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-100-2007-034EA

CASEFILE/PROJECT NUMBER/LEASE NUMBER:

COC081267: Great Divide Federal # 22-33
COC038749B: Great Divide Federal # 11-33

PROJECT NAME: Great Divide Federal Wells

LEGAL DESCRIPTION: Moffat County, Colorado

Great Divide Federal # 22-33: SENW Section 33, T10N, R93W, 6th PM
Great Divide Federal # 11-33: NWNW Section 33, T10N, R93W, 6th PM

APPLICANT: J-W Operating 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 Great Divide Wells would be located within Management Unit 2 (Little Snake Resource Management Plan). One of the objectives 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 December 16, 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 two Applications for Permit to Drill (APD) submitted by J-W Operating Company. This oil and gas lease operator proposes to drill two natural gas wells near Great Divide, CO. APDs have been filed for Great Divide Federal Well # 22-33 and Great Divide Federal Well # 11-33 with the LSFO that include drilling and surface use plans. The APDs cover mitigation of impacts to vegetation, soil, surface water, and other resources. Mitigation not incorporated by J-W Operating Company in the drilling and surface use plans would be attached by the BLM as Conditions of Approval (COA) to an approved APD.

The proposed wells would be located approximately 9.2 miles north of Great Divide, Colorado. The approximate date work would start is in the summer of 2007 and the estimated duration of construction and drilling is 5 months. Moffat County Road # 7 would be used to access the well sites. J-W Operating Company proposes to construct approximately 1,850 feet of new access road. New road construction would conform to BLM specifications for a "resource road", with a 16-foot wide running surface. Total surface disturbance for new access road construction would be approximately 1.6 acres.

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 3.8 acres would be disturbed for well pad construction. This would include the 324' by 255' well pads, the topsoil piles, and subsoil piles to be constructed at the well sites. Unlined reserve pits would be constructed on the well pads to hold drill mud and cuttings. If the wells are producers, cut portions of the well sites would be backfilled and unused portions of the well sites would be stabilized and re-vegetated. If a gas well proves unproductive, the well would be properly plugged and the entire well pad and access road would be reclaimed.

J-W Operating Company did include plans for a gas sales pipeline with the APDs. Once production is established, approximately 4,930 feet of new pipeline would be installed. The pipelines would parallel the access roads. All pipeline construction would be on lease and on BLM and private surface.

Total area of disturbance for the proposed project would be 5.4 acres.

NO ACTION ALTERNATIVE: The "no action" alternative is that the wells would not be permitted and therefore no wells would be drilled. J-W Operating Company holds a valid and current oil and gas lease for the area where the proposed two Great Divide 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, the no action alternative 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: Roy McKinstry 03/27/07

AREA OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: Not Present.

Environmental Consequences: None.

Mitigative Measures: None.

Name of specialist and date: Rob Schmitzer 05/22/07

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 *Regional Class I Overview of Cultural Resources for the BLM Little Snake RMP,*and *Colorado Prehistory: A Context for the Northern Colorado River Basin,*

Colorado Council of Colorado Archaeologists. Also 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 project, J-W Operating Company's Great Divide Federal # 22-33 Well and # 11-33 well have undergone a Class III cultural resource survey:

Larson Thomas K.
2007 Results of a Class III Cultural Resource Inventory for the J-W Operating Company's Great Divide Federal # 22-33 Well, Moffat County, Colorado.
2007 Results of a Class III Cultural Resource Inventory for the J-W Operating Company's Great Divide Federal # 11-33 Well, Moffat County, Colorado.

The survey identified no historic properties. 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 06/18/07

ENVIRONMENTAL JUSTICE

Affected Environment: The proposed action is located in an area of isolated dwellings. Ranching, farming and oil and gas development are the primary economic activities.

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

Mitigative Measures: None.

Name of specialist and date: Mike Andrews 05/23/07

FLOOD PLAINS

Affected Environment: Active floodplains and flood prone zones are 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: Roy McKinstry 05/21/07

INVASIVE, NONNATIVE SPECIES

Affected Environment: Invasive species and noxious weeds occur within the affected area. Downy brome (cheatgrass), yellow alyssum, blue mustard and other annual weeds are common along roadsides, on well pads and on other disturbed areas. Canada thistle and several species of biennial thistles are known to occur in this area. Russian knapweed, perennial pepperweed (tall whitetop), dalmation toadflax and hoary cress (whitetop) exist in the vicinity of these proposed well pads. Other species of noxious weeds are not known to be a problem in this area, but could be introduced from other areas. 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 drilling these 2 wells, constructing the access roads, constructing the pipelines and other subsequent activities would create a favorable environment and provide a mode of transport for noxious weeds to become established. These weeds can be spread through a variety of means including by vehicular travel, construction equipment, gravel applications on roads, wind, water, wildlife and livestock movement. The annual invasive weed species (yellow alyssum, blue mustard and other annual weeds) occur on adjacent rangelands and would occupy the disturbed areas; the bare soils and the lack of competition from a perennial plant community would allow these weed species to grow unchecked and can affect the establishment of seeded plant species. Establishment of perennial grasses and other seeded plants is expected to provide the necessary control of invasive annual weeds within 2 or 3 years. Additional seeding treatments of the disturbed areas may be required in subsequent years if initial seeding efforts have failed.

Mitigation attached as Conditions of Approval to minimize disturbance and obtain successful interim reclamation of the unused areas of the well pads and the access roads, as well as weed control utilizing integrated practices, including herbicide applications would help to control the noxious weed species. All principles of Integrated Pest Management should be employed to control noxious and invasive weeds on public lands.

Mitigative Measures: None.

Name of specialist and date: Ole Olsen 5/29/07

MIGRATORY BIRDS

Affected Environment: The area contains potential breeding, nesting, and foraging habitat for the Brewer's sparrow, sage sparrow, golden eagle, and loggerhead shrike. Each of these species is included in the USFWS Birds of Conservation Concern 2002 List. Current field office records show no nests in this area for these species.

Environmental Consequences: Project activities would result in a loss of 5.4 acres of breeding, nesting, and foraging habitat for the above listed species. Other potential impacts include displacement into less suitable habitat and increased stress. Given the scale and timing of disturbance, "take" of individuals, nests, or eggs is not expected to occur.

Mitigative Measures: None.

Name of specialist and date: Charlie Sharp 05/29/07

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 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 06/18/07

PRIME & UNIQUE FARMLANDS

Affected Environment: Not Present.

Environmental Consequences: None.

Mitigative Measures: None.

Name of specialist and date: Roy McKinstry 05/21/07

T&E SPECIES – ANIMALS

Affected Environment: Proposed activities would occur within the bald eagle general winter distribution. However, the species is not known to use the area, and no nests, winter roosts, or winter forage areas have been observed or documented.

Environmental Consequences: The proposed action would have "no effect" on the bald eagle.

Mitigative Measures: Bald eagle winter range – If a wintering bald eagle is observed in the immediate vicinity of the project site (well pad and access road), construction would be delayed until the eagle has moved out of the area.

Name of specialist and date: Charlie Sharp 05/29/07

T&E SPECIES – PLANTS

Affected Environment: There are no federally listed threatened or endangered plant species within or in the vicinity of the Proposed Action.

Environmental Consequences: None.

Mitigative Measures: None.

Name of specialist and date: Hunter Seim 5/29/07

T&E SPECIES - SENSITIVE PLANTS

Affected Environment: There are no BLM sensitive plant species within or in the vicinity of the Proposed Action.

Environmental Consequences: None.

Mitigative Measures: None.

Name of specialist and date: Hunter Seim 5/29/07

WASTES, HAZARDOUS OR SOLID

Affected Environment: If the 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 affect on the environment.

Environmental Consequences: Consequences would 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: Roy McKinstry 05/21/2007

WATER QUALITY – GROUND

Affected Environment: The surface formation is the Cathedral Bluffs Tongue of the Wasatch Formation covered by Quaternary alluvium. This formation could hold fresh water in its minor sandstone horizons but potable water is unlikely.

Environmental Consequences: Proper construction practices and drilling practices coupled with best management practices should result in no impact to groundwater aquifers. No impact to water quality is 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. The entire hole is cased with cement behind pipe.

Mitigative Measures: None.

Name of specialist and date: Marilyn D. Wegweiser 05/21/07

WATER QUALITY/HYDROLOGY – SURFACE

Affected Environment: The project area is located on rolling hills near Great Divide, CO. Runoff water from the affected area would drain towards Big Hole Gulch, an intermittent tributary of the Little Snake River. This segment of the Little Snake River must have water quality sufficient to support Aquatic Life Cold 1, Recreation 1a, Water Supply and Agriculture. All stream segments within the affected environment are presently supporting their classified uses.

Environmental Consequences: Existing improved roads have been surveyed and designed appropriately to adequately handle the surface water drainage that would be intercepted and channeled down road ditches. The well pad locations would require construction of short access roads of about 1,850 feet. Construction of the roads, well pads, pipeline corridors, and installation of the specific drainage features would follow the recommendations provided in the Surface Operating Standards for Oil and Gas Development, 4th Edition. Increased sedimentation to the Little Snake River during spring runoff or from high intensity summer/fall rainstorms would be the greatest potential impact to water quality. Although some sediment may be transported off site and eventually reach perennial waters, mitigation provided in the Surface Use Plan for the proposed action, as well as the surface mitigation contained in the Conditions of Approval, would reduce the potential to have excessive sediments and salts in runoff water from the site.

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

Name of specialist and date: Roy McKinstry 5/23/07

WETLANDS/RIPARIAN ZONES

Affected Environment: Bighole Gulch, an ephemeral stream, occurs approximately 1/8 mile north of the proposed locations. Riparian vegetation including willow, cottonwood, and sedges line this waterway.

Environmental Consequences: Minor sedimentation may occur, particularly during construction. However, sediment load resulting from this action would likely be immeasurable. Some accelerated erosion has occurred in the past, likely a consequence of overgrazing. Riparian vegetation would not be removed as a result of this action.

Mitigative Measures: Standard weed treatment measures would be applied to prevent degradation of the riparian community.

Name of specialist and date: Charlie Sharp 05/29/07

WILD & SCENIC RIVERS

Affected Environment: Not present.

Environmental Consequences: None.

Mitigative Measures: None.

Name of specialist and date: Rob Schmitzer 05/22/07

WILDERNESS, WSAs

Affected Environment: Not present.

Environmental Consequences: None.

Mitigative Measures: None.

Name of specialist and date: Rob Schmitzer 05/22/07

NON-CRITICAL ELEMENTS

FLUID MINERALS

Affected Environment: The proposed action is in favorability zone 4 (highest for oil and gas potential). This well would penetrate the Wasatch, Fort Union, Lance, Lewis Shale,

and Mesaverde Formations. Bituminous coal seams with more than three thousand feet of overburden can be found throughout the Mesaverde (Almond) and Ft. Union Formations, and in a lesser amount the Lance Formation. Shallower thin beds of bituminous coal can be found in the Wasatch Formation as well. Their mineable value is low, but they may be valuable coal bed methane reservoirs and must be protected or isolated where encountered. It should be noted that the hydrology for coal bed methane production within the Sand Wash geologic basin is unfavorable even though the gas resource is large (Scott, et al., 1995). The Mesaverde (Almond) in this area is mainly coastal swamp and lagoon deposits with two transgressive shoreline deposits pinching out in a northwesterly direction near the top of the formation. Coal beds are non existent in this area within the Ericson Formation. The top third (Canyon Creek Member) and bottom third (Trail Creek Member) of the Ericson Sandstone are coastal-plain fluvial deposits of crossbedded sandstones.

Environmental Consequences: The proposed casing and cementing program appears to be adequate to protect and/or isolate all resources identified above with casing and cement behind pipe from TD to the surface.

Mitigative Measures: None.

Name of specialist and date: Jennifer Maiolo 06/04/07

PALEONTOLOGY

Affected Environment**:** Paleontological resources in Sec. 33, T10N, R96W are comprised of rocks of the Cathedral Bluffs Tongue of the Wasatch Formation, overlain by Quaternary alluvium. It is about 1,200 ft thick in vicinity of Lookout Mountain, CO. The Cathedral Bluffs Tongue overlies and intertongues with Tipton Tongue sediments of the Green River formation (formerly the Tipton shale member of the Green River). It underlies the Laney Shale member of Green River formation and is considered to be of Eocene age. Vertebrate fossils found in the Cathedral Bluffs Tongue include *Notharctus* and *Hyracotherium*; both fossils are early Eocene perissodactyls. The upper contact of Cathedral Bluffs Tongue of the Wasatch Formation has been revised in Moffat Co, CO and adjoining WY on the east side of the Washakie basin of the Greater Green River basin. The Cathedral Bluffs Tongue underlies a 200-324 ft thick gray and green mudstone that is interbedded with brown oil-shale, gray-brown silty kerogenaceous shale, gray or tan sandstone and siltstone and gray shale named Godiva Rim Member of Green River Formation.

Environmental Consequences**:** PYFC: *Class 3b* – Unknown Potential. Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known. This may indicate the unit or area is poorly studied, and field surveys may uncover significant finds. It is the intent that the units in this Class will eventually be placed in another Class when sufficient survey and research is performed. The unknown potential of

the units in this Class should be carefully considered when developing any mitigation or management approaches.

(1) Management concern for paleontological resources is moderate; or cannot be determined from existing data.

(2) Surface-disturbing activities may require field assessment to determine appropriate course of action.

Mitigative Measures**:** Unusual occurrences of plant and invertebrate fossils should be recorded, and representative examples may be collected if appropriate. Concentrations of common plant or invertebrate fossils that may be suitable for public hobby collection areas should also be noted and reported to the Field Office paleontology program coordinator or paleontology program lead. Additional mitigation measures may be appropriate in some cases for these types of localities.

If vertebrate fossil material is discovered during construction activities, surface disturbing actions shall halt until an assessment of the find is completed and appropriate protection measures taken. The Authorized Officer should be notified as soon as possible of the discovery and any mitigation efforts that were undertaken. If the find cannot be mitigated within a reasonable time, the concurrence of the Authorized Officer or official representative for a longer work stoppage must be obtained. Work may not resume until approval is granted from both the PI or Field Agent and the Authorized Officer.

Clear the proposed project from a paleontology program perspective that paleontological resources would be protected by operator committed measures and that paleontological resources will not immediately be adversely impacted by the proposed action.

Additionally: During operations, if any vertebrate paleontological resources are discovered, in accordance with Section 6 of Form 3100-11 and 43 CFR 3162.1, all operations affecting such sites shall be immediately suspended, and all discoveries shall be left intact until authorized to proceed by the Authorized Officer. The appropriate Authorized Officer of the Little Snake BLM office shall be notified within 48 hrs of the discovery, and a decision as to the preferred alternative/course of action will be rendered.

Name of specialist and date: Marilyn D. Wegweiser 05/21/07

References:

Sears, J.D., and Bradley, W.H., 1924, Relations of the Wasatch and Green River formations in northwestern Colorado and southern Wyoming, with notes on oil shales in the Green River formation, IN Shorter contributions to general geology, 1923-24: U.S. Geological Survey Professional Paper, 132-F, p. F93-F107.

Roehler, H.W., 1991, Revised stratigraphic nomenclature for the Wasatch and Green River Formations, IN Geology of the Eocene Wasatch, Green River, and Bridger (Washakie)

Formations, greater Green River basin, Wyoming, Utah, and Colorado: U.S. Geological Survey Professional Paper, 1506-B, p. B1-B38.

RANGE MANAGEMENT

Affected Environment: The proposed wells are within the LU 257 Allotment #04547. The permit is held by Lonnie Hedges.

Environmental Consequences: Some loss of forage is expected to due to the removal of vegetation, however at this time it should not warrant a reduction in the permitted use.

Mitigation Measures: None.

Name of specialist and date: Andrea Minor 06/04/07

SOILS

Affected Environment: The proposed Great Divide Wells are found within the Maysprings Coarse Sandy Loam and the Berlake-Maysprings complex soil-mapping units. Slopes within this unit average 3 to 12 percent. These soils are derived from sandstone, deep, and well drained. Runoff is slow to medium, the hazard of water erosion is moderate, and the hazard of soil blowing is moderate. If these soils are used for nonirrigated crops, they are capable of producing about 18 to 20 bushels of winter wheat per acre.

Environmental Consequences: 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. Soil erosion would be reduced by mitigation described in the Surface Use Plan and Conditions of Approval in the approved APD.

Mitigative Measures: None.

Name of specialist and date: Roy McKinstry 05/21/07

VEGETATION

Affected Environment: Both sites are located in a sagebrush-grass community. The dominant species is big sagebrush, with some horsebrush, green rabbitbrush, and very little bitterbrush also present. The understory consists of bottlebrush squirreltail, Junegrass,

Sandbergs bluegrass, crested wheatgrass and western wheatgrass for grasses; forbs include, death camas, buttercup, waterleaf, clover, Hoods phlox, lupine and buckwheat. The adjacent brush beatings are dominated by crested wheatgrass, bottlebrush squirreltail, and needle-and-thread grass. The vegetation community is in good condition at this time, as evidenced by a healthy, diverse, perennial plant community.

Environmental Consequences: The proposed action would completely remove native vegetation from an approximately 5.4 acre area for the wells and access roads. This removal would be insignificant in the larger landscape, but would be in addition to approximately 5.5 miles of improved gravel county roads and two-tracks, and the existing seven wells and associated roads within a one-mile radius of the proposed action. As long as reseeding and subsequent reestablishment of recommended native plants occurs upon well completion, the proposed action would not adversely affect the surrounding plant community. These sites are susceptible to invasion by cheat grass. It will be imperative that all COAs regarding weed control and revegetation are followed to avoid increasing cheat grass presence on and in areas surrounding the proposed action.

Mitigative Measures: None.

Name of specialist and date: Andrea Minor 06/4/07

WILDLIFE, AQUATIC

Affected Environment: Bighole Gulch, an ephemeral stream, and its riparian assemblage likely provides habitat for a variety of insects and amphibians. However, this waterway is not known to support any fish populations.

Environmental Consequences: Since the well pads and roads would be located outside the riparian zone, aquatic resources would be unaffected.

Mitigative Measures: None.

Name of specialist and date: Charlie Sharp 05/29/07

WILDLIFE, TERRESTRIAL

Affected Environment: This site provides winter range for elk and year-round habitat for pronghorn and mule deer. No critical habitat or winter range is present. Both locations and roads occur within greater sage grouse winter range and nesting/brooding habitat. A raptor nest occurs approximately .3 mile north of the proposed 11-33 and .2 miles north of the proposed 22-33 road. This nest has been historically used by a red-tailed hawk but was

occupied by a great horned owl at the time of the on-site inspection. The area also supports a variety of other small mammals, songbirds, and reptiles. Wildlife and species sign observed during the onsite include pronghorn, mule deer, porcupine, kestrel, bluebird, horned lark, killdeer, meadowlark, and raven.

Environmental Consequences: General impacts for these species include, but are not limited to, displacement into less suitable habitat, increased stress, and loss of habitat. These impacts are more significant during critical seasons, such as winter or reproduction. Wildlife using the area would likely be temporarily displaced during construction and would likely find the area unsuitable until reclamation is achieved. Most small mammals using the project area would be capable of avoiding construction activities and should not be directly harmed by these activities, although some burrowing animals may be killed by construction equipment. With the following mitigation, the proposed action would be unlikely to have measurable impacts to wildlife populations.

Mitigative Measures: Greater sage grouse nesting habitat—No surface disturbing activities would occur between March 1 and June 30 to protect nesting grouse and broods (applies to both the 11-33 and 22-33 locations and roads). Raptor nest (great horned owl)—No surface disturbing activities would occur between February 1 and August 15 to protect nesting raptors (applies only to the 22-33 well and access road). The raptor nest timing restriction would be waived if the 22-33 access road were re-routed to follow the currently proposed pipeline and, therefore, outside the .25 mile protection buffer.

Name of specialist and date: Charlie Sharp 05/29/07

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			JAM 06/04/07
Forest Management	RM 06/05/07		
Hydrology/Ground			JAM 06/04/07
Hydrology/Surface			RM 05/23/07
Paleontology			MW 05/21/07
Range Management			AM 06/04/07
Realty Authorizations	MAA 05/23/07		
Recreation/Travel Mgmt		RS 05/22/07	
Socio-Economics		MAA 05/23/07	
Solid Minerals		JAM 06/04/07	

Visual Resources		RM 06/18/07	
Wild Horse & Burro Mgmt	RM 05/21/07		

CUMULATIVE IMPACTS Cumulative impacts may result from the development of the two Great Divide 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 Great Divide area. Currently numerous producing wells exist within a one-mile radius 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. Only a small reduction in available forage would be anticipated. Some wildlife species may be temporarily displaced by construction at the well site, access road, and future pipeline routes, but should return once construction is completed. 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.

The cumulative effects of projected oil and gas development are minimized through Best Management Practices identified in the Surface Use Plan of the APD and the BLM required mitigation in the Conditions of Approval for the APD. Proper construction and drilling practices must comply with federal and state environmental regulations. All oil and gas wells in the area would be completed in accordance with Onshore Order No. 2. Reasonably foreseeable mineral development would occur under the guidelines of the Little Snake Resource Management Plan and the Colorado Oil and Gas Leasing and Development EIS.

STANDARDS:

PLANT AND ANIMAL COMMUNITY (animal) STANDARD: This site provides winter range for elk, year-round habitat for pronghorn and mule deer, and nesting habitat for raptors. It also supports a variety of other small mammals, songbirds, and reptiles. No crucial or severe winter range is present. When assessed in 2003, this landscape was found to be not meeting this standard, due primarily to poor condition of plant communities. Thus, the proposed action would not directly result in diminished animal production, diversity, or resilience; however, it may further delay habitat restoration. Proper reclamation and compliance with wildlife timing stipulations should help improve this standard for wildlife.

Name of specialist and date: Charlie Sharp 05/29/07

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (animal) STANDARD: Proposed activities would occur within bald eagle general winter distribution.

However, the species is not known to use the area, and no nests, winter roosts, or winter forage areas have been observed or documented. Other potentially affected special status species or species of concern include the greater sage grouse, great horned owl, Brewer's sparrow, sage sparrow, golden eagle, and loggerhead shrike. With stated mitigation, the proposed action would result in a minimal, short-term loss of habitat but would not appreciably impact the stability or growth of any of these species' populations. This standard is currently being met and, with sage grouse timing restrictions, would continue to be met under the proposed action.

Name of specialist and date: Charlie Sharp 05/29/07

PLANT AND ANIMAL COMMUNITY (plant) STANDARD: The plant communities impacted by the proposed action are currently meeting this standard. Plant diversity, vigor, abundance, and reproductive capability are currently at levels that ensure resilience in the plant community to human activities. Weeds, particularly halogeton, must be addressed and all principles of invasive weeds control should be employed. Given this mitigation measure, the proposed action would meet this standard.

Name of specialist and date: Hunter Seim 05/29/07

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (plant) STANDARD: There are no federally listed threatened or endangered or BLM sensitive plant species within or in the vicinity of the proposed action. This standard does not apply.

Name of specialist and date: Hunter Seim 05/29/07

RIPARIAN SYSTEMS STANDARD: When assessed in 2003, this landscape was found to be not meeting this standard, due primarily to drought and overgrazing. Thus, the proposed action would not solely or directly result in system degradation. All construction would occur outside the riparian zones. Proper reclamation and weed control may help achieve this standard.

Name of specialist and date: Charlie Sharp 05/29/07

WATER QUALITY STANDARD: The proposed action would meet the public land health standard for water quality. Interim reclamation of the unused areas on the well pads would be completed to minimize sheet and rill erosion from the well sites. When the well pads are no longer needed for production operations, the disturbed area 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 on the sites. No stream segments near this project are listed as impaired.

Name of specialist and date: Roy McKinstry 05/21/07

UPLAND SOILS STANDARD: The proposed action would not meet the upland soil standard for public land health, and it is not expected to while the well pads and access roads are used for operations. The disturbed area would not exhibit the characteristics of a healthy soil. The pipeline corridors would exhibit unhealthy upland soil characteristics initially, but within one to two years following reclamation the soil health would be moving toward the upland soil standard. Several Best Management Practices have been designed into the project that would reduce impacts to and conserve soil materials. Upland soil health would return to the well pads and access roads after the disturbed area has been successfully reclaimed.

Name of specialist and date: Roy McKinstry 05/21/07

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-100-2007-034

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 two APDs are in conformance with the approved land use plan. It is my decision to implement the project with the mitigation measures provided in the Application 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 APDs 13-point surface use plan, well location maps, and the Conditions of Approval are found in the well's case file labeled COC23920, Well # 22-33, and COC23920, Well # 11-33.

COMPLIANCE PLAN(S):

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

Monitoring Plan
The well location and access road will be monitored during the term of the lease for compliance with pertinent Regulations, Onshore Orders, Notices to Lessees, or subsequent COAs until final abandonment is granted; monitoring will 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 will be assigned to the Fluid Mineral staff in the Little Snake Field Office. The primary inspector will be the Petroleum Engineering Technician, but the Petroleum Engineer, Natural Resource Specialist, Realty Specialist, and Legal Instruments Examiner will also be involved.

SIGNATURE OF PREPARER:

DATE SIGNED:

SIGNATURE OF ENVIRONMENTAL REVIEWER:

DATE SIGNED:

SIGNATURE OF AUTHORIZED OFFICIAL:

DATE SIGNED: