Appendix A - Analytical Results

Sample Name	Depth	Type	Aluminum (mg/kg)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Boron (mg/kg)	Cadmium (mg/kg)	Calcium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Diesel components (mg/kg)	Gasoline C4-C12 (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Magnesium (mg/kg)	Manganese (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Motor Oils (mg/kg)	Nickel (mg/kg)	Potassium (mg/kg)	Radium-226 (PCI/G)	Radium-228 (PCI/G)	Selenium (mg/kg)	Silver (mg/kg)	Sodium (mg/kg)	Thallium (mg/kg)	Thorium (mg/kg)	Uranium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
PA-DD11	0.5-1.0 ft	N	8100	0.094 J	10	77	0.38	2.7 J	0.51	3200	6.6	5.7	6100	11	5.1 UR	16000	69	5000	150	2.5	1.9	140	9	1300	2.7	0.7	11	0.17	180	0.22 J	7.1	2.3	22	43
PA-DD12	0.5-2.5 ft	N	5800		3.4	54	0.25	3.6 J	0.23	7900	4.4	3.2	57	4.4	0.92 U	9800	3.2	3000	140	95 J	0.33	23	4.3	1200	1.2	1.6	<0.17	4 UJ	220	0.017 J	5.3	1.2	14	16
	0.5-2.5 ft	FD	4700		3.2	40	0.21	2.6 J	0.2	6400	3.3	2.7	46	5.5	1 J	7900	2.9	2600	120	014	0.2 J	28	4	1100	1.4	1.6	<0.17	5 UJ	180	0.0095 J	5.4	1.2	12	14
	4.0-5.0 ft	N	3600		3.1	43	0.21	1.8 J	0.2	6200	3.4	2.7	45	6	0.82 U	6200	2.9	2400	130	014	0.15 J	26	3.9	870	1.4	1.2	<0.17	UJ	150	0.012 J	4.8	1.2	13	14
	9.0-10.0 ft	N	7000		4.1	51	0.28	3.3 J	0.27	4100	4.7	3.5	83	0.87 U	0.91 U	9900	4.1	3300	180	014	2.6	3 J	4.8	1300	1.5	1.7	0.2 J	J	220	0.032 J	7.1	1.2	17	17
	14.0-15.0 ft	N	5800	0.055 J	2.6	31	0.23	3.3 J	0.19	3400	2.8	2.4	29	3.1	2.5 J	8600	2.5	2400	110	8 J	0.14 J	23	3.2	1100	1.7	2.6	<0.17	6 UJ	310	0.0042 J	7.4	1.7	9.4	14
	19.0-20.0 ft	N	6700	0.032 J	2.7	50	0.28	3.6 J	0.23	4500	3.9	3.3	89	1 J	0.91 U	10000	3.3	3400	160	4 J	0.42	5.3 J	4.5	1100	1.6	3.1	<0.17	5 UJ	380	0.02 J	8.1	1.4	13	17
PA-DD4	0.5-1.0 ft	N	5300	0.091 J	5.5	60	0.27	<2.6 UJ	0.44	11000	5.3	5.5	3300	3100	5.2 UR	11000	18	3100	210	0.69	0.66	490 J	7.7	1300	2.2	0.6 J	3.6	0.12	170	0.15 J	6.5	1.7	18	85
PA-DD5	0.5-1.0 ft	N	5400	0.089 J	10	90	0.2	<1.7 UJ	0.41	6000	8.4	4.9	3200	12	5.1 UR	22000	65	3200	120	1.7	1.8	160	9.6	1300	18	0.9	7.7	0.41	250	0.51	8.4	2.5	18	40
PA-DD6	0.5-1.0 ft	N	5500	0.047 J	6.8	59	0.17	2.4 J	0.5	4300	4.7	5.5	1200	6.4	5.1 UR	12000	9.6	2600	190	0.3	0.4 J	110	8.4	1000	1	0.4	0.69 J	0.099	160	0.49 J	4.8	1.6	14	29
PA-EE14	0.5-2.5 ft	N	5300		2.7	39	0.23	<1.9 UJ	<0.25 UJ	6600	3.6	3.1	130	0.87 U	4 UJ	8600	2.7	2900	140	7 J	UJ	2 U	4.2	890	1	1.4	<0.17	6 UJ	190	0.043 J	4.8	1.2	14	14 J
	3.5-5.0 ft	N	4800		2.5	49	0.19	<2.4 UJ	<0.25 UJ	5700	2.8	2.6	48	0.86 U	4.3 UJ	7800	2.3	2500	140	61 J	<0.2 UJ	1.9 U	3.6	860	1.2	1	<0.17	5 UJ	160	0.028 J	5	1.2	11	11 J
	8.5-10.0 ft	N	6800		3.8	27	0.21	3.4 J	<0.29 UJ	4400	3.1	3	46	0.85 U	4.4 UJ	9700	3.1	3500	140	014	UJ	1.9 U	3.6	1200	1.1	1.2	<0.17	8 UJ	250	0.031 J	4.5	1	12	13 J
	13.5-15.0 ft	N	3900		2.3	24	0.17	<2.4 UJ	<0.17 UJ	2900	2.3	2.1	38	0.84 U	4.4 UJ	8300	1.7	1600	82	43 J	UJ	1.9 U	2.4	670	1	1.3	<0.16	UJ	140	0.0092 J	6.3	4.9	9.9	10 J
	18.5-20.0 ft	N	6000		3.2	53	0.3	4.4	0.34	7800	4.1	2.3	21	0.85 U	4 UJ	10000	3.2	2600	160	J	UJ	1.9 U	2.9	1000	1.6	1.4	<0.17	6 UJ	340	0.033 J	7.4	2	10	13 J
PA-EE16	1.0-2.0 ft	N	5200		3.7	50	0.25	2.3 J	0.58	5500	3.2	6.6	1600	0.88 U	4.3 U	8500	2.3	2700	420	9 J	0.81 J	2 U	9.4	1100	1.2	1	0.26 J	J	140	0.096 J	7.6	1.6	15	51
	4.5-5.5 ft	N	5700		4.2	38	0.21	3.5 J	0.46	6600	3.6	3.3	44	0.85 U	4.2 U	11000	2.7	2800	160	014	0.26	1.9 U	4.1	1200	1.1	1.3	0.2 J	J	220	0.055 J	4.9	1.4	15	13
	19.5-20.5 ft	N	12000		3.6	96	0.46	7.5	0.78	7400	7.6	6.4	110	0.89 U	4.4 U	17000	5	4700	520	9 J	0.41	2 U	8	2800	1.6	1.8	0.35 J	0.11	340	0.11 J	8.7	1.5	18	26
	24.5-25.5 ft	N	7200		6.8	93	0.47	7.8	0.8	19000	5.1	4.5	190	0.88 U	4.5 U	11000	3.4	2900	270	7 J	1.1	2 U	11	1400	1.6	1.6	0.54 J	J	520	0.058 J	10.1	2	14	29
	29.5-30.5 ft	N	6100		3.9	62	0.3	3.8 J	0.44	4900	3.3	4	610	0.86 U	3.9 U	12000	2.9	2500	180	73 J	0.27	1.9 U	4.6	1200	1.5	< 1	0.23 J	J	200	0.041 J	8.4	1.8	13	15
PA-EE17	1.0-2.0 ft	N	4300		9.9	59	0.16	2.1 J	0.49	3000	5.9	4.8 J	1900	94 J	4.2 U	14000	73	2300	99	0.9	0.91	1000 J	6.3	1100	5 J	2.8 J	3.7	0.23	120	0.52	11 J	4.8 J	15	33
	1.0-2.0 ft	FD	4900		8.7	53	0.2	1.9 J	0.42	3100	6.1	2.8 J	1500	23 J	3.6 U	12000	52	2400	85	0.6	1.3	320 J	5.1	1100	1.7 J	1.6 J	2.3	0.17	110	0.35	5.9 J	2.2 J	15	26
	4.5-5.5 ft	N	5200		3.9	47	0.22	3.1 J	0.39	4600	3.4	3.1	59	0.86 U	4.4 U	9500	2.4	2400	180	014	0.32	1.9 U	3.9	900	1.3	2.2	0.28 J	J	220	0.12 J	7	1.3	14	13
	19.5-20.5 ft	N	6200		3.3	55	0.23	4 J	0.42	5200	4.3	3.5	54	0.86 U	3.5 U	13000	3.1	3100	210	014	0.39	1.9 U	4.5	1100	1.5	1.9	0.25 J	J	260	0.092 J	7	1.4	14	15
	24.5-25.5 ft	N	7200		4.8	100	0.43	4.8	0.55	8900	4.1	3.2	100	0.89 U	5.1 U	11000	4.2	3100	260	2 J	0.45	2 U	4.6	1300	3	3.2	0.34 J	J	360	0.086 J	10.4	3.8	12	18
	29.5-30.5 ft	N	6700		4.3	110	0.36	3.6 J	0.53	3600	4.9	4.8	50	0.87 U	4 U	13000	4.2	2900	330	014	0.31	2 U	6.3	1200	1.8	2.3	0.32 J	J	260	0.088 J	9.5	1.8	17	18
PA-EE18	1.0-2.0 ft	N	4200		3.2	56	0.19	<1.7 UJ	0.52	7900	3.4	4.7	190	5.3	4 U	7300	7	2500	260	9 J	UJ	6.3 J	6.4	880	1.1	1.4	0.21 J	0.06 J	130	0.03 J	5.8	1.4	14	48
	4.5-5.5 ft	N	7700		4.4	39	0.36	2 J	0.4	3900	4	5.3	420	0.87 U	4.3 U	9200	2.8	2700	170	0.032	<0.2 UJ	2 U	4.8	1300	1.2	1.7	0.17 J	J	160	0.04 J	7	4.7	15	16
	19.5-20.5 ft	N	5100		3.9	53	0.25	3.2 J	0.38	3900	3	2.9	66	0.85 U	4 U	8900	2.8	2800	180	7 J	UJ	1.9 U	3.5	1000	1.4	1.9	0.27 J	J	220	0.032 J	8.2	1.9	13	12
	24.5-25.5 ft	N	7000		5	250	0.34	3.6 J	0.51	8300	3.7	3.5	61	0.87 U	4.7 U	16000	3.7	3100	250	2 J	0.48	2 U	3.9	2200	1.9	1.9	0.55 J	J	550	0.064 J	1	<0.5	14	19
	29.5-30.5 ft	N	7000		3.2	67	0.31	3.6 J	0.54	4000	4.2	4	71	0.86 U	4.1 U	11000	3.5	3100	220	65 J	UJ	1.9 U	4.6	1500	2.4	2.1	0.36 J	J	330	0.043 J	8.5	1.7	12	15
PA-EE6	0.0-0.5 ft	N	4300		63	71	0.22	<2.4 UJ	1.3	5800	17	8.4	44000	61	2.2 UJ	11000	170	2500	200	1.1	6	100	31	990	1.8	1.4	4.1	0.2 J	360	0.25 J	13.6	22	14	270
PA-EE8	0.5-1.5 ft	N	6400		5.6	39	0.28	<2 UJ	0.45	7300	5	2.6	2600	49	1.1 UJ	14000	33	3100	70	0.26	0.76	560	6	1300	1.5	1.4	1.2	J	240	0.092 J	7.6	3.8	15	52
PA-FF1	0.5-2.5 ft	N	3500	0.12 J	3.6	28	0.19	<1.4 UJ	0.12	6200	2.6	2.4	39 J	0.97 J	1.2 UJ	6700	2.2	2100	100 J	7 J	0.34 J	3.6 J	3.2	860	1.3	1.2	0.2 J	8 UJ	150 J	0.13 J	5.2	1.2	13	11
	0.5-2.5 ft	FD	4900	0.059 J	3.8	38	0.2	2 J	0.16	7800	3	2.8	41 J	1.4	1.5 UJ	8900	2.4	2900	120 J	4 J	0.28 J	5.5 J	3.6	960	1	1.4	<0.17	7 UJ	270 J	0.013 J	5.7	1.3	14	12
	4.0-5.0 ft	N	4800	0.029 J	5.5	31	0.26	2.6 J	0.2	3300	3.7	3.1	43	0.87 U	1 UJ	7700	3	2500	140	014	0.14 J	2 U	4.3	1500	< 1	1.1	<0.17	3 UJ	160	0.026 J	5.3	1.2	15	16
	9.0-10.0 ft	N	5500	0.024 J	3.8	33	0.23	3.8 J	0.22	9300	3.7	3	49	0.89 U	1.4 UJ	8800	2.9	2900	150	015	0.18 J	2 U	4.1	990	1.1	1.1	0.19 J	5 UJ	270	0.015 J	9.3	1.8	13	16
PA-FF3	0.5-2.5 ft	N	2300	0.3 J	20	350	J	<0.0054	0.55	760	21	10	430	12 J	1.5 UJ	38000	170	890	21	11 J	2.1	110	30	490 J	13.7 J	5.5 J	110	0.46	71	1.5	40.2	6.5	9.4	44
	0.5-2.5 ft	FD	1900		24	290	0.061	<0.0054	0.49	620	15	7.1	360	7.7 J	1.8 UJ	24000	190	810	21	23 J	2.4	72	20	920 J	6.5 J	3.3 J	81	0.36	87	2.2	25.4	4.2	8.8	43
	4.0-5.0 ft	N	5800		20	32	J	3.7 J	0.11	1900	2.1	0.96	390	0.92 UJ	1.5 UJ	19000	2.5	2200	29	0.019	0.69	2.1 U	1.4	2700	1.1	1.7	4.4	J	270	4.7	10.4	1.1	18	15
	8.5-10.0 ft	N	5000		9.3	47	0.11	3.6 J	0.21	1400	16	2.6	500	2.8 J	1.7 UJ	16000	3.4	2700	80	0.011	0.21 J	8.5 J	4.1	1300	1.3	1.4	2.1	0.05 J	170	0.11 J	7.1	1.3	26	45
PA-KK1	0.5-2.5 ft	N	230		0.31	61	86	1.7 J	0.094	300	0.28 J	0.09 J	5.5	0.88 U	1.9 UJ	700	9.4	60	4.2	0.52 J	0.21 J	2 U	<0.17	200	1.6	< 1	0.23 J	J	170	0.14 J	1.9	1	1.6	<2.8
	4.0-5.0 ft	N	330		0.38	62	83	1.2 J	0.13	380	0.45 J	0.14 J	3.6	0.85 U	1.3 UJ	1000	8.8	91	5.5	0.2	0.25 J	1.9 U	<0.16	240	1.2	< 1	0.2 J	J	150	<0.0021	1.7	1	2	<2.6
	9.0-10.0 ft	N	400		0.51	64	J	<0.68 UJ	0.24	360	3.2	0.23 J	14	0.85 U	1.7 UJ	1600	6.4	55	10	0.089	0.7	1.9 U	0.39	210	1.2	< 1	<0.16	J	160	<0.0021	2.1	<0.5	3.4	<2.6
	14.0-15.0 ft	N	470		0.57	67	83	<0.7 UJ	0.17	350	0.69	0.14 J	7.6	0.85 U	1 UJ	1400	6.2	66	4.5	0.047	0.51	1.9 U	<0.16	220	1.1	< 1	0.26 J	J	170	<0.0021	2.5	<0.5	2.1	<2.6
	19.0-20.0 ft	N	690		0.86	68	0.02 J	1.1 J	0.34	300	1.2	0.16 J	13	0.87 U	1 UJ	2300	5.6	80	6.8	0.038	0.63	2.3 J	<0.16	290	1.3	1.3	0.23 J	J	200	<0.0021	4.7	0.6	2.5	<2.7
PA-KK2	0.5-2.5 ft	N	280		0.42	34	83	5.7 J	0.14	350	UJ	UJ	9.3	0.85 U	0.87 U	980	5.2	64	2.8	0.31	0.34	2 J	<0.16	150	1.4	< 1	<0.16	J	180	0.028 J	2.2	1.3	1.3	<2.6
	0.5-2.5 ft	FD	320		0.46	43	J	<1.5 UJ	0.12	380	0.36 J	UJ	9.4	0.85 U	1.4 UJ	910	5.8	67	3.5	0.32	0.38	2.3 J	<0.16	180	1.2	< 1	0.25 J	0.05 J	150	0.028 J	2	1	1.6	4.2 J
	4.0-5.0 ft	N	300		0.63	48	3 J	<1.3 UJ	0.12	390	0.42 J	UJ	5.1	0.85 UJ	1 UJ	1400	6.2	60	4.2	0.34	0.39	1.9 UJ	<0.16	140	1	< 1	0.35 J	J	140	0.017 J	1.9	1.1	2	2.6 J
	9.0-10.0 ft	N	750		0.59	66	J	<1.3 UJ	0.17	590	1.2	0.3	11	0.85 U	1.7 UJ	2200	5.6	150	6.5	0.11	0.65	1.9 U	0.26	350	1.1	< 1	<0.17	J	290	0.031 J	1.8	0.8	3.3	3.5 J
	14.0-15.0 ft	N	400		0.63	56	0.02 J	<0.68 UJ	0.12	330	0.64	0.13 J	9.5	0.85 U	0.99 UJ	1800	4.2	75	2.9	0.031	0.72	1.9 U	<0.16	190	1.2	< 1	<0.17	J	160	0.048 J	2.3	0.5	1.8	<2.7
	19.0-20.0 ft	N	950		0.85	54	J	<0.89 UJ	0.18	5700	1.1	0.18 J	14	0.86 U	1.1 UJ	3000	3.6	130	4.4	2 J	0.74	1.9 U	0.27	320	1.4	< 1	0.17 J	J	230	0.017 J	2.5	0.6	2	2.9 J
PA-KK3	0.5-1.5 ft	N	2200		6.2	93	0.079	6.2	0.54	610	3.5	0.84	130	2.5	1.6 UJ	9000	13	470	18	0.54	2	11 J	1.1	570	2.1	1.4	1.1 J	0.18	300	0.052 J	7.2	1.9	4.1	7.3
	4.0-5.0 ft	N	2500		2.2	48	0.056	3.4 J	0.23	500	1.5	0.57	61	0.87 U	1 UJ	7000	8.2	590	10	0.043	1.3	2 J	0.67	700	1.4	< 1	0.51 J	J	200	0.035 J	3.8	1.3	2.9	4.9 J
	9.0-10.0 ft	N	1600		4.3	37	0.056	2.4 J	0.12	6300	2.6	0.59	25	0.85 U	1 UJ	7400	3.8	420	13	1 J	0.99	1.9 U	0.78	430	1.2	4.2	0.25 J	J	180	0.035 J	30.2	2.7	4.9	5.5
	14.0-15.0 ft	N	2800		16	48	0.092	4.5	0.19	8900	4.7	0.93	41	0.88 U	1.7 UJ	12000	9.5	1000	20	0.064	1.6	4.6 J	1.4	880	1.5	5.1	0.49 J	J	240	0.094 J	27	2.1	5.7	6.7
	19.0-20.0 ft	N	2000		2.3	38	J	3.8 J	0.17	6900	1.5	0.63	31	0.87 U	1.7 UJ	5200	5	420	14	0.018	1.5	1.9 U	0.79	540	1.8	1.5	0.33 J	J	150	0.037 J	4.6	1	5.1	7
PA-O1	0.5-2.5 ft	N	4500		3.7	39	0.22	<2.1 UJ	<0.23 UJ	6900	3.7	3.2	87 J	2 J	5.7 U	8200	2.8	2600	130 J	0.013	0.35 J	10	4	740			<0.17	J	160	0.16 J			15	12
	3.5-5.0 ft	N	5500		2.8	29	0.22	3.3 J	0.25	3900	2.6	2.7	44	1 J	4 U	10000	2.5	2900	110	4 J	UJ	4.8 J	3.3	1000			0.21 J	6 UJ	190	0.038 J			11	11
	8.5-10.0 ft	N	4300		2.8	30	0.22	4.2	0.31	5000	3.1	2.7	35	0.85 UJ	4.1 U	8400	2.7	2200	130	2 J	UJ	3.4 J	3.3	1000			<0.17	4 UJ	260	0.034 J			11	13
PA-O2	0.5-2.5 ft	N	5100	13 J	3.4	50	0.22	<2.5 UJ	0.29	5700	3.3	3	70	0.85 UJ	4.1 U	8900	J	3000	150	J	UJ	1.9 J	3.6	850			0.48 J	0.12	210	0.045 J			13	13
	0.5-2.5 ft	FD	5700	1.9 J	3.1	49	0.16	<2.3 UJ	0.23	6900	2.9	2.8	68	14 J	3.9 U	8800	640 J	2800	160	0.69 J	UJ	11 J	3.2	1100			7.7 J	J	210	0.04 J			12	13
	3.5-5.0 ft	N	6800		3.3	44	0.28	3.1 J	0.32	4300	3.6	3.2	47	0.86 UJ	5.5	10000	4.7	3300	150	0.73	UJ	1.9 U	4.1	1200			<0.17	J	170	0.05 J			13	14
	8.5-10.0 ft	N	6200		3.9	53	0.28	2.4 J	0.4	5800	5.1	3.5	42	0.89 UJ	5.3	11000	22	2500	170	6 J	0.22 J	2 U	4.9	1200			0.29 J	J	140	0.089 J			16	18
PA-O3	0.5-2.5 ft	N	4000		2.5	23	0.16	2.3 J	<0.21 UJ	5700	2.4	2.4	40	0.86 UJ	8.5	7900	3.8	2300	97	0.066	0.37	1.9 U	3.1	910			<0.17	J	120	0.023 J			11	9.6
	3.5-5.0 ft	N	4700		3.2	34	0.24	3.4 J	0.27	5100	3.3	3.1	43	0.87 UJ	4.1 U	7900	2.7	2400	130	014	0.25 J	2 U	3.8	970			0.22 J	J	170	0.036 J			13	13
	8.5-10.0 ft	N	3500		2.3	31	0.14	2.3 J	<0.22 UJ	3800	2.5	2	29	0.85 UJ	4.1 U	9600	2.1	1900	89	014	0.23 J	1.9 U	2.5	770			<0.16	J	150	0.02 J			8.9	9.6
PA-UT14	7.0-8.0 ft	N	4400		4	48	UJ	<2.1 UJ	<0.28 UJ	5600	4	3.8	220	1.6	4 U	8000	4.8	2400	160	0.038	UJ	9.5 J	4.6	940	0.6	0.4	<0.33	12	180	<0.098 UJ	5.6	1.2	15	20
PA-UT53	2.0-2.5 ft	N	5000		8.6	56	0.23	2.9 J	0.45	7000	5.8	4	8600	25	3.4 U	9900	69	2900	200	0.49	0.98	230	8.2	1100	1.4	1.5	1.7 J	J	210	0.18 J	6.8	2.7	18	43

N - Normal sample.
FD - Field duplicate.
U - Not detected at the indicated detection limit
J - The value is estimated for data quality reasons
UJ - Not detected at an estimated detection limit
R - Data did not meet data quality objectives and was rejected