

February 21, 2013

Docket 040-08027
License SUB-1010

Mr. Robert Evans
U.S. Nuclear Regulatory Commission, Region IV
1600 East Lamar Boulevard
Arlington, TX 76011

SUBJECT: ORISE CONTRACT NO. DE-AC05-06OR23100
LETTER REPORT FOR ANALYTICAL RESULTS FOR EIGHT SOIL
SAMPLES ASSOCIATED WITH THE SEQUOYAH FUELS CORPORATION IN
GORE, OKLAHOMA
[INSPECTION REPORT NO. 040-08027/13-001] (RFTA NO. 13-001)
DCN: 5206-LR-02-0

Dear Mr. Evans:

Oak Ridge Associated Universities (ORAU), under the Oak Ridge Institute for Science and Education (ORISE) contract, received eight soil samples on February 8, 2013 from the Sequoyah Fuels Corporation in Gore, Oklahoma. The samples were analyzed for gamma emitting radionuclides by gamma spectroscopy. The samples were received with a NRC Form 303. The sample identification numbers are presented in Table 1 and the gamma spectroscopy data are presented in Table 2. The pertinent procedure reference is included with the data table.

ORAU'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 Forrest Smith at 865.574.9802 with any questions or comments.

Sincerely,

Wade P. Ivey
Wade Ivey, Manager
Laboratory
WPI:WFS:km

Enclosures

c: T. Carter, NRC/FSME/DWMEP T-8F5
S. Nesmith, NRC/FSME/PBPA/TWFN 8A23
L. Gersey, NRC

Electronic: S. Roberts, ORAU T. Vitkus, ORAU File 5206

Distribution approval and concurrence:	Initials
Technical Review	<i>WPI</i>
Quality Review	<i>DB</i>
Group Manager Review	<i>WPI</i>

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TABLE 1

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

ORAU/ORISE Sample ID	NRC Sample ID	Collection Date	Collection Time
5206S0008	NRC-A	02/06/13	1:45 PM
5206S0009	NRC-B	02/06/13	2:10 PM
5206S0010	NRC-C	02/06/13	2:15 PM
5206S0011	NRC-D	02/06/13	2:20 PM
5206S0012	NRC-E	02/07/13	9:40 AM
5206S0013	NRC-F	02/06/13	2:32 PM
5206S0014	NRC-G	02/06/13	2:45 PM
5206S0015	NRC-H	02/06/13	2:50 PM

TABLE 2

**CONCENTRATIONS OF SELECTED GAMMA EMITTERS
IN SOIL SAMPLES
BY GAMMA SPECTROSCOPY
CP1, REVISION 17
SEQUOYAH FUELS CORPORATION
GORE, OKLAHOMA**

ORAU/ORISE Sample ID	NRC Sample ID	Radionuclide Concentrations, TPU ^a , and MDCs ^b (pCi/g)		
		U-238 by Th-234	U-235	Total U ^c
5206S0008	NRC-A	7.06 ± 0.65 , 0.86	0.40 ± 0.09 , 0.18	14.5 ± 1.3
5206S0009	NRC-B	20.3 ± 1.5 , 1.2	0.96 ± 0.12 , 0.20	41.6 ± 3.0
5206S0010	NRC-C	78.0 ± 5.1 , 1.4	4.07 ± 0.33 , 0.42	160.1 ± 10.2
5206S0011	NRC-D	1.18 ± 0.43 , 0.96	0.09 ± 0.08 , 0.18	2.45 ± 0.86
5206S0012	NRC-E	13.1 ± 1.0 , 0.8	0.54 ± 0.10 , 0.21	26.7 ± 2.0
5206S0013	NRC-F	1.41 ± 0.42 , 0.93	0.12 ± 0.08 , 0.17	2.94 ± 0.84
5206S0014	NRC-G	1.61 ± 0.37 , 0.77	0.04 ± 0.09 , 0.21	3.26 ± 0.75
5206S0015	NRC-H	1.58 ± 0.43 , 0.94	0.08 ± 0.08 , 0.18	3.24 ± 0.86

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

^bThe MDCs are after the comma.

^cTotal uranium calculated by the formula: (2 * U-238) + U-235.