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VIA OVERNIGHT MAIL

August 23, 2011

Dr. Tom McLaughlin
U.S. Nuclear Regulatory Commission
Mail Stop T-7-E18
Washington, DC 20555

**RE: License No. SUA-1139, Highland Reclamation Project
Monitor Well MFG-3**

Dear Dr. McLaughlin:

Thank you for speaking with representatives of Exxon Mobil Environmental Services (EMES) on August 18, 2011 to discuss the proposed abandonment and replacement of well MFG-3 at the Highland Reclamation Project site (Highland) due to an apparent faulty bentonite seal. As you requested, this memorandum has been prepared to provide the NRC with a summary of groundwater chemistry in the Highland MFG-Series monitoring wells to evaluate the potential for leakage of tailings-derived constituents from the upper ore body sandstone (OBSS) units into the lower OBSS. The potential downward migration of constituents into the lower OBSS necessitates abandonment of well MFG-3 in order to prevent impact to groundwater resources in the 30SS.

EMES has evaluated selected constituent concentration trends in OBSS wells MFG-1, MFG-2, and MFG-3. Wells MFG-1, -2, and -3 are screened in the 50SS, 40SS, and 30SS units of the OBSS, respectively. Figure 1 shows the historic concentrations of the tailings indicator constituents chloride and sulfate in the OBSS. Wells MFG-1 and MFG-2 have had consistently elevated concentrations of chloride and sulfate that indicate tailings impacts to the 50SS and 40SS. The concentrations of chloride and sulfate in MFG-3 (30SS) were much lower in comparison when this monitoring well was first installed and sampled in late 2004. However, an increasing trend in the concentrations of chloride and sulfate concentrations began around 2006 (Figure 1), suggesting that downward

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migration of groundwater from the 50SS and 40SS may be influencing groundwater quality in the 30SS.

The OBSS units are separated from each other by highly impermeable shale units. Therefore, the increasing trends in the chloride and sulfate seen in Figure 1 suggest that there may be hydraulic communication between the upper OBSS units and the 30SS that likely has resulted from a faulty bentonite seal around the monitoring well during installation. The potential exists for additional impacts to the lower 30SS in the future if the pathway at the faulty well remains over the long-term.

In order to eliminate the potential for downward migration of constituents, EMES proposes abandoning MFG-3 and replacing it with a new well (MFG-3b) which would also be completed in the 30SS, for continued monitoring of the water quality in the 30SS. Because the MFG series wells were installed and are monitored at the request of NRC, EMES requests that the NRC provide concurrence with the abandonment and replacement of MFG-3, so that the work can proceed prior to winter.

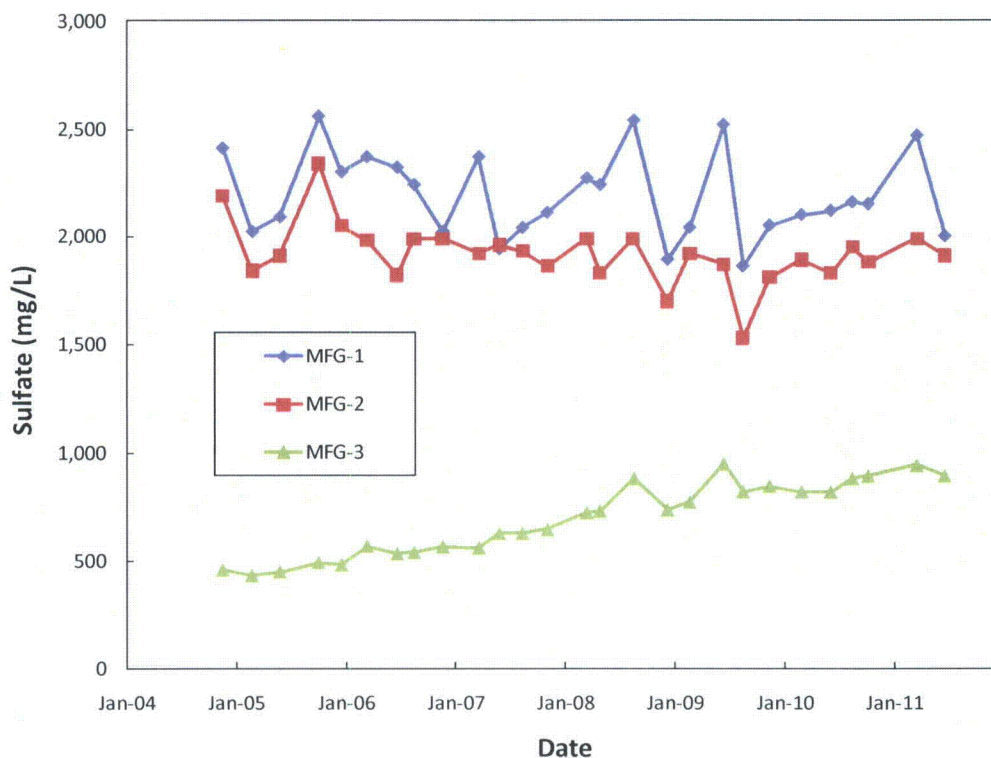
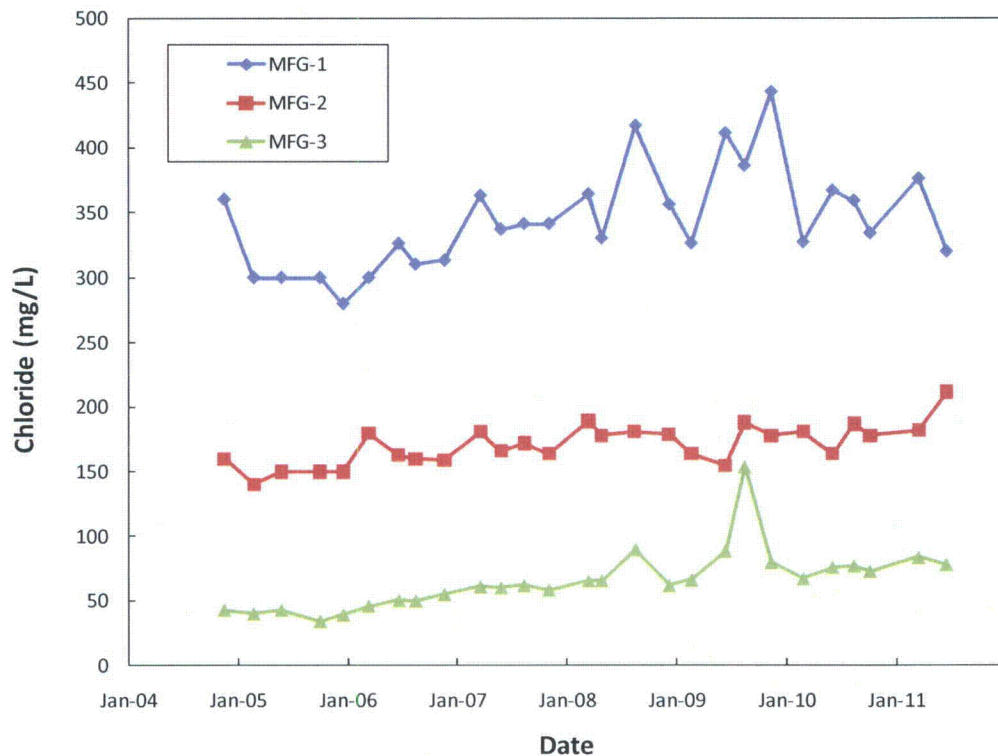
If you have any questions or would like further information, please feel free to contact me.

Sincerely,



Mahesh Vidyasagar
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CC: Lifeng Guo, NRC
Steve Ingle, WDEQ
Rebecca Bilodeau, AES, Inc.
Bruce Wielinga, AMEC, Inc.
NRC Document Control Desk



HIGHLAND URANIUM PROJECT		ExxonMobil	
CHLORIDE AND SULFATE CONCENTRATION TRENDS FOR MFG-SERIES MONITORING WELLS		PROJECT No. 677520022	
		DATE 08/08/2011	
		FIGURE No. 1	