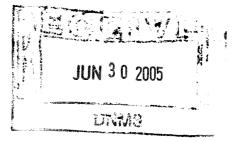


June 23, 2005

Mr. Robert Evans U.S. Nuclear Regulatory Commission Region IV: DNMS: NMLB Suite 400 611 Ryan Plaza Drive Arlington, TX 76011



SUBJECT: ANALYTICAL RESULTS FOR FOUR SOIL SAMPLES COLLECTED MAY 31, 2005 FROM SEQUOYAH FUELS CORPORATION, GORE, OKLAHOMA (INSPECTION REPORT #040-08027/05-001) [RFTA NO. 05-001]

Dear Mr. Evans:

The Environmental Survey and Site Assessment Program (ESSAP) of the Oak Ridge Institute for Science and Education (ORISE) received four soil samples from the Sequoyah Fuels Corporation on June 3, 2005 that were collected May 31, 2005. The soil samples were analyzed for total uranium and radium-226 by gamma spectroscopy (GS) (Procedure CP1, Revision 14) and for thorium-230 (Th-230) by alpha spectroscopy (Procedures AP11, Revision 2 and CP2, Revision 12). The GS data are reported in Table 1. The Th-230 data are reported in Table 2.

ESSAP's Quality Control (QC) requirements were met for these analyses. The QC files are available for your review upon request.

Please contact me at (865) 241-3242 or Wade Ivey at (865) 576-9184 with any questions or comments.

Sincerely,

ha

Dale Condra Laboratory Manager Environmental Survey and Site Assessment Program

RDC/WPI:ar

Enclosure

cc: T. McLaughlin, NRC/NMSS/T-7E18 E. Knox-Davin, NRC/NMSS/TWFN T8A23 File 1664 E. Abelquist, ORISE/ESSAP A. Boerner, ORISE/ESSAP

Distribution approval and concurrence:	Initials
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ORISE TABLE 1

CONCENTRATIONS OF TOTAL URANIUM AND RADIUM-226 (Ra-226) BY GAMMA SPECTROSCOPY CP1, REVISION 14 SEQUOYAH FUELS CORPORATION GORE, OKLAHOMA **IN SOIL SAMPLES**

ESSAP Sample	NRC Region IV	R	adionuclid	le Concentra	Radionuclide Concentrations ^a (pCi/g)	
ID		Ra-226 by Pb-214	U-234 ^b	U-235	U-238 by Th-234	Total U ^c
1664S0001	HA778	1 34 + 0 11 ^d	50116			
		1.27 ± 0.11 3.0 ± 1.0 $0.23 \pm 0.0/$ 1.48 ± 0.34 6.7 ± 1.7	0.1 ± 0.0	$0.23 \pm 0.0/$	1.48 ± 0.34	6.7 ± 1.7
1664S0002	HA729	1.45 ± 0.10 7.4 ± 2.2 0.34 ± 0.10 1.81 ± 0.41 0.5 ± 2.2	7.4 ± 2.2	0.34 ± 0.10	181 ± 041	し て 十 ろ り
1664 20002					11.0 - 10.1	7.7 + 6.6
CONCLOST	UC/AU	1.02 ± 0.07	2.8 ± 1.7	0.13 ± 0.08	1.02 ± 0.07 2.8 ± 1.7 0.13 ± 0.08 1.47 ± 0.31 4.4 ± 1.8	4.4 ± 1.8
1664S0004	HA731	1.21 ± 0.08 6.1 ± 2.2 0.28 ± 0.10 1.60 ± 0.41 8.0 ± 2.2	6.1 ± 2.2	0.28 ± 0.10	160 + 041	c c + 0 8
				2.2	11.0 - 0.11	1.1 + 0.0

^aThe average MDC for Ra-226 by Pb-214 is 0.03 pCi/g, for U-235 is 0.09 pCi/g and for U-238 by Th-234 is 0.35 pCi/g. ^bThe U-234 concentration is calculated by U-235 · 21.7.

^{cr} Total U is the sum of U-234 + U-235 + U-238.

^dUncertainties represent the 95% confidence level, based on total propagated uncertainties.

ORISE TABLE 2

CONCENTRATIONS OF THORIUM-230 (Th-230) IN SOIL SAMPLES BY ALPHA SPECTROSCOPY AP11, REVISION 2 AND ALPHA SPECTROSCOPY CP2, REVISION 12 SEQUOYAH FUELS CORPORATION GORE, OKLAHOMA

ESSAP Sample	NRC Region IV	Th-230 ^a
ID	Sample ID	Concentration
1664S0001	HA728	18.9 ± 1.6^{b}
1664S0002	HA729	22.6 ± 1.7
1664S0003	HA730	6.95 ± 0.57
1664S0004	HA731	18.3 ± 1.5

^aThe average MDC by alpha spectroscopy for Th-230 is 0.08 pCi/g.

^bUncertainties represent the 95% confidence level, based on total propagated uncertainties.