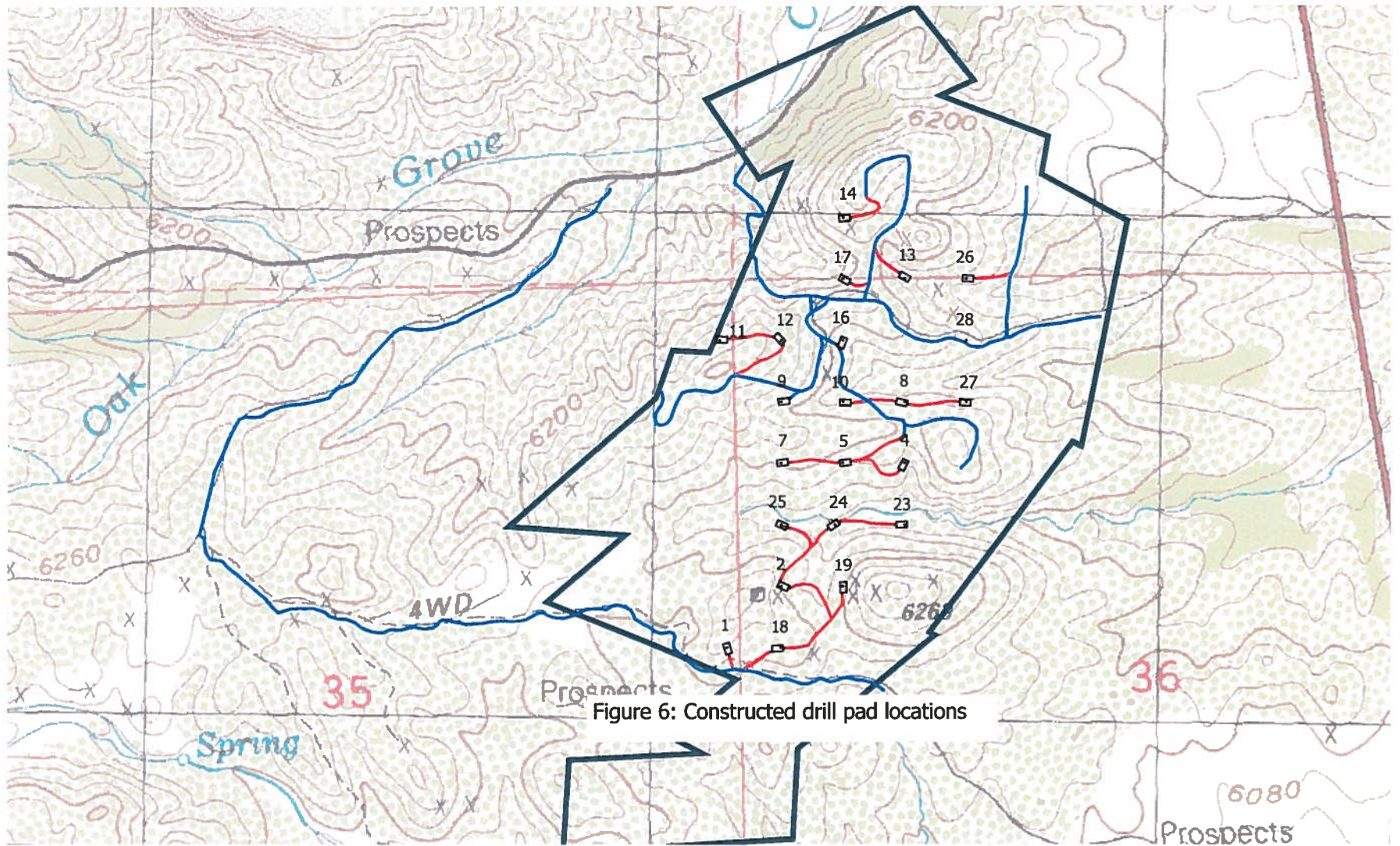
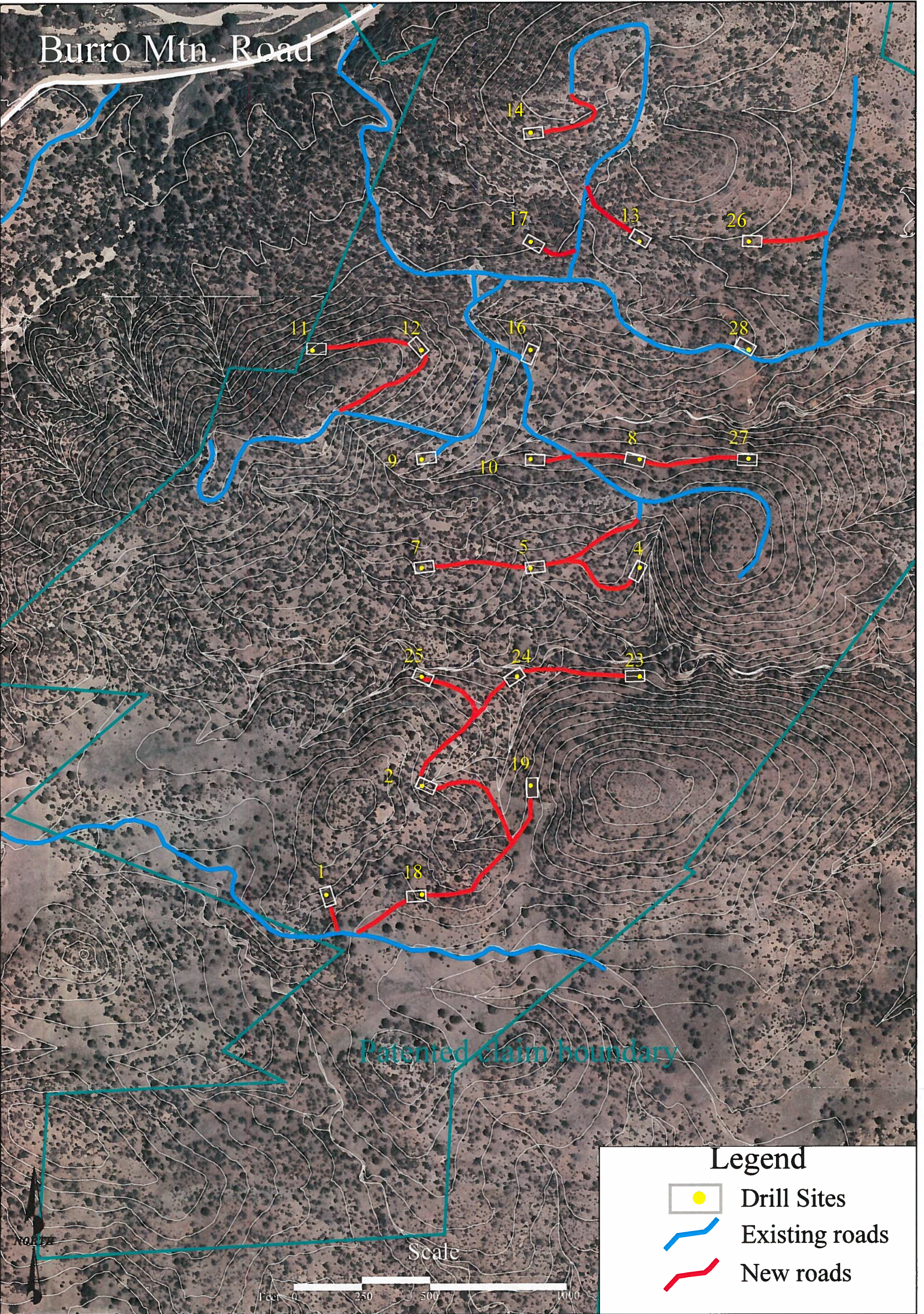


Figure 6: Constructed drill pad locations



2018 Drill Site Permits
Tyrone Mine
May 21, 2018

Date: 05/21/2018
Dept: Geology
By: Bonnie Ertel-Arfsten



STATE OF NEW MEXICO

OFFICE OF THE STATE ENGINEER

DEMING

JOHN R. D'ANTONIO, JR., P.E.
State Engineer

July 23, 2008

Post Office Box 844
Deming, New Mexico 88031
(505) 546-2851
(505) 546-7452
Fax: (505) 546-2290

Freeport-McMoRan Copper & Gold
Tyrone Operations
Attn: Jerry Donaldson
PO Drawer 571
Tyrone, New Mexico 88065

Greetings:

This office is in receipt of your letter of June 30, 2008 wherein you request a variance from New Mexico Administration Code 19.27.4.30.C by establishing an approved plugging procedure to conserve time and resources of Freeport-McMoRan.

I have reviewed your proposed procedure of cementing any necessary monitor wells by grouting via a tremie line from the bottom up to the surface utilizing a pressure grout pump and cutting off the well head below land surface after plugging. Said grout to be mixed on site with 5 gallons of water per 94-pound sack of Portland cement. As this plan would meet artesian well plugging requirements, it is acceptable and therefore your variance is granted. Plugging records for monitor wells plugged under this variance shall be filed within 10 days of the completion of the plugging and shall include the completed Well Plugging Procedure form as proposed by Freeport-McMoRan in this variance request and a copy of this variance approval.

All necessary requirements placed on Freeport-McMoRan by the New Mexico Environment Department or any other administrative agency related to the plugging of any monitor wells shall be met.

This variance shall remain in effect until further notice from the Office of the State Engineer and shall be limited to the emergency plugging of monitor wells located within the Tyrone Mining Facility that would immediately impact mining operations.

If further discussion would be beneficial, please advise.

Sincerely,

A handwritten signature in black ink, appearing to read "CLJ".

Charles L. Jackson, MPA
District 3 Supervisor

CLJ:clj

File No.



NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

Purpose	<input type="checkbox"/> Pollution Control And/Or Recovery	<input type="checkbox"/> Ground Source Heat Pump
<input type="checkbox"/> Exploratory Well (Pump test)	<input type="checkbox"/> Construction Site/Public Works Dewatering	<input checked="" type="checkbox"/> Other(Describe): <i>core drilling</i>
<input type="checkbox"/> Monitoring Well	<input type="checkbox"/> Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☐ Temporary Request - Requested Start Date: _____ Requested End Date: _____

Plugging Plan of Operations Submitted? ☒ Yes ☐ No *on file with OSE*

1. APPLICANT(S)

Name <i>Freeport McMoRan - Tyrone Mining Inc</i>	Name <i>Ty Bays</i>
Contact or Agent <i>Ty Bays</i> check here if Agent <input type="checkbox"/>	Contact or Agent check here if Agent <input checked="" type="checkbox"/>
Mailing Address <i>P.O. Box 571</i>	Mailing Address <i>P.O. Box 571</i>
City <i>Tyrone</i>	City <i>Tyrone</i>
State <i>NM</i> Zip Code <i>88065</i>	State <i>NM</i> Zip Code <i>88065</i>
Phone Phone (Work) <input type="checkbox"/> Home <input type="checkbox"/> Cell	Phone: Phone (Work): <i>575-912-5757</i> <input type="checkbox"/> Home <input type="checkbox"/> Cell
E-mail (optional):	E-mail (optional): <i>tbays@fmi.com</i>

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 11/17/16

File No.:	Trn No.:	Receipt No.:
Trans Description (optional):		
Sub-Basin:	PCW/LOG Due Date	

2. WELL(S) Describe the well(s) applicable to this application

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
 ☐ NM West Zone
 ☐ NM East Zone
 ☐ NM Central Zone
 ☐ UTM (NAD83) (Meters)
 ☐ Zone 12N
 ☐ Zone 13N
 ☐ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
1	108° 21' 22.47	32° 36' 42.57	SW SW NW S. 36, T. 19S, R. 15W
2	108° 21' 18.42	32° 36' 46.59	NE SW NW S. 36, T. 19S, R. 15W
4	108° 21' 8.76	32° 36' 54.28	SE SE NW S. 36, T. 19S, R. 15W
5	108° 21' 13.56	32° 36' 54.40	SW SE NW S. 36, T. 19S, R. 15W
7	108° 21' 18.26	32° 36' 54.51	SW SW NW S. 36, T. 19S, R. 15W

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 - POD Descriptions)

Additional well descriptions are attached: ☐ Yes ☐ No If yes, how many _____

Other description relating well to common landmarks, streets, or other: _____

Well is on land owned by: Freeport McMoran - Tyrone Mining LLC

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ☒ Yes ☐ No
If yes, how many 21

Approximate depth of well (feet): 1,200 Outside diameter of well casing (inches): 6 inches

Driller Name: Layne Christensen Driller License Number: WD-1728

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Core drilling for mineral exploration purposes.

FOR OSE INTERNAL USE

Application for Permit Form WR-07

File No.:	Trn No.:
-----------	----------



NEW MEXICO OFFICE OF THE STATE ENGINEER



ATTACHMENT 1 POINT OF DIVERSION DESCRIPTIONS

This Attachment is to be completed if more than one (1) point of diversion is described on an Application or Declaration.

a. Is this a: <input type="checkbox"/> Move-From Point of Diversion(s) <input type="checkbox"/> Move-To Point of Diversion(s)		b. Information on Attachment(s): Number of points of diversion involved in the application _____ Total number of pages attached to the application: _____	
<input type="checkbox"/> Surface Point of Diversion OR <input type="checkbox"/> Well			
Name of ditch, acequia, or spring:			
Stream or water course:			
Tributary of:			
c. Location (Required): Required: Move to POD location coordinate must be either New Mexico State Plane (NAD83), UTM (NAD83), or Latitude/Longitude (WGS84)			
NM State Plane (NAD83) (feet) NM West Zone <input type="checkbox"/> NM Central Zone <input type="checkbox"/> NM East Zone <input type="checkbox"/>	UTM (NAD83) (meters) Zone 13N <input type="checkbox"/> Zone 12N <input type="checkbox"/>	<input type="checkbox"/> Lat/Long-- (WGS84) 1/10 th of second	OTHER (allowable only for private property descriptions - see application form for format) <input type="checkbox"/> PLSS (quarters, section, township, range) <input type="checkbox"/> Hydrographic Survey, Map & Tract <input type="checkbox"/> Lot, Block & Subdivision <input type="checkbox"/> Grant
POD Number: 8	X or Longitude 108° 21' 8.78	Y or Latitude 32° 36' 58.29	Other Location Description: SW NE NW S. 36 T. 19S. R. 15W
POD Number: 9	X or Longitude 108° 21' 18.14	Y or Latitude 32° 36' 58.43	Other Location Description: SW SW NW S. 36 T. 19S. R. 15W
POD Number: 10	X or Longitude 108° 21' 13.39	Y or Latitude 32° 36' 58.39	Other Location Description: SE SW NW S. 36 T. 19S. R. 15W
POD Number: 11	X or Longitude 108° 21' 22.74	Y or Latitude 32° 37' 2.41	Other Location Description: NW NW NW S. 36 T. 19S. R. 15W
POD Number: 12	X or Longitude 108° 21' 18.08	Y or Latitude 32° 37' 2.42	Other Location Description: SE NW NW S. 36 T. 19S. R. 15W
POD Number: 13	X or Longitude 108° 21' 8.63	Y or Latitude 32° 37' 4.21	Other Location Description: SE SE SW S. 25 T. 19S. R. 15W
POD Number: 14	X or Longitude 108° 21' 13.22	Y or Latitude 32° 37' 10.26	Other Location Description: SW SW SW S. 25 T. 19S. R. 15W
POD Number: 16	X or Longitude 108° 21' 13.34	Y or Latitude 32° 37' 2.32	Other Location Description: SE NE NW S. 36 T. 19S. R. 15W
POD Number: 17	X or Longitude 108° 21' 13.20	Y or Latitude 32° 37' 6.20	Other Location Description: SE SE SW S. 25 T. 19S. R. 15W

FOR OSE INTERNAL USE

Form wr-08

POD DESCRIPTIONS - ATTACHMENT 1

File Number:	Trn Number:
Trans Description (optional):	

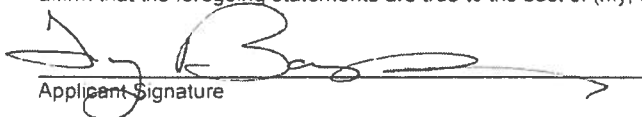
4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application.

Exploratory: <input checked="" type="checkbox"/> Include a description of any proposed pump test, if applicable.	Pollution Control and/or Recovery: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge.	Construction De-Watering: <input type="checkbox"/> Include a description of the proposed dewatering operation, <input type="checkbox"/> The estimated duration of the operation, <input type="checkbox"/> The maximum amount of water to be diverted, <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of.	Mine De-Watering: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water.
Monitoring: <input type="checkbox"/> Include the reason for the monitoring well, and, <input type="checkbox"/> The duration of the planned monitoring.	<input type="checkbox"/> The method of measurement of water produced and discharged. <input type="checkbox"/> The source of water to be injected. <input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	Ground Source Heat Pump: <input type="checkbox"/> Include a description of the geothermal heat exchange project, <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	<input type="checkbox"/> The method of measurement of water diverted. <input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.

ACKNOWLEDGEMENT

I, We (name of applicant(s)). Freeport McMoRan-Tyrole Mining LLC
 Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.


 Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☐ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this _____ day of _____ 20 _____, for the State Engineer.

_____, State Engineer

By: _____
 Signature

Print

Title: _____
 Print

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.:

Tm No.:

File No. _____



NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees see State Engineer website <http://www.ose.state.nm.us/>

Purpose:	<input type="checkbox"/> Pollution Control And/Or Recovery	<input type="checkbox"/> Ground Source Heat Pump
<input type="checkbox"/> Exploratory Well (Pump test)	<input type="checkbox"/> Construction Site/Public Works Dewatering	<input checked="" type="checkbox"/> Other(Describe): <i>Core drilling</i>
<input type="checkbox"/> Monitoring Well	<input type="checkbox"/> Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

<input type="checkbox"/> Temporary Request - Requested Start Date:	Requested End Date:
--	---------------------

Plugging Plan of Operations Submitted? ☒ Yes ☐ No *on file with OSE*

1. APPLICANT(S)

Name: <i>Freeport McMoran - Tyrone Mining LLC</i>	Name: <i>Ty BAYS</i>
Contact or Agent: <i>Ty BAYS</i> check here if Agent <input checked="" type="checkbox"/>	Contact or Agent: <i>Ty BAYS</i> check here if Agent <input checked="" type="checkbox"/>
Mailing Address: <i>P.O. Box 571</i>	Mailing Address: <i>P.O. Box 571</i>
City: <i>Tyrone</i>	City: <i>Tyrone</i>
State: <i>NM</i> Zip Code: <i>88065</i>	State: <i>NM</i> Zip Code: <i>88065</i>
Phone: <input type="checkbox"/> Home <input type="checkbox"/> Cell	Phone: <input type="checkbox"/> Home <input type="checkbox"/> Cell
Phone (Work):	Phone (Work): <i>575-912-5757</i>
E-mail (optional):	E-mail (optional): <i>tbays@fmi.com</i>

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 11/17/16

File No.:	Trn. No.:	Receipt No.:
Trans Description (optional):		
Sub-Basin:	PCW/LOG Due Date:	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84). District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.			
<input type="checkbox"/> NM State Plane (NAD83) (Feet) <input type="checkbox"/> UTM (NAD83) (Meters) <input type="checkbox"/> Lat/Long (WGS84) (to the nearest 1/10 th of second)			
<input type="checkbox"/> NM West Zone <input type="checkbox"/> Zone 12N <input type="checkbox"/> NM East Zone <input type="checkbox"/> Zone 13N <input type="checkbox"/> NM Central Zone			
Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
23	108° 21' 8.94	32° 36' 50.35	SW NE NW S. 36, T. 19S, R. 15W
24 amended	108° 21' 14.16	32° 36' 50.44	NE SW NW S. 36, T. 19S, R. 15W
NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 - POD Descriptions) Additional well descriptions are attached: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, how many _____ Other description relating well to common landmarks, streets, or other.			
Well is on land owned by: <u>Freeport McMoran - Tyrone Mining LLC</u>			
Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how many _____			
Approximate depth of well (feet): <u>1200</u>		Outside diameter of well casing (inches): <u>6 inches</u>	
Driller Name: <u>Wayne Christensen</u>		Driller License Number: <u>WD-1728</u>	

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Core drilling for mineral exploration purposes.

FOR USE INTERNAL USE

Application for Permit. Form WR-07

File No.:	Trm No.:
-----------	----------

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: <input checked="" type="checkbox"/> Include a description of any proposed pump test, if applicable.	Pollution Control and/or Recovery: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge.	Construction De-Watering: <input type="checkbox"/> Include a description of the proposed dewatering operation. <input type="checkbox"/> The estimated duration of the operation. <input type="checkbox"/> The maximum amount of water to be diverted. <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of.	Mine De-Watering: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water.
Monitoring: <input type="checkbox"/> Include the reason for the monitoring well, and, <input type="checkbox"/> The duration of the planned monitoring.	<input type="checkbox"/> The method of measurement of water produced and discharged. <input type="checkbox"/> The source of water to be injected. <input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	Ground Source Heat Pump: <input type="checkbox"/> Include a description of the geothermal heat exchange project. <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	<input type="checkbox"/> The method of measurement of water diverted. <input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Freeport McMoran-Tyrole Mining LLC
 Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

[Signature]
 Applicant Signature

 Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☐ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this _____ day of _____ 20 _____ for the State Engineer,

_____, State Engineer

By:

Signature

Print

Title:

Print

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.:

Trn No.:

2018 Revegetation Cost Estimate for Exploration Drilling

Decription	Unit	Quantity	Unit Rate (\$/unit)	Total Cost (\$)
⁵ CAT 14M Motor Grader	hr	8	\$ 105.64	\$ 845.12
¹ 3/4 ton On-Highway Light Duty Truck	hr	1.6	\$ 10.10	\$ 16.16
⁴ Equipment Operator	hr	9.6	\$ 26.29	\$ 252.38
² UTV	hr	4	\$ 10.10	\$ 40.40
³ Seed	ea	1	\$ 343.12	\$ 343.12
⁴ Laborer	hr	4	\$ 22.73	\$ 90.92
Indirect Costs	ea	39.60%	\$ 517.98	\$ 205.12
Total				\$ 1,793.23

¹Diesel Price at the RAM Gas Station in Silver City, NM (\$3.29/gal) - May 22, 2018

²Cost are unavailable, used 3/4 ton On-Highway Light Truck costs

³Direct quote minus indirect % rate for purchase and shipping to Tyrone Mine

⁴Labor rates were developed based on the New Mexico Department of Labor Type H (Heavy Engineering) labor rates effective January 1, 2018. These rates include base, fringe benefit, and appreticehip contribution rates.

⁵The off-road diesel fuel cost of \$2.75/gal was based on a quote obtained March 12, 2018 from Griffin Propane for the delivery of dyed ultra-low sulfur diesel fuel.



www.equipmentwatch.com

All prices shown in US\$

Custom Cost Evaluator

May 23, 2018

Miscellaneous 4X2 3/4 160 CONV DSL

On-Highway Light Duty Trucks

Size Class:
100 - 199 HP
Weight:
4,000 lbs.

Configuration for 4X2 3/4 160 CONV DSL

Axle Configuration	4X2	Power Mode	Diesel
Horsepower	160	Cab Type	Conventional
Ton Rating	3/4		

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	\$2.51/hr	\$2.36/hr	-6%
Cost of Facilities Capital (CFC)	\$0.20/hr	-	-
Overhead	\$0.40/hr	\$0.00/hr	-100%
Overhaul Labor	\$0.79/hr	\$0.36/hr	-54.4%
Overhaul Parts	\$0.58/hr	-	-
Total Hourly Ownership Cost:	\$4.48/hr	\$3.50/hr	-21.9%
User Defined Adjustments: Annual Overhead (\$804.37 -> \$1.00) Sales Tax (5.1% -> 0%)			

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	\$0.99/hr	\$0.45/hr	-54.5%
Field Parts	\$0.56/hr	-	-
Ground Engaging Component (GEC)	\$0.00/hr	-	-
Tire	\$0.41/hr	-	-
Electrical/Fuel	\$4.93/hr	\$4.53/hr	-8.1%
Lube	\$0.65/hr	-	-
Total Operating Ownership Cost:	\$7.54/hr	\$6.60/hr	-12.5%
User Defined Adjustments: Diesel Cost (2.57 -> 2.36) Mechanics Wage (\$58.29 -> \$26.39)			

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	\$4.48/hr	\$3.50/hr	-21.9%
Hourly Operating Costs	\$7.54/hr	\$6.60/hr	-12.5%
Total Hourly Cost	\$12.02	\$10.10/hr	-16%

Non-active use rates

	Standard Value	User Adjusted Value	Variance
Standby	\$3.11/hr	\$2.56/hr	-17.7%
Idle	\$9.41/hr	\$8.03/hr	-14.7%

Revised Date: 1st Half 2018

The equipment represented in this report has been exclusively prepared for MANDY LILLA (milla@fmi.com)

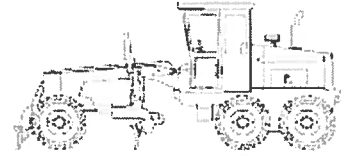
Custom Cost Evaluator

May 23, 2018

Caterpillar 14M

Articulated Frame Graders

Size Class:
250 HP & Over
Weight:
46,796 lbs.



Configuration for 14M

Power Mode	Diesel	Net Horsepower	259 hp
Operator Protection	EROPS	Moldboard Size	14 ft

Hourly Ownership Costs

	Standard Value	User Adjusted Value	Variance
Depreciation	\$30.16/hr	\$28.25/hr	-6.3%
Cost of Facilities Capital (CFC)	\$6.77/hr	-	-
Overhead	\$19.15/hr	\$0.00/hr	-100%
Overhaul Labor	\$7.49/hr	\$3.39/hr	-54.7%
Overhaul Parts	\$17.11/hr	-	-
Total Hourly Ownership Cost:	\$80.68/hr	\$55.52/hr	-31.2%
User Defined Adjustments: Annual Overhead (\$26,805.07 -> \$1.00) Sales Tax (5.1% -> 0%)			

Hourly Operating Costs

	Standard Value	User Adjusted Value	Variance
Field Labor	\$6.25/hr	\$2.83/hr	-54.7%
Field Parts	\$16.59/hr	-	-
Ground Engaging Component (GEC)	\$1.38/hr	-	-
Tire	\$7.00/hr	-	-
Electrical/Fuel	\$21.30/hr	\$16.33/hr	-23.3%
Lube	\$5.99/hr	-	-
Total Operating Ownership Cost:	\$58.51/hr	\$50.12/hr	-14.3%
User Defined Adjustments: Diesel Cost (2.57 -> 1.97) Mechanics Wage (\$58.29 -> \$26.39)			

Total

	Standard Value	User Adjusted Value	Variance
Hourly Ownership Costs	\$80.68/hr	\$55.52/hr	-31.2%
Hourly Operating Costs	\$58.51/hr	\$50.12/hr	-14.3%
Total Hourly Cost	\$139.19	\$105.64/hr	-24.1%

Non-active use rates

	Standard Value	User Adjusted Value	Variance
Standby	\$56.08/hr	\$35.02/hr	-37.6%
Idle	\$101.98/hr	\$71.85/hr	-29.5%

Revised Date: 1st Half 2018

The equipment represented in this report has been exclusively prepared for MANDY LILLA (mlilla@fmi.com)