

U.S. Department of the Interior
Bureau of Land Management
Little Snake Field Office
455 Emerson Street
Craig, CO 81625-1129

ENVIRONMENTAL ASSESSMENT

EA-NUMBER: CO-100-2007-016EA

CASEFILE/PROJECT NUMBER/LEASE NUMBER:

COC081267: Ace Unit Well #11
COC081269: Ace Unit Well #12
COC038749A: B W Musser Well #26

PROJECT NAME: Three Powder Wash Wells

LEGAL DESCRIPTION: All three wells in Moffat County, Colorado

Ace Unit Well #11: SWSE Section 28, T12N, R97W, 6th PM
Ace Unit Well #12: Lot 7 Section 3, T11N, R97W, 6th PM
B W Musser Well #26: NWSW Section 4, T11N, R97W, 6th PM

APPLICANT: Wexpro Company

PLAN CONFORMANCE REVIEW: The proposed action is subject to the following plan:

Name of Plans: Little Snake Resource Management Plan and Record of Decision (ROD) approved on April 26, 1989; and the Colorado Oil and Gas Leasing & Development Environmental Impact Statement (EIS) and the ROD signed on November 5, 1991.

Remarks: The proposed three Powder Wash Wells would be located within Management Unit 2 (Little Snake Resource Management Plan). The objective of Management Unit 2 is to provide for the development of the oil and gas resource. The development of other resource uses/values within this unit is allowed consistent with the management objectives for oil, gas, and forest resources.

The proposed action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3). The proposed action is in conformance with the objectives for this management unit.

NEED FOR PROPOSED ACTION: To provide for the development of oil and gas resources and to supply energy resources to the American public.

PUBLIC SCOPING PROCESS: The Notices of Staking (NOSs) have been posted in the public room of the Little Snake Field Office for a 30-day public review period beginning October 27, 2006 when the NOSs were received, and may be viewed during regular business hours (7:45 a.m. to 4:30 p.m.), Monday through Friday, except holidays.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES: The proposed action is to approve three Applications for Permit to Drill (APD) submitted by Wexpro Company. Wexpro Company proposes to drill three gas wells on BLM administered land located in the Powder Wash Field in T11 & 12N, R97W. APDs have been filed with the LSFO for the Ace Unit Well #11, the Ace Unit Well #12, and the B W Musser Well #26. The APDs include drilling and surface use plans that cover mitigation of impacts to vegetation, soil, surface water, and other resources. Mitigation not incorporated by Wexpro Company in the drilling and surface use plans would be attached by the BLM as Conditions of Approval to an approved APD.

The proposed wells would be located approximately 65 miles northwest of Craig, Colorado. Construction work would be planned to start during January of 2007 and the estimated duration of construction and drilling for each of the wells would be 20 days. Short access roads would be constructed for each well. Total surface disturbance for road construction would be approximately 2.0 acres. All road construction would be on lease and on BLM surface and would not require a federal Right-of-Way.

The proposed well pads would be cleared of all vegetation and leveled for drilling. Topsoil and native vegetation would be stockpiled for use in reclamation. Approximately 4.0 acres would be disturbed for construction of each well pad. This would include the 408' by 375' well pad, the topsoil, and subsoil piles. A reserve pit would be constructed on the well pad to hold drill mud and cuttings. If a well is a producer, cut portions of the well site would be backfilled and unused portions of the well site would be stabilized and re-vegetated. If a gas well proves unproductive, it would be properly plugged and the entire well pad and access road would be reclaimed.

Wexpro Company did include plans for a gas sales pipeline with the APD. Approximately 4150 feet of new pipeline would be installed and connected to existing gas pipelines in the Powder Wash Field to service the wells once production is established. Total surface disturbance for pipeline construction would be approximately 3.5 acres. All pipeline construction would be on lease and on BLM surface and would not require a federal Right-of-Way.

NO ACTION ALTERNATIVE: The "no action" alternative is that the wells would not be permitted and therefore no wells would be drilled. Wexpro Company holds a valid and current oil and gas lease for the area where the three proposed wells would be located. Under leasing contracts, the BLM has an obligation to allow mineral development if the environmental consequences are not irreversible or too severe. The APD process is designed to overcome the no action situation of not accepting the APD through the mitigation of predicted environmental consequences. Since the proposed action is consistent with the ROD and the Oil and Gas

Leasing EIS, rejecting the APDs for the wells was considered but will not be analyzed further in this EA.

AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES/MITIGATION MEASURES

CRITICAL RESOURCES

AIR QUALITY

Affected Environment: There are no special designation air sheds or non-attainment areas nearby that would be affected by the proposed action.

Environmental Consequences: Short term, local impacts to air quality from dust would result during and after well pad construction. Drilling operations produce air emissions such as exhaust from diesel engines that power drilling equipment. Air pollutants could include nitrogen oxides, particulates, ozone, volatile organic compounds, fugitive natural gas, and carbon monoxide. Gas flaring reduces the health and safety risks in the vicinity of the well by burning combustible and poisonous gases like methane and hydrogen sulfide. The proposed action would not adversely affect the regional air quality.

Mitigative Measures: None.

Name of specialist and date: Shawn Wiser 01/05/07

AREA OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: Not present.

Environmental Consequences: Not applicable.

Mitigative Measures: Not applicable.

Name of specialist and date: Jim McBrayer 02/2/07

CULTURAL RESOURCES

Affected Environment: Cultural resources, in this region of Colorado, range from late Paleo-Indian to Historic. For a general understanding of the cultural resources in this area of Colorado, see *An Overview of Prehistoric Cultural Resources, Little Snake Resource Area, Northwestern Colorado*, Bureau of Land Management Colorado, Cultural Resources Series, Number 20, and *An Isolated Empire, A History of Northwestern Colorado*, Bureau of Land Management Colorado, Cultural Resource Series, Number 2.

Environmental Consequences: The proposed projects, Wexpro Company B W Musser Well #26, Ace Unit Wells #11 and #12, have undergone Class III cultural resource surveys:

Darlington, David 2006. Class III Cultural Resource Inventory for the Wexpro Company, Musser Unit No. 26, Well Pad, Access Road, and Pipeline, Moffat County, Colorado 06-WAS-1094 (BLM #12.16.07). On file at BLM Little Snake Field Office, Craig, Colorado.

Darlington, David 2006. Class III Cultural Resource Inventory for the Wexpro Company, ACE Unit No. 11, Well Pad and Access Road, Moffat County, Colorado 06-WAS-1096 (BLM #12.11.07). On file at BLM Little Snake Field Office, Craig, Colorado.

Darlington, David 2006. Class III Cultural Resource Inventory for the Wexpro Company, ACE Unit No. 12, Well Pad, Access Road, and Pipeline, Moffat County, Colorado 06-WAS-1097 (BLM #12.12.07). On file at BLM Little Snake Field Office, Craig, Colorado.

The survey identified no cultural resources. The proposed project may proceed as described in this EA with the following mitigative measures in place.

Mitigative Measures:

The following standard stipulations apply for this project:

1. The operator is responsible for informing all persons who are associated with the operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any project activities, the operator is to immediately stop activities in the immediate vicinity of the find and immediately contact the authorized officer (AO) at (970) 826-5000. Within five working days, the AO will inform the operator as to:

- Whether the materials appear eligible for the National Register of Historic Places;
- The mitigation measures the operator will likely have to undertake before the identified area can be used for project activities again; and
- Pursuant to 43 CFR 10.4(g) (Federal Register Notice, Monday, December 4, 1995, Vol. 60, No. 232) the holder of this authorization must notify the AO, by telephone at (970) 826-5000, and with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

2. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from

the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

Name of specialist and date: Robyn Watkins Morris 01/16/07

ENVIRONMENTAL JUSTICE

Affected Environment: The proposed action shall not directly affect the social, cultural or economic well-being and health of Native American, minority or low-income populations. The project area is remote and relatively isolated from population centers, so no populations would be affected by physical or socioeconomic impacts of the proposed action.

Environmental Consequences: None.

Mitigative Measures: None.

Name of specialist and date: Mike Andrews 01/12/2007

FLOOD PLAINS

Affected Environment: Active floodplains and flood prone zones would be avoided.

Environmental Consequences: No threat to human safety, life, welfare, or property would result from the proposed action.

Mitigative Measures: None.

Name of specialist and date: Shawn Wiser 01/05/07

INVASIVE, NONNATIVE SPECIES

Affected Environment: Invasive species and noxious weeds occur within the affected area. Cheatgrass and halogeten are common along road disturbances and in areas which do not have adequate perennial plant communities to inhibit their annual establishment. Halogeten has become a very noticeable problem in the affected area, as well as other areas in the western portion of Moffat County. Canada thistle and other biennial thistles are fairly common and can be established in the affected area, especially in road ditches. Russian knapweed and hoary cress (whitetop) have been found in the vicinity of the project and would also be capable of establishing in road ditches and upland sites. Other species of noxious weeds are not known to be a problem in this area, but they can always be introduced by vehicle traffic, livestock operations and wildlife. The BLM, Moffat County, livestock operators, pipeline companies and oil and gas operators have formed the Northwest Colorado Weed Partnership to collaborate their efforts on controlling weeds and finding the best integrated approaches to achieve these results.

Environmental Consequences: The surface disturbing activities and associated traffic involved with constructing the access roads, drilling and operating these three additional wells, installing pipelines and other subsequent activities would create an environment and provide a mode of transport for invasive species and other noxious weeds to become established. Construction equipment and any other vehicles and equipment brought onto the site can introduce these weed species. Wind, water, recreation and construction vehicles, livestock and wildlife would also assist with the distribution of weed seed into the newly disturbed areas. The operator will be required to control any invasive and/or noxious weeds that become established within the disturbed areas involved with drilling and operating the well. All principles of Integrated Pest Management should be employed to control noxious weeds on public lands.

Mitigative Measures: None.

Name of specialist and date: Ole Olsen

01/12/07

MIGRATORY BIRDS

Affected Environment: Brewers sparrows and sage sparrows could potentially be found in the project area. All well locations were located in areas that had sub-marginal habitat for both of these species because sagebrush is limited to small islands that would not be very attractive to either species.

Environmental Consequences: If construction occurs during the nesting season, there is low potential for take to occur. This potential is considered low because habitat quality is low. If construction occurs outside of the nesting season, there is no chance for take to occur as the result of construction or drilling. If these wells go into production, there is potential for mortality to occur as a result of collisions with vehicles. There is also potential for birds to become entrapped in well pad equipment if openings are not covered to prevent access.

Mitigative Measures: All open vent stack equipment such as heater treaters, separators, dehydration units, and flare stacks shall be designed and constructed to prevent birds and bats from entering or nesting in or on such units, and to the extent practical, to discourage birds from perching on the stacks.

Name of specialist and date: Timothy Novotny

01/16/07

NATIVE AMERICAN RELIGIOUS CONCERNS

A letter was sent to the Uinta and Ouray Tribal Council, Southern Ute Tribal Council, Ute Mountain Ute Tribal Council, and the Colorado Commission of Indian Affairs on January 21, 1999. The letter listed the projects that the BLM would notify them on and projects

that would not require notification. No comments were received (Letter on file at the Little Snake Field Office). This project requires no additional notification.

Name of specialist and date: Robyn Watkins Morris 01/16/07

PRIME & UNIQUE FARMLANDS

Affected Environment: Not Present.

Environmental Consequences: None.

Mitigative Measures: None..

Name of specialist and date: Shawn Wiser 01/05/07

T&E SPECIES – ANIMALS

Affected Environment: There are no threatened or endangered species or habitat for such species in or near the proposed well sites. The three well pads are located in areas with scattered islands of sagebrush that could potentially provide nesting habitat for greater sage-grouse. The closest known greater sage-grouse lek is over four and a half miles from the nearest proposed well. There are no active prairie dog towns near these well locations.

Environmental Consequences: There would be no impact to threatened or endangered animal species as a result of the development of these three well. There is little chance of these three wells disturbing greater sage-grouse nesting activities due to limited habitat and the long distance between the wells and the nearest active lek.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 1/16/07

T&E SPECIES - PLANTS

Affected Environment: There are no federally listed threatened or endangered plant species within or in the vicinity of the three proposed wells.

Environmental Consequences: None.

Mitigative Measures: None.

Name of specialist and date: Hunter Seim 01/8/07

T&E SPECIES - SENSITIVE PLANTS

Affected Environment: There is a population of Nelson's milkvetch (*Astragalus nelsonianus*) located just southerly of the three proposed wells. This member of the Pea family favors soils high in selenium and produces a selenium odor. It has white, keeled flowers which bloom late May through August. Fruit is in the form of a strongly keeled pod which often persists on the plant over winter. Populations are present in Wyoming, Utah, and Colorado. Nelson's milkvetch is currently listed as a BLM sensitive species. It is considered critically imperiled within Colorado as there are fewer than five occurrences statewide. There are no other BLM sensitive plant species present in the vicinity.

Environmental Consequences: None of the three proposed wells would impact the population of Nelson's milkvetch in Ace in the Hole Draw. There are no populations present where any of the three wells are proposed.

Mitigative Measures: None

Name of specialist and date: Hunter Seim 01/8/07

WASTES, HAZARDOUS OR SOLID

Affected Environment: If a release does occur, the environment affected would be dependent on the nature and volume of material released. If there are no releases, there would be no impact on the environment.

Environmental Consequences: Consequences shall be dependent on the volume and nature of the material released. In most every situation involving hazardous materials, there are ways to remediate the area that has been contaminated. Short-term consequences would occur, but they can be remedied, and long-term impacts would be minimal.

Mitigative Measures: None.

Name of specialist and date: Shawn Wiser 01/05/07

WATER QUALITY/HYDROLOGY – GROUND

Affected Environment: The groundwater within the Fort Union Formation is of poor quality (TDS concentrations 8,000 – 10,000mg/L). This is considered poor quality. These water zones within the Fort Union Formation would be isolated from water within the formations in the Wasatch Formation by casing and cement. Near surface waters would be protected by the surface casing and cement behind pipe. The Fort Union coals would be isolated by the production casing and cement behind the production pipe. Potable water is highly unlikely in this area. It is predicted that the produced water from the Fort Union coals would be of poor quality. All shows of water would be isolated with cement.

Environmental Consequences: With the use of proper construction practices, drilling practices, and with best management practices, adverse impacts to groundwater aquifers and quality would not be anticipated to result from the proposed action. A geologic and engineering review was performed on the 8-point drilling plan to ensure that the cementing and casing programs adequately protect the down-hole resources.

Mitigative Measures: None.

Name of specialist and date: Jennifer Maiolo 01/10/07

WATER QUALITY/HYDROLOGY – SURFACE

Affected Environment: The three proposed Powder Wash wells would be constructed near Ace in the Hole Draw, an ephemeral drainage. Any runoff from the well pads, pipelines, or access roads would drain towards the Ace in the Hole Draw, which drains into Powder Wash. All stream segments near the well pad location are presently supporting classified beneficial uses. No impaired stream segments occur in the vicinity of the proposed action.

Environmental Consequences: Runoff water from the well site would drain towards Powder Wash, which is an ephemeral tributary to the Little Snake River. Increased sedimentation to Powder Wash during spring runoff or from high intensity rainstorms is the most likely environmental consequence from the proposed action. Although some sediment may be transported off site and eventually reach perennial waters, the mitigation provided in the Surface Use Plan and the Conditions of Approval would reduce the potential impacts caused by surface runoff.

Mitigative Measures: None.

Name of specialist and date: Shawn Wiser 01/05/07

WETLANDS/RIPARIAN ZONES

Affected Environment: There are no wetlands or riparian zones present within the project area.

Environmental Consequences: None.

Mitigative Measures: None.

Mitigative Measures: Timothy Novotny 01/16/07

WILD & SCENIC RIVERS

Affected Environment: Not present.

Environmental Consequences: Not applicable.

Mitigative Measures: Not applicable.

Name of specialist and date: Jim McBrayer 02/2/07

WILDERNESS, WSAs

Affected Environment: Not present.

Environmental Consequences: Not applicable.

Mitigative Measures: Not applicable.

Name of specialist and date: Jim McBrayer 02/2/07

NON-CRITICAL ELEMENTS

FLUID MINERALS

Affected Environment: The proposed action is in favorability zone 4 (highest for oil and gas potential). These wells would penetrate the Wasatch Cathedral Bluffs and the Allen Sands of the Fort Union Formation. The TD of these wells would be 8,301 feet, in the Allen 6 Sand. In these wells, the Allen Sands would be the major gas objective. The casing and cementing programs are adequate to protect down-hole resources.

Environmental Consequences: The proposed casing and cementing program appears to be adequate to protect and/or isolate all resources identified above. The entire hole would be cased with cement behind pipe.

Mitigative Measures: None.

Name of specialist and date: Jennifer Maiolo 01/10/07

PALEONTOLOGY

Affected Environment: The geologic formation at the surface is the Tertiary Cathedral Bluffs tongue of the Wasatch Formation (Twc). The Cathedral Bluffs Formation is a variegated, soft to medium grey claystone, mudstone and silt stone with minor lenticular sandstones and oil shales. The thickness is estimated to be from 300 – 1,000 meters thick. The Cathedral Bluffs Formation has been classified as a Class II formation for the potential for occurrence of scientifically significant fossils.

Environmental Consequences: Scientifically significant fossils are occasionally found within this formation (Armstrong & Wolney, 1989). The potential for discovery of significant fossils on this location is considered to be moderate. If any such fossils are located here, construction activities could damage the fossils and the information that could have been gained from them would be lost. The significance of this impact would depend upon the significance of the fossil. Ceasing operations and notifying the Field Office Manager immediately upon discovery of a fossil during construction activities can effectively mitigate this impact. An assessment of the significance would be made and a plan to retrieve the fossil or the information from the fossil would be developed.

The proposed action could also constitute a beneficial impact to paleontological resources by increasing the chances for discovery of scientifically significant fossils.

Mitigative Measures: "Standard Discovery Stip", i.e., "If fossils are discovered during construction or other operations, all activity in the area will cease and the Field Office Manager will be notified immediately. An assessment of significance would be made within an agreed time frame. Operations would resume only upon written notification by the Authorized Officer."

References

Armstrong, Harley J. and Wolney, David G., 1989, Paleontological Resources of Northwest Colorado: A Regional Analysis, Museum of Western Colorado, Grand Junction, CO, prepared for Bur. Land Management, Vol. I of V.

Miller, A.E., 1977, Geology of Moffat County, Colorado, Colo. Geol. Surv. Map Series 3, 1:126,720.

Name of specialist and date: Jennifer Maiolo 01/10/07

SOILS

Affected Environment: The proposed Ace Unit #11 and the BW Musser #26 wells would be located within the Tresano-Hiatha-Kandaly association loam soil-mapping unit. These very deep soils are well drained and found on hills, toe slopes, and alluvial fans. Slopes within this unit average 2 to 20 percent. These soils formed in alluvium derived from sandstone and shale. Runoff is rapid and the hazard of wind and water erosion is moderate to high.

The proposed Ace Unit Well #12 would be located within the Talamantes loam soil-mapping unit. This very deep, well-drained soil is found on alluvial fans and toe slopes. Slopes within this unit average 0 to 6 percent. This soil formed in alluvium derived from sedimentary rocks. Runoff is slow and the hazards of wind and water erosion are moderate.

Environmental Consequences: The construction and operation of the three Powder Wash Wells would affect soils within and immediately adjacent to the proposed areas of disturbance. Increased soil erosion from wind and water would occur during construction of the well pads, pipelines, and access roads. Erosion would continue throughout the operational life of the wells. Loss of topsoil, soil compaction, and possible increases in sediment loads to drainages are impacts most likely to occur.

Vegetation and soil would be removed from approximately 17.5 acres of land. Soil productivity would decline due to reduced soil microbial activity, impaired water infiltration, mixing of soil horizons, top soil loss, and introduction of weeds. Soil loss from construction would be greatest shortly after project start and would decrease in time as a result of stabilization through revegetation and reclamation of disturbed areas. Soil erosion would be reduced to an acceptable level with the mitigation described in the Surface Use Plan and Conditions of Approval in the approved APD. This mitigation will reduce the potential to have excessive sediments and salts in runoff water from the well sites.

Mitigative Measures: Additional mitigative measures will be employed to prevent or reduce accelerated erosion if it begins to occur within or on constructed drainage and diversion ditches or surface drainages affected by the roads or well pads.

Name of specialist and date: Shawn Wiser 01/12/07

VEGETATION

Affected Environment:

Musser Well #26 - This proposed well would be located in a sagebrush-grass/salt desert plant community. Dominant species present include Wyoming big sagebrush (*Artemisia tridentata wyomingensis*), budsage, (*Picrothamnus desertorum*), Nuttall's saltbush (*Atriplex nuttallii*), green rabbitbrush (*Chrysothamnus vicidiflorus*), winterfat (*Euphorbia lanata*), Indian ricegrass (*Oryzopsis hymenoides*), squirreltail (*Sitanion hystrix*), basin wildrye (*Leymus cinereus*) and Sandberg bluegrass (*Poa sandbergii*). Due to time of year and amount of snow cover, no forbs were seen although Hood's phlox (*Phlox hoodii*), longleaf phlox (*P. longifolia*), various *Aster* spp., desert parsely (*Lomatium* spp.), scarlet globemallow (*Spheralcea coccinea*), and desert buckwheat (*Eriogonum* spp.) are likely to be present. Sagebrush is quite abundant on this site and the individual plants exhibited fairly good vigor. The sagebrush is more abundant along the drainages. Halogeton (*Halogeton glomeratus*) and cheatgrass (*Bromus tectorum*) are two exotic, invasive annuals that are present in relatively high abundance.

Ace Unit Well #12 – This proposed well would also be located in a sagebrush-grass/salt desert plant community. Dominant species present include Wyoming big sagebrush, budsage (*Picrothamnus desertorm*), Gardner saltbush (*Atriplex gardneri*) and winterfat (*Krascheninnikovia lanata*); however no winterfat was seen during the onsite tour. Dominant perennial herbaceous vegetation includes Sandberg bluegrass, squirreltail and

Indian ricegrass. Again, due to the time of year and amount of snow cover, no forbs were observed although the forb component should be very similar to that listed for Musser Well #26. The overall abundance of sagebrush was very low and the herbaceous community was also sparse and appeared to be in poor condition. Halogeton was noted along the existing roads.

Ace Unit Well #11 - This proposed site would be nearly identical to the site of the proposed Ace Unit Well #12.

Environmental Consequences: The proposed action would remove approximately 17.5 acres of native vegetation for all three wells, pipelines, and access roads. This removal would be minor in the larger plant community. All or part of the area disturbed would be reclaimed in the short term if any or all of the wells fail to produce, but if any one well produces, portions of the total disturbance would be reclaimed as the drilling pads would be shrunk down after well completion. All developed access roads would remain to producing wells. In the long term, after the life of each producing well has ended, all disturbances would be reseeded to native vegetation per the drilling and surface use plans. As evidenced by the plant community in its pre-disturbance state, these sites would be highly susceptible to halogeton invasion. It would be imperative that all COAs regarding weed control and revegetation are followed to avoid increasing halogeton presence on and in areas surrounding the Proposed Action. As long as weeds are controlled and all disturbed areas are reseeded to prescribed mixes of native plant species and establishment is ensured as required, the negative impacts to the native plant communities would be effectively mitigated.

Mitigative Measures: None.

Name of specialist and date: Kathy McKinstry 01/09/07

WILDLIFE, TERRESTRIAL

Affected Environment: The proposed project area provides habitat for pronghorn antelope during the spring, summer and fall. There is little chance of pronghorn antelope using the well sites during winter months. All three well locations provide habitat for a variety of small mammals, reptiles and song birds. During the onsite visit, it was noticed that the areas appeared to be used heavily by rabbits.

Environmental Consequences: Pronghorn antelope may be disturbed by construction activities associated with the development of the access roads and well pads and the drilling of the wells. It is likely that any pronghorn in the area of the proposed well sites would be displaced once construction begins. It is possible that pronghorn could return to project area once the wells are drilled. It is unlikely that they would return to disturbed areas especially if the wells go into production.

Small mammals, reptiles and songbirds are likely to be displaced once construction begins. Surrounding habitats should be sufficient to support displaced individuals. Once construction is complete, displaced animals could return to the project area but it is likely that the well sites would be avoided.

Mitigative Measures: None.

Name of specialist and date: Timothy Novotny 01/16/07

OTHER NON-CRITICAL ELEMENTS: For the following elements, those brought forward for analysis will be formatted as shown above.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Fluid Minerals			JM 01/10/07
Forest Management	SW 01/05/07		
Hydrology/Ground		JM 01/10/07	
Hydrology/Surface		SW 01/05/07	
Paleontology			JM 01/10/07
Range Management		KM 01/10/07	
Realty Authorizations	MAA 01/12/07		
Recreation/Travel Mgmt		RS 01/12/07	
Socio-Economics		MAA 01/12/07	
Solid Minerals		JM 01/10/07	
Visual Resources		JMc 01/16/07	
Wild Horse & Burro Mgmt	SW 01/05/07		
Wildlife, Aquatic	TN 01/16/07		

CUMULATIVE IMPACTS SUMMARY: Cumulative impacts may result from the development of the three Powder Wash Wells when added to non-project impacts that result from past, present, and reasonably foreseeable future actions. The potential exists for future oil and gas development throughout the Powder Wash Field. Currently numerous producing wells exist within a one-mile radius of each of the proposed wells. Other past or existing actions near the project area that have influence on the landscape are wildfire, recreation, hunting, grazing, and ranching activities.

Surface disturbance associated with oil and gas activity would increase the potential for erosion and sedimentation. Displacement of hunters and recreationists during the short-term construction and drilling periods would occur. Contrasts in line, form, color, and texture from development would impact the visual qualities on the landscape.

Cumulative impacts to the plant communities within the gas leases and adjacent areas include an incremental reduction of continuity in the plant communities in terms of acreages that remain undisturbed. Loss of continuity results in smaller and smaller areas of undisturbed native vegetation and the potential for loss of integrity within the larger plant community. Fragmented plant communities can lose resilience to natural and man-made disturbance due to isolation of areas from seed sources necessary for proper age class distribution of plants, and subsequently, a greater opportunity for stressors such as drought to have a more severe impact on the plant community as a whole. The increased disturbance also makes native plant communities more susceptible to invasion by annual weeds as vectors for increasing weeds. Even with weed control measures applied, the potential for weeds to move further into undisturbed remnant areas increases as these remnants become smaller and more isolated from larger undisturbed areas.

Cumulative impacts to the livestock grazing operations in the area would also be increased through the Proposed Action. The growth in wells, roads, and human activity has reduced the availability of forage in this area far beyond direct impacts caused by construction. Halogeton has increased among the new roads and well pads and is toxic to sheep. The resulting impact to grazing activities permitted in the area is a loss of available Animal Unit Months (AUMs), i.e. a loss of the amount of livestock that the allotment can reasonably carry.

Habitat fragmentation from well pad construction and the associated roads have likely decreased the nesting suitability for migratory birds in Powder Wash. Ingelfinger (2001) found that roads associated with oil and gas development have a negative impact on passerines bird species. Bird densities were reduced within 100 meter of each road. Due to the amount of new road construction and an increase in traffic on these roads, passerine populations in the area are likely decreasing.

Although big game species are able to adapt to disturbances better than other wildlife, increased development would still have impacts to antelope. Timing stipulations adequately protect big game species during critical times of the year; however, continued oil and gas development would lead to decreased use of the habitat due to increased human activity. A significant amount of vehicle traffic occurs with oil and gas development. Impacts to big game may be vehicle-animal collisions, as these are a major cause of mortality for big game species.

References

Ingelfinger, F. 2001. The Effects of Natural Gas Development on Sagebrush Steppe Passerines in Sublette County, Wyoming. University of Wyoming, Laramie, WY.

STANDARDS:

PLANT AND ANIMAL COMMUNITY (animal) STANDARD: The proposed well sites are located in areas capable of supporting a variety of game and non-game animals. All three well locations are located in areas that have existing gas development occurring. The development of these three wells would not diminish the landscape's ability to support wildlife. Most individual

animals would choose to avoid the developed areas. This standard is currently being met for the project area. Once wells are completed the overall area would still provide productive habitat allowing this standard to be met. Well pads and access roads would not likely support wildlife once the project has begun.

Name of specialist and date: Timothy Novotny 01/16/07

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (animal)

STANDARD: There are no threatened or endangered species or habitat for such species in the project area. The proposed project area does provide low quality nesting habitat for greater sage-grouse. Due to habitat quality and the distance from the nearest active lek location, it is unlikely that greater sage-grouse use the project area. This project would not prevent this standard from being met in the future.

Name of specialist and date: Timothy Novotny 01/16/07

PLANT AND ANIMAL COMMUNITY (plant) STANDARD: The Proposed Action would completely remove 17.5 acres of native vegetation. As long as the COAs concerning revegetation and weed control are faithfully adhered to, the native plant community would eventually return and weeds such as halogeton would be kept in check, and thus meet this standard. The No Action Alternative would meet this standard as no disturbance would occur.

Name of specialist and date: Kathy McKinstry 01/10/07

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (plant)

STANDARD: There are no federally listed threatened or endangered or BLM sensitive plant species that would be impacted by the Proposed Action. The known population of Nelson's milkvetch that is in the vicinity would not be impacted. This standard does not apply.

Name of specialist and date: Hunter Seim 01/8/07

RIPARIAN SYSTEMS STANDARD: There are no wetlands or riparian systems within the project area. This standard does not apply.

Name of specialist and date: Timothy Novotny 01/16/07

WATER QUALITY STANDARD: The proposed action would meet the public land health standard for water quality. Reclamation of the pipeline corridors would be completed immediately after installation to minimize sheet and rill erosion from the corridor. Interim reclamation of the unused area on the well pad would be completed to minimize sheet and rill erosion from the well site. When the well pad is no longer needed for production operations, the disturbed well pad would be reclaimed to approximate original contours, topsoil would be redistributed, and adapted plant species would be reseeded. These Best Management Practices

would help to reduce accelerated erosion of the site. No stream segments near this project are listed as impaired.

Name of specialist and date: Shawn Wisner 01/05/07

UPLAND SOILS STANDARD: The proposed action would not meet the upland soil standard for land health and it is not expected to while the well location, pipeline, and access road are used for operations. The well pad site, pipeline corridor, and access road would not exhibit the characteristics of a healthy soil. Several Best Management Practices have been designed into the project or are attached as mitigating measures that would reduce impacts to and conserve soil materials. Upland soil health would return to the well pad, pipeline corridor, and access road disturbances after reclamation practices and well abandonments have been successfully achieved.

Name of specialist and date: Shawn Wisner 01/05/07

PERSONS/AGENCIES CONSULTED: Uintah and Ouray Tribal Council, Colorado Native American Commission, Colorado State Historic Preservation Office.

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
EA CO-100-2007-016

Based on the analysis of potential environmental impacts contained in the EA and all other available information, I have determined that the proposal and the alternatives analyzed do not constitute a major Federal action that would adversely impact the quality of the human environment. Therefore, an EIS is unnecessary and will not be prepared. This determination is based on the following factors:

1. Beneficial, adverse, direct, indirect, and cumulative environmental impacts have been disclosed in the EA. Analysis indicated no significant impacts on society as a whole, the affected region, the affected interests or the locality. The physical and biological effects are limited to the Little Snake Resource Area and adjacent land.
2. Public health and safety would not be adversely impacted. There are no known or anticipated concerns with project waste or hazardous materials.
3. There would be no adverse impacts to regional or local air quality, prime or unique farmlands, known paleontological resources on public land within the area, wetlands, floodplain, areas with unique characteristics, ecologically critical areas or designated Areas of Critical Environmental Concern.
4. There are no highly controversial effects on the environment.
5. There are no effects that are highly uncertain or involve unique or unknown risk. Sufficient information on risk is available based on information in the EA and other past actions of a similar nature.
6. This alternative does not set a precedent for other actions that may be implemented in the future to meet the goals and objectives of adopted Federal, State or local natural resource related plans, policies or programs.
7. No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.
8. Based on previous and ongoing cultural surveys, and through mitigation by avoidance, no adverse impacts to cultural resources were identified or anticipated. There are no known American Indian religious concerns or persons or groups who might be disproportionately and adversely affected as anticipated by the Environmental Justice Policy.

9. No adverse impacts to any threatened or endangered species or their habitat that was determined to be critical under the Endangered Species Act were identified. If, at a future time, there could be the potential for adverse impacts, treatments would be modified or mitigated not to have an adverse effect or new analysis would be conducted.

10. This alternative is in compliance with relevant Federal, State, and local laws, regulations, and requirements for the protection of the environment.

DECISION AND RATIONALE: I have determined that approving these three APDs is in conformance with the approved land use plan. It is my decision to implement the project with the mitigation measures provided in the Applications for Permit to Drill and the Conditions of Approval. The project will be monitored as stated in the Compliance Plan outlined below.

MITIGATION MEASURES: The mitigation measures for this project are found in the file room of the Little Snake Field Office. The APD 13-point surface use plan, well location maps, and the Conditions of Approval are found in the well case file labeled COC081267, Well #11; COC081269, Well #12; and COC038749A, Well #26.

COMPLIANCE PLAN(S):

Compliance Schedule

Compliance inspections will be conducted during the construction phase and drilling phase to insure that all terms and conditions specified in the leases and the approved APDs are followed. In the event a producing well is established, periodic inspections as identified through the I&E Strategy and independent well observations would be conducted. File inspections would include a review of all required reports and the Monthly Report of Operations would be evaluated for accuracy.

Monitoring Plan

The well locations and access roads would be monitored during the term of the lease for compliance with pertinent Regulations, Onshore Orders, NTL's or subsequent COA's until final abandonment is granted; monitoring would help determine the effectiveness of mitigation and document the need for additional mitigative measures.

Assignment of Responsibility

Responsibility for implementation of the compliance schedule and monitoring plan would be assigned to the Fluid Mineral staff in the Little Snake Field Office. Primary inspectors would be the Petroleum Engineering Technician, but the Petroleum Engineer, Natural Resource Specialist, Realty Specialist, and Legal Instruments Examiner would also be involved.

SIGNATURE OF PREPARER:

DATE SIGNED:

SIGNATURE OF ENVIRONMENTAL REVIEWER:

DATE SIGNED:

SIGNATURE OF AUTHORIZED OFFICIAL:

DATE SIGNED: