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-100-2007-080 EA

CASEFILE/PROJECT NUMBER/LEASE NUMBER: COC69100

PROJECT NAME: BM Federal Well #13-12

LEGAL DESCRIPTION: SWSW Sec. 13, T12N, R89W, 6th PM

APPLICANT: New Frontier Energy, Inc.

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 BM Federal Well #13-12 would be located within Management Unit 1 (Little Snake Resource Management Plan). Management Unit 1 is rated as possessing the highest favorability for the occurrence of oil and gas resources in the Little Snake Resource Area. The management objectives of this unit are to realize the potential for development of coal, oil, and gas resources.

The proposed action was 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 (NOS) has been posted in the public room of the Little Snake Field Office for a 30-day public review period beginning May 14, 2007 when the NOS was 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 would be to approve the Application for Permit to Drill (APD) submitted by New Frontier Energy, Inc. New Frontier Energy, Inc. proposes to drill a natural gas well on private and BLM administered land near Slater, Colorado. The APD has been filed with the LSFO for the BM Federal Well #13-12. The well permit application includes drilling and surface use plans. The APD covers mitigation of impacts to vegetation, soil, surface water, and other resources. Mitigation not incorporated by New Frontier Energy, Inc. in the drilling and surface use plans would be attached by the BLM as Conditions of Approval (COAs) to an approved APD.

The proposed well would be located approximately 2.0 miles south of Slater, Colorado. The approximate date work would start is July 2007 and the estimated duration of construction and drilling would be 20 days. Moffat County Roads 1 and 129 would be used to access the well site. New Frontier proposes to construct 1300 feet of new access road and upgrade an existing two-track of approximately 1056 feet. New road construction would conform to BLM specifications for a "resource road," with a 14-foot wide running surface. Total surface disturbance for the new access road and reconstruction of the two-track would be approximately three (3.0) acres. A cattle guard with a 20 foot steel side gate would replace the take-down gate at the access road approach to Moffat County Road 129. All new road construction and upgrading would be on lease or private land and would not require a federal Right-of-Way.

The proposed well pad would be cleared of all vegetation and leveled for drilling. Topsoil and woody vegetation would be mulched and stockpiled for use in reclamation. The pad corners would be rounded to reduce the cut and fill as much a possible. Approximately 1.0 (one) acre would be disturbed for construction of the well pad. This would include the 90' by 65' well pad, the topsoil pile, and subsoil piles to be constructed at the well site. An unlined 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, the well would be properly plugged and the entire well pad and access road would be reclaimed.

New Frontier did include plans for gas gathering pipelines, water disposal pipelines, and underground electrical power lines to be co-located in the same utilities trench, which would run parallel and adjacent to the proposed well site access road located in the existing pipeline ROW. The approximate total distance for the utilities trench from the well pad to the existing pipeline ROW would be 100 feet. The gas gathering line would travel from the gas metering station on the well pad to an existing gas gathering line set in the pipeline ROW. The gas gathering line leads to the central delivery point located SESW Sec. 13, T12N, R89W. The water disposal line would travel from the well pad to an existing water disposal line set in the existing pipeline ROW. The water disposal gathering line leads to the Moffat 26-12-89 SWD #1 injection well. Power for the pad would be obtained from an electric metering drop located near the gate at the drive way access to Moffat County Road 129. The power line would be included in the utilities trench with the gas gathering and water disposal. No above ground power lines would be used to support production operations. The utilities trench would be established with either a wheel trencher or backhoe. The utilities trench would be approximately 3 feet wide and 6 feet deep, with an estimated disturbance width of 15 feet. Approximately 1.5 acres would be disturbed for

the construction of the utility corridor. All utility corridor construction would be on federal or private surface and on lease; a federal right-of-way is not required.

NO ACTION ALTERNATIVE: The "no action" alternative would be that the well would not be permitted and therefore no well would be drilled. New Frontier Energy, Inc. holds a valid and current oil and gas lease for the area where the proposed well 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 APD for the well 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 will not affect the regional air quality.

Mitigative Measures: None

Name of specialist and date: Shawn Wiser 05/31/07

AREA OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: Not Present

Environmental Consequences: Not Applicable

Mitigative Measures: Not Applicable

Name of specialist and date: Rob Schmitzer 07/2/07

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, *An Isolated Empire, A History of Northwestern Colorado*, Bureau of Land Management Colorado, Cultural Resource Series, Number 2 and *Colorado Prehistory: A Context for the Northern Colorado River Basin*, Colorado Council of Professional Archaeologists.

Environmental Consequences: The proposed project, New Frontier Battle Mountain Federal Well 13-12, has undergone a Class III cultural resource survey:

Mueller, Andrew
2007 A Class II and Class III Cultural Resource Inventory of the Roubidoux Right-of-Way and the New Frontier Energy Rattlesnake POD in Moffat County, Colorado and Carbon County, Wyoming. (BLM# 66.1.07)

Zier, Christian
2007 Addendum to the Class II Cultural Resource Inventory of the Roubidoux Right of Way and the New Frontier Energy Rattlesnake POD in Moffat County, Colorado and Carbon County, Wyoming.

The survey identified no eligible to the National Register of Historic Places 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 would be responsible for informing all persons who are associated with the operations that they would 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 would 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 would inform the operator as to:

- Whether the materials appear eligible for the National Register of Historic Places;
- The mitigation measures the operator would 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 would be responsible for mitigation costs. The AO would provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator would then be allowed to resume construction.

Name of specialist and date: Robyn Watkins Morris 07/06/07

ENVIRONMENTAL JUSTICE

Affected Environment: The proposed action would be located in an area devoid of year-round populations.

Environmental Consequences: The project area would be relatively isolated from population centers, so no populations would be affected by physical or socioeconomic impacts from the project. The project 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: Louise McMinn 06/11/07

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 05/31/07

INVASIVE, NONNATIVE SPECIES

Affected Environment: Invasive species and noxious weeds occur within the area of proposed action. Downy brome (cheat grass), 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, spotted knapweed, Mediterranean sage, perennial pepper weed (tall white top), dalmation toadflax, yellow toadflax, leafy spurge and hoary cress (white top) exist in the vicinity of this proposed well pad. 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 this well, constructing the access road, constructing the utilities corridor and other subsequent activities would create a favorable environment and provide a mode of transport for annual and noxious weeds to become established. These weeds can be spread through a variety of means including by vehicular travel, construction equipment, and gravel applications on roads, wind, water, and 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 would be expected to provide the necessary control of invasive annual weeds within 2 or 3 years. Additional seeding treatments of the disturbed areas would 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 pad and the access road, 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 would be employed to control noxious and invasive weeds.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 06/08/07

MIGRATORY BIRDS

Affected Environment: Brewers sparrow and sage sparrow are two species listed on the USFWS 2002 Birds of Conservation Concern list that would be likely to nest within the proposed project area.

Environmental Consequences: Construction activities associated with proposed access road and well pad development could lead to nest destruction or abandonment. Timing restrictions in place to protect nesting sage grouse would help ensure nesting Brewers sparrows and sage sparrows would not disturbed by construction activities. Chance of take to occur outside of this time period would be low.

Mitigative Measures: None

Name of specialist and date: Timothy Novotny 06/28/07

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 07/06/07

PRIME & UNIQUE FARMLANDS

Affected Environment: Not Present

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Shawn Wiser 05/31/07

T&E SPECIES – ANIMALS

Affected Environment: An active bald eagles nest is located just under ½ mile from the proposed well site. Bald eagles have recently been de-listed from the threatened and endangered species act. Informal consultation with the USFWS was conducted on this project during June of 2007.

The project area contains potential nesting habitat for greater sage-grouse, a BLM special status species. Most of the access road and well pad would be located on previously disturbed ground. This previous disturbance reduces nesting potential significantly. Surveys conducted during the spring of 2006 revealed a couple of male sage-grouse strutting at approximately ¼ from the proposed well pad. A second survey in 2007 did not find and sage-grouse strutting at that location. It is doubtful that this is an established lek location. The males observed may have been young males or males that were opportunistically displaying for a female in the area.

Environmental Consequences: As a result of the informal consultation, it was determined that leaving the well pad at the proposed location instead of moving it 160 feet to place it outside of ½ mile from the lek site would be less disruptive to the bald eagle's nest site because the current location would be at a lower elevation. The higher elevation would not have any vegetative screening between the proposed well pad and the nest site. In addition

to this, there would be much more ground disturbance if the well pad and access road were moved. If surface disturbing activities are conducted outside of the nesting season, it would be unlikely that bald eagles would be harmed by this project.

Previous disturbance along the proposed access road and pipeline make it unlikely that greater sage-grouse would have nests within the proposed new disturbance. Construction activities as well as drilling could disturb greater sage-grouse nesting activities surrounding the project area if they were conducted during the nesting season (March 1-June 30). This could lead to nest abandonment. If conducted outside of the nesting season, it is unlikely greater sage-grouse would be impacted by this project.

Mitigative Measures: CO-30, No surface disturbing activities between March 1 and June 30 in order to protect nesting greater sage-grouse.

Name of specialist and date: Timothy Novotny 06/28/07

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 06/06/07

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 06/06/07

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 impact 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 would be 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 05/31/07

WATER QUALITY - GROUND

Affected Environment: The surface formation is the Mesaverde Formation.

Environmental Consequences: Downhole procedures follow that of Onshore Order #2, and the operator would bring cement back to surface. Proper construction practices following Onshore Order #2 coupled with best management practices should result in no significant adverse impact to groundwater aquifers. Minor runoff from construction activities could result in sediment input in to nearby drainages.

Mitigative Measures: None

Name of specialist and date: Marilyn D. Wegweiser 06/05/07

WATER QUALITY – SURFACE

Affected Environment: The project area is located on the hills south of the Little Snake River near Slater, CO. Topographically, the area is typified by isolated peaks, buttes, and mountain ridge fingers. Water is abundant and numerous perennial and intermittent streams flow through the project area toward the river. Runoff water from the project area would flow in a northeasterly direction through several unnamed drainages and Kilgore Gulch, all tributaries of the Little Snake River. The Little Snake River within the affected environment must have water quality sufficient to support Aquatic Life Cold 1, Recreation 1a, Water Supply and Agriculture. Tributaries of the Little Snake River, when they flow water, must support the same beneficial uses. All stream segments within the affected environment are presently supporting their classified uses.

Environmental Consequences: Impacts from construction would be greatest shortly after the project starts and would decrease in time as a result of stabilization through revegetation and reclamation of disturbed areas. 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, the mitigation provided in the Surface Use Plan and the Conditions of Approval would reduce the potential impacts caused by surface runoff to an acceptable level.

Mitigative Measures: None

Name of specialist and date: Shawn Wiser 05/31/07

WETLANDS/RIPARIAN ZONES

Affected Environment: There would be no wetlands or riparian zones within the proposed project area.

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Timothy Novotny 06/28/07

WILD & SCENIC RIVERS

Affected Environment: Not Present

Environmental Consequences: Not Applicable

Mitigative Measures: Not Applicable

Name of specialist and date: Rob Schmitzer 07/2/07

WSAs, WILDERNESS CHARACTERISTICS

Affected Environment: Not Present

Environmental Consequences: Not Applicable

Mitigative Measures: Not Applicable

Name of specialist and date: Rob Schmitzer 07/2/07

NON-CRITICAL ELEMENTS

FLUID MINERALS

Affected Environment: The proposed action would be in favorability zone 4 (highest for oil and gas potential). This well would penetrate the Mesaverde Formation.

Summary:
The Mesaverde is considered to be of Campanian age based on palynomorphs (Scott, 1990). It consists of white and brown soft sandstone, gray sandy shale, coal, and carbonaceous shale (Love et al., 1995). The Mesaverde Formation overlies the Ericson Sandstone and underlies the Lewis shale, which is coeval to the Fox Hills Sandstone. The Mesaverde (Almond) in this area is mainly coastal swamp and lagoon deposits with two distinctive transgressive shoreline deposits pinching out in a northwesterly direction near the top of the formation. It can be field identified, by the frequent presence of *Ophiomorpha* ichnofossils indicating a nearshore depositional environment, often conducive to hydrocarbon reservoir characteristics. Bituminous and lignitic coal beds and stringers are found throughout the Wastach (Tschudy, 1971), Fort Union, Lewis Shale, and Mesaverde Formations. These coal seams have little value as a mineable commodity, but could contribute to the production of coal bead methane (CBM) and therefore must be isolated and protected from communication.

Environmental Consequences: None

Mitigative Measures: The Drilling Plan follows Onshore Order #2. Operator committed measures that in the Eight Point Drilling Plan would bring cement back to surface and cementing the production casing should prevent communication and commingling.

Name of specialist and date: Marilyn D. Wegweiser 06/05/07

References:

Love, J.D., Weitz, J.L., and Hose, R.K., 1955, Geologic map of Wyoming: U.S. Geological Survey, scale 1:500,000.

Roehler, H.W., 1993, Stratigraphy of the Upper Cretaceous Fox Hills Sandstone and adjacent parts of the Lewis Shale and Lance Formation, east flank of the Rock Springs uplift, southwest Wyoming: U.S. Geological Survey Professional Paper, 1532, 57 p., 5 pl., (incl. geologic maps, scale 1:100,000) [http://ngmdb.usgs.gov/Prodesc/proddesc_4923.htm].

Scott, R.W., Jr., and Pantea, M.P., 1990, Geologic map of the Texas Creek quadrangle, Rio Blanco County, Colorado: U.S.Geological Survey Miscellaneous Field Studies Map, MF-2134, 1 sheet, scale 1:24,000.

Tschudy, R.H., 1976, Pollen changes near the Fort Union-Wasatch boundary, Powder River basin, IN Geology and energy resources of the Powder River [basin]: Wyoming Geological Association Field Conference Guidebook, no. 28, p. 73-81.

PALEONTOLOGY

Affected Environment**:** Paleontological resources in Sec. 13, T12N, R89W are comprised of rocks of the Mesaverde Formation, overlain by Quaternary alluvium. The Mesaverde Formation contains several members known to produce significant vertebrate fauna in other parts of Colorado and in Wyoming.

Environmental Consequences**:** ***PYFC:*** *Class 3b* – **Unknown Potential.** The surficial 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. 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 vertebrate, plant and invertebrate fossils should be recorded, and representative examples may be collected by a BLM approved and permitted qualified paleontologist 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 Little Snake 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.

Additionally:
Paleontology: 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 Field Office of the BLM 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 07/09/07

SOILS

Affected Environment: The proposed well site would be found within the Evanot-Yamo complex soil-mapping unit. Slopes within this unit average 3 to 20 percent. These soils are found on hills and are very deep and well drained. They formed in loess. Runoff is rated as medium and the hazard of water erosion is moderate. The hazard of soil blowing is slight.

Environmental Consequences: The construction and operation of the proposed action would affect soils within and immediately adjacent to the proposed area of disturbance. Road and well pad construction would follow the design standards and recommendations outlined in the Surface Operating Standards for Oil and Gas Development, 4th Edition.

Increased soil erosion from wind and water would occur during construction of the well pad, access road, and utility corridors. Erosion would continue throughout the operational life of the well. 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 5.5 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 erosion would be reduced to an acceptable level with mitigation described in the Surface Use Plan and Conditions of Approval in the approved APD. Soil loss from construction would be greatest shortly after the project starts and would decrease in time as a result of stabilization through revegetation and reclamation of disturbed areas.

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 or surface drainages affected by the road or well pad.

Name of specialist and date: Shawn Wiser 05/31/07

UPLAND VEGETATION

Affected Environment: The proposed action would be located in a Deep Loam ecological site. Dominant shrub species of the upland community include Wyoming big sagebrush (*Artemisia tridentata wyomingensis*), serviceberry (*Amelanchier alnifolia*), and green rabbitbrush (*Chrysothamnus viscidiflorus*). Dominant grasses include western wheatgrass (*Agropyron smithii*), prairie junegrass (*Koeleria macrantha*), needleandthread (*Hesperostipa comata*), and Sandberg bluegrass (*Poa sandbergii*). Dominant forbs include scarlet globemallow (*Sphaeralcea coccinea*), arrowleaf balsamroot (*Balsamorhiza sagittata*), Nuttall's larkspur (*Delphinium nuttallianum*), longleaf phlox (*Phlox longifolia*), and lupine (*Lupinus spp.*). Some other species found on this proposed site include false dandelion (*Agoseris glauca*), prickly pear (*Opuntia spp.*), blue flax (*Linum lewisii)*, death camas (*Zigadenus elegans)*, yarrow (*Achillea millifolium*), and common dandelion (*Taraxicum officinale*).

Environmental Consequences: The proposed action would impact a very small portion of the upland plant community. This impact would be very minimal within the larger landscape and not adversely impact the upland community as a whole.

Mitigative Measures: None

Name of specialist and date: Jessica Johnson 07/02/07

WILDLIFE, TERRESTRIAL

Affected Environment: The proposed access road and well pad would be located within year round habitat for mule deer, pronghorn antelope and elk, including severe winter range. A variety of small mammals, song birds and reptiles may also be found within the proposed project area.

Environmental Consequences: Construction activities associated with the development of the access road and well pad and drilling of the well could have a negative impact on wintering big game animals if conducted during winter months (December 1 through April 30). If conducted outside of this period, big game animals would likely avoid the project area until construction is complete. Once complete, some displaced individuals would likely return to the proposed project area. Surrounding undisturbed habitat would be sufficient to support displaced animals during construction.

Most small mammals, reptiles and songbirds would be capable of avoiding disturbed areas during construction and drilling. It would be possible that some burrowing animals would be trapped and killed by heavy equipment during construction. This would be a negative impact to individuals but would not impact any species populations negatively. Timing restrictions protecting nesting sage grouse would help reduce potential for nest destruction of most songbirds.

Mitigative Measures: CO-09, No surface disturbing activities between December 1 and April 30 in order to protect wintering mule deer and elk.

Name of specialist and date: Timothy Novotny 06/28/07

OTHER NON-CRITICAL ELEMENTS:

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Forest Management		SW 05/31/07	
Hydrology/Ground		MDW 06/05/07	
Hydrology/Surface		SW 05/31/07	
Paleontology			MDW 07/09/07
Range Management		JPJ 07/02/07	
Realty Authorizations	LM 06/11/07		
Recreation/Transportation		RS 7/2/07	
Socio-Economics		LM 06/11/07	
Solid Minerals		JAM 6/4/07	
Visual Resources		RS 7/2/07	
Wild Horse & Burro Mgmt	SW 05/31/07		
Wildlife, Aquatic	TN 06/28/07		

CUMULATIVE IMPACTS SUMMARY: Cumulative impacts may result from the development of the New Frontier Energy, Inc. BM Federal Well #13-12 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 Slater, CO area. Currently numerous producing wells exist within a one-mile radius of the proposed well. 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.

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.

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: The vicinity of the Proposed Action provides habitat capable of supporting healthy productive wildlife populations. Mule deer and elk rely on the project area during severe winters as a source of forage and shelter. The Proposed Action would not result in a significant physical loss of habitat because much of the disturbance would occur in previous disturbed areas. Some individuals would be displaced during project construction. Timing restrictions would help reduce potential impacts to big game animals. This standard is currently being met and would continue to be met in the future.

Name of specialist and date: Timothy Novotny 06/28/07

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (animal) STANDARD: The proposed project area provides nesting habitat for bald eagles and greater sage-grouse, both are BLM special status species. An informal consultation was conducted on bald eagles during the development on this project. During that process, it was determined that this project would not be likely to negatively impact nesting bald eagles.

Most of the access road and well pad would be located in previously disturbed habitat. Timing restrictions would help ensure nesting greater sage-grouse are not disturbed as a result of this project.

The proposed project area is currently providing productive habitat for greater sage-grouse and bald eagles. The Proposed Action would not reduce the areas potential to support either of these species. This standard is currently being met and would continue to be met in the future.

Name of specialist and date: Timothy Novotny 06/28/07

PLANT AND ANIMAL COMMUNITY (plant) STANDARD: The Proposed Action would result in a small, localized surface disturbance which would not disturb the larger plant community. This level of disturbance would not prevent the community from maintaining resilience to other activities and disturbances. The plant community currently meets this standard and the Proposed Action would not prevent the community from meeting this standard in the future.

Name of specialist and date: Jessica Johnson 07/02/07

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 06/06/07

RIPARIAN SYSTEMS STANDARD: There are no wetlands or riparian systems present within the vicinity of the Proposed Action. This standard does not apply.

Name of specialist and date: Timothy Novotny 06/28/07

WATER QUALITY STANDARD: The proposed action would meet the public land health standard for water quality. Reclamation of the utility trenches would occur shortly after utility line installation to minimize sheet and rill erosion from the corridors. Interim reclamation of the unused area on the well pad would be completed shortly after drilling to minimize sheet and rill erosion from the well site. When the well pad is no longer needed for production operations, the disturbed areas 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 sites. No stream segments in the vicinity of the Proposed Action are listed as impaired.

Name of specialist and date: Shawn Wiser 05/31/07

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, utility corridors, and access road are used for operations. The well pad site, corridors, 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, utility corridors, and access road disturbances after well abandonment and reclamation practices have been successfully achieved.

Name of specialist and date: Shawn Wiser 05/31/07

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-100-2007-080

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 would be no highly controversial effects on the environment.

5. There would be 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 this APD is 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 would 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 COC69110, Well #13-12.

COMPLIANCE PLAN(S):

Compliance Schedule
Compliance would 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 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 location and access road would 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 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. The primary inspector would be the Petroleum Engineering Technician, but the Petroleum Engineer, Natural Resource Specialist, Realty Specialist, and Land Law Examiner would also be involved.

SIGNATURE OF PREPARER:

DATE SIGNED:

SIGNATURE OF ENVIRONMENTAL REVIEWER:

DATE SIGNED:

SIGNATURE OF AUTHORIZED OFFICIAL:

DATE SIGNED: