STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY Department of Natural Resources

1313 Sherman St., Room 215 Denver, Colorado 80203 Phone: (303) 866-3567 FAX: (303) 832-8106



John W. Hickenlooper Governor

Mike King Executive Director

Loretta Piñeda Director

January 8, 2013

Jeffrey D. Stevenson Shell Frontier Oil & Gas Inc. 3333 Highway 6 South, Room M1074A Houston, TX 77082-3101

Re: Shell Frontier Oil & Gas Inc., Notice of Intent (NOI) P-2010-026, Review of Modification No. 3 Application, Notice of Deficiency.

Dear Mr. Stevenson,

The Division of Reclamation, Mining and Safety (DRMS) has reviewed the modification to Notice of Intent to Conduct Prospecting Operations (NOI), No. P-2010-026, submitted December 6, 2012. The purpose of the modification is to request for authorization to conduct additional testing of 3 horizontal heaters at the Multi-Mineral RDD project. The test will require installation of 3 horizontal heater wells and an inclined observation / production well. The modification cannot be approved until the following issues are adequately addressed.

- 1. Section 5.2.3 discusses the fate of the produced gases, oil and water. It is stated that the produced oil and water will be trucked off site. Please specify the destination of the produced liquids.
- 2. Section 5.2.5 states that topsoil will be re-applied evenly. Please specify the depth of topsoil to be replaced.
- 3. Section 5.4.1 page 9 states that cuttings and drilling fluids will be transferred to an onsite dewatering pit where the water in the cuttings will be allowed to infiltrate back to groundwater. Please characterize the water quality and provide an estimate of the quantity of water that is proposed to be infiltrated back to groundwater.
- 4. Section 5.5.3 states that during the ELHT oil production is estimated to be small in volume. Please provide an estimate of the amount of oil expected to be produced during the test.
- 5. Section 6.1 states that all chemicals will be removed from the site and properly disposed. Please disclose all chemicals that will be used on the site during the test. Also provide MSDS sheets for chemicals that may be harmful to human health, wildlife or the environment. Also, please state where the chemicals will be properly disposed.

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- 6. Section 6.2 regarding Subsurface Reclamation states that a metal bridge plug will be placed in the heater wells just above the pyrolyzed reservoir. No statment of whether or not the heaters are to remain down hole is provided. Please state whether or not the heaters are proposed to remain in the wells permanently. If the heaters are proposed to remain in the wells provide justification.
- 7. In the Figures section, Figure 4 displays the greatest depth of the Green River Formation at 2,200 feet. Figure 6 shows the proposed total depth to be 2,400 feet. Please explain the inconsistency and provide consistent figures.

Per Rule 5.3.1(b) the operator shall address all identified deficiencies within 60 days of this notification. Please submit a response to the listed items as soon as possible but no later than March 18, 2013, so the decision date of April 4, 2013 can be met. If your response, or a written request for an extension of the decision date, is not received by March 18, 2013 the request for the modification may be denied.

If you need additional information, please contact me at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 S. 3rd St., Suite 301, Grand Junction, Colorado 81501, telephone no. 970.241.2042.

Sincerely,

Travis Marshall Environmental Protection Specialist

cc: Russ Means, DRMS

Paul Daggett BLM-White River Field Office 220 East Market Street Meeker, CO 81641