

**U.S. Department of the Interior  
Bureau of Land Management  
White River Field Office  
220 E Market St  
Meeker, CO 81641**

## **DETERMINATION OF NEPA ADEQUACY (DNA)**

NUMBER: DOI-BLM-CO-110-2011-0009-DNA

CASEFILE/PROJECT NUMBER: COC69166

PROJECT NAME: Soil Boring Geotechnical Holes Shell Frontier Oil Shale RDD Lease  
COC69166

LEGAL DESCRIPTION: Sixth Principal Meridian  
T 2S R 98W,  
Sec. 4, lots 9, 10, 15 and 16

APPLICANT: Shell Frontier Oil & Gas

BACKGROUND: In December 2005 Shell Frontier Oil & Gas Inc. Resources was granted the Oil Shale Research, Development and Demonstration (R, D&D) Lease COC69166 which is effective as of January 1, 2007. This lease has a ten year term and allows Shell Frontier to utilize lands as may be necessary for the mining, extraction, processing, and preparation of oil shale and oil shale products for market.

DESCRIPTION OF PROPOSED ACTION: Shell Frontier proposes to drill four (4) shallow geotechnical holes approximately 30 feet in depth on their Oil Shale (R, D&D) Lease COC69166. Information obtained from these holes will be used for design and development work on the lease.

A truck mounted soil drill rig with a hollow stem auger will be utilized during the process. All holes are within 30 feet of existing routes and vegetation will be brush hogged as necessary for the project. It is estimated an area of 25 square feet will be disturbed at each drill hole location. Time frame for the project is mid October 2010, weather permitting.

LAND USE PLAN (LUP) CONFORMANCE REVIEW:

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

Date Approved: July 1, 1997

X   The Proposed Action is in conformance with the LUP because it is specifically provided for in the following LUP decision(s):

Decision Language: Minerals, Oil Shale page 2-6 "...At the discretion of the Secretary of the Interior, research scale lease tracts will be considered within lands available for oil shale leasing. Approval of research tracts will be based on the merits of the technology proposed."

Decision Language: Land Use Authorizations, page 2-49 "To make public lands available for the siting of public and private facilities through the issuance of applicable land use authorizations, in a manner that provides for reasonable protection of other resource values."

       The Proposed Action is in conformance with the LUP, even though it is not specifically provided for, because it is clearly consistent with the following LUP decisions (objectives, terms, and conditions):

Decision Language:

#### REVIEW OF EXISTING NEPA DOCUMENTS:

List by name and date all existing NEPA documents that cover the Proposed Action.

Name of Document: White River Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement (PRMP/FEIS).

Date Approved: July 1, 1997

Name of Document: CO-110-2006-117-EA  
Shell Frontier Oil and Gas  
Oil Shale Research, Development and Demonstration Pilot Project

Date Approved: 11/09/2006

List by name and date any other documentation relevant to the Proposed Action (e.g., biological assessment, biological opinion, watershed assessment, allotment evaluation, and monitoring report).

Name of Document: U. S. Fish and Wildlife Service (USFWS) Biological Opinion  
ES/GJ-6-CO-94-F017

Date Approved: 09/12/2006

## NEPA ADEQUACY CRITERIA:

1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

*Documentation of answer and explanation:* Yes, the proposed geotechnical project is within the 160 R, D&D Oil Shale Lease tract COC69166 project that is analyzed in CO-110-2006-117-EA. The proposed action will affect less than 0.05 acres of surface area compared to the 110 acres analyzed.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the new proposed action, given current environmental concerns, interests, and resource values?

*Documentation of answer and explanation:* Yes, CO-110-2006-117-EA has a sub-alternative, a no action alternative, and two alternatives considered but not analyzed in detailed.

3. Is the existing analysis valid in light of any new information or circumstances (such as, rangeland health standard assessment, recent endangered species listings, updated lists of BLM-sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new proposed action?

*Documentation of answer and explanation:* Yes, CO-110-2006-117-EA was approved 11/09/2006 and since then no new studies or resource assessments have been undertaken that changes the validity of the analysis.

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

*Documentation of answer and explanation:* Yes CO-110-06-117-EA analyzes the overall affects of shale oil recovery project for Shell's Oil Shale lease tract CO-C69166 that includes disturbing up to 110 acres of surface area; drilling of production, heater, freeze wall, water, and groundwater monitoring wells. The proposed action is a portion of the overall project which does not alter from what is analyzed in the EA and the cumulative impacts associated with the proposed action remain the same.

5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

*Documentation of answer and explanation:* Yes, collaboration and public involvement for the Oil Shale R, D&D projects included:

- Public open houses in four communities - Rangely, Meeker, Rifle and Grand Junction;
- Endangered Species Act Section 7 consultation with the US Fish and Wildlife;
- Tribal notification;
- 30-day public review periods on the EA (August 15 through September 18, 2006)
- Monthly coordination meetings in the BLM Colorado State Office with state and federal agencies on the progress in the R, D&D effort.

INTERDISCIPLINARY REVIEW: The proposed action was presented to, and reviewed by the White River Field Office interdisciplinary team on 10/19/2010.

Date

A list of resource specialists who participated in this review is available upon request from the White River Field Office.

REMARKS:

*Cultural Resources*: The project area has been repeatedly inventoried at the Class III (100% pedestrian) level, with no cultural resources identified in or within 100 meters of the project area (Darnell 2006, Schwendler et al. 2008). The project has no potential to affect known historic properties potentially eligible for listing on the National Register of Historic Places. (GLH 11/3/2010)

*Native American Religious Concerns*: Letters requesting government-to-government consultation regarding a list of planned 2010 WRFO projects and EAs were sent on 1/27/2010 to the Ute Mountain Ute Tribe, the Southern Ute Tribe, the Ute Tribe of the Uintah & Ouray Reservation, and the Eastern Shoshone Tribe, with follow-up phone calls on 3/15/2010 and a link to an online, updated EA/EIS list mailed on 8/20/2010. Currently, no Native American Religious Concerns or Traditional Cultural Properties are known in or near the project area. Should future consultations with tribal authorities reveal the existence of such sensitive properties, appropriate mitigation and/or protection measures may be undertaken. (GLH 11/3/2010)

*Threatened and Endangered Wildlife Species*: No wildlife-related issues or concerns. (LRB 11.02.10)

*Special Status Plant Species*: No concerns. (JKS 10/21/2010)

MITIGATION: In the event that cultural resources and/or human remains are discovered during operations, activity in the vicinity of the discovery will cease, and the BLM authorized officer will be notified immediately. BLM, in cooperation with the proponent and/or cultural resource consultant, will ensure that the cultural resources and/or human remains are protected from further disturbance until BLM determines the treatment approach, and the treatment is completed.

Unless otherwise noted in treatment plans or agreements, BLM will evaluate the cultural resources and, in consultation with the SHPO, select the appropriate mitigation option within 48 hours of the discovery. BLM will implement the mitigation in a timely manner. The process will be fully documented in reports, site forms, maps, drawings, and photographs. The BLM will forward documentation to the SHPO for review and concurrence.

If human remains are discovered on BLM-administered land, the treatment of human remains will be in accordance with NAGPRA and BLM policy. If human remains are discovered on private or state land during a BLM undertaking, the BLM will notify the State of Colorado Archaeologist immediately, who will comply with Colorado Revised Statutes (Appendix) regarding the discovery of human remains (24-80-1302).

COMPLIANCE PLAN: “Notice of Intent (NOI) to Conduct Prospecting Operations” 2009-10 RD&D East Lease Appraisal

Oil Shale Research, Development and Demonstration (R,D&D) Lease COC69166

REFERENCES CITED:

Darnell, Nicole

2006 Class III Cultural Resources Inventory of a 160-acre Block Area for the 2<sup>nd</sup> Generation IPC Site in Rio Blanco County, Colorado, for Shell Frontier Oil and Gas. Grand River Institute, Grand Junction, Colorado. WRFO CRIR# 06-11-10. SHPO # RB.LM.NR1799.

Schwendler, Rebecca, Sarah Baer, Karen Reed, Scott Phillips, Scott Slessman, Matthew Bandy, Nicole Kromarek, Scott Bowen, Max Wolk, Caryn M. Berg, Paul Burnett, Tom Witt, Sean Doyle, Michelle Delmas, Michael Cregger, John Kennedy, Judy Cooper, Zonna Barnes, Amanda Cohen, Cynthia Manseau, Michael Retter, Dan Shosky, and Erin Salisbury.

2008 A Class III Cultural Resource Inventory for the Ryan Gulch 3-D Geophysical Exploration Project, Rio Blanco County, Colorado. SWCA Environmental Consultants, Broomfield, Colorado. WRFO CRIR# 09-127-01. SHPO # RB.LM.R1083.

NAME OF PREPARER: Paul Daggett

NAME OF ENVIRONMENTAL COORDINATOR: Kristin Bowen

DATE: 11/4/2010

ATTACHMENTS: Location Map of the Proposed Action

## CONCLUSION

DOI-BLM-CO-110-2011-0009-DNA

Based on the review documented above, I conclude that this proposal in consort with the applied mitigation conforms to the land use plan and that the NEPA documentation previously prepared fully covers the Proposed Action and constitutes BLM's compliance with the requirements of NEPA.

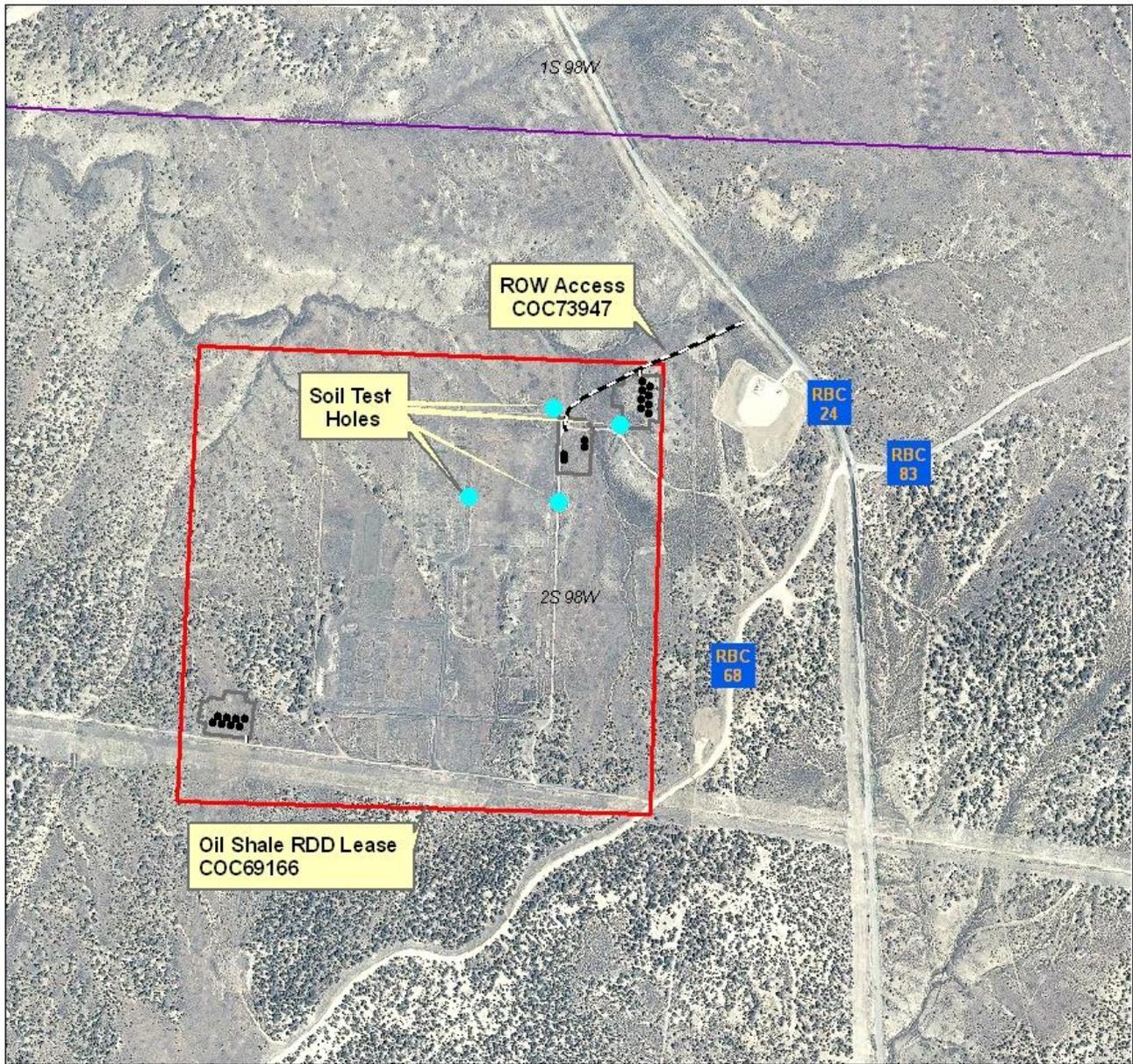
SIGNATURE OF RESPONSIBLE OFFICIAL:

  
Field Manager

DATE SIGNED: 11/5/10

Note: The signed Conclusion on this worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision.

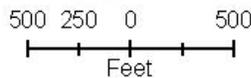
DOI-BLM-CO-110-2011-0009-DNA  
 Soil Boring Geotechnical Holes Shell Frontier Oil Shale RDD Lease COC69166



**T2S R98W, 6th PM  
 Section 4  
 Lots 9, 10, 15 and 16**



10/18/2010



Sources:  
 BLM, USGS, CDOW, etc.

Disclaimer:  
 Although the data presented within this map, and the map itself, have been processed successfully on computers of BLM, no warranty, expressed or implied, is made by BLM regarding the use of this map or the data represented, nor does the fact of distribution constitute or imply any such warranty.

