



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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January 26, 1998

Richard Manus, Area Manager
Bureau of Land Management
Price River/San Rafael Resource Area
125 South 6th West
Price, Utah 84501

RE: Gooseberry, West Ridge, Exploration, Canyon Fuel Company, LLC, Skyline Mine,
ACT/007/005-97M, File #2 Carbon County, Utah

Dear Mr. Manus:

Thank you for the opportunity to provide comment on the referenced exploration project. Typically we receive applications for exploration on federal surface or federal coal under separate cover from your agency. In this instance, however, the applicant sent the copies to our agency requesting that we distribute them accordingly. Please accept the following comments for those portions of the exploration project dealing with either federal surface or federal coal.

ANALYSIS

- The maps do not contain sufficient detail to evaluate the affects of the exploration activities on the surface-water aspects of the hydrologic balance. Specifically, it cannot be determined how close several of the roads and drill sites are to streams, whether any wetlands are impacted, and, importantly, how streams will be crossed. This last item is especially important for Boulder Creek which is a significant perennial stream of importance to fishing recreation in the area. Detailed maps, of USGS 1:24,000 scale or preferably finer, need to be provided for each site and it's associated access road.
- The plan does not address the stream crossings in sufficient detail to evaluate the sediment and wildlife impacts of the project. Water trucks alone will account for 20 round-trips per site with trucks weighing over 17 tons. In addition, drilling waste will be hauled to a sewage treatment plant, heavy drilling equipment will be hauled in and out, and personnel will make daily trips in and out. A quick estimate shows over 50 round-trips per site. These are significant traffic loads and volumes and consideration must be given to reducing stream sediment impacts to a minimum. Depending on the timing of operations, even the ephemeral streams may be flowing. Specific measures need to be presented for each site in the plan before evaluation can be made. Forging perennial streams should not be considered adequate for the traffic contemplated by these operations.
- There are a couple of typographic questions. On page 19, paragraph four, reference is made to " 7 boreholes" and "the remaining 12 boreholes", which totals to 19, as opposed to the 18 holes proposed in the remainder of the plan. Also, on Figure 1, what is the significance of the two holes east of the exploration area that are designated 97-22-1 and 97-27-1? Also, the description on page

one lists 5113 acres, 932 acres, and 3277 acres which total 9322 acres or 14.6 square miles. Figure 1 shows 12.9 square miles of exploration area. The figures should be reconciled, or is there an overlap in the description?

- Page 18, paragraph two, refers to holes being “cemented to the surface”. The Operator needs to provide specific details of what materials will be used, and how they will be installed. There needs to be a description of what measures will be taken to prevent cross-contamination of the aquifers that are anticipated to be encountered in the Price River and Blackhawk formations (reference page 5, paragraph four). This is a Utah Division of Water Rights well-drilling requirement as well as a hydrologic balance concern for DOGM.
- This exploration covers over 12 square miles of surface area, more than half of which is privately owned. The potential exists for mining to affect the water supplies of dozens of families, development companies, ranchers, and the LDS Church. It is prudent and appropriate to begin this exploration and mining endeavor by establishing the potentiometric surface over the area and to decide where groundwater monitoring will take place. Logically this takes place with the drilling of the exploration wells. For the benefit of all Federal and State agencies involved, as well as the Operator themselves, it would be highly desirable for the Operator to:
 - A. Establish the existing potentiometric surface over the exploration area using readings from these exploration wells. Monitor and plot the potentiometric surface during the life of the mine and through reclamation.
 - B. Define which of these exploration wells will be used for groundwater monitoring and which geologic formations will be monitored. Consideration for this should include:
 1. Existing monitoring wells in the active mining area east of the exploration area.
 2. Water sources for the private landowners in the potentially affected area.
 3. Consultation with BLM and Forest Service hydrologists, and DOGM hydrologists who are responsible for developing the Cumulative Hydrologic Impact Assessment (CHIA).

Initially, DOGM suggests that the following well sites be used to establish the potentiometric surface and be retained as monitoring wells.

99-21-1	98-21-2
99-29-1	98-33-1
99-32-1	98-2-1

RECOMMENDATION

The exploration proposal should not be approved in its present form. Several aspects of the operation need further explanation and clarification as described above. The applicant should provide this information and show how the surface and ground-water hydrologic balance will be protected.

ANALYSIS:

- The NOI indicates some holes might be drilled in June but does not identify which ones these would be. The entire general area contains deer fawning and elk calving habitat and also good habitat for some raptor species. Critical big game summer range needs to be protected until July 5, and areas near active raptor nests should not be disturbed until July 15. The applicant needs to either:

A. Commit to not disturb any of the sites until after July 15.

or

B. Show which sites would be drilled before July 5 so it can be determined whether those specific sites are in critical big game habitat. Also, the applicant would need to show which sites would be drilled before July 15 and conduct surveys for raptor nests within one-half mile of those sites. A helicopter survey would need to be done in about February to see if there were existing tree nests, and another survey would need to be done in about May to see if the nests were active. The applicant would need to not disturb areas within one-half mile of active nests until after July 15.

- The applicant needs to provide information about whether wetlands occur near any of the proposed exploration operations. If this information is not available, it will be necessary to wait until the snow is gone to examine the sites and see if wetlands could be affected.
- The NOI says Boulger Creek will be crossed on an existing road and on a reclaimed road. It says the State Engineer's Office will be notified and a permit or written exemption obtained prior to installing the road to 98-4-1. This would be on the reclaimed road.

The Division understands the applicant would ford Boulger Creek in at least one of these crossings, but the NOI needs to clarify how the stream would be crossed. Whether the applicant intends to ford the creek or install a culvert or other stream crossing, they need to show how sediment would be controlled and fish habitat protected.

- On pages 7 and 17, the NOI says topsoil will be removed and stockpiled "where practical." The NOI needs to discuss under what circumstances topsoil will or will not be salvaged.
- The NOI needs to show how much soil will be salvaged or what criteria will be used to determine the depth of salvage. The Division recommends that a person with soils experience, such as a soil scientist or geologist, be present to supervise salvage operations. The NOI also needs to discuss how soil will be salvaged.
- The applicant has committed to protect topsoil from erosion and contamination, but the NOI needs to show how this will be done. The Division recommends the applicant install straw bales around the topsoil piles to prevent the soil from being eroded away. During reclamation, the straw could be used as mulch to provide an additional sediment control measure.
- All cuttings must be considered toxic or acid-forming unless they are tested and found otherwise, so they must be handled according to the requirements of R645-301-553.260. This includes the

requirement to bury the materials at least four feet deep with non-toxic, non-acid-forming, and non-combustible material.

- The NOI says the road bed will be seeded with a seed mix *such as* that shown on page 20. The applicant needs to show what seed mix will be used.

The seed mix shown on page 20 contains seven introduced and only two native species. The Forest Service is in the process of establishing a policy of using native species where possible, and there are many native species available that could be used in this area. After discussing the situation with a Forest Service official, the Division recommends the following species be used:

Perennial Rye (*Lolium perenne*)
Alfalfa (*Medicago sativa*)
Yarrow (*Achillea millefolium*)
Slender Wheatgrass (*Agropyron trachycaulum*)
Western Wheatgrass (*Agropyron smithii*)
Kentucky Bluegrass (*Poa pratensis*)
Showy Goldeneye (*Viguiera multiflora*)
Sticky Geranium (*Geranium viscosissimum*)
Snowberry (*Symphoricarpos oreophilus*)
Mountain Big Sage (*Artemisia tridentata* var. *vaseyana*)

The first two of these species are introduced, but they are included to provide quick cover and to fix nitrogen. The remainder should provide a diverse mixture of species adapted to the site and capable of providing good erosion control. Other species, such as mountain brome, Louisiana sage, Letterman's needlegrass, and silky lupine, could also be used. According to the Forest Service official, the applicant should avoid smooth brome, yellow sweet clover, and intermediate wheatgrass.

- The NOI says the seed mixture shall be 99% pure live seed containing a maximum of 1% weeds, none of which is noxious. The standard of 99% pure live seed is impossible to attain. If this commitment remains in the NOI, it will be impossible for the applicant to meet the performance standards, and they may be subject to a notice of violation. Although this is not a deficiency, the Division recommends the applicant modify this commitment. No specific standard for pure live seed is needed as long as the seed complies with the Utah Seed Act.
- The NOI needs to show what seeding methods will be used. This is important for determining the seeding rate.
- The NOI needs to show what fertilizer would be used and at what rate.
- The Division recommends using straw mulch for sediment and erosion control and to increase vegetation establishment.

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RECOMMENDATION:

This NOI should not be approved in its current form. The applicant needs to provide baseline information and clarification of certain intentions. They also need to provide further details of the plans for how the operation will be conducted.

Engineering

Regulatory Reference: R645-301-114.210

The portion of the exploration dealing with category II should provide written documentation for right of entry.

If you have any questions regarding these comments, please call.

Sincerely,



Joseph C. Helfrich
Permit Supervisor

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Enclosure
cc: Ranvir Singh, OSM
Janette S. Kaiser, USFS, w/o
Mark Page, Water Rights, w/o
Dave Ariotti, DEQ, w/o
Bill Bates, DWR, w/o
Price Field Office, w/o
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