January 14, 2018

Frank Bain 2425 Chof Trail Flagstaff, AZ 86005

Mr. Clint Chisler
New Mexico Mining and Minerals Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Permit No. H1018EM - Hidalgo County, New Mexico

Dear Mr. Chisler -

I received your letter with questions from your agency and others regarding the proposed lithium exploration drilling on the Lordsburg Playa and will provide answers as best I can.

#### MMD Comments:

1. Total estimated disturbance for 5 drill holes - Only 2 holes will be drilled for Phase I, status of the remaining 3 holes depends on Phase I assay results.

5 pads, 50 x 30 feet, pads will not be bladed - 7,500 sq. ft or .172 acres
No constructed access roads are planned as the flat terrain will permit cross country access

to drill sites but some smoothing may be needed as "necessary". Will use the figure -

1.0 miles of light surface blading - 5,280 x 12 feet = sq. ft. or 1.45 acres

Repairs will be made as necessary on existing roads where washouts have occurred.

5 mud pits 10 x 15 feet - 750 sq. ft or .017 acres

Total Estimated Disturbance in Acres - 1.64 acres

- 2. Anticipated mud pit size  $10 \times 15 \times 10$  feet. Please keep in mind that flow rates from the unexplored aquifers are unknown and the pit may need to be enlarged by the onsite backhoe to contain the discharged water. The volume of each pit as currently designed will be 56 cubic yards or 270 oil field barrels.
- 3. BLM mining claim numbers have been obtained for 60 claims that are located where the proposed drilling will occur. Please refer to the attached letter dated Dec. 15, 2017 from Roberta Sandoval in the BLM's Santa Fe State Office.
- 4. A copy of the requested ROW access document from Kinder Morgan will be forwarded when obtained.

- 5. It is the BLM's responsibility to provide a cultural resource evaluation of the project area. The survey was formally requested in the Plan of Operations that was submitted to the BLM. A cursory examination of the proposed access routes and drill sites found nothing.
- 6. The OSE does not issue permits until the project is closer to actually happening which includes the completion of the EA and the POO by the BLM. When these document are complete the applications will be refiled with the OSE in Deming, NM. Please refer to the attached letter from the OSE dated October 12, 2017.
- 7. The seed mix was requested by the operator in the Plan of Operations and since the POO has not yet been completed the approved seed mix cannot be supplied at this time. It should noted that the drill pads and access roads when possible will be located on the barren playa surface that will not require reseeding.
- 8. Bonding The operator would like to request the amount calculated for Abandonment and Surface Plugging be reduced by half. The first drill hole will be properly abandoned and plugged before the drill moves off site and the operator will furnish photo documentation. Upon completion of the first hole, the operator requests that the bond then be applied to the second hole. The surface reclamation bond would cover the mud pit while it dries.

# NMED Mining Environmental Compliance Section, Ground Water Quality Bureau Comments:

- 1. Please keep in mind that this is an "Exploration" project. There is one abandoned and non functioning historic well in the area where salt water was found at a depth of 150 feet. Other than this well, there are no other agricultural or domestic wells located anywhere near the project area. Salt water has a very high TDS, usually greater than 5,000 mg/l.
- 2. The mud pit / containment pit as proposed in the Plan of Operations is  $10 \times 15 \times 10$  feet or about 56 cubic yards. The Contingency Plan the onsite backhoe will enlarge the pit as necessary to contain any produced fluids.

## **NMED Surface Water Quality Bureau Comments:**

Under Relevant State and Federal Water Quality Regulations -

There will be no construction activities or discharges that would require an EPA or Corp. of Engineers permit. The Best Management Practices for protecting surface water were noted, it is anticipated that the playa will be dry during the exploration drilling operations.

## **NMED Air Quality Comments:**

The proposed drill sites are located over 3 miles north of Interstate 10 and the affects from any dust clouds raised by equipment traveling to and from the drill sites will have a minimal impact on the Interstate. The other comments were noted.

# NMDCA / HPD Comments:

The Operator has requested that the BLM determine if a cultural resource survey of the project area is necessary and to complete the survey if necessary. A literature search found no listed sites within the project area and a cursory examination of the playa surface near the proposed drill holes found nothing. A formal survey is probably not necessary and the onsite geologist, Mr. Bain is a very experienced paleontologist and archaeologist and will notify the BLM should any antiquities be unearthed.

#### NMOSE Comments:

Two concerns were noted -

- 1. Should highly saline water be encountered in the drill hole(s), quick setting concrete will be used to plug the hole instead of abandonite or bentonite.
- 2. Permits have not been issued by the NMOSE for drilling and plugging.

#### NMDG&F Comments:

In reference to the "large resource extraction operation", a lithium mine on the Lordsburg Playa would not be your typical mine. There would be no earth moving operations, only water wells that would pump salt water to the "mill" and reinjection wells. The actual impact to the playa would consist of gravel roads going to the wells and PVC pipelines on the surface. This would be a very low impact operation should a discovery be made.

### **NMDOT Comments:**

NMDOT comments about blowing dust are noted. The operator believes that should lithium mineralization be discovered in the saltwater brine underlying the northern portion of the playa that it can be extracted without causing any additional impact from blowing dust to Interstate -10 where it crosses the playa. The DOT's comments and ideas about haul roads and

a perceived large mining operation are incorrect. Recovery of the lithium would require no mining, just the drilling of wells to recover and reinject salt water. Access roads would be graveled to prevent dust. If lithium is discovered, it would be a very low impact operation. The light grading, not bulldozing of access roads would be approximately 3 miles or more north of the interstate and impacts from blowing dust at that distance would be negligible, especially since the operator will have an onsite water truck that could water the roads if necessary. Per the request of the BLM, water bars will not be constructed on any of the proposed access roads. Revegetation will not be attempted unless requested by the BLM. The drill pads and access roads will essentially be on the playa surface that is devoid of vegetation where possible. The access roads and drill sites will be sprayed with water upon completion of the project so that a dust preventing crust forms on the soil.

### **EMNRD** - Forestry Division:

The comment about the BLM sensitive species - the night blooming cereus is noted. Should a survey occur and a plant or plants be found, they will be avoided.

Clint, I hope my answers and comments addresses everyone's concerns. Should a discovery be made it would be a kind of "mining" that New Mexico and few others have seen before. I look forward to the day that all the permits are in hand and we can start drilling. Please let me know if you have any other questions, concerns, or a need for additional information.

Regards,

Frank Bain Registered Professional Geologist