

## ENVIRONMENTAL ASSESSMENT RECORD

1. **NUMBER** CO-110-2004-013
2. **CASEFILE/PROJECT NUMBER:** COC 57978
3. **PROJECT NAME:** APD well #1-2
4. **LEGAL DESCRIPTION:** T1S., R 98W., sec. 1 SWSW
5. **APPLICANT:** Bass Enterprises
6. **NEED FOR PROPOSED ACTION:** To respond to applicant's request to exercise lease rights and develop hydrocarbon reserves.
7. **DESCRIPTION OF PROPOSED ACTION:**

**a. Proposed Action:** The Company is proposing to drill a gas well to approximately 11000 feet to test the Mesaverde formation. Access roads will be improved involving 1.86 miles (6.76 acres) of new construction disturbance. The location dimensions are 385' X 210' (1.86 acres). No pipeline proposal was submitted with this proposal. Total disturbance will be approximately 8.62 acres.

**b. No Action Alternative:** No well would be drilled and no construction would occur.

8. **PLAN CONFORMANCE REVIEW:**

**a. Name of Plan:** White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

**b. Date Approved:** July 1, 1997

**c. Page/Decision:** Page 2-5: "Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values."

**d.** The proposed action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3) The action conforms to the decisions/pages of the plan listed above.

9. **RELATIONSHIP TO OTHER NEPA DOCUMENTS:** This environmental assessment is tiered to, and incorporates by reference the White River Resource Area Resource Management Plan (PRMP) and Final Environmental Impact Statement (FEIS) approved May 29, 1996.

**10. AFFECTED ENVIRONMENT/ENVIRONMENTAL IMPACTS/MITIGATION MEASURES:**

**CRITICAL ELEMENTS**

An X in the “Not Affected” column in the table below indicates that the critical element has been analyzed and will not be affected by the proposed action or the no action alternative. Affected elements are addressed in the paragraphs following the table.

<b>Not Affected</b>	<b>Critical Element</b>	<b>Specialist Signature</b>	<b>Date</b>
	Air Quality		
	Cultural Resources		
X	Floodplains, Wetlands, Riparian Zones, and Alluvial Valleys	Glenn Klingler	12-12-03
X	Native American Concerns	T. Meagley	11-13-03
X	Prime and Unique Farmlands	T. Meagley	11-13-03
X	Threatened and Endangered Animals	Glenn Klingler	12-12-03
X	Threatened and Endangered Plants	T. Meagley	11-13-03
	Wastes, Hazardous or Solid		
	Water quality, Surface or Ground		
X	Wilderness Area, Wild and Scenic Rivers	Chris Ham	11/17/03
X	Areas of Critical Environmental Concern	T. Meagley	11-13-03
X	Environmental Justice	T. Meagley	11-13-03
	Noxious Weeds, Invasive, Non-Native Species/Reclamation		

**AIR QUALITY:**

***Affected Environment:*** There are no special designation air sheds or non-attainment areas nearby that would be affected by the proposed action. During periods of low precipitation, air quality in the area of the proposed action is often diminished by dust caused by human disturbance.

***Impact of Proposed Action:*** The proposed action would result in short term, local impacts to air quality during and after construction, due to dust being blown into the air. After adequate vegetation is reestablished, blowing dust should return to pre-construction levels.

***Impact of No Action Alternative:*** No increase in dust will occur.

***Mitigative Measures:*** Applicant will spread water on road surfaces to control fugitive dust.

***Signature of specialist:*** CHollowed 12/01/03

## **CULTURAL RESOURCES:**

### ***Affected Environment:***

The proposed well pad location and access road have been inventoried at the Class III (100% pedestrian) level (Pennefather-O'Brien 2003, Compliance Dated 09/05/2003) with one isolated find (5RB 4464) located along the access road corridor.

***Impact of Proposed Action:*** If mitigation measures are followed there will be no new impacts to cultural resources.

***Impact of No Action Alternative:*** There would be no new impacts to cultural resources under the No Action Alternative.

### ***Mitigative Measures:***

1. Avoid Isolated find 5RB 4464.
2. The operator is responsible for informing all persons who are associated with the project 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 uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). 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 site can be used (assuming in situ preservation is not necessary)
  - a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

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 cost. 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.

3. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, 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.

*Signature of specialist:* Michael Selle 12/2/2003

#### **WASTES, HAZARDOUS OR SOLID:**

*Affected Environment:* There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at this site.

*Impact of Proposed Action:* No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated.

*Impact of No Action Alternative:* No hazardous or other solid wastes would be generated under the no action alternative.

*Mitigative Measures:* The operator shall be required to collect and properly dispose of any solid wastes generated by this project.

*Signature of specialist:* Marty O'Mara 12/12/03

#### **WATER QUALITY, SURFACE OR GROUND:** (This includes all information related to Public Land Health Standard 5.)

*Affected Environment:* The location of the proposed action is on a bench above Yellow Creek, which is tributary to the White River and falls within segment 13b of the Colorado Classification and Numeric Standards. This segment is described as the mainstem of Yellow Creek, including all tributaries from the source to the confluence with the White River. Colorado Division of Wildlife owns this segment of Yellow Creek that is directly below the proposed action; data is not available for this segment. Yellow Creek is an intermittent drainage meaning there are segments of perennial flow and segments where there is no flow. The area directly below the proposed action is in a segment that has perennial flow.

A review of the Colorado's 1989 Nonpoint Source Assessment Report (plus updates), the 305(b) report, the 303(d) list and the Unified Watershed Assessment was done to see if any water quality concerns have been identified. All actions are within the White River watershed. The State has designated this segment as "Use Protected" and has classified the

stream segment as Warm Aquatic Life 2, Recreation 2, and Agriculture. The state has further defined water quality parameters with table values. These standards reflect the ambient water quality of Yellow Creek and define maximum allowable concentrations for the various water quality parameters. The anti-degradation rule does not apply to segments that are considered to be use protected. For these drainages, the parameters listed in the table will apply.

***Impact of Proposed Action:*** The area where the proposed action is located appears not to be a very defined drainage. One problem that could arise from the proposed action would be an increase in sediment transport. Annual runoff from this watershed is dynamic and dependent on some aspects we control, such as the amount of vegetation retained for watershed protection and vegetation density. Depleting the vegetation cover needed to protect watersheds from raindrop impact and runoff could cause short-term erosion problems and increased sedimentation to Yellow Creek and on down to the White River until successful best management practices (BMPs) have been implemented and proven successful. The magnitude of these impacts is dependent on the amount of surface disturbance and climatic conditions during the time the soils are exposed to the elements.

***Impact of No Action Alternative:*** No impacts from the no-action alternative are anticipated.

***Mitigative Measures:*** Efforts need to be made to keep sediment from leaving the site. Apply the following Conditions of Approval listed in Appendix B of the White River ROD/RMP to help minimize surface disturbing impacts:

4. When preparing the site, all suitable topsoil should be stripped from the surface of the location and stockpiled for reclamation once the location is abandoned. If well becomes a producing well, the topsoil pile will need to be seeded to reduce wind and water erosion. When topsoil is stockpiled on slopes exceeding five percent, construct a berm or trench below the stockpile.
6. All sediment control structures or disposal pits will be designed to contain a 100-year, 6-hour storm event. Storage volumes within these structures will have a design life of 25 years.
8. All activity shall cease when soils or road surfaces become saturated to a depth of three inches unless otherwise approved by the Authorized Officer.
24. Provide vegetative or artificial stabilization of cut and fill slopes in the design process. Avoid establishment of vegetation where it inhibits drainage from the road surface or where it restricts safety or maintenance.
35. Eliminate undesirable berms that retard normal surface runoff.

***Signature of specialist:*** CHollowed 12/01/03

**NOXIOUS WEEDS, INVASIVE, NON-NATIVE SPECIES/RECLAMATION:** (This includes vegetation information related to Public Land Health Standard 3.)

**Affected Environment:** There are no known noxious weeds in the area of the proposed well and access road. The alien invasive species, cheatgrass is present in the area, primarily adjacent to roads occurring on disturbed, unvegetated areas.

**Impact of Proposed Action:** The proposed action will create earthen disturbance. In the absence of proper revegetation, these sites will be suitable for invasion by cheatgrass and possibly by noxious weeds which have been transported from off the site.

**Impact of No Action Alternative:** There will be no change from the present situation.

**Mitigation Measures:** Promptly recontour and revegetate all disturbed areas with Native Seed mixture #3. Cut and fill slopes of the access road should be broadcast seeded. Eradicate all noxious and invasive species which occur on site using materials and methods approved by the Authorized Officer.

**Signature of specialist:** Mark Hafkenschiel      11/14/03

**NON-CRITICAL ELEMENTS**

An X in the “Not Affected” column in the table below indicates that the non-critical element has been analyzed and will not be affected by the proposed action or the no action alternative. Affected elements are addressed in the paragraphs following the table.

Not Affected	Non-Critical Element	Specialist Signature	Date
	Access and Transportation		
	Forest Management		
	Geology and Minerals		
X	Hydrology and Water Rights	CHollowed	12/01/03
X	Land Status/Realty Authorizations	Penny Brown	11/18/03
	Fire Management		
	Paleontology		
	Recreation		
	Soils		
	Visual Resources		

Not Affected	Non-Critical Element	Specialist Signature	Date
X	Wildlife Aquatic	Glenn Klingler	12-12-03
	Wildlife Terrestrial		
X	Wild Horses	V. Dobrich	11-14-2003

**ACCESS AND TRANSPORTATION:**

**Affected Environment:** Motorized travel is restricted to existing roads and trails in the vicinity of the location of the proposed action.

**Impact of Proposed Action:** The proposed access road would create a new existing road open to public motorized use. However, since the access road will dead-end at the well site, little public use is expected.

**Impact of No Action Alternative:** None.

**Mitigative Measures:** None.

**Signature of specialist:** Scott Pavey 12/10/03

**FOREST MANAGEMENT:**

**Affected Environment:** The proposed access road and well pad are within a pinyon/juniper woodland. These are mid-elevation pinyon/juniper woodlands that generally have an equal mix of pinyon and juniper. These woodlands are middle aged in terms of stand characteristics. These woodlands are classified as commercial and are included in the decadal harvest limits. These woodlands are an important source of firewood and fence posts.

**Impact of Proposed Action:** Total acreage of pinyon/juniper removed as a result of this action is two acres, of the 15,000 acres of commercial woodland found in the Piceance area. This loss of commercial woodland would not impact the 450-acre/decade commercial forest limit.

**Impact of No Action Alternative:** There would be no impacts.

**Mitigative Measures:** In accordance with the White River ROD/RMP, Appendix B, Page B-1, #7: All trees removed in the process of construction shall be purchased from the Bureau of Land Management. The trees shall be cut with a maximum stump height of six inches and disposed of by one of the following methods:

- Cut into four foot lengths down to a four inch diameter and placed along the edge of the disturbance.
- Removed from federal land for resale or private use. Limbs scattered off the area of disturbance but not dozed off.
- Chipped and scattered.

*Signature of specialist:* Bob Fowler 12/12/03

## **GEOLOGY AND MINERALS:**

***Affected Environment:*** Bass's well # 1-2 is located approximately one mile north of Natural Soda's Federal sodium lease COC-0118326 in the area identified in the white River ROD/RMP as available for multi mineral and sodium leasing. The surface geologic formation of the well location is Uinta and Bass's targeted zone is not disclosed in the APD but is approximately 4,500 feet below the top of the Mesaverde. During drilling potential water, oil shale, sodium, and gas zones will be encountered from surface to the targeted zone. Aquifer zones that will be encountered during drilling are the Perched in the Uinta, the A-groove, B-groove and the Dissolution Surface in the Green River formation. This area is known for difficulties in drilling and cementing. Oil shale and sodium resources are also found in the Green River formation.

***Impact of Proposed Action:*** Drilling and completion of this well may adversely affect the aquifers if there is loss of circulation or problems cementing the casing. The proposed cementing procedure of the action isolates the formations and should prevent the migration of gas, water, and oil between formations. Development of these wells will deplete the hydrocarbon resources in the targeted formation.

***Impact of No Action Alternative:*** None.

***Mitigative Measures:*** Bass must document fluid losses during drilling operations through the Green River Formation. Fluid loss documentation will be supplied to the BLM Meeker office within 30 days of drilling.

***Signature of specialist:*** Paul Daggett 12//2003

## **FIRE MANAGEMENT:**

***Affected Environment:*** Due to the existing tree cover of pinion and juniper (see Forest Management Section above), there will be a need for the operator to clear some trees. If not adequately treated, these trees will result in elevated hazardous fuels conditions and remain on-site for many years. These accumulations of dead material are very receptive to fire brands and spotting from wind driven fires and can greatly accelerate the rate of spread of the

fire front. The road(s) associated with this project may be used by the general public for a variety of uses, including access for fire wood gathering, hunting and other dispersed recreational activities. Increased public use of an area will nearly always result in an increased potential for man-caused wildland fires.

The National Fire Plan calls for “firefighter and public safety” to be the highest priority for all fire management activities. In the pinion, juniper, and brush types common on the White River Resource Area, roads and other man-made openings are commonly used as fuel breaks or barriers to control the spread of both wildland and prescribed fires. By reducing the activity fuels created from this proposal, future fire management efforts in this area should be safer for those involved and more effective.

***Impact of Proposed Action:*** There will be approximately two acres of road and well pad construction requiring the removal of pinion/juniper fuel type on the well site and access road. If not treated the slash and woody debris will create an elevated hazardous dead fuel loading which could pose significant control problems in the event of a wildfire. Additionally there would be greater threat to public, Bass personnel, and fire suppression personnel.

***Impact of No Action Alternative:*** There would be no tree removal or disturbance which would cause significant dead fuel loading.

***Mitigative Measures:*** Several options may be considered for treatment of slash from this project. A hydro-ax or other mulching type machine could be used to remove the trees. The machines are capable of shredding trees up to 12" in diameter and 15' tall as well as mowing brush like a conventional brush beater. It generally leaves small branches and pieces of wood from pencil size up to bowling ball size. The mulch is evenly scattered across the surface and the tires or tracks distribute the weight of the equipment. This would effectively breakdown the woody fuel and scatters the debris, thereby eliminating any hazardous fuel load adjacent to the new road and well pad.

The other option would be to cut trees and have them removed for firewood, posts, or other products. The branches and tops should be lopped and scattered to a depth of 24 inches or less. If the products are left for collection by the general public, they should be piled along the road side or pad to facilitate removal.

***Signature of specialist:*** Ken Holsinger

## **PALEONTOLOGY:**

***Affected Environment:*** The proposed well pad location is located in an area mapped as the Uinta Formation (Tweto 1979) which has been classified by the BLM as a Category I formation meaning it is a known producer of scientifically important fossils, especially vertebrate fossils.

**Impact of Proposed Action:** If it becomes necessary to excavate into the underlying bedrock formation to build the road, level the pad or excavate the reserve/blooiie pit there is a potential to impact scientifically important fossil resources.

**Impact of No Action Alternative:** There would be no new impacts to fossil resources under the No Action Alternative.

**Mitigative Measures:** All exposed outcrops of the Uinta formation must be inventoried by a BLM approved paleontologist with a report detailing the results of the inventory and any recommended mitigation measures prior to the initiation of construction. If it becomes necessary to excavate into the underlying bedrock to level the road, well pad or excavate the reserve/blooiie pit then a paleontological monitor shall be present for the excavations.

**Signature of specialist:** Michael Selle 12/2/03

#### **RANGELAND MANAGEMENT:**

**Affected Environment:** The proposed well site is within the Upper Yellow Creek Pasture of the Square S allotment (06027). This pasture is used in the spring or winter in conjunction with other pastures in the allotment in a rotation grazing system.

**Impact of Proposed Action:** The access road to the well will intersect the pasture boundary fence. In order to maintain the integrity of this fence, it will have to be properly braced, a cattleguard and gate must be installed, then the fence must be restretched.

**Impact of No Action Alternative:** There will be no change from the present situation.

**Mitigation Measures:** Install a minimum 16 foot wide cattleguard that meets BLM specifications and a wire gate next to it. Prior to cutting the fence for this installation, a two post H brace should be installed on both the east and west side of the cut. The earthen disturbance at the cattleguard installation should be revegetated with Native Seed mixture #3.

**Signature of specialist:** Mark Hafkenschiel 11/14/03

#### **RECREATION:**

**Affected Environment:** The proposed action occurs within the White River Extensive Recreation Management Area (ERMA). BLM custodially manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing and off-highway vehicle use.

**Impact of Proposed Action:** The public will lose approximately 9 acres of dispersed recreation potential while wells are in operation. The public will most likely not recreate in the vicinity of these facilities and will be dispersed elsewhere.

**Impact of No Action Alternative:** No loss of dispersed recreation potential and no impact to hunting recreationists.

**Mitigative Measures:** None.

**Signature of specialist:** Chris Ham 11/17/03

**SOILS:**

**Affected Environment:** The soils have been mapped in an order III soil survey by NRCS and are available from the office for review. Refer to the table below for the type of soils affected by the proposed action.

Proposed Action	Soil Number	Soil Name	Slope	Range site	Salinity	RunOff	Erosion Potential	Bedrock
Road and Well Pad	73	Rentsac channery loam	5-50%	Pinyon-Juniper woodlands	<2	Rapid	Moderate to very high	10-20
Well Pad	91	Torriorthents-Rock Outcrop complex	15-90%	Stoney Foothills		Rapid	Very high	10-20

Revegetation limitations for these soil types include an arid climate and droughty soil condition. Neither of these locations has been mapped as areas that have fragile soils on slopes greater than 35 %. No special designations have been assigned to their locations.

**Impact of Proposed Action:** There would be an increase in erosion and sedimentation from overland flows, due to removal of vegetation, soil compaction, and exposure of underlying soil layers. These impacts would be short term during the construction phase and for a period after construction providing successful reclamation occurs.

**Impact of No Action Alternative:** Impacts from not permitting the proposed action are not anticipated.

**Mitigative Measures:** Apply the following conditions of approval from Appendix B of White River ROD/RMP:

96. Water bars or dikes shall be constructed on all of the rights-of-way, and across the full width of the disturbed area, as directed by the authorized officer.

97. Slopes within the disturbed area shall be stabilized by non-vegetative practices designed to hold the soil in place and minimize erosion. Vegetative cover shall be reestablished to increase infiltration and provide additional protection from erosion.

98. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff

*Signature of specialist:* CHollowed

## **VISUAL RESOURCES:**

**Affected Environment:** This well is in an area classified as visual resource management (VRM) class 3. VRM Class 3 management allows for development as long as the development does not dominate the new landscape.

**Impact of Proposed Action:** The drill pad and road will be new disturbance that will comply with the guidelines for VRM Class 3 with mitigation as listed below.

**Impact of No Action Alternative:** No impacts.

**Mitigative Measures:** Production facilities shall be painted Juniper Green or equivalent, to match the surroundings. Areas not needed for production shall be reclaimed in a timely manner.

*Signature of specialist:* Max McCoy 12-05-03

## **WILDLIFE TERRESTRIAL:**

**Affected Environment:** The proposal to build a new pad and access road will encompass approximately 8.6 acres of new disturbance at an elevation of 6325 feet. Both the pad and access road consist of mature to old growth pinyon juniper woodlands with a sparse understory of sagebrush, serviceberry and bitterbrush. Extensive, fresh deer and elk sign (e.g., tracks, scat and rubs) were observed during a field visit on 5 December 2003, indicating current high use. Two to three inches of snow cover existed on this date. No raptor nests were observed but the area has high potential for use by woodland nesting raptors (e.g., large trees with structural diversity). The pad and access road would be located in designated Severe Winter Range for big game. In the past, this area has had little disturbance from commercial oil and gas exploration.

**Impact of Proposed Action:** The area of the proposed action exhibits high winter use by big game and disturbance during this time can have adverse effects on the health of these animals. This project will result in the removal of some highly suitable habitat for raptors.

**Impact of No Action Alternative:** No net loss of raptor nesting habitat and no long-term disturbance to wintering deer and elk resulting from commercial oil and gas exploration would occur.

***Mitigative Measures:*** Due to this project being located in Severe Winter Range, the BLM may preclude surface disturbing activities (including clearing of vegetation, pad construction, drilling and completion activities) from December 1 through March 31 to avoid disturbance of wintering deer and elk. This lease stipulation (Lease Number COC59393) may be altered at the BLM's discretion depending on local weather conditions.

A locked gate shall be placed at the location of new road construction (NENE of Section 1 where the road turns sharply southwest heading up the draw) to reduce disturbance to big game.

A current raptor survey must be conducted after March 31 to examine the area for raptor nests. It is the responsibility of Bass Enterprises to contact BLM biologists (970-878-3833) after March 31 to have the area surveyed.

***Signature of specialist:*** Glenn Klingler 12-12-03

**CUMULATIVE IMPACTS:** No cumulative impacts were identified. The White River PRMP/FEIS analyzed cumulative impacts of resource-area-wide oil and gas development.

***Signature of specialist:*** Scott Pavey 12/16/03

## **FINDING OF NO SIGNIFICANT IMPACT (FONSI)/DECISION RECORD**

**FONSI:** The environmental assessment, analyzing the environmental effects of the proposed action, has been reviewed. The approved mitigation measures (see the attached Conditions of Approval) result in a finding of no significant impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

**DECISION AND RATIONALE:** It is my decision to approve the development of Well #1-2 as described in the proposed action, with the mitigation measures listed in the attached Conditions of Approval.

**MITIGATION MEASURES:** See attached Conditions of Approval

**SIGNATURE OF PREPARER:** *Samara Meagley 12/23/03*

**DATE SIGNED:** *12/23/03*

**SIGNATURE OF ENVIRONMENTAL COORDINATOR:** *SJP*

**DATE SIGNED:** *12/16/03*

**SIGNATURE OF AUTHORIZED OFFICIAL:** *Kent R. Walter*

**DATE SIGNED:** *12/23/03*

### **ATTACHMENTS:**

- 1) Conditions of Approval
- 2) Map of the Location of the Proposed Action

CONDITIONS OF APPROVAL FOR APPLICATION FOR  
PERMIT TO DRILL

Operator: Bass Enterprises  
Location: T 1S, R 98w, sec. 1

Well No.: 1-2  
Lease No.: COC 57978

The Bureau of Land Management, White River Resource Area Office, address and home telephone contacts are:

Address: 73544 Hwy 64, Meeker, Colorado 81641  
Office Phone: (970) 878-3800  
Office Fax: (970) 878-3805  
Natural Resource Specialist: Tamara Meagley, home phone (970) 942-8620  
Fluid Minerals Supervisor: Vern Rholl, home phone (970) 878-3202  
Petroleum Engineering Tech: Bill Kraft, home phone (970) 878-4595  
Petroleum Engineer: Marty O'Mara, home phone (970) 878-5360

All lease and/or unit operations are to be conducted in such a manner to ensure full compliance with the applicable laws, regulations (43 CFR Part 3160), Onshore Orders, Notices to Lessees, and the approved plan of operations. Approval of this application does not relieve you of your responsibility to obtain other required federal, state, or local permits.

This application is valid for a period of one year from the date of approval. Any requests for extensions must be submitted prior to the end of the one year period. If the application terminates, any surface disturbance created under the application must be rehabilitated in accordance with the approved plan within 90 days of termination, unless otherwise approved by the authorized officer. An expired application may be reinstated at the authorized officer's discretion; however, future operations may require a new application to be filed for approval.

You have the right to request a State Director Review (SDR) of the decision to approve this APD with the attached conditions in accordance with 43 CFR 3165.3(b). A request for a SDR must occur prior to filing an appeal with the Interior Board of Land Appeals (IBLA). Your request for a SDR and all supporting documentation must be filed with the State Director (CO-922), 2850 Youngfield St., Lakewood, Colorado 80215, within 20 business days of receipt of this letter.

I. CONDITIONS OF APPROVAL SPECIFIC TO WELL #1-2

1. The operator shall contact the BLM Office at (970) 878-3800 24 hours prior to the following operations:

- spudding (including dry hole digger or rat hole rigs)
- running and cementing all casing strings
- pressure testing of BOPE or any casing string
- construction of location

## Appendix B

- surface reclamation work

2. All permanent (onsite for six [6] months or longer) structures, facilities and equipment placed onsite shall be and painted Munsell Soil Color Chart Pinyon Green or equivalent within six months of installation.
3. Locate and maintain sanitation facilities according to state regulations.
4. When preparing the site, all suitable topsoil should be stripped from the surface of the location and stockpiled for reclamation once the location is abandoned. When topsoil is stockpiled on slopes exceeding five percent, construct a berm or trench below the stockpile.
5. Sedimentation shall be diverted and/or run through catchment basins in order to protect surface waters.
6. All sediment control structures or disposal pits, will be designed to contain a 100-year, 6-hour storm event. Storage volumes within these structures will have a design life of 25 years.
7. No operations using chemical processes or other pollutants in their activities will be allowed to occur within 200 feet of any water bodies.
8. All activity shall cease when soils or road surfaces become saturated to a depth of three inches unless otherwise approved by the Authorized Officer.
9. There shall be no mud blading of roads. Vehicles may be towed through the mud provided they stay within the original roadway.
10. All disturbed areas will be contoured to blend with the natural topography. Blending is defined as reducing form, line, and color contrast associated with the surface disturbance. In visually sensitive areas and WSAs, all disturbed areas shall be contoured to match the original topography. Matching is defined as reproducing the original topography and eliminating form, line, and color caused by the disturbance as much as possible.
11. Provide vegetative or artificial stabilization of cut and fill slopes in the design process. Avoid establishment of vegetation where it inhibits drainage from the road surface or where it restricts safety or maintenance.
12. Provide for erosion-resistant surface drainage prior to fall rain or snow.
13. Identify potential water problems caused by off-site disturbance and add necessary drainage facilities.

## Conditions of Approval

14. Close abandoned roads to traffic. Physically obstruct the road with a gate or as many large berms, trenches, logs, stumps, or rock boulders as necessary to accomplish permanent closure.
15. When seasonal activity is completed and road closure is not necessary, the road surface should be crowned, outsloped, insloped, or water-barred.
16. Remove berms from the outside edge of road where runoff is channeled.
17. Culverts should be designed and constructed according to the standards provided in BLM Manual 9112. The design, review and evaluation must be accomplished under the direct supervision of a registered professional engineer.
18. All fluid storage tanks shall have a dike constructed around the tank of sufficient capacity to adequately contain at least 110 percent of the storage capacity of the tank. Tank batteries shall have a dike capable of adequately containing 110 percent of the largest tank.
19. Pits designed to contain fluids shall be constructed so that leaking or breaching problems are minimized and reclamation potential is maximized. At least 50 percent of the pit capacity shall be in cut material. When fractured rock or porous materials are encountered, pits shall be lined with bentonite or an impermeable membrane to prevent leakage.
20. Reserve pits used for drilling will be fenced on three sides prior to drilling activity and closed off on the fourth side after drilling is finished. All fence corners will be braced with an H-type brace. Within the wild horse range, the reserve pit fence shall be 48 inches high. In sheep allotments, the fence will have 48 inches of woven wire and cattle allotments will have four strands of barbed wire. Fences will be located at least four feet from the edge of the pit slope.
21. Remove all oil from the surface of reserve pits within 24 hours.
22. All produced liquids shall be contained in a pit or tank, including the dehydrator vent/condensate line effluent. All production pits shall have a livestock-proof fence. All pits shall be bermed. If inverted culverts are used as production pits, the culvert top may be covered with an expanded metal cover in lieu of fencing.
23. Pits remaining after the drilling period which store or are expected to store production fluids will be wired or netted to prevent or discourage entry by larger birds attracted to sources of water, including raptors and waterfowl. At a minimum, wire will be stretched over the entire length and breadth of the pit at intervals not exceeding three feet, and made permanently conspicuous either by choice of material or installation of flagging material evenly distributed across the pit at a minimum rate of one flag per 18 square feet.

## Conditions of Approval

24. Reserve pits will be allowed to dry through natural evaporation for one four season cycle after the well is drilled. If a pit has not dried by the end of this period, all remaining fluids and/or mud must be removed and disposed of in an approved manner. The pit shall be recontoured within 15 months after the well is drilled.

25. The concentration of hazardous substances in the reserve pit at the time of pit backfilling must not exceed the standards set forth in CERCLA.

26. All aquifers encountered during drilling that have potential for development as water well will be evaluated for use by BLM as a water source well at the time the well is proposed to be plugged. Suitable wells would have plugging procedures altered to plug back to the water zone, at which point, the BLM would assume liability for the well and file for the appropriate water rights.

27. Holes must be plugged as soon after drilling as possible.

28. Applicant will spread water on road surfaces to control fugitive dust.

29. Avoid Isolated find 5RB 4464.

30. The operator is responsible for informing all persons who are associated with the project 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 uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). 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 site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

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 cost. 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.

Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, 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.

31. The operator shall be required to collect and properly dispose of any solid wastes generated by this project.
32. Efforts need to be made to keep sediment from leaving the site. Apply the following Conditions of Approval listed in Appendix B of the White River ROD/RMP to help minimize surface disturbing impacts:
33. When preparing the site, all suitable topsoil should be stripped from the surface of the location and stockpiled for reclamation once the location is abandoned. If well becomes a producing well, the topsoil pile will need to be seeded to reduce wind and water erosion. When topsoil is stockpiled on slopes exceeding five percent, construct a berm or trench below the stockpile.
34. All sediment control structures or disposal pits will be designed to contain a 100-year, 6-hour storm event. Storage volumes within these structures will have a design life of 25 years.
35. All activity shall cease when soils or road surfaces become saturated to a depth of three inches unless otherwise approved by the Authorized Officer.
36. Provide vegetative or artificial stabilization of cut and fill slopes in the design process.
37. Avoid establishment of vegetation where it inhibits drainage from the road surface or where it restricts safety or maintenance.
38. Eliminate undesirable berms that retard normal surface runoff.
39. Promptly recontour and revegetate all disturbed areas with Native Seed mixture #3. Cut and fill slopes of the access road should be broadcast seeded. Eradicate all noxious and invasive species which occur on site using materials and methods approved by the Authorized Officer.
40. In accordance with the White River ROD/RMP, Appendix B, Page B-1, #7: All trees removed in the process of construction shall be purchased from the Bureau of Land Management. The trees shall be cut with a maximum stump height of six inches and disposed of by one of the following methods:

- Cut into four foot lengths down to a four inch diameter and placed along the edge of the disturbance.
- Removed from federal land for resale or private use. Limbs scattered off the area of disturbance but not dozed off.
- Chipped and scattered.

41. Several options may be considered for treatment of slash from this project. A hydro-ax or other mulching type machine could be used to remove the trees. The machines are capable of shredding trees up to 12" in diameter and 15' tall as well as mowing brush like a conventional brush beater. It generally leaves small branches and pieces of wood from pencil size up to bowling ball size. The mulch is evenly scattered across the surface and the tires or tracks distribute the weight of the equipment. This would effectively breakdown the woody fuel and scatters the debris, thereby eliminating any hazardous fuel load adjacent to the new road and well pad.

42. The other option would be to cut trees and have them removed for firewood, posts, or other products. The branches and tops should be lopped and scattered to a depth of 24 inches or less. If the products are left for collection by the general public, they should be piled along the road side or pad to facilitate removal.

43. Bass must document fluid losses during drilling operations through the Green River Formation. Fluid loss documentation will be supplied to the BLM Meeker office within 30 days of drilling.

44. All exposed outcrops of the Uinta formation must be inventoried by a BLM approved paleontologist with a report detailing the results of the inventory and any recommended mitigation measures prior to the initiation of construction. If it becomes necessary to excavate into the underlying bedrock to level the road, well pad or excavate the reserve/blooiie pit then a paleontological monitor shall be present for the excavations.

**45.** Install a minimum 16 foot wide cattleguard that meets BLM specifications and a wire gate next to it. Prior to cutting the fence for this installation, a two post H brace should be installed on both the east and west side of the cut. The earthen disturbance at the cattleguard installation should be revegetated with Native Seed mixture #3.

46. Water bars or dikes shall be constructed on all of the rights-of-way, and across the full width of the disturbed area, as directed by the authorized officer.

47. Slopes within the disturbed area shall be stabilized by non-vegetative practices designed to

hold the soil in place and minimize erosion. Vegetative cover shall be reestablished to increase infiltration and provide additional protection from erosion.

48. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff

49. Due to this project being located in Severe Winter Range, the BLM may preclude surface disturbing activities (including clearing of vegetation, pad construction, drilling and completion activities) from December 1 through March 31 to avoid disturbance of wintering deer and elk. This lease stipulation (Lease Number COC59393) may be altered at the BLM's discretion depending on local weather conditions.

50. A locked gate shall be placed at the location of new road construction (NENE of Section 1 where the road turns sharply southwest heading up the draw) to reduce disturbance to big game.

51. A current raptor survey must be conducted after March 31 to examine the area for raptor nests. It is the responsibility of Bass Enterprises to contact BLM biologists (970-878-3833) after March 31 to have the area surveyed.

## Conditions of Approval

### II. NOTICES

#### A. DRILLING PLAN

1. All operations, unless otherwise specifically approved in the APD, must be conducted in accordance with Onshore Oil and Gas Order No. 2; Drilling Operations.
2. One copy of all charted BOPE tests, logs, core descriptions, core analyses, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed with the completion report, Form 3160-4. This completion report shall be filed within 30 days of completion of operations and submitted prior to or along with the first production notice.
3. The United States of America considers the development of groundwater resources to be necessary and frequently indispensable to effective land management. Therefore, any groundwater intercepted by the party conducting mineral exploration shall be reported to the District Manager immediately including approximate quantities and a sample in a sealed quart container. The United States shall have the first opportunity to file state water right for the intercepted groundwater. The undersigned may file for water right only with a written waiver from the District Manager.
4. To protect the water and energy resources in the formation that are penetrated, the production casing shall be cemented to the surface casing.

#### B. SURFACE USE PLAN OF OPERATIONS

1. In accordance with Onshore Order #1, III.E and ARPA 1979 as amended (AL, 96-95), the operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during

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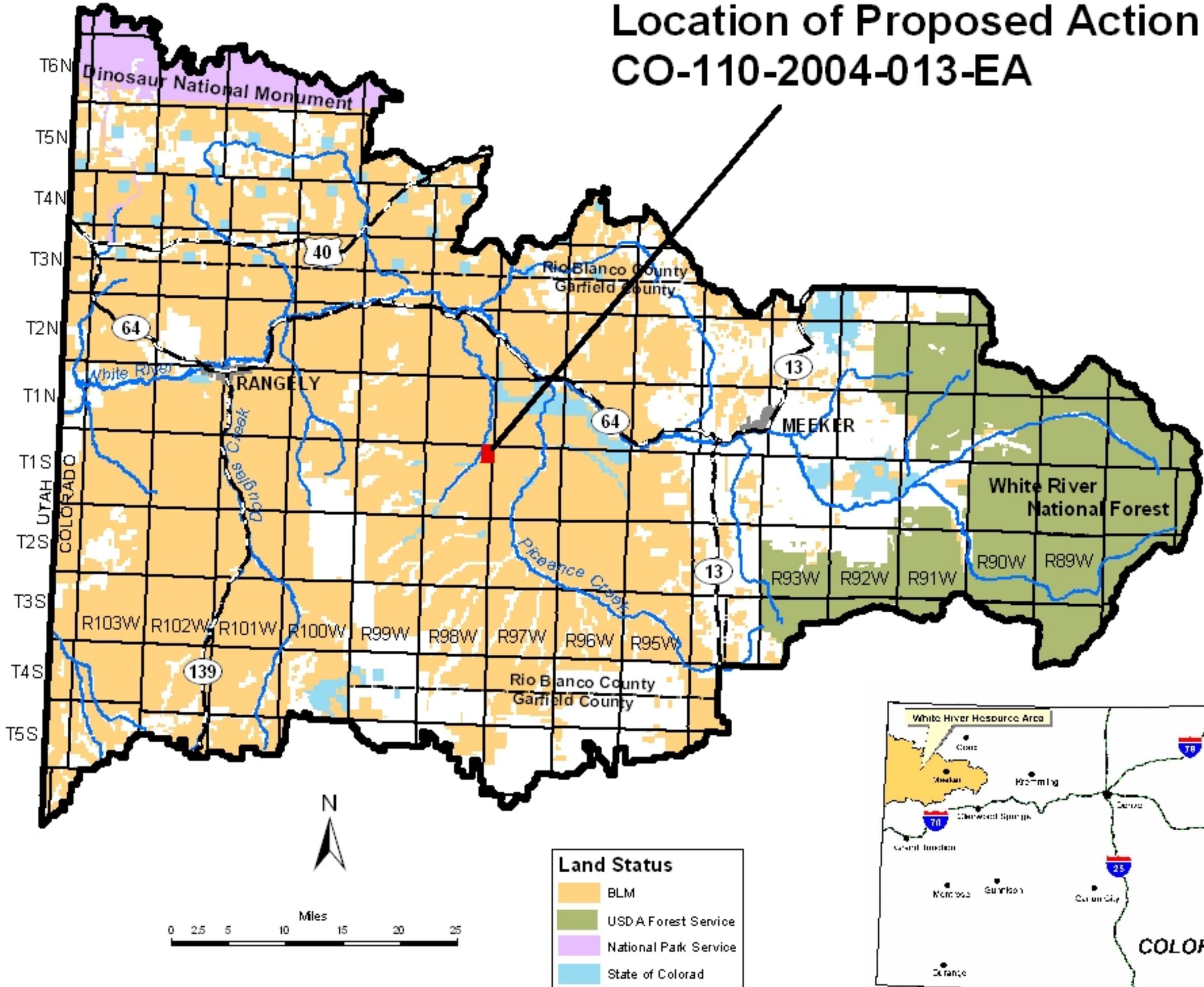
construction, the operator is to immediately stop work that might further disturb such materials, and contact the Authorized Officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the finding of the AO are correct and that mitigation is appropriate.

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 cost. 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.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the authorized officer, by telephone, 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.

# Location of Proposed Action CO-110-2004-013-EA



**Land Status**

- BLM
- USDA Forest Service
- National Park Service
- State of Colorado

