State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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OK

November 8, 2002

TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor

FROM: Priscilla W. Burton, Environmental Scientist III/Soils

RE: Technical Field Visit, Topsoil Pile Construction, Lodestar Energy Inc., White Oak Mine/Whiskey Creek Surface Mine, C/007/001

Other Attendees: Pete Hess, DOGM Inspector; Dave Miller, Lodestar Energy Inc.

Date & Time: November 6, 2002, 1:30pm – 3:30pm

PURPOSE:

To observe the condition of the salvaged topsoil at the Whiskey Creek Surface Mine before snow covers the site.

OBSERVATIONS:

Pits #1 through 10 in the vicinity of the old operations pad have been completely mined and refilled with overburden. During the next 7 – 9 months overburden removal and coal mining will occur in southeastern pits #11 –16 and in northeastern pits 12, 14, 17, 19, and part of 25.

Specific topsoil protection measures are outlined in Sections 232, 251, and 252 of the MRP. These measures include:

- The presence of a qualified soil scientist during topsoil stripping.
- Topsoil stripping with the control of pedestals.
- Separation into storage piles based upon origin.
- Installation of a berm or silt fence along the perimeter of the stockpiles.

- Surface roughening and slash.
- Seeding with the interim mix found on page 16 of the operations plan.
- Seeding with an annual grain at the rate of 100 PLS/ac when the topsoil pile is formed in a season other than fall. Followed by seeding with the interim mix in the first fall season.
- Filling rills and gullies and seeding with the interim mix.
- Identification of the topsoil pile with signs and markers.

Topsoil was cleared from the locations of Pits #17 and 19, and partially off the locations of Pits #18, 25, and 26 on the northeastern portion of the site (see Plate 5-1C for pit locations) during the last two weeks of October. The exposed topsoil lies at the angle of repose on the slopes of Pits #12, 14, 16, 18, 25, & 26. There is no berm or silt fence surrounding the exposed topsoil. The exposed topsoil will be moved to one of the planned topsoil storage locations described in the MRP and shown on Plate R645-301-521.150 within the next two weeks.

A drill rig was actively drilling in Pit #17. Mr. Miller indicated that the exposed topsoil would be moved, before blasting occurred. Mr. Miller indicated that the topsoil could not be removed any sooner because of the logistics of haul road construction. Mr. Miller indicated that the exposed topsoil would be transferred to the Sediment Pond 004A Topsoil Stockpile location (see Whiskey Creek Surface Mine Surface Facilities Map R645-301-521.150 for storage locations).

What appears to be topsoil scattered across the surface of Pit #12 and spilled over the highwall precipice of Pit #3 (see attached photograph) is the remains of the topsoil salvage operations conducted in Pits # 9, 10, part of 11, 12, and 14 during the month of July. Mr. Miller indicated that he believed the material spilling down the highwall was subsoil. The Division is inclined to agree with Mr. Miller's consultant (Daniel M. Larsen, Soil Scientist) who indicated in a letter to Mr. Miller, dated August 16, 2002, that "the subsoil exposed on the south-facing slope is yellowish-brown and cobbly at this site," and that "The subsoils...can be readily distinguished from the darker colored surface soils."

Mr. Dan Larsen, Soil Scientist with EIS, was on site during the month of July to observe substitute topsoil salvage from the slopes below the bathhouse and topsoil salvage from the riparian zone and the conifer zone and from the locations of Pits # 9, 10, part of 11, 12, and 14. During that time, Mr. Larsen observed the salvage of the topsoil from the slopes and "trained" the dozer operators to recognize the subsoil. Mr. Miller was not planning on having Mr. Larsen return to the site to observe the transfer of the topsoil from above the highwall to the stockpile adjacent to Sediment Pond 004A, as the same dozer operators are employed at the site.

Two stockpiles of topsoil have been formed from the soils of the riparian, conifer, and substitute topsoils identified in the plan as VSM soils. One topsoil pile is adjacent to the south facing slope by Sediment Pond 004A and the second topsoil pile is on the coal storage pad around the stacking tube. The topsoil in these stockpiles was salvaged during July 16 to July 29, according to the August 16, 2002 letter from Mr. Larsen to Mr. Miller. Approximately 40,000 bank cu yds of topsoil and substitute topsoil is stored in these two piles thus far according to Mr. Miller's calculations. Another 20,000 cu yds (approximately) is waiting to be transferred to a storage location. Projected recovery is reported in the MRP Table 232a. The anticipated recovery for the entire site is 65,359 cu yds.

At the Sediment Pond 004A, the topsoil is stored against the slope and is protected from erosion by a silt fence at the base of the slope. This topsoil pile has not been seeded, because the topsoil from Pits # 16,17, 18, 19, and 25 will be brought to this location in the next two weeks. Sediment Pond 004A topsoil pile is currently under snow cover. The pile will be left rough and seeded after the additional topsoil is placed.

The topsoil pile on the coal storage pad holds the riparian soils (approximately 1,873 bank cu yds in lower portion of the pile) and the soils from the conifer zones (approximately 30,909 bank cu yds). The two soil types are separated by some timbers. The coal storage pad topsoil pile is very steep, at the angle of repose in places. There are no berms or silt fences around the pile. The coal storage pad topsoil pile was recently seeded (within the last week). This pile is impounding water from the adjacent north facing slopes (see attached photo). This pile has no berm or silt fence around its base to protect from erosion.

According to the MRP Section 231.400, the coal storage location has the capacity for approximately 26,800 cu yds, and the Sediment Pond 004A location can store 25,250 cu yds. An additional stockpile of up to 26,800 cu yds could be formed on the former truck loop.

No further topsoil stripping activity is planned during the winter months. Enough area has been cleared to provide 7 – 9 months of working area on both the Northeastern pits #10, 12, 17, 19 and Southeastern pits #12, 13, 14, 15, 16, 11, and 10. The next topsoil stripping to occur will be after the winter on the south west side of the site (southeast facing slopes) in the vicinity of pits #11, 13, 21, 23, 26, and the lower portions of #24 and 25; also the northeastern pits #18, 21, and 26.

RECOMMENDATIONS/CONCLUSIONS:

Recovery of topsoil is a critical step in the operations plan that must not be overlooked. Inadequate topsoil recovery will jeopardize the revegetation potential of the site.

Lodestar is not in compliance with R645-301-232.600 which states that all topsoil to be removed under R645-301-232 (removed and segregated) will be removed before any drilling, blasting, mining or other surface disturbance takes place. The material has been cast aside, but it has not yet been safely stored in a topsoil stockpile away from the mining area.

Lodestar Energy has not complied with the topsoil recovery commitments in the MRP to:

(1) Make "all efforts to save as much of the natural topsoil as possible (Section 232.100)."
(2) Place topsoil on "stable areas within the permit area (Section 231.400)."
(3) "Remove and store" topsoil after clearing and grubbing the initial surface mining area (Section 232.100).
(4) Have "a qualified soil scientist on site during the stripping of topsoil (Section 232.100)."

Lodestar Energy is not in compliance with the performance standards of R645-301-251 and R645-301-252 that state: all topsoil will be removed, located and maintained according to the plan given under R645-301-230 and 240. The following commitments in the plan were not being followed with regard to topsoil handling:

(1) Separation of the three soil types into separate piles.
(2) Creation of the topsoil pile with 2h:1v slope or less.
(3) Placement of berm or silt fence around the base of the topsoil piles.
(4) Providing surface roughening and slash on the topsoil pile.
(5) Seeding with an annual grain at the rate of 100 PLS/ac when the topsoil pile is formed in a season other than fall. Followed by seeding with the interim mix in the first fall season.

Mr. Miller indicated:

(1) That he would rework the coal storage pad pile to lessen the slopes, gouge and reseed the pile.
(2) That he would place a berm halfway down the pile, above the riparian soil and one downstream of the pile.
(3) That he would have topsoil currently exposed on the northeastern portion of the site placed into a stockpile within two weeks.
(4) That the topsoil piles will be roughened by gouging where possible and immediately seeded.

A follow-up visit should be made on or about November 20, 2002. At that time, the exposed topsoils should be safely stored in the topsoil stockpile locations described in the MRP. If not, a violation should be written for failure to conduct operations in accordance with the approved plan R645-300-142 and failure to comply with the performance standards R645-301-251 and –252.

The Division should send technical staff to evaluate the implementation of the surface drainage plan for the site and the effect of ponded water on the stability of the topsoil pile.

Enclosures
cc: Dave Miller, Lodestar
Pete Hess, DOGM/PFO
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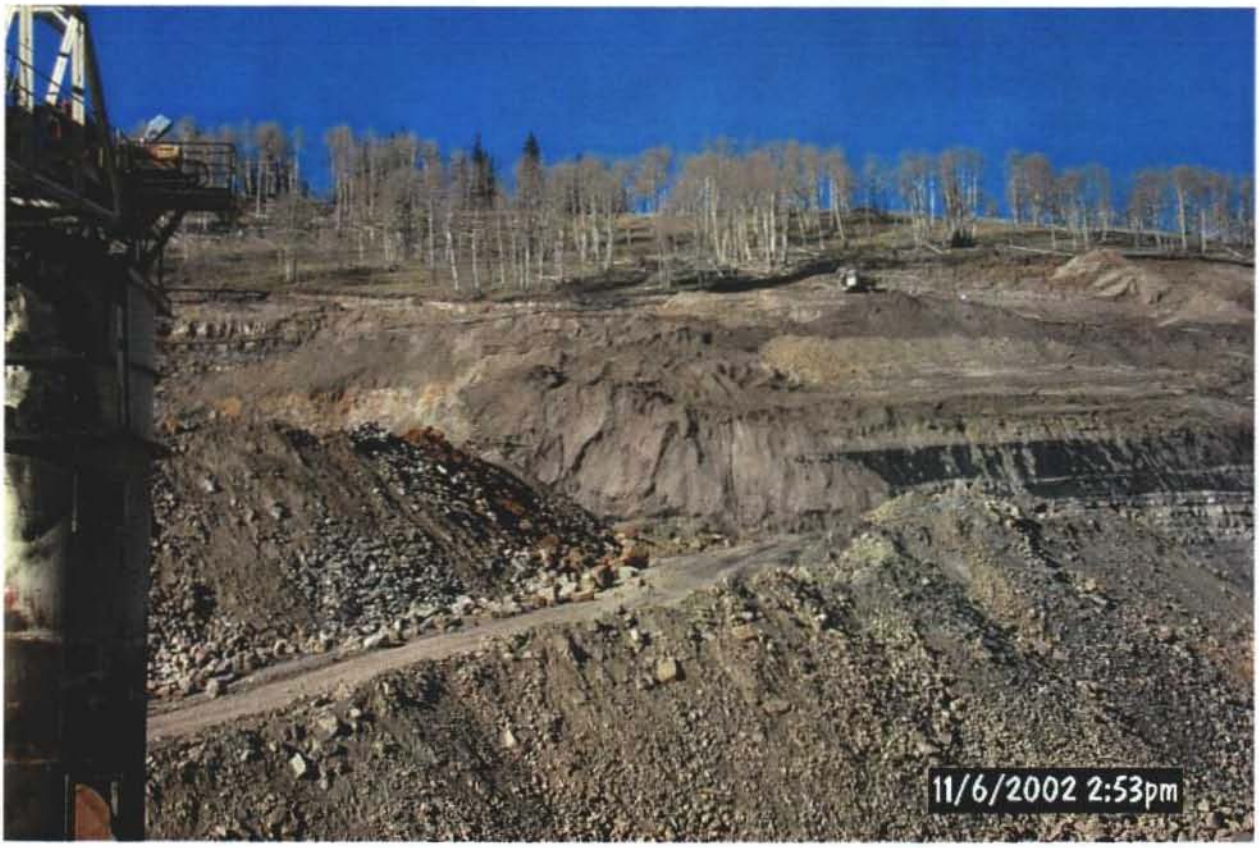
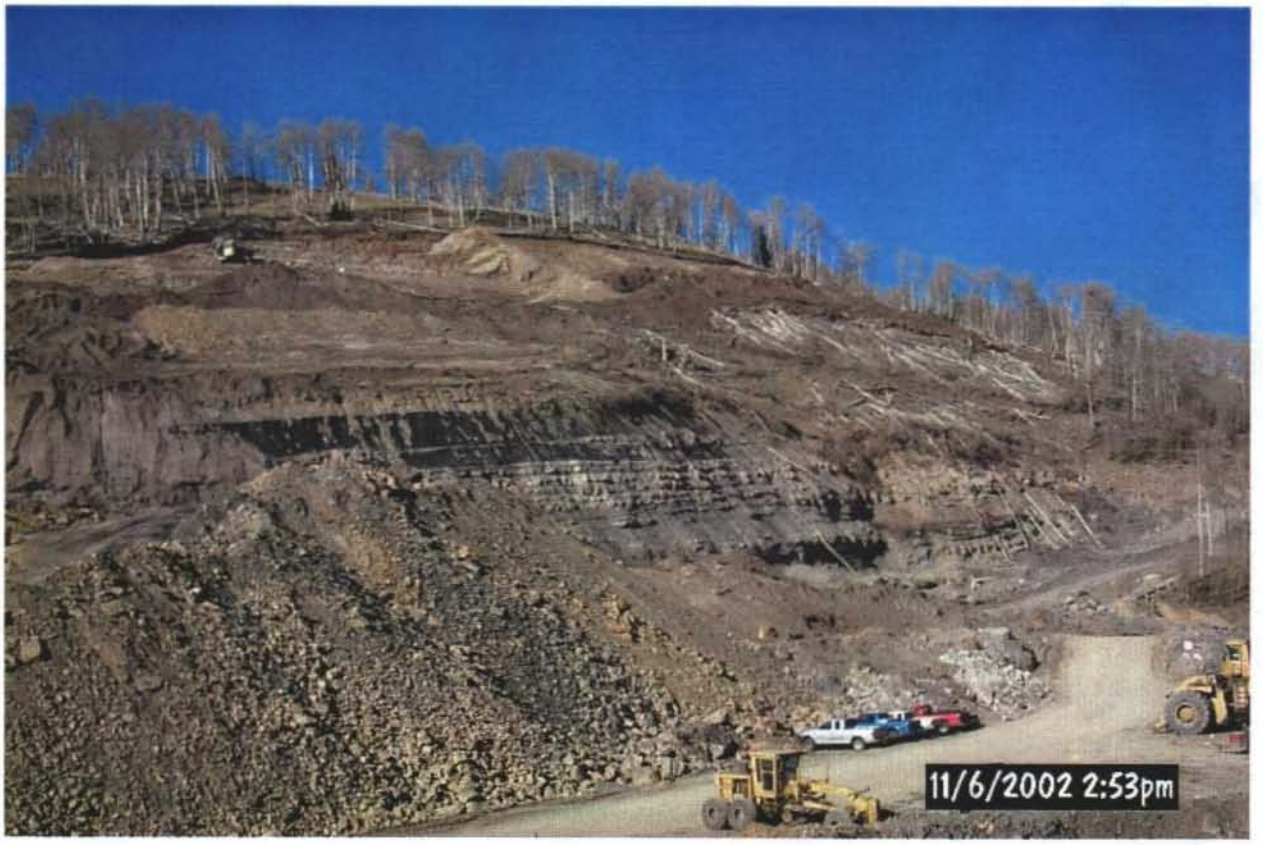
C/007/001-FV_11062002
Attachments A1, A2, A3

View of topsoil piled on the site of northeastern Pits #12 and 14. Material spilling over the highwall of Pit #3 is the remains of the salvage operation conducted in July.



View of exposed topsoil above northeastern pits 15, 16, 18, and 21. Drill rig is in Pit #17.



View of ponded water at base of coal storage pad topsoil pile.