

THERMO EBERLINE LLC
BUILDING CHARACTERIZATION - VOLUMETRIC LABORATORY ANALYSES
Table 3-21: PAOC-10

Sample ID				10-W-E-4-C				10-W-E-4-C				10-W-W-13-C				10-W-W-13-C			
GEL Laboratory ID				522488001				1204666182				522488002				1204665952			
Collection Date				09/21/20				09/21/20				09/21/20				09/21/20			
Substrate				Ceramic Tile				Ceramic Tile				Ceramic Tile				Ceramic Tile			
Building Surface				Wall				Wall				Wall				Wall			
QC Code				Normal				Duplicate				Normal				Duplicate			
Analysis Method	Analyte	NMED RCB Required MDC	NMED RCB Volumetric Release Criterion ¹	Result	Uncertainty	Qualifier	MDC	Result	Uncertainty	Qualifier	MDC	Result	Uncertainty	Qualifier	MDC	Result	Uncertainty	Qualifier	MDC
Alpha Spectroscopy																			
ASTM C 1475-00 Modified	Np-237	0.05	0.6	-0.006	0.008	U	0.021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DOE EML	Am-241	0.05	1.25	0.008	0.013	U	0.023	0.003	0.012	U	0.021	NA	NA	NA	NA	NA	NA	NA	NA
HASL 300 Am-05-RC Mod	Cf-252	0.05	4.12	0.000	0.004	U	0.004	0.000	0.005	U	0.005	NA	NA	NA	NA	NA	NA	NA	NA
	Cm-243/244	0.05	2.5	-0.006	0.010	U	0.022	-0.007	0.009	U	0.023	NA	NA	NA	NA	NA	NA	NA	NA
DOE EML	Pu-238	0.05	1.52	0.001	0.014	U	0.029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HASL 300 Pu-	Pu-239/240	0.05	1.37	0.005	0.013	U	0.024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DOE EML HASL 300 U-02-RC Mod	U-233/234		7.8 ²	0.397	0.059		0.036	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	U-235/236	0.05	4.82	0.025	0.017		0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	U-238		8.4 ²	0.467	0.062		0.029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma Spectroscopy																			
DOE HASL	Am-241	0.05	1.25	NA	NA	NA	NA	NA	NA	NA	NA	-0.120	0.223	U	0.345	0.030	0.358	U	0.580
300, 4.5.2.3/Ga-	Cs-137	1	6.6	NA	NA	NA	NA	NA	NA	NA	NA	0.013	0.043	U	0.080	0.002	0.057	U	0.091
Gas Flow Proportional Counting																			
EPA 905.0 Modified/DOE RP501 Rev. 1 Modified	Sr-90	0.1	1.03	NA	NA	NA	NA	NA	NA	NA	NA	-0.038	0.033	U	0.078	NA	NA	NA	NA
Liquid Scintillation Counting																			
EPA 906.0 Modified	Tritium	1	64.8	NA	NA	NA	NA	NA	NA	NA	NA	-0.716	0.808	U	1.440	NA	NA	NA	NA
EPA EERF C-01 Modified	C-14	1	6.96	NA	NA	NA	NA	NA	NA	NA	NA	-0.086	0.304	U	0.528	NA	NA	NA	NA

Notes:

All values are reported in picoCuries per gram (pCi/g)

Table summarizes lab results following quality assurance (QA)/quality control (QC) evaluation of data- see QA/QC Evaluation (Appendix D)/Laboratory Reports (Appendix E) for additional details

NA = Not Analyzed

U = Analyte Not Identified >MDC

NMED RCB- New Mexico Environmental Department (NMED), Radiation Control Bureau (RCB)

MDC - Minimum Detectable Concentration

Bolded Values Represent Reported Concentrations > MDC¹ - NMED RCB Release Criterion and Required MDC Issued by NMED RCB in Letter to Thermo Eberline LLC dated December 6, 2019² - Release Criteria for U-234 and U-238 Adopted Based NUREG/CR-5512, Volume 3 DandD Screening Methodology scaled to a 15 mrem/yr TEDE

QC Code Normal = Sample, Duplicate = Duplicate of Sample



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Sample ID				10-W-W-13-C			
GEL Laboratory ID				1204667400			
Collection Date				09/21/20			
Substrate				Ceramic Tile			
Building Surface				Wall			
QC Code				Duplicate			
Analysis Method	Analyte	NMED RCB Required MDC	NMED RCB Volumetric Release Criterion ¹	Result	Uncertainty	Qualifier	MDC
Alpha Spectroscopy							
ASTM C 1475-00 Modified	Np-237	0.05	0.6	NA	NA	NA	NA
DOE EML	Am-241	0.05	1.25	NA	NA	NA	NA
HASL 300 Am-05-RC Mod	Cf-252	0.05	4.12	NA	NA	NA	NA
DOE EML	Cm-243/244	0.05	2.5	NA	NA	NA	NA
DOE EML	Pu-238	0.05	1.52	NA	NA	NA	NA
HASL 300 Pu-	Pu-239/240	0.05	1.37	NA	NA	NA	NA
DOE EML HASL 300 U-02-RC Mod	U-233/234		7.8 ²	NA	NA	NA	NA
	U-235/236	0.05	4.82	NA	NA	NA	NA
	U-238		8.4 ²	NA	NA	NA	NA
Gamma Spectroscopy							
DOE HASL	Am-241	0.05	1.25	NA	NA	NA	NA
300, 4.5.2.3/Ga-	Cs-137	1	6.6	NA	NA	NA	NA
Gas Flow Proportional Counting							
EPA 905.0 Modified/DOE RP501 Rev. 1 Modified	Sr-90	0.1	1.03	NA	NA	NA	NA
Liquid Scintillation Counting							
EPA 906.0 Modified	Tritium	1	64.8	NA	NA	NA	NA
EPA EERF C-01 Modified	C-14	1	6.96	-0.117	0.352	U	0.613

Notes:

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