

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
COAL AND URANIUM PROGRAM
CHECKLIST ENVIRONMENTAL ASSESSMENT
FOR COAL PROSPECTING PERMIT**

PERMITTEE: Signal Peak Energy, LLC

SITE: Bull Mountain Facilities Area

PERMIT ID: Prospecting Permit, X2012338

CITY/TOWN: Roundup, MT

DATE: October 12, 2012

COUNTY: Musselshell

LOCATION: T6N, R27E, Sections 1 S2SW4, 2 S2S2, 10 E2 LESS E2NE4NE4,11,12,13,14,15

PROPERTY OWNERSHIP:

Federal State Private County Tribal

TYPE AND PURPOSE OF ACTION:

Signal Peak Energy, LLC (SPE) proposes to conduct prospecting operations to determine the location, quantity, and quality of coal in an area near the existing SPE facilities just north of Signal Mountain. SPE plans to drill two prospecting holes (one for geotechnical evaluation and one for core) at each of 35 locations. Drilling will be to depths approximately between 20 and 800 feet. Each drill site is bonded for one acre of disturbance even though the actual area of disturbance will likely be a fraction of the area (~ 0.1 acre per site). A total of 35 acres are bonded for the prospecting project.

This Environmental Assessment only evaluates potential impacts from the 70 holes listed in the short form application.

Reclamation Plan:

This work and reclamation would be done pursuant to Sub-Chapter 10 of the Strip and Underground Mine and Reclamation Act: Prospecting (ARM 17.24.1001 and ARM 17.24.1005). Reclamation is described in the Application and adheres to all applicable regulations. Excavation is not expected; however, if it is needed it will be kept to a minimum (e.g. mud pits). All surface disturbances will be reclaimed and broadcast seeded. Drill cuttings will be spread over the ground surface to less than one-half inch in thickness and all boreholes will be abandoned pursuant to ARM 17.24.1005. A bond of \$26,400 has been posted for this drilling project.

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>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?</p>	<p>[N] The proposed locations are situated on the west side of the Bull Mountains that range in elevation from about 3,700 feet to 4,100 feet in the permit area (Meridian, 1990). The terrain progresses from very mildly sloped in the lower elevations to moderately hilly in the mid elevations to somewhat rugged near the ridge tops or rock outcrops.</p> <p>Soil for the area is dominated by silty or sandy loams. Susceptibility of these soils to wind and water erosion ranges from moderate to high.</p> <p>Disturbance will be limited to drill sites, with no excavations or soil removal planned.</p>
<p>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?</p>	<p>[N] Impacts to the local groundwater system from prospecting activities are expected to be minimal. Prospecting wells would be properly abandoned with bentonite chips and flow within the aquifers is not expected to be altered as a result of drilling activities. Artesian conditions are not expected to be encountered during drilling. Wells with artesian conditions or with a loss of circulation would be appropriately abandoned using cement grout in compliance with ARM 17.24.1005(c)(i).</p> <p>Impacts to the local surface water system from prospecting activities are expected to be minimal. The application does not have any surface disturbance other than the drill hole locations. All locations are required to be 100 feet or greater from any drainage to prevent any release of liquids into any surface water source.</p>
<p>3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I air shed)?</p>	<p>[N] No direct impact to air quality is expected due to the planned prospecting activities.</p>
<p>4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?</p>	<p>[N] Native grassland and sagebrush are the dominant vegetation types in the area with stands of juniper and ponderosa pines. The small disturbance area of the drill sites would not result in a significant disturbance to the greater vegetative community.</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?</p>	<p>[N] Impacts to all wildlife are expected to be minimal or non-existent since the area of disturbance at each site and in total is so small and activity at each drill site would be limited to only a few days. Additionally, vehicles would be kept to established roads whenever possible which would further limit impacts to wildlife. The creation or significant enhancement of existing roads is not allowed under the prospecting permit.</p>
<p>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?</p>	<p>[N] Currently the Black-Footed Ferret is Federally listed as an endangered species, and the majority of Eastern Montana is considered suitable habitat. No black-footed ferrets have been documented within the immediate area of the Bull Mountain Mine. No drill sites are located in wetlands.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>[Y] N/A</p>
<p>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?</p>	<p>[N] Drilling is not located on any prominent topographic feature and it would not cause any visible affects to the surrounding areas. Some localized noise would be associated with drilling activities but would not be excessive and would not be heard from any populated area.</p>
<p>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?</p>	<p>[N] Project work would not use any resources which are considered limited in the area. This work would not place any demands upon the resources of land, water or air.</p>
<p>10. IMPACTS ON OTHER ENVIRONMENTAL</p>	<p>[N] The project area is remote and used for mainly ranching and wildlife habitat. Nearby mining activities include coal mining and coal</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
RESOURCES: Are there other activities nearby that will affect the project?	bed methane production. Neither of these mining activities would be affected by the prospecting.

IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] No additional human health and safety risks are expected; there are typical health and safety risks associated with the actual operation of the prospecting equipment and other vehicles. No harmful chemicals or materials would be used during the prospecting activities.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] The prospecting area is remote and with the exception of livestock grazing and the existing Bull Mountain Mine, there are no additional industrial or commercial activities near the proposed prospecting area. Increased traffic and activity at the drill sites may temporarily disturb nearby livestock, but this disturbance is expected to be minimal.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] The project would not result in any additional local jobs nor would it result in the elimination of any jobs. Drilling would require approximately 3 - 5 workers. Besides the workers operating the drill rig, other support jobs would include operation of heavy equipment (e.g. semi tractor trailers, water truck), and geological and geophysical logging of each borehole. Upon completion of the drilling activities employment would return to pre-project levels.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[Y] Employment taxes would 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] The proposed work would not add substantial traffic to existing roads. The project work would be self sufficient and no public services would be required.
16. LOCALLY ADOPTED	[N] No locally adopted environmental plans and goals are in effect.

IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>	
<p>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?</p>	<p>[N] Wilderness, recreational areas, public parks or historic sites are not nearby or accessed through the proposed prospecting area. Work in the proposed prospecting area would not adversely affect any publicly owned park or places included in the national register of historic sites.</p>
<p>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?</p>	<p>[N]. Field inspection by DEQ confirmed that there are no buildings or structures near or within the proposed prospecting area. Additional housing would not be required; drilling personnel will lodge in the nearby cities of Roundup or Billings, MT.</p>
<p>19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?</p>	<p>[N] Disruption of lifestyles is not expected since there is minimal human activity within or near the proposed prospecting area.</p>
<p>20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?</p>	<p>[N] Field inspection by the Department confirmed that the proposed work would not affect or shift any unique quality of the area.</p>
<p>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</p>	<p>[N] The proposed project area consists of private lands and private mineral rights. SPE has obtained access agreements from each of the surface and mineral owners. Thus, the landowners and mineral owners have agreed to the proposed action.</p>

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>eminent domain are not within this category.) If not, no further analysis is required.</p>	
<p>22. PRIVATE PROPERTY IMPACTS: Does the proposed regulatory action restrict the use of the regulated person's private property? If not, no further analysis is required.</p>	<p>[N] The proposed action would not restrict the use of the regulated person's private property.</p>
<p>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.</p>	<p>[Y] The Department has a level of discretion in its permitting decisions.</p>
<p>24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</p>	<p>[N]</p>

25. Alternatives Considered:

- a) No Action: The prospecting permit would not be issued and no prospecting activity would be conducted. The mineral owners and SPE would not have the additional information on the location, quality, and quantity of the coal resource they would like to develop; therefore, this would probably preclude any development of the coal resource until such information is gathered. The potential use of this coal reserve would not be realized. There were no issues identified during the analysis that would require the Department to deny the application.
- b) Approval: This proposed exploration work would begin under the authority of Prospecting Permit X2012338 and would be subject to requirements of that permit,

including, but not limited to, access, drilling, borehole plugging and abandonment, reclamation, and bonding. The application was complete and the environmental analysis indicated that the permit application could be approved.

- c) **Approval with Modification:** The Department found no need to modify the permit from what was presented in the application; therefore, this alternative was not pursued.

26. Public Involvement: The Notice of Application was published September 26, 2012 in the Sheridan Press with a 10-day comment period following the final date of publication.

27. Other Governmental Agencies with Jurisdiction: Office of Surface Mining

28. Magnitude and Significance of Potential Impacts: None Expected

29. Cumulative Effects: None

Recommendation for Further Environmental Analysis:

EIS

More Detailed EA

No Further Analysis

EA Checklist Prepared By: Robert Smith