



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

December 5, 2012

Myron Andersen
Bar XX Environmental Services
12599 Bighorn Road
Whitewood, SD 57793

Re: **EXNI 419 for VMC, LLC**

Dear Mr. Anderson:

The department is in receipt of the Exploration Notice of Intent (EXNI) that you filed with our office on October 18, 2012, with supplemental information submitted on October 26, November 1 and 13, 2012. The department has determined the Notice of Intent to be procedurally complete. Based on our review of your Notice, we determined the following restrictions are required:

1. This project shall be conducted and reclaimed in such a manner as to prevent any violation of the beneficial uses of specified water quality criteria of any water resources in the area. Exploration activity could occur in areas near intermittent drainages which flow into Spearfish Creek. In accordance with Chapter 74:51, and specifically ARSD 74:51:03:10 (the Belle Fourche River and certain tributaries' uses), the section of Spearfish Creek from the Homestake Hydro-electric Plant intake dam, known as Maurice, in S8, T5N, R2E to Intake Gulch. Spearfish Creek in this area is assigned the following beneficial uses:
 - 1) Domestic water supply waters;
 - 2) Coldwater Permanent Fish Propagation Waters;
 - 7) Immersion recreation waters;
 - 8) Limited Contact Recreation Waters;
 - 9) Wildlife propagation, recreation, and stock watering waters;
 - 10) Irrigation waters; and
 - 11) Commerce and industry waters.

2. No discharge of water or sediments into Spearfish Creek and its ephemeral and intermittent tributaries, including Johnson Gulch, Calamity Gulch or Long Valley, is permitted. Any water will be discharged away from the stream channels and into a settling pond or flat vegetated area to allow suspended solids to settle out. In the event

that it is necessary to discharge into Spearfish Creek and its ephemeral and intermittent tributaries, a South Dakota Surface Water Discharge permit must be obtained.

3. To ensure optimal soil erosion protection, all affected lands shall have adequate sedimentation and erosion control measures applied pursuant to SDCL 45-6C-32 and according to Best Mineral Management Practices. These measures shall be in the form of waterbar construction on access roads where appropriate; revegetation of roads; road embankment slopes; and the installation of straw bale or silt fence type sediment filters wherever necessary. VMC shall inspect, clean out, repair, or upgrade the sediment controls as necessary to prevent degradation of Spearfish Creek and its ephemeral and intermittent tributaries.
4. All topsoil shall be salvaged and stockpiled whenever possible for use in reclamation.
5. When drilling fluids are used and/or when ground water is encountered during drilling, the drilling fluids shall be sufficiently contained to prevent overland flow or discharge to any waters of the state. If water tanks area used in lieu of mud pits, they shall also be sufficiently contained.
6. During periods of active exploration drilling, VMC shall provide, via email, a weekly schedule outlining when and where holes will be drilled so the department can plan inspections and witness plugging activities.
7. All test holes shall be capped, sealed and plugged according to ARSD 74:11:08 (Plugging Standards) immediately following drilling and probing.
8. If surface casing is used in exploration holes, the following requirement shall be met:
 - a) Prior to removal of surface casing, the hole shall be plugged in accordance with ARSD 74:11:08 to a level just below the bottom of the surface casing.
 - b) Following step a), the casing will be removed (when possible) or cut off at least one foot below the ground surface.
 - c) The remainder of the hole will be plugged in accordance with ARSD 74:11:08.
9. If test hole drilling intercept old subsurface mine workings, an alternative plugging procedure will developed by VMC and submitted to Department of Environment and Natural Resources for approval prior to employment.
10. The following seed mix shall be used for reclamation of the affected areas:

Side Oats Gramma	3 lbs. PLS/acre
Western Wheatgrass	3 lbs. PLS/acre
Slender Wheatgrass	1 lb. PLS/acre
Green Needlegrass	2 lbs. PLS/acre
Timothy	1 lb. PLS/acre

White Dutch Clover

1 lb. PLS/acre

11. VMC shall avoid any bones, artifacts, foundation remains, or other evidence of previously unrecorded past human use during exploration activities. For specific direction regarding avoidance of these sites, please contact Michael Fosha of the SD Archaeological Research Center.
12. If any artifacts or other archaeological or cultural resources are discovered during exploration activities, the activities shall be temporarily halted and the state archaeologist notified at once.
13. VMC shall not conduct any exploration activity within 100 feet of the Balmoral Cemetery (site number: 39LA294).
14. VMC shall have a cultural or historic resources survey conducted along the areas (roads) identified for exploration prior to the proposed exploration activity. The results of the survey shall be sent to Michael Fosha of the SD Archaeological Research Center.
15. VMC shall submit to the Department of Game, Fish, and Parks a map showing the location of all open mine adits or openings in the vicinity of proposed exploration activity so they can be assessed for seasonal bat use.
16. VMC shall notify the Department of Game, Fish, and Parks of the following:
 - a) If exploration activities encounter any bat species;
 - b) If exploration activities require entry into underground workings;
 - c) If exploration activity, including drilling, equipment staging or storage, occur within 100 feet of the Dacy Shaft; or
 - d) If any sealing of underground mine adits or openings (other than open trenches) is anticipated.
17. VMC shall notify the Lawrence County Commission and the department's Minerals and Mining Program at least 24 hours prior to any blasting associated with this exploration notice of intent. This will afford the County Commissioners and department staff the opportunity to witness and monitor noise from the blasting.
18. VMC shall notify the department and the Lawrence County Commission, in writing, when exploration drilling encounters ground water. Notification shall be provided as soon as possible, but not more than 30 days after encountering ground water. Notification shall include the location of the test hole, hole collar elevation, depth to the water, and the method used to plug the test hole. Information on the location of these holes will be held confidential pursuant to SDCL 45-6C-14 and 45-6C-35, unless VMC agrees to waive confidentiality.

Please note that we have assigned your Notice of Intent the following number: **EXNI-419**. This Notice allows you to conduct only the type and amount of work which is hereby being approved. Any additional work must be covered by the submission of a new Notice to our office. VMC, LLC may commence with the operation contingent upon compliance with the above restrictions.

Thank you for your interest in and consideration for the natural resources of South Dakota.

Sincerely,

\S/

Michael D. Cepak, P.E.
Natural Resources Engineering Director
Minerals and Mining Program
Telephone: (605) 773-4201
E-mail: mike.cepak@state.sd.us

cc: Stan Michals, Department of Game, Fish and Parks
Michael Fosha, Archaeological Research Center
Mark Keenihan, Rapid City Office