

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

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John W. Hickenlooper
Governor

Mike King
Executive Director

Loretta Piñeda
Director

October 11, 2013

George Luxbacher
Occidental Oil Shale, Inc.
c/o Glenn Springs Holdings, Inc.
5005 Lyndon B Johnson FWY Ste 1350
Dallas, TX 75244-6150

Re: Logan Wash, Permit No. M-1977-424, Preliminary Adequacy Review of Technical Revision No. 8 application, TR-8.

Dear Mr. Luxbacher,

The Division of Reclamation, Mining and Safety (DRMS) has reviewed the application for a technical revision to the above referenced 112 permit. The purpose of the technical revision is to infiltrate mine water discharge within the waste rock of the lower bench from two existing Colorado Discharge Permit System outfalls. A review of the application has revealed a few issues and clarifications to address.

- 1) Due to the proposed infiltration of water into the waste rock the stability of the feature may be compromised. Please provide an engineered slope stability analysis for the lower bench waste rock pile.
- 2) What is the possibility of the infiltration of the two outfalls creating new outfall(s) on the slope below the lower bench? If a new outfall is created what action will be taken by the operator to address this issue?
- 3) Please specify whether or not leaching of hazardous or toxic constituents from the waste rock will occur? How does the operator propose to determine whether or not this will be an issue? In the case that leaching does occur what will be done to address the issue?
- 4) Please provide baseline data for both LWCW-1A and LW-22. The data supplied for LWCW-1A is from May 10, 2011 and no data from LW-22 was provided.
- 5) Sulfate in LW-001 is reported at higher levels than levels found in wells in the vicinity of the site. Is it possible that the increased sulfate levels in LW-001 could impact the ambient groundwater conditions of Dry Gulch?
- 6) Molybdenum, fluoride and boron are all observed at levels higher than regulatory limits. Is it possible that the increased levels in LW-001 could impact the ambient groundwater conditions of Dry Gulch?

- 7) Please commit to continue to conduct monthly chemical analysis of LW-001 and LW-002 (if discharge occurs) and collecting semi-annual water samples from LWCW-1A for analysis of the extended analytical suite.

This is a preliminary review. Other issues may arise from other agency comments, and as more information is supplied. Please submit a response to the issues as soon as possible but no later than October 25, 2013, so the decision date of October 31, 2013 can be met. If your response, or a written request for an extension of the decision date, is not received by October 25, 2013 then the request for the revision 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,

A handwritten signature in black ink, appearing to read 'Travis Marshall', with a stylized, cursive script.

Travis Marshall
Environmental Protection Specialist

ec: Russ Means, DRMS
Dustin Czapla, DRMS
Erin Scott, CDPHE

cc: Bruce D. Smith
Western Water & Land, Inc.
743 Horizon Court, Suite 330
Grand Junction, CO 81506