

Handwritten notes in blue and red ink at the top right of the page.

**Allen, Pam, NMENV**

**From:** Kliphuis, Trais, NMENV  
**Sent:** Tuesday, May 20, 2014 2:21 PM  
**To:** Allen, Pam, NMENV  
**Cc:** Maestas, Ricardo, NMENV; Smith, Coleman, NMENV; Holmes, Steve, NMENV  
**Subject:** FW: Results of Long Gamma Analyses on CAM Filters 2, 7, and 11 compared to FAS

Please add this email to the WIPP record. Thanks.

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**From:** Percy, Mark - NWP [mailto:Mark.Percy@wipp.ws]  
**Sent:** Tuesday, May 20, 2014 2:18 PM  
**To:** Kliphuis, Trais, NMENV  
**Subject:** FW: Results of Long Gamma Analyses on CAM Filters 2, 7, and 11 compared to FAS

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Central Characterization Program  
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**From:** david.diprete@srnl.doe.gov [mailto:david.diprete@srnl.doe.gov]  
**Sent:** Sunday, May 18, 2014 9:48 PM  
**To:** Chester, Curtis - NWP; Zimmerman, John - LEX; Percy, Mark - NWP  
**Cc:** Lynette.Connelly@srnl.doe.gov; leigh.brown@srnl.doe.gov; mark.barnes@srnl.doe.gov; robin.young@srnl.doe.gov; john.young@srnl.doe.gov  
**Subject:** Results of Long Gamma Analyses on CAM Filters 2, 7, and 11 compared to FAS

Curtis,

The results of the long gamma analyses on the 3 CAM samples is attached. Note Cs-137 has fallen off the observed list of isotopes from the FAS. It was a false positive from a minor gamma ray from Am-241. U-237 and Pu-241 are now also listed as bounding values in the FAS analysis. I'll have to run a radiochemical analysis to measure the Pu-241 activities in the bulk of the samples. Pu-241 was observed in the long count on CAM 11.

	Wipp FAS		
	Radioisotope	DPM/sample	1 Sigma %Unc
	Be-7	4.72E+02	5%
	K-40	4.35E+01	18.55%
	TI-208	2.10E+00	18.06%



	Pb-212	2.79E+00	30.93%
	Np-237/Pa-233	1.32E+01	9.57%
	U-237	< 1.08E+02	upper limit
	Np-239	3.14E+02	5%
	Am-243	3.42E+02	5%
	Pu-239	1.04E+05	7.29%
	Am-241	2.74E+06	5%
	Pu-241	< 4.42E+06	Calculated from U-237
from ICP-MS	Th-232	1.79E-02	
	U-235	7.04E-01	(u-235 enrichment 5.54%)
	U-238	1.87E+00	
	CAM Filter #2	ADS #300311040	
	Radioisotope	DPM/sample	1 Sigma %Unc
	Pb-212	4.33E+00	31.03%
	Np-237/Pa-233	2.44E+01	10.0%
	NP-239	7.17E+02	10.0%
	Am-243	7.58E+02	10.0%
	Pu-239	4.12E+05	10.0%
	Am-241	7.15E+06	10.0%
	CAM Filter #7	ADS #300311045	
	Radioisotope	DPM/sample	1 Sigma %Unc
	Pb-212	3.11E+00	32.38%
	Np-237/Pa-233	2.75E+01	10.0%
	NP-239	7.58E+02	10.0%
	Am-243	7.46E+02	10.0%
	Pu-239	3.72E+05	10.0%
	Am-241	6.66E+06	10.0%
	CAM Filter #11	ADS #300311049	
	Radioisotope	DPM/sample	1 Sigma %Unc
	Np-237/Pa-233	2.90E+01	10.0%
	NP-239	7.57E+02	10.0%
	Am-243	6.52E+02	10.0%
	Pu-239	4.80E+05	10.0%
	Am-241	5.80E+06	10.0%
	Pu-241	8.06E+05	20.40%