

Radionuclide Analysis Facility Gamma Analysis Report

Issued by Meka E. Francis

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 Work Request #: 16-346R
 Submitted by: S. Pordes on 10/26/2016
 Workbook: HPGe #2-11, page(s) 144

LArTF GetterMax

Stephen Pordes submitted a sample of GetterMax beads on Work Request# 16-346 for analysis of naturally-produced radionuclides. The sample was divided into two 250 mL HDPE bottles and counted three times each using detector HPGe#2. Averaged results for five 24 hour blank counts were subtracted from the averaged sample results. The following table lists radionuclides detected in the samples, along with their corresponding specific activity. Ra-226 results shown are based on one peak at 186.11 keV. This isotope was also seen in the previous sample in the same amount but was omitted due to uncertainty of identification.

Sample ID#	Sample Time	Description	Container	Count Info	Mass (g)	Count Dates	Radionuclide	pCi/g	Bq/kg
161026MF02	15:11	GetterMax Beads (2/3 portion)	250 mL Poly Bottle	86,400sec @ 4cm	358.341	1/5/17 - 1/12/17	Thorium Series		
							Ac-228	0.29 ± 0.05	11 ± 2
							Pb-212	0.32 ± 0.06	12 ± 2
							Tl-208	0.10 ± 0.02	3.9 ± 0.8
							Uranium Series		
							Pb-214	1.9 ± 0.2	70 ± 7
							Bi-214	1.8 ± 0.1	68 ± 5
Ra-226	2.4 ± 0.5	90 ± 20							
161026MF03	15:11	GetterMax Beads (1/3 portion)	250 mL Poly Bottle	86,400sec @ 4cm	170.065	1/18/17 - 1/20/17	Thorium Series		
							Ac-228	0.30 ± 0.05	11 ± 2
							Pb-212	0.30 ± 0.06	11 ± 2
							Tl-208	0.10 ± 0.03	4 ± 1
							Uranium Series		
							Pb-214	1.8 ± 0.2	66 ± 7
							Bi-214	1.8 ± 0.2	65 ± 6
Ra-226	2.1 ± 0.5	80 ± 20							
							K-40	0.5 ± 0.5	20 ± 10

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 cc: M. Francis, M.Quinn, RAF Folder