

"Safety as a Value"

May 19, 2019

State of Colorado

Division of Reclamation, Mining & Safety 1313 Sherman St., Room 215 Denver, CO 80203

Attn: Rob Zuber, Environmental Protection Specialist II

 Re: GCC Energy, LLC, King II Mine CDRMS Permit # C-1981-035 Minor Revision No. 48 (MR-48) - Preliminary Adequacy Review Response
Add Elevated TOC Evaluation Work Plan

Mr. Zuber:

In response to your Minor Revision MR-48 Preliminary Adequacy Review letter of May 17, 2019, please find attached revised page King II 2.05.6 page 15 for your consideration. The text under the sub-heading Monitoring Well Abandonment and Replacement has been modified as per your suggestions.

Please find enclosed:

• King II Section 2.05.6 page 15

Please contact Tom Bird at $970.385.4528 \ge 6503$ or 970.769.1160 (cell) with questions or comments.

Sincerely,

Tom Bird Manager of Coal Services GCC Energy, LLC tbird@gcc.com

Monitoring Well Rest & Re-Sampling

Following the rehabilitation activities, the well shall be allowed to sit for approximately four weeks for bedrock wells and two weeks for alluvial wells. This will allow natural groundwater flow across the saturated well screen section and ambient groundwater conditions to return. The new or decontaminated sampling pump system shall be installed into the subject well and another TOC, BTEX and TPH sample will be collected and submitted to the analytical lab. Results will indicate if the well rehabilitation was successful.

Monitoring Well Abandonment and Replacement

If the TOC, BTEX and/or TPH results indicate no significant change in concentration from pre-rehabilitation results a replacement well screening the same interval as the original well will be necessary. This well shall be placed 30 to 50 feet directly upgradient of the original well. Following installation, development and initial sampling of the replacement well for the standard baseline water quality lab suite including TOC and adding BTEX and TPH, water quality results will be reviewed. If the hydrocarbon detections are also present in the replacement well, water quality results will be reviewed. In this case, the old well shall be retained for comparative purposes with the new well for a minimum of four quarters of laboratory analyses prior to abandonment.

If hydrocarbons are not observed in groundwater samples from the new well, it is likely that the hydrocarbons observed in the original well were introduced by drilling, well installation, development or sampling activities and do not represent baseline conditions. In this scenario, the original well shall be plugged and abandoned per Colorado Department of Water Resources (CDWR) standards and the appropriate GWS-09 abandonment report filed with CDWR. The new replacement well shall then be utilized for future GCC King II mine long-term groundwater performance monitoring.

King II Mine

May 19, 2019 (MR-48)