

CHECKLIST ENVIRONMENTAL ASSESSMENT

COMPANY NAME: Carbon County Holdings, LLC **Project:** Coal Prospecting

OPERATING PERMIT #: 330

LOCATION: 1-2 Miles Northwest and Southwest of Bridger, Montana **County:** Carbon County

Site #1: NW1/4 SE1/4 Sec. 18 T6S R23E

Site #2: SE1/4 SE1/4 Sec. 19 T6S R23E

Site #3: SE1/4 SW1/4 Sec. 29 T6S R23E

Site #4: NE1/4 SW1/4 Sec. 32 T6S R23E

See application for map.

PROPERTY OWNERSHIP: Federal State Private

TYPE AND PURPOSE OF ACTION:

Carbon County Holdings, LLC proposes to conduct prospecting operations to determine the location, quantity, and quality of coal in an area northwest and southwest of Bridger, Montana. The proposed operation is adjacent to an area from which coal historically was mined underground (Bridger Coal Mine). The proponent plans to drill two prospecting holes (one for geotechnical evaluation and one for core) at each of the four locations. Drilling will be to a depth of approximately 800 feet. There will be approximately 0.1 acre of land disturbed at each site to allow for the drilling and associated activities. Portable mud pits will be used during the operation.

Pre-drilling Inspection: On July 30, 2010, a pre-site inspection of the four proposed drilling sites was conducted by Eric Urban and Chris Yde (MDEQ) and Richard Bolzer (landowner). Drilling at Site #1 was completed with one hole reclaimed/abandoned. Drilling at Site #2 had commenced; however, the drillers were not on site at the time of the inspection. Due to the drilling activity noted at these sites, the Department issued a Cessation Order to stop drilling activities until a permit is issued. No drilling activity had been completed at sites #3 and #4; however, the landowner had mowed the vegetation at site #3 to a height of approximately 3 inches. As listed in the Prospecting Handbook, the following were reviewed during the site inspection:

- A. Possible impacts of the proposed prospecting activities on the known groundwater regime in the area. This could, in special cases (such as artesian conditions) include the need for special completion or abandonment requirements.
- B. Terrain (general description, accessibility) and season of anticipated activity.
- C. Any special or unique features (geological features, wildlife habitat, plant or animal species, etc.).
- D. Vegetation community at each site (dominant species, weed species if present, % bare ground, general condition of site).
- E. Cultural resource features, if any.
- F. Specifically, the inspection will focus on whether any of the drilling or other disturbance will be in close proximity to the following features:
 - * 100 feet from a dry or flowing stream channel. (*If monitor wells are planned for the purpose of evaluating alluvial flow, a variance may be granted when the appropriate completion techniques are to be employed.*)
 - * Archeological, cultural or historical sites.
 - * A critical geological site.
 - * Lakes or reservoirs.
 - * Ponds, springs or wetlands.
 - * Known critical wildlife habitat (raptor nests, grouse dancing grounds, etc.).
 - * A unique or fragile plant community.
 - * Windmills.
 - * A zone of influence for supply or monitor wells.
 - * Power line corridors and/or support structures.
 - * Roads.
 - * Underground cable corridors.

- * Underground pipelines.
- * Cemeteries.
- * Churches.
- * Occupied dwellings.
- * Schools.
- * Public buildings.
- * Public parks.
- * Communities.
- * Reservoirs.
- * Military installations.

Every hole or other disturbance that is located in such a way that it may negatively impact any of the above or other features may have to be relocated, or prospecting scheduled at a time when seasonal negative impacts can be avoided.

No negative impacts, besides the temporary disturbance of the soils, vegetation and wildlife were noted; see discussions below.

Reclamation Plan:

Following drilling and coring, the holes will be abandoned as per Department requirements ARM 17.24.1001(2)(1)(iv). The disturbed area will be seeded with a mixture of western wheatgrass and green needle grass. The operator will be required to submit the appropriate bond (\$10,000) to the Department prior to any drilling activity.

N = Not present or No Impact will occur.
 Y = Impacts may occur (explain under Potential Impacts).

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[N] The proposed locations are along a ridge system that runs north to south through the area. The system ranges in elevation from approximately 3800 ft to 4100 ft (Mean Sea Level Elevation). The system consists of rolling hills, dissected by ephemeral drainages, with steep slopes and heavily eroded bedrock outcrops at some locations throughout the area. The east side of the ridge system drops off steeply into the Clarks Fork of the Yellowstone River valley, while the west side slopes more gently to a fairly broad valley. Soils in the area are found in a thin layer over eroded rock or bedrock. Along the access road between sites #1 and #2, the soils are somewhat deeper sandy loams which will be more susceptible to creation of dust by vehicle travel.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[N] The area is dissected by ephemeral drainages which flow in response to precipitation or snowmelt events. No livestock dams have been constructed indicating a minimal reliability on surface runoff. The landowner does have one deep well on the west outslope of the ridge system (middle of Section 19, approximately 1/2 mile from proposed drill site #2). The proponent does not anticipate encountering any ground water; however, if ground water is encountered appropriate abandonment procedures will be followed; the landowner has indicated that he would be interested in developing any ground water source if one is encountered.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N] There will be dust produced by vehicle travel and activity related to the drilling and abandonment operations. It is expected that dust formation will be minimized by the limited amount of vehicle (drill rig, water truck, support vehicles, etc.) traffic.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted?	[N] The project area is located in a sagebrush/grassland type with patches of juniper scattered throughout. Cheatgrass appeared to be a dominate herbaceous component; however, wheatgrasses, needlegrasses, Indian

IMPACTS ON THE PHYSICAL ENVIRONMENT	
Are any rare plants or cover types present?	ricegrass, and reedgrass are present. Biscuitroot, an important plant to Native Americans in the past, has been documented in the area. The area is within a pasture system, used as part of a livestock ranching operation.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] A search of the Montana Natural Heritage Program database conducted for the operator indicated that four species of special concern had been documented in the area. Greater sage grouse, loggerhead shrike, greater short-horned lizard, and common sagebrush lizard have been observed in the vicinity of the proposed operation. Mule deer, pronghorn, a variety of songbirds and raptors are expected to use the area on a seasonal or yearlong basis. Due to several factors, e.g. the amount of new disturbance that is proposed (approximately 1.0 acre), vehicle travel will be along established roads and trails, and the disturbance will be conducted outside the breeding and nesting season for the two bird species, it is anticipated that minimal impacts to the wildlife inhabiting the area will occur.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[N] There are no federally listed threatened or endangered species or identified habitat known in the area. There were no wetlands observed during the site visit (7/30/2010). As noted above, there are species of special concern known to inhabit the vicinity of the proposed drilling activity.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] Several sites have been located in the vicinity of the four proposed drilling locations and the access road to each (Montana State Historic Preservation Office data search). Carbon County Holdings, LLC contracted Ethnoscience, Inc. to conduct a Class three inventory of the four proposed drilling sites and a corridor along the access routes. The results of the Class III inventory were provided with the permit application and demonstrated that no cultural or historic sites would be disturbed by the proposed activity.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] The ridge system along which the proposed drilling activity would take place is a major landform in the area. The drilling activity is planned in locations that, for the most part, would not be highly visible, especially from a distance. The activity would also be conducted on the west slope of the ridge, which is more isolated from public view than the east slope.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	[N] The proposed activity is limited in nature and should not place demands on environmental resources that are limited. There are no projects in the vicinity that will affect the project.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N]

IMPACTS ON THE HUMAN POPULATION	
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] The project would be at isolated locations within a large pasture system. Due to the isolated nature of the site, there is minimal potential for additional health and safety risks. There is the potential for injuries to workers during the drilling activities.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND	[N] The proposed project is within a large pasture system, which was being grazed by livestock (one pasture) at the time of the pre-site inspection.

IMPACTS ON THE HUMAN POPULATION	
PRODUCTION: Will the project add to or alter these activities?	Vehicles traveling from site to site, water trucks hauling water from the south end of the proposed project to each of the drill sites, other traffic, activity at the drill sites, etc. will cause some disturbance to livestock; however, it is assumed that this will be minimal.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] There will be 3-5 people employed by the project; however, these people will be associated with an out-of-state drilling company. There will be a temporary increase in employment; however, upon completion of the drilling activities employment will return to pre-project levels.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] Employment taxes will be paid to the employees, generating some additional tax revenues.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] None is anticipated.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] No zoning or management plans are in effect.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] There is no wilderness or recreational areas nearby or accessed through this tract. The area is privately owned, therefore, there is limited potential for recreational use.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] There will be use of temporary housing (motel/hotels) by the drilling crew; however, this will be limited to the time they are in the area conducting drilling activities.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[Y] The proposed project area is privately owned. Carbon County Holdings, LLC has provided access agreements from each of the private surface and mineral owners. Thus, the landowners and mineral owners have agreed to the proposed action.
22. PRIVATE PROPERTY IMPACTS: Does the proposed regulatory action restrict the use of the regulated person's	[N] The proposed action would not restrict the use of the regulated person's private property.

IMPACTS ON THE HUMAN POPULATION	
private property? If not, no further analysis is required.	
23. PRIVATE PROPERTY IMPACTS: Does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives.	[N/A] the Department has a level of discretion in its permitting decisions.
24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

25. Alternatives Considered:

No Action: To not issue a prospecting permit. There were no issues identified during the analysis that would require the Department to deny the application.

Approval: The application was complete and the environmental analysis indicated that the permit application could be approved.

Approval with modification: During the analysis, the Department determined that there were no modifications needed to the permit application/approval to ensure that impacts were avoided or minimized.

26. Public Involvement: Availability of this Environmental Assessment was published on the Coal and Uranium Program website. Upon determination that the application was complete, the applicant published a notice of application in the in the Carbon County News on June 4, 11, 18, and 25, 2009. A 30-day public comment period followed the last date of publication; no public comments were received. The Department sent out a notice of application to concerned agencies with a 30-day comment period; no comments were received.

27. Other Governmental Agencies with Jurisdiction: This area is private surface and private minerals with access and all activities on private lands. SHPO was contacted for a search of its database.

28. Magnitude and Significance of Potential Impacts: The magnitude and significance of potential impacts for the proposed action are anticipated to be minimal.

29. Cumulative Effects: The impacts from the proposed project would be minimal, therefore, the cumulative impacts should not change significantly.

Recommendation for Further Environmental Analysis:

EIS More Detailed EA No Further Analysis

EA Checklist Prepared By:

Chris Yde

Signature

Date

