Table 1 - Analytical Methods and Sample Requirements

MATRIX	CONTAINER	PRESERVATIVE	ANALYTE	VOLUME OR MASS REQUIRED	METHOD REFERENCE	MDA [a]
Soil	0.5 liter large-mouth Nalgene jar or plastic ziplock bag	None	Isotopic Uranium	< 10 g	EML U-02 Modified	<1.0 pCi/g [b, c]
			Isotopic Thorium	< 10 g	EML Th-01 Modified	<1.0 pCi/g [c]
			Gamma emitters including: Bi-214 & Pb-214 (Ra-226) Ac-228 (Ra-228), and K-40	400-500 grams	LANL ER-130 Modified	<1.0 pCi/g [c]
Water	1 Gallon Cubitainer	pH <2.0 HNO_3	Gross Alpha & Beta	Two gallons in 1-Gal Cubitainers	EPA 900.0 Modified or EPA 900.1 Modified [d]	<5 pCi/L
			Isotopic Thorium		EML Th-01 Modified	<1.0 pCi/L
			Radium-226		EPA 903.0 Modified	<1.0 pCi/L
			Radium-228		EPA 904.0 Modified	<2.0 pCi/L
Air	47mm Filter	None	Gross Alpha & Beta	Air volume sampled $\geq 1 \times 10^8$ mL	EPA 900.0 Modified	$<5\times10^{-14}$ µCi/mL [e, f]
			Isotopic Thorium		EML Th-01 Modified	$<5\times10^{-14}$ µCi/mL [e, f]

[a] MDA = method detection activity

[b] pCi = picoCuries

[c] Standard MDA. Lower MDA's available.

[d] Dependent on dissolved solids content.

[e] uCi = microCuries

[f] Dependent on volume of air sampled.

WLLFOIA4312 - 014 - 0148867