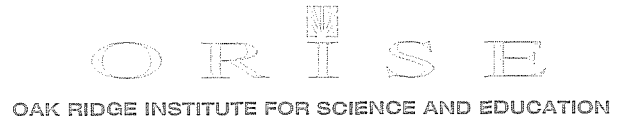


Docket 040-08027
License SUB-1010



December 31, 2009

Mr. Robert Evans
U.S. Nuclear Regulatory Commission
Region IV: DNMS: NMLB
612 E. Lamar Blvd.
Arlington, TX 76011

SUBJECT: ORISE CONTRACT NO. DE-AC05-06OR23100
ANALYTICAL RESULTS FOR ONE CONCRETE SAMPLE AND FOUR
SOIL SAMPLES ASSOCIATED WITH SEQUOYAH FUELS,
GORE, OKLAHOMA
(REPORT NUMBER 040-08027/2009-02) [RFTA NO. 10-001]
DCN: 2007-LR-01-0

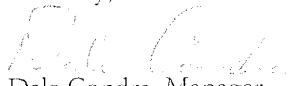
Dear Mr. Evans:

The Oak Ridge Institute for Science and Education (ORISE) received one concrete sample and four soil samples associated with Sequoyah Fuels in Gore, Oklahoma on November 11, 2009. At your request, the samples were analyzed by gamma spectroscopy (GS) for total natural uranium with a DCGL of 570 pCi/g. You also requested that the samples be counted "as received". The ORISE procedure requires that samples be dried and blended before counting. To accommodate your "as received" request, ORISE performed a percent moisture analysis on each sample. The uranium concentrations in the report have been corrected for the moisture content in each sample and the concentrations are reported in pCi/g wet weight. The sample collection information is presented in Table 1. The GS results are presented in Table 2.

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

My contact information is listed below. You may also contact Wade Ivey at 865.576.9184 with any questions or comments.

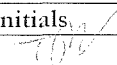

Sincerely,


Dale Condra, Manager
Laboratory

RDC/WPI:ar

Enclosures

c: T. Carter, NRC/FSME/DWMEP T-8F5 S. Roberts, ORISE
T. Patterson, NRC/FSME/TWPN 8D42 T. Vitkus, ORISE
File 2007

Distribution approval and concurrence :	Initials
Technical Review	
Quality Review	

P.O. Box 117
Oak Ridge, TN 37831

Voice: 865.241.3242

Fax: 865.241.3248

E-mail: Dale.Condra@orau.org

TABLE 1

**SAMPLE IDENTIFICATIONS
AND COLLECTION INFORMATION
SEQUOYAH FUELS CORPORATION
GORE, OKLAHOMA**

ORISE Sample ID	NRC Region IV Sample ID	Collection Date	Collection Time
2007M0001	NRC-1	11/9/09	10:45
2007S0001	NRC-2	11/9/09	11:30
2007S0002	NRC-3	11/9/09	12:00
2007S0003	NRC-4	11/9/09	12:15
2007S0004	NRC-5	11/9/09	12:30

TABLE 2

CONCENTRATIONS OF TOTAL URANIUM
IN CONCRETE AND SOIL SAMPLES
BY GAMMA SPECTROSCOPY CP1, REVISION 17
SEQUOYAH FUELS CORPORATION
GORE, OKLAHOMA

ORISE Sample ID	NRC Region IV Sample ID	% Moisture	Radionuclide Concentrations, TPU, and MDCs ^a (pCi/g wet weight)			
			U-234 ^b	U-235	U-238 by Th-234	Total U ^c
2007M0001	NRC-1	3.3	3.42 ± 0.39 ^d , 0.63	0.19 ± 0.10, 0.22	3.42 ± 0.39, 0.63	7.03 ± 0.80
2007S0001	NRC-2	12	5.19 ± 0.51, 0.77	0.20 ± 0.07, 0.20	5.19 ± 0.51, 0.77	10.6 ± 1.0
2007S0002	NRC-3	16	13.0 ± 1.0, 1.2	0.54 ± 0.10, 0.25	13.0 ± 1.0, 1.2	26.6 ± 2.0
2007S0003	NRC-4	9.9	9.09 ± 0.73, 0.75	0.33 ± 0.07, 0.19	9.09 ± 0.73, 0.75	18.5 ± 1.4
2007S0004	NRC-5	9.6	4.11 ± 0.44, 0.81	0.14 ± 0.06, 0.17	4.11 ± 0.44, 0.81	8.35 ± 0.89

^aThe MDCs appear after the commas.

^bThe U-234 concentration from gamma spectroscopy is set equal to the U-238 concentration.

^cTotal U is the sum of U-234 + U-235 + U-238.

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