

U.S. Department of the Interior  
Bureau of Land Management  
White River Field Office  
73544 Hwy 64  
Meeker, CO 81641

## ENVIRONMENTAL ASSESSMENT

**NUMBER:** CO-110-2004-130-EA

**CASEFILE/PROJECT NUMBER** (optional): Well #22-7 COC57285  
Well #23-33 COC62052  
Well #22-28 COC 62055

**PROJECT NAME:** 3 wells for Williams

**LEGAL DESCRIPTION:** 22-7 T2S R97W Sec 7 NESW  
23-33 T1S R98W Sec 33NESW  
22-28 T2S R98W Sec 28SENW

**APPLICANT:** Williams Production

### **DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

#### ***Background/Introduction:***

**Proposed Action:** Williams plans to drill three wells (total acres disturbed will be about 4 acres) in the Piceance Creek area. This project will include access roads and pipelines as follows:

Well #23-7: This well was originally staked ¼ mile to the north. It was moved south to an old location where the well had been plugged and abandoned. Williams will be able to use the existing access road and rebuild the abandoned well location. No new disturbance will occur.

Well 23-33: This well was staked out in the middle of a large sage brush flat. To minimize impacts to potential sage grouse habitat the well was moved closer to RBC Road # 24X. New disturbance should be limited to the size of the drill pad, about 2 acres.

Well #22-28: This well location was moved from a ridge down next to RBC Road #85. The access road will be about 200 feet. A few small trees will be impacted. Total disturbance will be about 2 acres.

**No Action Alternative:** No wells would be drilled.

**NEED FOR THE ACTION:** Williams requested the approval of three permits to drill wells.

**PLAN CONFORMANCE REVIEW:** The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

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

Date Approved: July 1, 1997

Decision Number/Page: Page 2-5

Decision Language: “Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values.”

**AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:**

**STANDARDS FOR PUBLIC LAND HEALTH:** In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

**CRITICAL ELEMENTS**

**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.

*Environmental Consequences of the 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.

*Environmental Consequences of the No Action Alternative:* No increase in dust will occur.

*Mitigation:* None.

## CULTURAL RESOURCES

*Affected Environment:* Well #23-7 well pad and access road: The proposed well pad and access road has been inventoried at the Class III (100% pedestrian) level (Conner 2004, Compliance Dated 7/19/2004) with one newly recorded isolated find located along the access route.

Well 23-33 well pad and access road: The proposed well pad and access road has been inventoried at the Class III (100% pedestrian) level (Conner 2004, Compliance Dated 5/24/2004) with no new cultural resources identified in the project area.

Well #22-28 well pad and access The proposed well pad and access road has been inventoried at the Class III (100% pedestrian) level (Conner 2004, Compliance Dated 7/19/2004) with no new cultural resources identified in the new inventory area.

*Environmental Consequences of the Proposed Action:* Well #23-7 well pad and access road: if the isolated find can be easily avoided there will be no new impacts to cultural resources. If the isolated find cannot be avoided there will be a very small loss of data from the regional data base.

Well 23-33 well pad and access road: the proposed well pad and access road will not impact any known cultural resources.

Well #22-28 well pad and access road: the proposed well pad and access road will not impact any known cultural resources.

*Environmental Consequences of the No Action Alternative:* there would be no new impacts to cultural resources under the No Action Alternative.

*Mitigation:* 1. 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.

2. 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.

3. Well #23-7 and access: if at all practicable IF 5RB 4768 should be avoided by access road construction.

## **INVASIVE, NON-NATIVE SPECIES**

*Affected Environment:* There are no known noxious weeds at any of the proposed location sites. Noxious and problem weeds known to occur within a mile of the project area include spotted knapweed, diffuse knapweed, yellow toadflax and mullein. The invasive species, cheatgrass occurs throughout the project area, primarily associated with unvegetated earthen disturbance.

*Environmental Consequences of the Proposed Action:* The proposed action will create significant areas of earthen disturbance, which, if left unvegetated, will provide safe sites for the establishment and proliferation of both noxious and invasive species.

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

*Mitigation:* Williams will be responsible for eradicating all noxious and invasive species using materials and methods approved by the authorized officer. Promptly revegetate all disturbed areas, including cut and fill slopes with Native Seed mixture #3.

## **MIGRATORY BIRDS**

*Affected Environment:* There are a number of migratory birds that fulfill nesting functions in these Wyoming big sagebrush and pinyon-juniper types during the months of May, June, and July, including several species identified as having higher conservation interest by the Rocky Mountain Bird Observatory, Partners in Flight program (i.e., Brewer's sparrow, green-tailed towhee, gray flycatcher, pinyon jay, juniper titmouse, black-throated gray warbler, and violet-green swallow).

*Environmental Consequences of the Proposed Action:* As scheduled, it is likely that one of these 3 wells would be developed during the migratory bird nesting season. The relative potential impact associated with each pad location is discussed below.

As relocated, the 23-33 location (a Wyoming big sagebrush site) is situated within 300 feet of an existing county road. Recent research indicates that nesting populations of sagebrush obligates, including Brewer's sparrow and the towhee, are reduced by 50% within 300 feet of roads. With an average territory size of approximately 2 acres, and depending on the timing of this action, it is possible that 1 to 2 nesting attempts of each species could potentially be disrupted. This impact is considered discountable even in the localized context of 84 Mesa (i.e., 1-2 effective habitat acres relative to about 4000 acres).

Similarly, the 23-33 pad is comprised primarily of older pinyon regeneration, an early seral stage that does not support a strong contingent of obligate woodland species due to suboptimal or lacking nest substrate (e.g., dense, low stature and low diversity canopy structure, lack of cavities). The 23-7 pad would be confined to an existing unreclaimed pad and would involve no further modification of surrounding woodland habitats. Impacts in these cases, again depending on the timing of operations, would not involve the direct removal or modification of more optimal mature woodland, but may disrupt the nesting attempts of 4 or fewer pairs of birds on the fringes of these stands. In terms of the 640,000 acres of pinyon-juniper woodlands within the White River Resource Area, the influence of these actions on migratory bird nesting efforts would be negligible.

*Environmental Consequences of the No Action Alternative:* There would be no action authorized that would have potential to disrupt the breeding activities of migratory birds.

*Mitigation:* None

#### **THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)**

*Affected Environment:* There are no threatened or endangered animals known to inhabit or derive important benefit from the project locales. A small number of northern sage grouse, a BLM sensitive species and recently petitioned for listing, historically occupied 84 Mesa (23-33 location), a large low-elevation sagebrush park. No birds are known to have occupied the mesa since about the mid-1980's, but these habitats remain available for natural colonization or species recovery actions.

*Environmental Consequences of the Proposed Action:* As originally staked, the 23-33 location was situated about 500 feet from the paved county road. The location was subsequently moved as close as practical and parallel to the county road (about 50 feet) to reduce the net involvement of suitable sagebrush habitat (e.g., continuity and extent) and maximize the use of roadside habitats with suboptimal utility. As currently situated, longer term (if well productive) loss of potential sagebrush habitat attributable to pad construction (i.e., 2 acres) would be confined to an area within 300 feet of the county road, a distance some evidence suggests may generally be avoided by birds obligate to the sagebrush community.

*Environmental Consequences of the No Action Alternative:* No immediate action would be authorized that would involve the adverse modification of sagebrush habitat. Alternate pad locations would probably be increasingly likely to be situated off the county road, involving

more extensive access needs and more extensive direct and indirect loss of sagebrush and habitat utility.

*Mitigation:* Efforts to minimize the direct and indirect adverse modification of sagebrush habitats were incorporated into the proposed action at the time of the on-site.

*Finding on the Public Land Health Standard for Threatened & Endangered species:* Low elevation Wyoming big sagebrush habitats available on 84 Mesa are considered marginal with respect to year-round occupation by grouse (e.g., especially nest and brood range), but meet the public land health standards as grouse winter range. The proposed action would generally involve habitats whose utility for sage grouse that have been previously compromised by a long-established roadbed. By situating the pad in this roadside position, the proposed action's diminutive contribution to reductions in the overall utility and suitability of 84 Mesa as potential sage grouse habitat is discountable. Under the no-action alternative or the proposed action, as conditioned, 84 Mesa would continue to meet the land health standard for threatened & endangered animals.

## **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 sites included in the proposed action.

*Environmental Consequences of the 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. Solid wastes would be properly disposed of.

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

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

## **WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)**

*Affected Environment:* Well # 23-30 is in Stakes Springs, tributary to Yellow Creek and the White River. The state has identified this reach in segment 13b, which is a "Use Protected" reach. Well # 23-7 is in Ryan Gulch, tributary to Piceance Creek and the White River. The state has identified this reach in segment 16, which is a "Use Protected" reach. They further classified these stream segments 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 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, only the parameters listed in the table apply. These parameters are: dissolved oxygen = 5.0 mg/l, pH = 6.5 - 9.0, Fecal Coliform = 2000/100 ml, and 630/100 ml E. coli. This segment retained its

Well # 22-28 is in Black Sulphur, tributary to Piceance Creek and the White River. The state has identified this reach in segment as Aquatic Life Cold 1, Recreation 2, and Agriculture. The state has further defined water quality parameters with table values. These standards reflect the ambient water quality and define maximum allowable concentrations for the various water quality parameters. The anti-degradation rule applies to this segment meaning no further water quality degradation is allowable that would interfere with or become harmful to the designated uses.

Historic surface and water quality data available for these reaches indicate stream flow occurs during February and into June, depending on the recharge to the groundwater system. These segments of stream are considered to be ephemeral drainages which flow in direct response to winter snow melt and late summer/fall rainstorms. Water quality of precipitation is considered to be of good quality, but can be high is sediment depending on the magnitude and duration of storm events.

*Environmental Consequences of the Proposed Action:* Impacts to water quality from development of these wells, roads and pipelines would be similar to other surface disturbing activities. Some of the impacts would be exposure of soil surface to wind and water erosion, reduced water quality due to erosion of sediment and salt, off roads, drill pads, and pipeline rights of ways, and piping or rill erosion where well pads and roads are exposed to climatic elements. These impacts would be short term until re-vegetation has occurred. If any of them turn out to be dry holes, reclamation especially on the road should be started immediately by re-contouring and seeding the right of way.

*Environmental Consequences of the No Action Alternative:* There would not be any impacts as a result of not permitting the proposed action.

*Mitigation:* Apply Conditions of Approval; (BMPs) listed in Appendix B, in the White River ROD/RMP numbers 6, 8, and 35, to help minimize surface disturbing impacts.

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.

All activity shall cease when soils or road surfaces become saturated to a depth of three inches unless otherwise approved by the Authorized Officer.

Eliminate undesirable berms that retard normal surface runoff.

*Finding on the Public Land Health Standard for water quality:* The water quality of the drainages discussed above is well within the criteria set by the state, thus meeting the land health standard. The proposed action will not change this status.

## **WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)**

*Affected Environment:* There are no wetlands or riparian communities potentially influence by the proposed action. The nearest perennial water sources are located 1 to 3.5 miles from the proposed pads in agricultural bottomlands in Yellow, Black Sulphur, and Piceance Creeks. These private pastures have no substantive riparian development.

*Environmental Consequences of the Proposed Action:* Riparian and wetland communities would not be directly or indirectly affected by pipeline installation.

*Environmental Consequences of the No Action Alternative:* There would be no immediate action authorized that would have potential to affect wetland or riparian communities.

*Mitigation:* None

*Finding on the Public Land Health Standard for riparian systems:* Because there are no riparian or wetland resources potentially influenced by the proposed or no-action alternatives, a land health standard finding is not relevant. There would be no change in the land health status of downstream riparian and wetland communities.

## **WILDERNESS**

*Affected Environment:* There are no designated wilderness areas, or wilderness study areas in the vicinity of the proposed action.

*Environmental Consequences of the Proposed Action:* None

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* None

## **CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:**

No ACECs, flood plains, prime and unique farmlands, or Wild and Scenic Rivers, threatened, endangered or sensitive plants exist within the area affected by the proposed action. For threatened, endangered and sensitive plant species Public Land Health Standard is not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status plants. There are also no Native American religious or environmental justice concerns associated with the proposed action.

## NON-CRITICAL ELEMENTS

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

### SOILS (includes a finding on Standard 1)

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

Soil Number	Soil Name	Slope	Range site	Salinity	Run Off	Erosion Potential	Bedrock
6	Barcus channery loamy sand	2-8%	Foothills Swale	<2	Slow	Moderate	>60
33	Forelle loam	3-8%	Rolling Loam	<2	Medium	Moderate	>60
34	Forelle loam	8-15%	Rolling Loam	<2	Medium	Moderate to high	>60
36	Glendive fine sandy loam	--	Foothills Swale	2-4	Slow	Slight	>60
40	Hagga loam	--	Swale Meadow	2-8	Slow	Slight	>60
64	Piceance fine sandy loam	5-15%	Rolling Loam	<2	Medium	Moderate to high	20-40
73	Rentsac channery loam	5-50%	Pinyon-Juniper woodlands	<2	Rapid	Moderate to very high	10-20
75	Rentsac-Piceance complex	2-30%	PJ woodland/Rolling Loam	<2	Medium	Moderate to high	10-20
91	Torriorthents-Rock Outcrop complex	15-90%	Stoney Foothills		Rapid	Very high	10-20
104	Yamac Loam	2-15%	Rolling Loam	<2	Medium	Slight to moderate	>60

Well #23-30 is located on soil type 104, Yamac Loam, well #23-7 is located on soil type 40, Hagga loam and well #22-28 is located on soil type 64, Piceance fine sandy loam. The other soil units in the above table are the soils the pipelines and roads intersect. The majority of these soils experience a moderate to high soil erosion potential. The soils in the bottoms are deep and well drained while the soils on ridges and hill slopes are shallow with greater slope steepness. Revegetation limitations for these soil types include an arid climate and droughty soil condition. A portion of the existing road to well #23-7 has been designated as CSU-1, which indicates problems such as fragile soil, high salt concentrations, excessive erosion, or steep slopes. There is no new development within the CSU-1 designation.

*Environmental Consequences of the Proposed Action:* Impacts associated with oil and gas and road development include but are not limited to, loss of topsoil, soil compaction and possible increase in sediment loads to the White River. The primary surface-disturbing impact would be a potential increase in sediment transport from runoff events after the protective vegetative cover has been removed. BMPs used to slow runoff, trap sediment and prepare

reclaimed areas for seeding would help reduce soil loss. With the use of these BMPs, impacts are expected to be short in duration, during the construction phase and for a short time after construction until successful reclamation are achieved.

Impacts are not anticipated from not permitting the proposed action.

*Mitigation:* The following COAs from Appendix B, White River ROD/RMP should be applied.

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.

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.

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.

*Finding on the Public Land Health Standard for upland soils:* Soils at the proposed location do not meet the criteria established in the Public Land Health Standard. The proposed action would not change this status.

## **VEGETATION** (includes a finding on Standard 3)

*Affected Environment:* Location 23-33 is located on a rolling loam range site in mid seral condition dominated by Wyoming big sagebrush. Locations 22-28 and 23-7 are located in pinyon-juniper woodlands.

*Environmental Consequences of the Proposed Action:* The biggest potential impact to native vegetation in the proposed project area would result from the invasion and proliferation of noxious weeds and cheatgrass as a result of failure to properly revegetate areas of earthen disturbance.

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

*Mitigation:* Williams will be responsible for eradicating all noxious and invasive species using materials and methods approved by the authorized officer. Promptly revegetate all disturbed areas, including cut and fill slopes with Native Seed mixture #3. Monitor the well pads and access roads for the occurrence of noxious and invasive species for the life of the project.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Rangelands at the proposed locations currently meet the Standard and will not be significantly impacted by implementation of this action.

### **WILDLIFE, AQUATIC** (includes a finding on Standard 3)

*Affected Environment:* The proposed locations are at least 1 mile from perennial systems that are capable of supporting aquatic communities (see Wetlands and Riparian Zones section above).

*Environmental Consequences of the Proposed Action:* Aquatic habitats associated with downstream perennial systems would not be measurably influenced by proposed well construction or pipeline installation.

*Environmental Consequences of the No Action Alternative:* There would be no immediate action authorized that would have potential to affect wetland or riparian communities. Although alternate locations could be presented under this alternative, they would probably be as unlikely to involve aquatic resources as the proposed action.

*Mitigation:* None

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Terrestrial): Because there are no aquatic habitats or animals potentially influenced by the proposed or no-action alternatives, a land health standard finding is not relevant. The proposed and no action alternatives would have no measurable influence on aquatic habitats associated with downstream systems (see Wetlands and Riparian Zones section above).

### **WILDLIFE, TERRESTRIAL** (includes a finding on Standard 3)

*Affected Environment:* These pinyon-juniper/mixed shrub habitats are used by big game from October through May as general winter ranges (22-28, 23-33) or as severe winter ranges (23-7) that sustain 90% of the Piceance deer population under the most extreme winter conditions.

All pad locations were inspected by a BLM biologist for raptor nesting activity in June 2004. The 23-33 location is located on a large sagebrush mesa along an existing paved road that is devoid of raptor nest habitat. The 22-28 lies adjacent and parallel to a county road and is situated in an historic sagebrush park that is heavily encroached with 75-year old pinyon regeneration. The park's mature woodland fringe was inspected with no evidence of raptor nesting found. The 23-7 is an abandoned pad largely surrounded by mature pinyon-juniper woodland. An active Cooper's hawk nest was located within 50 yards of the pad margin.

Nongame bird abundance and composition associated with the project areas' woodland and shrubland habitats are considered representative and complete with no obvious deficiencies in composition. Small mammal populations and distribution are poorly documented, however, the species potentially occurring on these sites are widely distributed throughout the State and the Great Basin or Rocky Mountain regions. All of these upland species display broad ecological tolerance and are documented from habitats ranging from foothill to alpine sites. No narrowly distributed or highly specialized species or subspecific populations are known to occur in Piceance Basin.

*Environmental Consequences of the Proposed Action:* Due to their location relative to existing forms of disturbance (i.e., county roads) or use of existing disturbance, the proposed action would have little influence on the extent or availability of big game forage or cover resources. The behavioral effects of oil and gas activity on deer during the late winter and early spring period (i.e., avoidance and disuse of available forage, elevated energetic drain) would be most pronounced on severe winter range. It is recommended that, regardless of prevailing winter weather conditions, development of the 23-7 pad (i.e., pad construction, drilling, and completion activities) be scheduled to avoid the period between January 1 and April 15.

Based on survey results, it is unlikely that development of the 23-33 or 22-28 locations would have potential to disrupt raptor nest efforts. Development of the 23-7 well would occur in close proximity to the Cooper's hawk nest and, if synchronous with subsequent nesting, would have a high likelihood of failing an ongoing attempt. Pad construction, drilling, well completion, workover activity, and reclamation associated with the 23-7 well would be subject to the RMP-approved timing limitation stipulation TL-04, which disallows disruptive activity within ¼ mile of raptor nests from February 1 through August 15 or until fledging and dispersal of young. This stipulation can be modified or excepted based on site-specific information that indicates the nest would remain unattended by May 15 of the project year. Additionally, because the Cooper's hawk nest is situated so close to existing forms of surface use, and in an effort to maintain nest site character for subsequent nest use, within 200 yards of the west edge of the pad, the pipeline should be routed on the side more distant from the raptor nest (i.e., south or west) and efforts should be made to minimize the cleared right-of-way width.

*Environmental Consequences of the No Action Alternative:* No immediate action would be authorized that would involve the adverse modification of terrestrial wildlife habitats. Alternate pad locations may be increasingly likely to be situated more distant from established roads, thereby involving more extensive access needs and more extensive direct and indirect involvement of functional habitat.

*Mitigation:* It is recommended that, regardless of prevailing winter weather conditions, development of the 23-7 pad (i.e., pad construction, drilling, and completion activities) be scheduled to avoid the period between January 1 and April 15.

Pad construction, drilling, well completion, workover activity, and reclamation associated with the 23-7 well would be subject to the RMP-approved timing limitation stipulation TL-04, which disallows disruptive activity within ¼ mile of raptor nests from February 1 through August 15 or until fledging and dispersal of young. This stipulation can be modified or excepted based on

site-specific information that indicates the nest would remain unattended by May 15 of the project year. Within 200 yards of the west edge of the pad, the pipeline should be routed on the side more distant from the raptor nest (i.e., south or west) and efforts should be made to minimize the cleared right-of-way width to the minimum necessary.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Aquatic): The project areas meet the public land health standards for terrestrial animal communities. As conditioned, the proposed action would have negligible long term influence on the utility or function of big game, raptor, or nongame habitats surrounding these wells. In an overall context, lands affected by the no-action or proposed action, as conditioned, would continue to meet the land health standard for terrestrial animals.

**OTHER NON-CRITICAL ELEMENTS:** For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation		X	
Cadastral Survey	X		
Fire Management		X	
Forest Management		X	
Geology and Minerals			X
Hydrology/Water Rights			
Law Enforcement		X	
Paleontology			X
Rangeland Management		X	
Realty Authorizations			X
Recreation			X
Socio-Economics		X	
Visual Resources			
Wild Horses	X		

## GEOLOGY AND MINERALS

*Affected Environment:* William’s well # 23-33 is located in the southwest corner of Natural Soda’s Federal sodium lease COC-0119986 approximately 2 miles west and south of Natural Soda’s solution mining well field and water monitoring wells. Well #23-7 is located in the area identified in the RMP as available for multi mineral and well #22-28 available for open pit oil shale and sodium leasing. The surface geologic formation of the well locations is Uinta and Williams’s targeted zone is located in the lower Mesaverde/upper Mancos. During drilling potential water, oil shale, sodium, and gas zones will be encountered from surface to the targeted zone. Aquifers 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. According to the

approved mine plan Natural Soda is required by the EPA, BLM, and Colorado Department of Natural Resources Division of Minerals and Geology to monitor the water quality and hydrostatic head of each of these aquifers. This area is also known for difficulties in drilling and cementing.

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

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* While drilling g# 23-33, to prove ownership of any aquifer contamination or influence, a fluorescent dye other than Rhodamin WT, should be added to all drilling fluids used through the Green River formation.

Drilling fluid should be sampled and analyzed for pH and conductivity every 100 feet from surface to 100 feet below the Dissolution surface. Bass should document fluid losses during drilling operations through the Green River Formation. The analysis of the fluid samples and fluid loss documentation will be supplied to the BLM Meeker office within 30 days of drilling.

## **PALEONTOLOGY**

*Affected Environment:* Well #23-7 well pad and access road: the proposed well pad and access road are located in an area mapped as the Uintah Formation (Tweto 1979) which the BLM has classified as a Category I fossil bearing formation meaning that it is known produce scientifically important fossil resources.

Well #23-33 well pad and access road: the proposed well pad and access road are located in an area mapped as the Uintah Formation (Tweto 1979) which the BLM has classified as a Category I fossil bearing formation meaning that it is known produce scientifically important fossil resources.

Well #22-28 well pad and access road: the proposed well pad and access road are located in an area mapped as the Uintah Formation (Tweto 1979) which the BLM has classified as a Category I fossil bearing formation meaning that it is known produce scientifically important fossil resources.

*Environmental Consequences of the Proposed Action:* Well #23-7 well pad and access road: if at any time it becomes necessary to excavate into the underlying bedrock formation to construct the access road, level the well pad or excavate the reserve/blooiie pit there is a potential to impact scientifically important fossil resources.

Well #23-33 well pad and access road: if at any time it becomes necessary to excavate into the underlying bedrock formation to construct the access road, level the well pad or excavate the reserve/bloolie pit there is a potential to impact scientifically important fossil resources.

Well #22-28 well pad and access road: if at any time it becomes necessary to excavate into the underlying bedrock formation to construct the access road, level the well pad or excavate the reserve/bloolie pit there is a potential to impact scientifically important fossil resources.

*Environmental Consequences of the No Action Alternative:* there would be no new impacts to fossil resources under the No Action Alternative.

*Mitigation:* Well #23-7 well pad and access road: any exposed rock outcrops must be examined by an approved paleontologist with a report detailing the results of the examination and any mitigation recommendations, as appropriate, prior to the initiation of construction. If at any time excavation into the underlying bedrock is to occur a paleontological monitor shall be required.

Well #23-33 well pad and access road: any exposed rock outcrops must be examined by an approved paleontologist with a report detailing the results of the examination and any mitigation recommendations, as appropriate, prior to the initiation of construction. If at any time excavation into the underlying bedrock is to occur a paleontological monitor shall be required.

Well #22-28 well pad and access road: any exposed rock outcrops must be examined by an approved paleontologist with a report detailing the results of the examination and any mitigation recommendations, as appropriate, prior to the initiation of construction. If at any time excavation into the underlying bedrock is to occur a paleontological monitor shall be required.

## **REALTY AUTHORIZATIONS**

*Affected Environment:* The access road for Well #23-7 will require a right-of-way.

*Environmental Consequences of the Proposed Action:* The access road from Rio Blanco Road 26 northward through T. 2S, R. 97W sections 18 and 19 to the lease line will require a right-of-way.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* None

## **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.

*Environmental Consequences of the Proposed Action:* The public will lose 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.

*Environmental Consequences of the No Action Alternative:* No loss of dispersed recreation potential.

*Mitigation:* None

## **VISUAL RESOURCES**

*Affected Environment:* These wells are in an area managed as Visual Resource Management Area (VRM) Class 3. The objective of this class is to partially retain the existing character of the landscape. The level of change to characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

*Environmental Consequences of the Proposed Action:* The visual affects from this project will result in a moderate change to the characteristic landscape. VRM Class 3 objectives will be met.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* None

**CUMULATIVE IMPACTS SUMMARY:** There were no cumulative impacts identified that have not already been analyzed in the White River RMP/FEIS.

## **REFERENCES CITED:**

Conner, Carl E.

2004a Class III Cultural Resources Inventory for Three Proposed Well Locations (Ryan Gulch #23-33, #22-7, and #22-28) in Rio Blanco County, Colorado. for Williams Production Company. Grand River Institute, Grand Junction, Colorado.

2004b Class III Cultural Resources Inventory for Two Proposed Well Locations (Ryan Gulch #23-7 and #22-28[Relocation]) and Related Access in Rio Blanco County, CO. Grand River Institute, Grand Junction, Colorado.

Tweto, Ogden

1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

**PERSONS / AGENCIES CONSULTED:**

**INTERDISCIPLINARY REVIEW:**

<b>Name</b>	<b>Title</b>	<b>Area of Responsibility</b>
Caroline Hollowed	P&EC	Air Quality
Tamara Meagley	NRS	Areas of Critical Environmental Concern
Tamara Meagley	NRS	Threatened and Endangered Plant Species
Michael Selle	Archaeologist	Cultural Resources Paleontological Resources
Mark Hafkenschiel	Rangeland Management Specialist	Invasive, Non-Native Species
Ed Hollowed	Wildlife Biologist	Migratory Birds
Ed Hollowed	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species, Wildlife
Marty O'Mara	Hazmat Collateral	Wastes, Hazardous or Solid
Caroline Hollowed	P&EC	Water Quality, Surface and Ground Hydrology and Water Rights
Ed Hollowed	Wildlife Biologist	Wetlands and Riparian Zones
Vern Rholl	Associate Field Manager	Wilderness
Caroline Hollowed	P&EC	Soils
Mark Hafkenschiel	Rangeland Management Specialist	Vegetation
Ed Hollowed	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Vern Rholl	Associate Field Manager	Access and Transportation
Ken Holsinger	NRS	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Mark Hafkenschiel	Rangeland Management Specialist	Rangeland Management
Linda L Jones	Realty Specialist	Realty Authorizations
Vern Rholl	Associate Field Manager	Recreation
Max McCoy	NRS	Visual Resources
Valerie Dobrich	NRS	Wild Horses

# **Finding of No Significant Impact/Decision Record (FONSI/DR)**

## **CO-110-2004-130-EA**

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE:** The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) 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/RATIONALE:** It is my decision to

**MITIGATION MEASURES:**

1. 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.

2. 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.

3. It is recommended that, regardless of prevailing winter weather conditions, development of the 23-7 pad be scheduled to avoid the period between January 1 and April 15.

4. Pad construction, drilling, well completion, workover activity, and reclamation associated with the 23-7 well would be subject to the RMP-approved timing limitation stipulation TL-04, which disallows disruptive activity within ¼ mile of raptor nests from February 1 through August 15 or until fledging and dispersal of young. This stipulation can be modified or excepted based on site-specific information that indicates the nest would remain unattended by May 15 of the project year.

- Applicable to the 23-7 location: within 200 yards of the west edge of the pad, the pipeline should be routed on the side more distant from the raptor nest (i.e., south or west) and efforts should be made to minimize the cleared right-of-way width to the minimum necessary.

5. Williams will be responsible for eradicating all noxious and invasive species using materials and methods approved by the authorized officer. Promptly revegetate all disturbed areas, including cut and fill slopes with Native Seed mixture #3, as listed below:

SPECIES (VARIETY)	LBS. PLS/ACRE
Western wheatgrass (Rosanna)	2
Indian ricegrass (Nezpar)	1
Bluebunch wheatgrass (Whitmar)	2
Thickspike wheatgrass (Critana)	2
Green needlegrass (Lodorm)	1
Globemallow	0.5

6. The operator shall be required to collect and properly dispose of any solid wastes generated by this project.

7. 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.

9. Eliminate undesirable berms that retard normal surface runoff.

10. Williams will be responsible for eradicating all noxious and invasive species using materials and methods approved by the authorized officer. Promptly revegetate all disturbed areas, including cut and fill slopes. Monitor the well pads and access roads for the occurrence of noxious and invasive species for the life of the project.

11. Well pads and access roads with exposed rock outcrops must be examined by an approved paleontologist with a report detailing the results of the examination and any mitigation recommendations, as appropriate, prior to the initiation of construction. If at any time excavation into the underlying bedrock is to occur a paleontological monitor shall be required.

12. 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.

13. 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.

14. 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.

15. While drilling well # 23-33, to prove ownership of any aquifer contamination or influence, a fluorescent dye other than Rhodamin WT, should be added to all drilling fluids used through the Green River formation.

16. Drilling fluid should be sampled and analyzed for pH and conductivity every 100 feet from surface to 100 feet below the Dissolution surface. Williams should document fluid losses during drilling operations through the Green River Formation. The analysis of the fluid samples and fluid loss documentation will be supplied to the BLM Meeker office within 30 days of drilling.

**COMPLIANCE/MONITORING:**

**NAME OF PREPARER:**

*Ma McCoy*

**NAME OF ENVIRONMENTAL COORDINATOR:**

*Caroline P. Hallowed 8/11/04*

**SIGNATURE OF AUTHORIZED OFFICIAL:**

*Urena Phell*

Field Manager

**DATE SIGNED:**

*8/11/04*

**ATTACHMENTS:**

*Map*

## Location of Proposed Action CO-110-2004-130-EA

