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State of Utah
DEPARTMENT OF NATURAL RESOURCES
Division of Oil, Gas & Mining

MICHAEL R. STYLER
Executive Director
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Division Director

Inspection Report
Minerals Regulatory Program
August 1, 2008

Reviewed: TM

Mine Name: Lisbon Valley
Operator Name: Lisbon Valley Copper

Permit number: M0370088
Inspection Date: July 30, 2008
Time: 8:00-9:45 AM

Inspector(s): Paul Baker
Other Participants: Tony McCann and Mike Brown
Mine Status: Being reclaimed

Weather: Mostly clear, 80s

Elements of Inspection	Evaluated	Comment	Enforcement
1. Permits, Revisions, Transfer, Bonds	☒	☒	☐
2. Public Safety (shafts, adits, trash, signs, highwalls)	☐	☐	☐
3. Protection of Drainages / Erosion Control	☐	☐	☐
4. Deleterious Material	☐	☐	☐
5. Roads (maintenance, surfacing, dust control, safety)	☐	☐	☐
6. Concurrent Reclamation	☐	☐	☐
7. Backfilling/Grading (trenches, pits, roads, highwalls, shafts, drill holes)	☒	☒	☐
8. Soils	☒	☐	☐
9. Revegetation	☒	☐	☐
10. Other	☐	☐	☐

Purpose of Inspection:
I wanted to see the hauls roads in the process of reclamation.

Inspection Summary:
1. Permits, Revisions, Transfer, Bonds
The operator has been working to try to have the reclamation surety amount reduced based on less disturbance than planned and also on reclamation performed. On July 11, 2008, the Division wrote the operator encouraging them to continue clarifying descriptions and assumptions but also stating that the Division is not comfortable with reducing the surety with the information currently available.

7. Backfilling/Grading (trenches, pits, roads, highwalls, shafts, drill holes)
The operator has been reclaiming some of the haul roads using a trackhoe and has done outstanding work. The areas have been nicely roughened, and there is a lot of rock on the surface (see photos). Because the operator is using a trackhoe rather than a dozer, it has been possible to pull the berms in to the disturbed area rather than trying to go outside the disturbed area and push in the berms. Using a dozer on the haul roads would increase the size of the area needing to be reclaimed, and it is nearly impossible to rip the roads correctly (parallel to the contour) because of the linear nature of the roads. In my experience, the roughness created by a trackhoe is superior to ripping or to grouzer marks.

On the haul road near the Sentinel pits, the operator has left an area that could, if necessary, be graded to allow soil to be brought in. There are a few small areas with soil on the surface.

Conclusions and Recommendations:

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The operator should continue reclaiming the haul roads, and I recommend that the operator use a trackhoe for this work for the reasons stated above. There are other areas, such as the waste dumps, where a dozer would be more efficient to push material and to rip long areas.

The growth medium on the haul road by the Sentinel pits has a lot of coarse fragments (rocks), but the smaller size fraction has a lot of clay. I have some concern about this, but I believe the degree of roughness and the amount of rock may help compensate for the clay content.

As much as possible, the operator should try to seed immediately after surface preparation is complete. Otherwise, the soil tends to for a crust and not allow the seed a good place in which to germinate. The rock should help create microsites in which the seeds can germinate.

I asked Mr. Brown to try to leave as little of the dark clayey material on the surface as possible. I'm sure he will do his best in this regard, but he also pointed out that some of the old waste dumps at the GTO pit are mostly clay and have good vegetation cover. We looked at these areas. Where the slopes were not too steep and where there was not too much compaction, there was a good stand of green rubber rabbitbrush.

Inspector's Signature PBB 8/1/08

PBB:pb
cc: Lantz Indergard, Lisbon Valley Mining
Rebecca Doolittle, Moab BLM
Wil Stokes, SITLA
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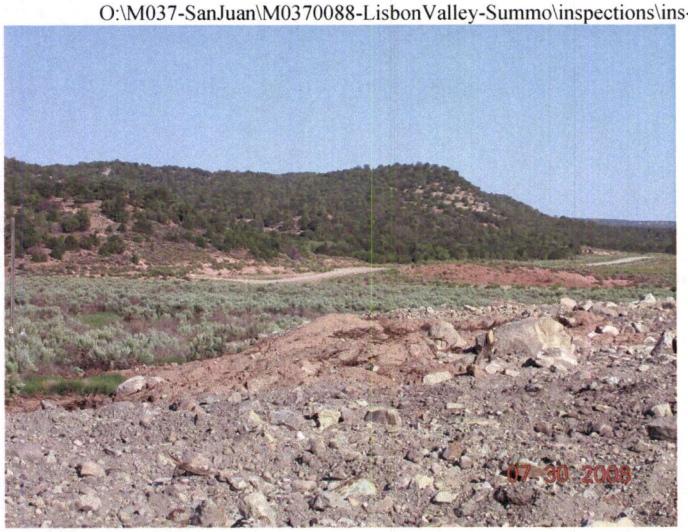

Photo 1. This is one of the haul roads near the Sentinel pits. Note the degree of roughness and the amount of rock on the surface which should be very beneficial for plant growth. The center of the photo shows an area where the operator was able to apply some soil.

Photo 2. This is a haul road south of the Centennial pit. The operator has been able to use a trackhoe to pull the berm away from the trees and into the road. The operator is also doing a very good job roughening the surface. Because of the short distance across the road, it would be very difficult to use a dozer to rip this type of area parallel to the contour.