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DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

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Division Director

Outgoing
C02-50005
#4148
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September 10, 2012

Kirk Nicholes
Alton Coal Development, LLC
463 North 100 West, Suite 1
Cedar City, Utah 84720

Subject: Revisions to Reclamation Seed Mixes, Coal Hollow Mine, Alton Coal Development, LLC, C/025/0005, Task ID #4148

Dear Mr. Nicholes:

After consulting with biologists concerning your revision to the reclamation seed mix, the Division has determined that the revisions to the approved mix are not warranted. Therefore, the amendment to revise the mix is denied.

The revision was initiated because of an assumed decimal error in the large number of pounds pure live seed (PLS) specified per acre for bitterbrush (15 lb) and lupine (15 lb). The Division contacted Patrick Collins, Mt. Nebo Scientific, the consulting biologist who developed the mix, he indicated that the seeds/sq ft of each species was accurately calculated in the approved mixture to provide 5.17 and 4.30 PLS/sq ft, based on the calculation of 15,000 seeds/lb bitterbrush and 12,500 seeds/lb lupine.

The Division also requested review of the revised mix from Rhett Boswell, Habitat Biologist with the UDWR to ensure compatibility with the ultimate goal of reclaiming sage grouse habitat (R645-301-353.240). His comments were as follows:

- Increase the *Atremisia tridentata* sagebrush seeding rate to 0.25/lb pls/acre.
- Broadcast rather than drill seed the sagebrush, as drill seeding will bury the seed too deeply.
- Replace *Iris missouriensis* in the meadow community with another of the forb species listed in the notes of Table 3-40, because Iris will increase under grazing and does not provide much forage.
- Eliminate or reduce *Poa pratensis*, Kentucky Bluegrass, because it will also increase under grazing and does not provide much forage.

The Division encourages the inclusion of Triticale to your approved mix and you may elect to make the above minor adjustments to the mix. We anticipate that you will be ordering seed very soon for the reclamation of a portion of the excess spoil pile this fall. We would like



to take this opportunity to ask that you ensure the *Hedysarum boreale* seed is inoculated with *rhizobium* bacteria to improve nitrogen fixation. We would also like to remind you of the commitments in your MRP Section 341.200, to sample and analyze topsoil for nutrient content after placement over the subsoil. Also, please refer to MRP Section 341.230 for mulching requirements after seeding.

If you have questions, please call Priscilla Burton at 435-613-3733 or me at 801-538-5325.

Sincerely,

A handwritten signature in black ink that reads "Daron Haddock". The signature is written in a cursive style with a large initial "D" and a long, sweeping underline.

Daron Haddock
Coal Program Manager

DRH/PWB/ss
cc: Price Field Office
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