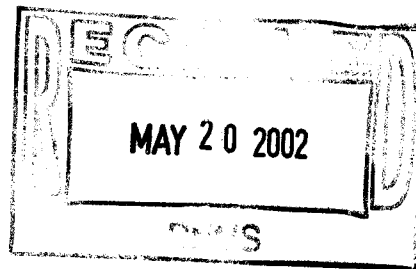


May 16, 2002

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



SUBJECT: ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED FROM KAISER ALUMINUM, TULSA, OKLAHOMA (INSPECTION REPORT #02-02) [RFTA NO. 02-005]

Dear Mr. Evans:

The Environmental Survey and Site Assessment Program (ESSAP) of the Oak Ridge Institute for Science and Education (ORISE) received two soil samples on April 8, 2002, that were collected on April 3, 2002 by Kaiser Aluminum personnel. The samples were analyzed for thorium-228, thorium-230, thorium-232, radium-226, and radium-228 by gamma spectroscopy (Procedure CP1, Revision 11). The data are presented in Table 1.

The original request for analysis was for isotopic thorium and radium. Due to the level of activity in each sample, and after consulting with you by phone on April 18, 2002, it was decided that the gamma spectroscopy results were sufficient to meet your needs.

ESSAP's Quality Control (QC) procedures were followed for these analyses. The daily QC and detector background for the counting instrumentation used in the analyses were within acceptable limits. 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

cc: G. Purdy, NRC/NMSS/TWFN 7F27	W. Beck, ORISE/ESSAP
E. Knox-Davin, NRC/NMSS/TWFN T8A23	E. Abelquist, ORISE/ESSAP
T. Vitkus, ORISE/ESSAP	File/818

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TABLE 1

**CONCENTRATIONS OF SELECTED NORM GAMMA EMITTING RADIONUCLIDES
IN SOIL SAMPLES
KAISER ALUMINUM
TULSA, OKLAHOMA**

ESSAP Sample ID	NRC Region IV Sample ID	Radionuclide Concentrations (pCi/g dry weight)				
		Ra-226 by Pb-214	Ra-228 by Ac-228	Th-228 by Pb-212	Th-232 by Ac-228	Th-230 ^a
818S001	3A	2.05 ± 0.94 ^b	144 ± 11	147.2 ± 7.8	144 ± 11	181 ± 87
818S002	5A	517 ± 29	4,900 ± 400	5,190 ± 270	4,900 ± 400	26,000 ± 2600

^aTh-230 concentrations may be underestimated due to attenuation effects for the sample material.

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