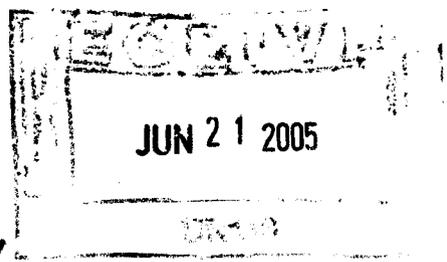


June 16, 2005

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

ORIGINAL



**SUBJECT: ANALYTICAL RESULTS FOR FIVE SOIL SAMPLES AND TWO SWIPE SAMPLES COLLECTED MAY 16-17, 2005 FROM EGLIN AIR FORCE BASE, FLORIDA (INSPECTION REPORT #030-28641/05-002) [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 five soil samples and two swipec samples from Eglin Air Force Base, Florida on May 18, 2005 that were collected May 16-17, 2005. The soil samples were analyzed for total uranium by gamma spectroscopy (GS) (Procedure CP1, Revision 14). The swipec samples were analyzed by gas-flow proportional counting (Procedure CP3, Revision 2). The GS data are reported in Table 1. The measured alpha Minimum Detectable Concentration (MDC) for each smear was 8.9 dpm/100cm<sup>2</sup> which was below the requested criterion of 9.9 dpm/100cm<sup>2</sup>.

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,



Dale Condra  
 Laboratory Manager  
 Environmental Survey and  
 Site Assessment Program

RDC/WPI:ar

Enclosure

- |                                    |                           |
|------------------------------------|---------------------------|
| cc: T. McLaughlin, NRC/NMSS/T-7E18 | E. Abelquist, ORISE/ESSAP |
| E. Knox-Davin, NRC/NMSS/TWFN T8A23 | A. Boerner, ORISE/ESSAP   |
| B. Schlapper, Region IV            | File 1660                 |

Distribution approval and concurrence:	Initials
Technical Management Team Member	a/b
Quality Manager	ATP



**ORISE TABLE 1**

**CONCENTRATIONS OF TOTAL URANIUM  
IN SOIL SAMPLES  
BY GAMMA SPECTROSCOPY CP1, REVISION 14  
EGLIN AIR FORCE BASE  
EGLIN AIR FORCE BASE, FLORIDA**

ESSAP Sample ID	NRC Region IV Sample ID	Radionuclide Concentrations <sup>a</sup> (pCi/g)			
		U-234 <sup>b</sup>	U-235	U-238 by Th-234	Total U <sup>c</sup>
1660S0001	NRC05-02-01	16.3 ± 3.3 <sup>d</sup>	0.75 ± 0.15	49.0 ± 2.4	66.0 ± 4.0
1660S0002	NRC05-02-02	37.8 ± 4.6	1.74 ± 0.21	124.0 ± 5.1	163.5 ± 6.7
1660S0003	NRC05-02-03	18.2 ± 3.0	0.84 ± 0.14	60.8 ± 4.1	79.9 ± 5.0
1660S0004	NRC05-02-04	27.1 ± 4.3	1.25 ± 0.20	88.5 ± 3.7	116.9 ± 5.6
1660S0005	NRC05-02-05	23.2 ± 3.9	1.07 ± 0.18	76.1 ± 3.5	100.4 ± 5.1

<sup>a</sup>The average MDC for U-235 is 0.16 pCi/g and for U-238 by Th-234 is 0.97 pCi/g.

<sup>b</sup>The U-234 concentration is calculated by U-235 · 21.7.

<sup>c</sup>Total U is the sum of U-234 + U-235 + U-238.

<sup>d</sup>Uncertainties represent the 95% confidence level, based on total propagated uncertainties.