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April 6, 2020

Mr. Ken Kalman
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

Mr. Paul Davis
Oklahoma Department of Environmental Quality
707 North Robinson
Oklahoma City, OK 73101

Mr. Robert Evans
U.S. Nuclear Regulatory Commission
1600 East Lamar Blvd; Suite 400
Arlington, TX 76011-4511

Re: Docket No. 70-925; License No. SNM-928
Cimarron Environmental Response Trust
Vertical Profiling and Monitor Well Abandonment Report

Dear Sirs:

Solely as Trustee for the Cimarron Environmental Response Trust (CERT), Environmental Properties Management LLC (EPM) submits herein to the US Nuclear Regulatory Commission (NRC) and the Oklahoma Department of Environmental Quality (DEQ) a report on the evaluation of the vertical distribution of uranium at proposed extraction well locations and the abandonment of specific monitor wells.

The December 31, 2015 *Facility Decommissioning Plan*[1] (the DP) proposed the installation of groundwater extraction wells in the alluvial material of the Cimarron River floodplain. The extraction wells were to be constructed with well screens that extended through the entire saturated thickness of the alluvial deposits.

After completing the detailed technical review of the 2015 decommissioning plan, the US Nuclear Regulatory Commission (NRC) issued requests for additional information (RAIs) on February 9, 2017. One of the RAIs requested "… an assessment of the likelihood that dissolved uranium varies vertically in different aquifers or portions of an aquifer at the site." The NRC recommended, "… analysis of a pump and treat system with a combination of partially and fully penetrating wells, if the dissolved uranium is believed to be stratified at the site." A preliminary evaluation of the vertical distribution of uranium in groundwater in alluvial material had been

[1] Environmental Properties Management LLC, December 2015

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initiated in December 2016, and the report *Vertical Distribution of Uranium in Groundwater*[2] demonstrated that uranium was stratified at the site.

During meetings conducted in September 2017, the NRC requested that EPM consider installing extraction wells with well screen located in the zone in which uranium exceeds the decommissioning criteria. This would maximize the mass of uranium removed per unit volume of groundwater, optimizing the efficiency of groundwater treatment systems.

Consequently, the November 2, 2018 *Facility Decommissioning Plan – Rev 1*[3] (the DP) proposed to advance direct push borings using a hydraulic profiling tool at the proposed location of each extraction well, collecting samples at two-foot intervals to assess the vertical distribution of contaminants in the groundwater. The screened interval for each well would then be established based on the results of this assessment.

The assessment of the vertical distribution of uranium and nitrate at proposed extraction well locations has been completed. The enclosed *Vertical Profiling and Monitoring Well Abandonment Report* provides a description of the work performed, presents the data obtained, and describes how the data obtained during this assessment was utilized to finalize specifications for the construction and installation of groundwater extraction components.

The changes described herein will be included in the 90% design stage drawings that will be submitted as a revised Appendix J to the DP. If you have questions or comments, please contact me at 405-641-5152 or at jlux@envpm.com.

Sincerely,

Jeff Lux, P.E.
Trustee Project Manager

Enclosure

cc: NRC Public Document Room (electronic copy only)

[2] Environmental Properties Management LLC, May 2017
[3] Environmental Properties Management LLC, November 2018