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First name: Diane
Last name: Green
Organization: Idaho Department of Lands
Title: Lands Resource Specialist, Sr.
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SUBJECT: Idaho Department of Lands Comments on Saint Helens Mine Project in Adams County

The following comments from the Idaho Department of Lands (IDL) concern the Saint Helens Mine Project in Adams County, a proposed surface mine that will extract vermiculite-bearing, ultrapotassic rock material from two pits within a single Federal mining claim and within a project boundary of approximately 5 acres. No processing of ore will occur on site.

The applicant will need to adhere to Rules Governing Mined Land Reclamation (Idaho Administrative Code, IDAPA 20.03.02), which enables responsible mineral extraction, while protecting public health, safety, and welfare by ensuring that lands disturbed by exploration and mining operations are operated and reclaimed properly. The applicant will need to request approval by IDL of their Mine Reclamation Plan by completing and submitting the Application for Reclamation Plan Approval with a $500 application fee to the Idaho Department of Lands (IDL). Approval of the Reclamation Plan by IDL along with reclamation financial assurance are both required before the mining operation proceeds.

Prior to beginning any mining covered by an approved reclamation plan, an operator must submit to IDL on the IDL mine reclamation financial assurance form, the financial assurance for reclamation that meets all requirements of IDAPA 20.03.02. The amount of financial assurance shall be the amount necessary for IDL to pay a third-party contractor the estimated reasonable costs of reclamation required under the Reclamation Plan, including the following indirect costs: mobilization and demobilization costs from the nearest community that has at least 2 contractors able to perform the reclamation; contractor profit as a percentage of direct costs; contractor overhead as a percentage of direct costs; contractor insurance as a percentage of labor costs; contractor bonding as a percentage of direct costs; contract administration as a percentage of direct costs; re-engineering for mines with direct reclamation costs over $500,000 (re-engineering will be determined as a percentage of direct costs); contingency as a percentage of direct costs; and other site-specific costs as appropriate. If financial assurance is not received by IDL within 18 months of Reclamation Plan approval by IDL, and operations have not begun, then the IDL will cancel the Reclamation Plan without prejudice. The operator must then resubmit the Application for Reclamation Plan Approval with another $500 application fee to restart the approval process prior to mining. An extension to the 18-month period may be granted by IDL for reasonable cause given, if the request is received prior to the end of that period.

At present, the applicant's submitted Plan of Operations (POO) does not fulfill the requirements of the IDL Application for Reclamation Plan Approval. These unfulfilled requirements and reclamation concerns are listed below.

1.A legal description of the mining location (Township, Range, Section) to the quarter section as per IDAPA 20.03.02.069.03.c.
2.The POO, page 16, Section B., states that there are swales and old mining features present that could direct surface water offsite to the west towards Brundage Road and to an unnamed drainage to the north. It also states that minor low spots and swales also occur on the access road that could drain into Goose Creek. Surface water quality in these drainages could be jeopardized. Therefore, the applicant must clearly describe how surface water will be controlled and kept from leaving the site using and listing the appropriate Best Management

Practices (BMPs) as per IDAPA 20.03.02.069.5.a. and 20.03.02.140.01.
3.It is unclear if the culverts in the POO are existing or will be placed by the Reclamation Plan mine operator. Culverts are required to be a minimum diameter of eighteen (18) inches.
4.The stability of the temporary slopes of backfill placed for winter are a concern. Please provide adequate information on how slope stability will be preserved over the course of winter and spring, with special reference to snowmelt and runoff. Please also address if the pooling of water in the pit from snowmelt might aid in destabilizing the temporary slopes, and, if so, necessary BMPs to alleviate this possible destabilization.
5.The POO states that mining will be done in stages, and that once ore is exhausted from a portion of a pit, then the pit will be reclaimed as soon as possible by using overburden as pit backfill material. Please provide additional details on how this backfill material will be placed in the pits, how it will be adequately compacted, and how adequate drainage will be established.
6.There are discrepancies in the POO with the stated depth of mining, versus what can be determined from site profiles. Page 10 of the POO states that each pit will be mined to a depth of approximately 25 feet beneath the existing ground surface. The profile on page 44, shows the highest point of the existing surface at approximately 5020, with the deepest point of Stage 3 after mining in the East Pit is at approximately 4950. This apparent 70-foot difference exceeds the 25-foot depth stated in the POO. Please resolve such apparent discrepancies.
7.From the information provided in the POO, it is not completely clear how mining will proceed, especially for the East Pit.
8.On page 32, the POO states that mining of Stage 1 of the East Pit involves "…stripping of overburden (glacial sediments and mining tailings)…." Please clarify the nature of these "mining tailings," which may be historical placer tailings of unknown thickness deposited on glacial sedimentary deposits, and if either of these deposits can be used as growth media for reclamation.
9.From the information provided in the POO, volumes of reclamation material (topsoil and fill) may be lacking in order to achieve final reclamation contours as shown on the various profiles. The applicant will need to show a reasonable match between (a) volumes of ore removed plus reclamation material removed and stockpiled, versus (b) reclamation material placed as fill plus final grading of slopes that will achieve final reclamation contours as shown. Based on our limited examination, the removal of ore will account for about a 50% loss of overall material in the two pits, thereby making the final reclamation contours shown in profile as overly optimistic. To correct this apparent discrepancy would require longer cut slopes outside of the pit areas to achieve final grade. Please address if this assumption is correct, because if it is, then it will increase the overall area of disturbance associated with the two pits, which will likely increase the cost of reclamation financial assurance that must be submitted to IDL before the mining operation proceeds. It may also increase the required application fee to $600 as per IDAPA 20.03.02.068.