State of Utah

Department of Natural Resources

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Division of Oil, Gas & Mining

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January 10, 2005

CERTIFIED RETURN RECEIPT
7099 3400 0016 8896 1638

Tony Christofferson
H.E. Davis Construction, Incorporated
525 West Arrowhead Trail
P.O. Box 488
Spanish Fork, Utah 84639

Subject: Initial Review of Notice of Intention to Amend Large Mining Operations, H.E. Davis Construction, Levan Henry Mine, M/023/023, Juab County, Utah

Dear Mr. Christofferson:

The Division has completed our review of your draft Notice of Intention to Commence Large Mining Operations for the Levan Henry Mine, located in Juab County, Utah, which was received October 18, 2004. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted.

The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion. **Please address only those items requested in the attached technical review.** Please send replacement pages of the original mining notice using redline and strikeout text, so we can see what changes have been made. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two clean copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records. Please provide a response to this review by February 10, 2005.

The Division will suspend further review of the Henry 1 & 2 Mine Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me, Tom Munson, Paul Baker or Doug Jensen of the Minerals Staff. If you wish to arrange a meeting to sit down and

discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

Daron R. Haddock
Permit Supervisor
Minerals Regulatory Program

DRH:tm:jb
Attachment: Review
cc: Tom Lloyd, USFS, Ferron RD

INITIAL REVIEW OF NOTICE OF INTENTION TO AMEND LARGE MINING OPERATIONS

H.E. Davis Construction
Levan Henry Mine

M/023/023

R647-4-105 - Maps, Drawings & Photographs

105.1 Topographic base map, boundaries, pre-act disturbance
Drawing # II-E –Reclamation Map
An area below the silt pond is shown as an area where future reclamation will take place. The plan does not include any mention of any activity in this area please explain. (DJ)

The map indicates that highwalls are to remain. Please indicate the portion of highwalls that are to remain after final reclamation. (DJ)

The road to access the proposed expansion area passes through Forest Service (USFS) property. Has the USFS approved this incursion? (DJ)

The Reclamation Map should be modified to show what treatments would be applied to areas within the mine. (DJ)

Drawing # III-A – Disturbed Area Map
This map indicates three areas which are shown as reclaimed. Because none of these areas have been released by DOGM or the USFS they will need to be included in the total disturbance at the site. (DJ)

Will the additional disturbance requested in this plan will result in additional fines material being placed on the fines dump. If additional material will be placed in this area, the area impacted by this expansion should be included in the plan. Also any additional area covered during resloping of this dump should be shown in the plan and included in the total area. (DJ)

Please include cross-sections showing the approximate final pit slopes as they presently exist, after mining and after reclamation. One cross-section NW to SE and several cross-sections perpendicular to this section along the active pit areas. These cross-sections should show the surface as it exists now, after mining and after recontouring. (DJ)

Please provide a watershed map that shows the contributing watershed(s) to any reconstructed drainages or ponds as defined in the plan. The mine site exists in a narrow canyon that receives surface water flow from a large canyon area above the mine and routing of this flow should be considered in any final drainage reclamation. The plan does not include an overall watershed map with this contributing watershed area defined. Please provide this map with the watershed areas contributing to the mine as outlined. (TM)

The operation plan accounts for surface water flow to the pond within the property and, therefore, this watershed should be defined as well on the map provided. (TM)

R647-4-106 - Operation Plan

106.4 Nature of materials mined, waste and estimated tonnages
The thickness of the overburden at 0-5', and an estimated annual volume of overburden at 300 cy. Five foot of overburden over the 1.2 acres of proposed disturbance calculates to 9680 cy of material. An adjustment to this estimated annual volume should be made to reflect this increased tonnage. (DJ)

The estimated tonnage of reject material is shown as 0 in the application. Fines generated by the blasting and crushing activities at the site are being stockpiled at the site and are forming a dump below the crusher site. Because this material is not presently being removed from the site, it should be considered reject until a market is found for this product. (DJ)

106.5 Existing soil types, location, amount
The plan says this information is to be submitted, but it needs to be included before the Division can determine the plan adequate. The Division and the operator need this information before a soils protection plan and a reclamation plan can be developed. (PBB)

106.6 Plan for protecting & redepositing soils
Please provide information about what soil/growth medium materials will be used for reclaiming the existing disturbances. According to Section 106.6, about 900 cubic yards of soil will be salvaged from 1.20 acres. This acreage figure matches the proposed new mine area as shown on Drawing III-B, but there is no information about soil stockpiled for the existing mine area. Is there some soil available, or is there some overburden that could be used as a substitute soil? If a substitute soil is used, the plan will need to provide information about this material, such as texture and nutrient and salt content. (PBB)

The estimated volume of soil to be stockpiled at the site is estimated at 900cy. This equates to approximately 5.6 inches of soil over the 1.2 acres to be disturbed. The estimated depth of soil to be salvaged is estimated at 0-40 inches, the maximum available if the entire area contained 40 inches of soil would be 6453 cy of soil. The estimate of only 900 cy of soil to be harvested seems low, please justify the use of this low estimate. The plan states that overburden material will be mixed with the soil as it is harvested, this should increase the amount of material available for reclamation. (DJ)

Please show the locations of planned soil stockpiles on one of the maps. (PBB)

The plan says soil stockpiles will be seeded at the end of each season with a quick cover of grass and legumes, but, with proper seedbed preparation and seeding techniques, it should not be necessary to seed the stockpiles more than once or twice. The way the plan is worded, the Division is concerned seed would just be thrown on the stockpiles with no surface preparation. The stockpiles should be left in a roughened condition, and seed needs to be applied in the fall almost immediately after surface preparation. If remedial seeding is needed, the surface would need to be re-roughened before the seed is applied. Please commit to monitor vegetation on the stockpiles and to seed them as indicated. (PBB)

The names of the species in the interim revegetation seed mix need to be clarified. There are different scientific nomenclatures for some of the species, but intermediate wheatgrass is definitely not *Agropyron spicatum* (bluebunch wheatgrass). It should probably be listed as *Elymus hispidus*. The name for slender wheatgrass should probably be *Elymus trachycaulus*. (PBB)

The Division suggests that pubescent wheatgrass (same species as intermediate wheatgrass) be used instead of intermediate wheatgrass because it is more drought resistant and more strongly rhizomatous. Also, hard fescue establishes slowly and does not provide the quick cover needed on a topsoil pile. It might be replaced with streambank wheatgrass (*Elymus lanceolatus*). (PBB)

106.7 Existing vegetation - species and amount

Section "106.5 [Should this be 106.7?] Existing vegetation" says , "To be submitted." The plan needs to contain information adequate for establishing revegetation success standards. The information needed is vegetation cover data by species for each vegetation community in the area proposed to be disturbed or presumed to have been in the area already disturbed. (PBB)

106.9 Location & size of ore, waste, tailings, ponds

The plan states that there will be no reject material at the site. At the present time there is a large dump of fines material that will need to be recontoured at mine closure. (DJ)

A statement is made that a small sediment pond will be constructed below the stockpile area. Is this an additional pond or is this the pond that exists at this time. (DJ)

R647-4-107 - Operation Practices

107.1 Public safety & welfare

107.1.15 Constructing berms, fences, etc. above highwalls

The plan states berms will be constructed above the highwalls. These berms should be a minimum of 3 feet high and with signs place at intervals warning the public of the hazard of the highwall. (DJ)

107.2 Drainages to minimize damage

The overall drainage plan is not reflective of what is currently found on the ground at the mine, since the statement found in the plan states (*"care will be taken whenever possible not to disrupt the natural drainage whenever possible"*). It is stated that whenever the natural drainage is disturbed that the new channel will be lined with 6-24 inch riprap and installed to engineering guidelines to help prevent erosion. Although this statement is found on page IV-1, the maps do not show where these channels will be placed. Although it is appropriate to use berms to route drainage away from mining related disturbance, the berm locations must be shown on the operation map. Please provide the berm information requested on the appropriate drainage map. (TM)

107.3 Erosion control & sediment control
Page IV-2 section **Minimizing Sediment and Erosion,** talks of the concept of using berms to control erosion. It is required that you have a more detailed description of location of these structures by putting them on the reclamation and operations map. How is surface water routed to the sediment pond and how is undisturbed drainage treated when the mine is in a steep canyon and all drainage runs through the canyon and through the mine? If all drainage is going to be put in a lined riprap channel, then its location needs to be shown on the appropriate maps and the designs shown. (TM)

107.5 Suitable soils removed & stored
The plan states –All topsoil will be removed by trackhoe, the area of proposed disturbance is above an existing highwall. Will this material be stored above the highwall area or will it be brought down to the mine floor. If it is to be brought down to the present mine floor, please include in the plan how this will be brought down. (DJ)

107.6 Concurrent reclamation
Topsoil placement is planned in areas that may become inaccessible during this mining campaign. Seeding of these areas should also be done at this time before the newly placed soil becomes crusted. (DJ)

R647-4-109 - Impact Assessment

109.1 Impacts to surface & groundwater systems
A commitment to clean the sediment pond when needed should be made. The pond at the present time is almost full of material and should be cleaned out before any major storm events. (DJ)

Please provide a water rights search for the area.(TM)

109.4 Slope stability, erosion control, air quality, safety
The plan indicates that H.E. Davis will maintain their current air quality permit. Please include a copy of this permit for our records. (DJ)

R647-4-110 - Reclamation Plan

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

This portion of the plan states that there is no waste material therefore no reclamation of any dumps will be necessary. As stated previously, the large dump of fines material will need to be recontoured, ripped and seeded during final reclamation. (DJ)

A drainage for spring runoff and storm events is to be shifted to the north during operations then reclaimed at the close of operations. Please show this drainage on the disturbed map and indicate the portion of the drainage that will receive rip rap during reclamation. (DJ)

110.5 Revegetation planting program

The revegetation seed mixture is probably adequate for this site, but the Division will reserve final judgment until baseline vegetation information has been submitted. (PBB)

Seed bed preparation states that soil will be placed in heaps rather that an even layer of 6". Please show an example of this type of soil placement. (DJ)

R647-4-111 - Reclamation Practices

111.2 Reclamation of natural channels

Reclamation of natural channels is discussed on page VII-3 and, as such, it mentioned that the channel is moved to the North and lined with good angular riprap of 6-24 inch gradation. It is appropriate to size this channel based on expected flows and velocities. Therefore, as was requested previously in section **R647-4-105 - Maps, Drawings & Photographs**, a watershed map and watershed area calculation will be required and a typical channel cross section presented in the plan as well as a location of the final constructed channel. (TM)

111.3 Erosion & sediment control

It is appropriate that the pond be left in place during the first year of reclamation; perhaps as sediment control when the area has no vegetation established. (TM)

R647-4-112 – Variance

A variance is requested to have highwalls as a part of the final grading plan. Unless the overall slope of these highwall exceeds 45 degrees a variance is not needed. Please show on the requested cross-sections, examples of the shelves (benches) proposed in this section. (DJ)

R647-4-113 – Surety

The following unit costs need to be updated in the surety calculations

Debris & equipment trucking	$55
Debris & equipment-dump fees	60

Debris & equipment-loader	180
Regrading stockpile slopes	0.60
Creating safety barriers-highwall	0.20
Regrading access roads	271
Sidecast material replacement	1.16
Topsoil dozer/trackhoe	.50
Broadcast seeding	240

If the access road is to be reclaimed using a trackhoe, the cost of reclaiming this feature should be calculated at $1.16/lf. (DJ)

The escalator presently being used is 2.59%/year. (DJ)