Appendix E

Analytical Results and Data Quality for Samples Collected Under the WAG 5 Comprehensive RI/FS Work Plan

SAMPLE NUMBER:	50100101	50100201	50100301	50100401	50100501	50100601	50100701	50100801	50100901	50101001
SAMPLE LOCATION:	10	10	53	53	108	108	119	119	178	178
PLANNED DEPTH (ft):	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2
ACTUAL DEPTH (ft):					0-0.5	0.5-2	0-0.5	0.5-2		
ANALYSIS-										
GAMMA SPEC. (pCi/g)										
Cs-137	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ra-226	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
ALPHA SPEC. (pCi/g)										
Pu-238	2.60E-03	**1.47E-02**	-2.67E-03	7.51E-03	4.34E-03	-7.26E-03	5.61E-03	**1.35E-02**	1.38E-02	9.53E-04
Pu-239/240	9.54E-03	**2.31E-02**	**2.41E-02**	7.51E-03	4.34E-03	**5.45E-03**	1.87E-03	**8.69E-03**	**5.33E-01**	**1.18E-01**
U-234	**5.37E-01**	**7.40E-01**	**6.80E-01**	**6.68E-01**	**5.68E-01**	**7.60E-01**	**5.84E-01**	**7.93E-01**	**9.70E-01**	**7.94E-01**
U-235	**3.06E-02**	**4.83E-02**	**4.43E-01**	**2.50E-02**	**3.25E-02**	**3.10E-02**	**2.76E-02**	**3.65E-02**	**4.56E-02**	**3.54E-02**
U-238	**5.38E-01**	**7.01E-01**	**6.82E-01**	**6.72E-01**	**5.54E-01**	**7.42E-01**	**6.09E-01**	**7.17E-01**	**8.31E-01**	**7.48E-01**
Am-241	**2.69E-02**	2.67E-02	2.22E-03	**1.80E-02**	**5.76E-02**	9.44E-03	**5.64E-02**	2.12E-02	**5.12E-02**	**3.68E-02**
Strontium-90 (pCi/g)	**6.28E-01**	**3.93E-01**	**4.10E-01**	-7.39E-02	**1.74E-01**	7.99E-02	7.72E-02	3.91E-02	**2.47E-01**	-2.54E-02

SAMPLE NUMBER:	50101002	50101101	50101201	50101301	50101501	50101701	50101901	50102101	50102301	50102401
SAMPLE LOCATION:	178	376	376	383	431	509	589	612	655	655
PLANNED DEPTH (ft):	0.5-2	0-0.5	0.5-2	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0.5-2
ACTUAL DEPTH (ft):		0-0.5	0.5-1	0-0.5		0-0.5	0-0.5	0-0.5	0-0.5	0.5-2
ANALYSIS-										
GAMMA SPEC. (pCi/g)										
Cs-137	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ra-226	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
ALPHA SPEC. (pCi/g)										
Pu-238	9.10E-03	0.00E+00	1.72E-03	-1.65E-03	0.00E+00	4.60E-03	4.17E-03	6.73E-03	1.01E-03	1.24E-03
Pu-239/240	**1.38E-01**	**1.05E-02**	**6.87E-03**	0.00E+00	8.88E-04	2.76E-03	1.67E-03	-1.12E-03	**2.64E-02**	1.24E-03
U-234	**7.80E-01**	**8.51E-01**	**9.14E-01**	**1.09E+00**	**9.86E-01**	**8.03E-01**	**6.78E-01**	**6.36E-01**	**7.02E-01**	**6.06E-01**
U-235	**2.63E-02**	**3.87E-02**	**4.62E-02**	**1.16E-01**	**4.60E-02**	**2.61E-02**	**3.21E-02**	**3.01E-02**	**3.98E-02**	**2.69E-02**
U-238	**6.52E-01**	**8.00E-01**	**7.92E-01**	**9.77E-01**	**8.79E-01**	**7.63E-01**	**6.61E-01**	**6.48E-01**	**7.11E-01**	**6.87E-01**
Am-241	1.38E-02	**6.09E-02**	**3.48E-02**	8.62E-03	1.22E-02	1.01E-02	1.16E-02	**9.63E-02**	1.49E-02	2.73E-02
Strontium-90 (pCi/g)	1.20E-01	1.06E-02	1.17E-02	-3.08E-02	1.04E-01	-6.40E-03	1.44E-01	1.66E-01	**2.26E-01**	**2.11E-01**

SAMPLE NUMBER:	50102501	50102601	50102701	50102702	50102801	50102901	50103001	50103101	50103301	50103501
SAMPLE LOCATION:	789	789	862	862	862	904	904	1016	1055	1067
PLANNED DEPTH (ft):	0-0.5	0.5-2	0-0.5	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0-0.5	0-0.5
ACTUAL DEPTH (ft):	0-0.5	0.5-1	0-0.5	0-0.5	0.5-1	0-0.5	0.5-14"	0-0.5	0-0.5	0-0.5
ANALYSIS-										
GAMMA SPEC. (pCi/g)										
Cs-137	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ra-226	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
ALPHA SPEC. (pCi/g)										
Pu-238	2.66E-03	-2.35E-03	0.00E+00	2.96E-03	9.26E-04	3.57E-03	-1.75E-03	-8.54E-04	5.30E-03	-3.55E-03
Pu-239/240	**5.23E-02**	**3.02E-02**	**1.33E-02**	**1.87E-02**	3.71E-03	7.13E-03	**4.38E-03**	**1.88E-02**	5.30E-03	3.55E-03
U-234	**9.41E-01**	**9.38E-01**	**7.16E-01**	**6.95E-01**	**6.11E-01**	**4.95E-01**	**6.04E-01**	**5.28E-01**	**6.45E-01**	**5.95E-01**
U-235	**2.88E-02**	**3.28E-02**	**2.21E-02**	**2.69E-02**	**2.85E-02**	**2.42E-02**	**2.99E-02**	**2.09E-02**	**4.73E-02**	**3.32E-02**
U-238	**7.33E-01**	**7.74E-01**	**5.99E-01**	**6.22E-01**	**6.08E-01**	**5.00E-01**	**5.42E-01**	**6.03E-01**	**6.35E-01**	**6.19E-01**
Am-241	**1.13E-01**	**3.71E-02**	**2.37E-02**	1.91E-03	**5.80E-02**	**4.43E-02**	2.68E-02	**5.06E-02**	**3.66E-02**	4.32E-03
Strontium-90 (pCi/g)	9.88E-02	5.95E-02	3.77E-02	1.19E-02	-9.12E-02	7.82E-02	-6.30E-03	8.47E-02	1.38E-01	5.54E-02

SAMPLE NUMBER:	50103601	50103701	50103801	50103901	50104301
SAMPLE LOCATION:	1067	1218	1218	BH #1	BH #2
PLANNED DEPTH (ft):	0.5-2	0-0.5	0.5-2	0-0.5	0-0.5
ACTUAL DEPTH (ft):	0.5-2	0-0.5	0-1.5	0-0.5	0-0.5
ANALYSIS-					
GAMMA SPEC. (pCi/g)					
Cs-137	NR	NR	NR	**1.53E+00**	**2.00E-01**
Ra-226	NR	NR	NR	**3.08E+00**	**1.43E+00**
ALPHA SPEC. (pCi/g)					
Pu-238	-8.65E-04	8.91E-04	2.74E-03	-2.33E-03	-8.97E-04
Pu-239/240	3.46E-03	**6.24E-03**	5.49E-03	5.81E-03	**1.79E-02**
U-234	**5.74E-01**	**4.84E-01**	**4.58E-01**	**6.86E-01**	**7.08E-01**
U-235	**1.84E-02**	**2.07E-02**	**2.28E-02**	**2.92E-02**	**3.06E-02**
U-238	**5.80E-01**	**4.99E-01**	**4.88E-01**	**6.79E-01**	**6.70E-01**
Am-241	1.70E-02	5.63E-03	1.28E-02	**4.94E-02**	2.28E-02
Strontium-90 (pCi/g)	-9.02E-02	1.14E-01	-7.68E-02	1.78E-01	**1.91E-01**

ARA-02 SOILS

SAMPLE NUMBER:	50200101	50200201	50200202	50200401	50200501	50200901	50201001	50201201
SAMPLE LOCATION:	S. Pit	S. Pit	S. Pit	Tank #1	Tank #1	Tank #2	Tank #2	Tank #3
PLANNED DEPTH (ft):	3.5-4	10-11.5	10-11.5	3.5-4	10-11.5	3.5-4	10-11.5	3.5-4
ACTUAL DEPTH (ft):	2.5-5	7.5-10	7.5-10	2.5-5	5-7.5	2.5-5	7.5-10	2.5-5
ANALYSIS-								
ANIONS (mg/kg)								
Chloride	**4.32**	**2.78**	< 2.18	**1100**	**1630**	**862**	**15.2**	**1070**
Fluoride	**9.73**	**10.0**	**2.31**	**5.72**	**5.56**	**6.08**	**3.75**	**4.98**
Nitrate	**7.07**	**13.7**	**15.0**	**20.3**	**25.8**	**13.4**	**4.42**	**19.8**
Sulfate	**912**	**182**	**167**	**1180**	**245**	**434**	< 20.4	**428**
CYANIDE (ug/g)								
TOTAL	< 0.561	< 0.553	< 0.528	NR	NR	NR	NR	NR
AMENABLE	< 0.561	< 0.542	< 0.539	NR	NR	NR	NR	NR
DIOXINS/FURANS (ng/g)	ND	ND	ND	NR	NR	NR	NR	NR
METALS (mg/kg)								
Aluminum	**12600**	**7610**	**8200**	**10700**	**10000**	**9660**	**4300**	**9290**
Arsenic	**3.3**	**1.6**	**2.6**	**3.8**	**3.9**	**4.2**	**2.8**	**3.6**
Barium	**190**	**136**	**109**	**188**	**157**	**166**	**82.8**	**165**
Beryllium	**0.64**	**0.66**	**0.71**	**0.60**	**0.48**	**0.57**	**0.48**	**0.49**
Calcium	**55000**	**2080**	**2280**	**46000**	**40200**	**46400**	**17200**	**44600**
Chromium	**18.3**	**19.8**	**21.1**	**21.4**	**22.0**	**15.2**	**12.2**	**14.8**
Cobalt	**7.2**	**6.2**	**8.1**	**6.5**	**11.5**	**5.4**	**3.2**	**5.6**
Copper	**16.0**	**20.5**	**20.8**	**14.2**	**15.8**	**13.9**	**12.1**	**13.9**
Iron	**14800**	**11900**	**13100**	**13300**	**19200**	**12200**	**8450**	**12100**
Lead	**12.3**	**12.1**	**13.2**	**8.6**	**10.9**	**9.5**	**6.9**	**9.7**
Magnesium	**8580**	**4340**	**4670**	**9500**	**14000**	**8350**	**3910**	**8470**
Nickel	**19.7**	**20.9**	**23.8**	**19.2**	**22.9**	**17.6**	**16.0**	**17.4**
Potassium	**2220**	**1130**	**1260**	**1900**	**1490**	**1810**	**692**	**1790**
Silver	0.53	**1.4**	**1.0**	0.57	0.52	0.53	0.46	0.46
Sodium	**564**	**350**	**357**	**1980**	**1590**	**1560**	**407**	**1550**
Vanadium	**26.6**	**26.0**	**25.9**	**25.1**	**27.9**	**22.8**	**21.5**	**21.7**
Zinc	**58.7**	**59.6**	**60.2**	**53.7**	**52.9**	**50.3**	**47.1**	**51.8**
OC-PESTICIDES	ND	ND	ND	NR	NR	NR	NR	NR
OP-PESTICIDES	ND	ND	ND	NR	NR	NR	NR	NR
OC-HERBICIDES	ND	ND	ND	NR	NR	NR	NR	NR

SAMPLE NUMBER:	50200101	50200201	50200202	50200401	50200501	50200901	50201001	50201201
SAMPLE LOCATION:	S. Pit	S. Pit	S. Pit	Tank #1	Tank #1	Tank #2	Tank #2	Tank #3
PLANNED DEPTH (ft):	3.5-4	10-11.5	10-11.5	3.5-4	10-11.5	3.5-4	10-11.5	3.5-4
ACTUAL DEPTH (ft):	2.5-5	7.5-10	7.5-10	2.5-5	5-7.5	2.5-5	7.5-10	2.5-5
ANALYSIS-								
PCBs	ND	ND	ND	NR	NR	NR	NR	NR
GAMMA SPEC. (pCi/g)								
Cs-137	**2.27E-01**	**1.02E+00**	**4.00E+00**	**4.38E-01**	4.71E-02	**2.27E-01**	2.88E-02	**2.31E-01**
Ra-226	1.17E+00	**1.68E+00**	**2.22E+00**	**1.73E+00**	**1.58E+00**	**2.28E+00**	**2.38E+00**	**1.68E+00**
ALPHA SPEC. (pCi/g)								
U-234	**8.14E-01**	**1.30E+00**	**1.20E+00**	**7.00E-01**	**8.05E-01**	**6.32E-01**	**8.36E-01**	**6.81E-01**
U-235	**5.84E-02**	**7.68E-02**	**9.97E-02**	**3.32E-02**	**3.86E-02**	**4.55E-02**	**5.06E-02**	**4.97E-02**
U-238	**6.87E-01**	**8.43E-01**	**8.87E-01**	**7.92E-01**	**7.29E-01**	**6.21E-01**	**8.02E-01**	**6.28E-01**
Am-241	**1.59E-02**	7.16E-03	1.09E-02	1.02E-02	0.00E+00	3.67E-03	**1.11E-02**	8.52E-03
Strontium-90 (pCi/g)	-8.57E-02	5.65E-02	1.27E-01	-1.35E-01	9.13E-03	3.71E-02	-5.59E-02	-1.17E-01
SVOCs (ug/kg)	ND	ND		ND	ND	ND	ND	
bis (2-Ethylhexyl) phthalate	180	195	**78**	195	190	195	170	**99**
TCLP Metals (ug/L)				NR	NR	NR	NR	NR
Arsenic	< 100	< 100	< 100					
Barium	607	1140	937					
Cadmium	< 5.0	< 5.0	5.3					
Chromium	< 10.0	< 10.0	< 10.0					
Lead	< 50.0	< 50.0	< 50.0					
Mercury	< 0.20	< 0.20	< 0.20					
Selenium	< 50.0	< 50.0	< 50.0					
Silver	< 5.0	< 5.0	< 5.0					
TCLP VOCs (ug/L)	ND	ND	ND	ND	ND	ND	ND	ND
VOCs-8260 (ug/kg)								
Toluene	**9**	3	**2**	**5**	**5**	**4**	2.5	**2**
Xylene	3	3	3	**3**	**3**	**2**	2.5	3
Trichlorofluoromethane	3	3	3	**1**	3	3	2.5	3
Dichlorodifluoromethane	5.5	5.5	5.5	**8**	**5**	**2**	5	5.5
1,1,2-Trichlorotrifluoroethane	5.5	5.5	5.5	**4**	**3**	6	5	5.5
VOCs-8015B (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND

ARA-02 SOILS

SAMPLE NUMBER:	50200101	50200201	50200202	50200401	50200501	50200901	50201001	50201201
SAMPLE LOCATION:	S. Pit	S. Pit	S. Pit	Tank #1	Tank #1	Tank #2	Tank #2	Tank #3
PLANNED DEPTH (ft):	3.5-4	10-11.5	10-11.5	3.5-4	10-11.5	3.5-4	10-11.5	3.5-4
ACTUAL DEPTH (ft):	2.5-5	7.5-10	7.5-10	2.5-5	5-7.5	2.5-5	7.5-10	2.5-5
ANALYSIS-								
PAHs	ND	ND	ND	ND	ND	ND	ND	ND

SAMPLE NUMBER:	51000101
SAMPLE LOCATION:	BH
PLANNED DEPTH (ft):	10-12
ACTUAL DEPTH (ft):	6-7
ANALYSIS-	
GAMMA SPEC. (pCi/g)	
Ra-226	**2.15E+00**

SAMPLE NUMBER:	51600101	51600102	51600201*	51600202	51600301	51600401	51603701	51603702	51603801	51603802
SAMPLE LOCATION:	LIQUID	LIQUID	SLUDGE	SLUDGE	LIQUID	SLUDGE	LIQUID	LIQUID	SLUDGE	SLUDGE
PLANNED DEPTH (ft):	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACTUAL DEPTH (ft):	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANALYSIS-										
SVOCs	ug/L	ug/L	ug/kg	ug/kg		ug/kg				
Phenol			1,200	520	NR		NR	NR	NR	NR
2-Methylphenol				500	NR		NR	NR	NR	NR
N-Nitroso-di-n-propylamine				850	NR		NR	NR	NR	NR
Benzoic Acid	1				NR		NR	NR	NR	NR
Naphthalene			1,800	2,400	NR	1,800	NR	NR	NR	NR
4-Chloro-3-methylphenol			710	450	NR		NR	NR	NR	NR
2-Methylnaphthalene			2,200	3,100	NR	2,200	NR	NR	NR	NR
Phenanthrene			1,800	2,600	NR		NR	NR	NR	NR
Di-n-butylphthalate			300,000	180,000	NR	190,000	NR	NR	NR	NR
bis (2-Ethylhexyl) phthalate	25	25	1,500,000	1,400,000	NR	1,800,000	NR	NR	NR	NR
Di-n-octylphthalate					NR	30,000	NR	NR	NR	NR
Benzo[b]fluoranthene			480		NR		NR	NR	NR	NR
Dibenz[a,h]anthracene			600		NR		NR	NR	NR	NR
PCBs	ug/L	ug/L	ug/kg	ug/kg		ug/kg				
Aroclor-1260	ND	ND	81,000	52,000	NR	98,000	NR	NR	NR	NR
Anions	mg/L	mg/L				mg/kg				
Fluoride	0.826	1.91	NR	NR	NR	34.3	NR	NR	NR	NR
Chloride	200	236	NR	NR	NR	1,660	NR	NR	NR	NR
Bromide	0.348	0.385	NR	NR	NR		NR	NR	NR	NR
Nitrate			NR	NR	NR	11.7	NR	NR	NR	NR
Phosphate	112	110	NR	NR	NR	1,050	NR	NR	NR	NR
Sulfate	105	93.9	NR	NR	NR	581	NR	NR	NR	NR
Cyanide	mg/L	mg/L				mg/kg				
Total	0.011	0.012	NR	NR	NR	15.8	NR	NR	NR	NR
Amenable			NR	NR	NR		NR	NR	NR	NR
Metals	ug/L	ug/L	mg/kg	mg/kg	ug/L	mg/kg				
			dry / wet	dry/wet		dry/wet				
Aluminum	340.1	316	17100 / 3570	11300 / 2360	275	11500 / 2400	NR	NR	NR	NR
Antimony			11.8 / 2.48	12.1 / 2.52			NR	NR	NR	NR
Arsenic	13.4	14.1	2650 / 0.760	1850 / 0.716	13.5	1180 / 0.766	NR	NR	NR	NR
Barium	1.6	4.6	329 / 68.8	215 / 44.9		217 / 45.3	NR	NR	NR	NR
Beryllium	0.3		9.58 / 2.00	6.28 / 1.31	0.3	5.58 / 1.17	NR	NR	NR	NR
Cadmium			28.5 / 5.97	16.7 / 3.50		22.1 / 4.61	NR	NR	NR	NR
Calcium	9760	9750	11500 / 2390	7800 / 1630	9100	8140 / 1700	NR	NR	NR	NR
Chromium	22.6	17.3	1370 / 287	1030 / 216	5.9	878 / 184	NR	NR	NR	NR
Cobalt			17.9 / 3.74	10.4 / 2.18		6.66 / 1.39	NR	NR	NR	NR
Copper	171	179.8	660 / 138	400 / 83.7	169	393 / 82.1	NR	NR	NR	NR
Iron	193	170.1	47000 / 9820	28800 / 6020	152	22500 / 4700	NR	NR	NR	NR

SAMPLE NUMBER:	51600101	51600102	51600201*	51600202	51600301	51600401	51603701	51603702	51603801	51603802
SAMPLE LOCATION:	LIQUID	LIQUID	SLUDGE	SLUDGE	LIQUID	SLUDGE	LIQUID	LIQUID	SLUDGE	SLUDGE
PLANNED DEPTH (ft):	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACTUAL DEPTH (ft):	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANALYSIS-										
Lead	15.8	14.9	3970 / 830	2980 / 623	36.2	2600 / 543	NR	NR	NR	NR
Magnesium	26800	27300	5560 / 1160	4010 / 837	25700	3650 / 762	NR	NR	NR	NR
Manganese	7.4	7.4	216 / 45.1	140 / 29.3	7.4	103 / 21.4	NR	NR	NR	NR
Mercury	0.51	0.42	3.35 / 0.700	2.08 / 0.435	0.6	2.07 / 0.434	NR	NR	NR	NR
Nickel	140	147	407 / 85.0	315 / 65.9	139	190 / 39.8	NR	NR	NR	NR
Potassium	14300	14800	2280 / 477	1680 / 350	13800	1450 / 304	NR	NR	NR	NR
Selenium			5270 / 1.10			4.400 / 0.919	NR	NR	NR	NR
Silver	31.1	27.2	624 / 130	720 / 151	18.3	527 / 110	NR	NR	NR	NR
Sodium	244500	253000	4390 / 917	3240 / 678	243000	3000 / 628	NR	NR	NR	NR
Thallium			308 / 0.064			279 / 0.058	NR	NR	NR	NR
Vanadium	11.2	9.9	159 / 33.3	119 / 24.8	10.5	84.4 / 17.6	NR	NR	NR	NR
Zinc	56.9	46.9	890 / 186	586 / 123	48.7	670 / 140	NR	NR	NR	NR
Sulfur	NA	NA	3960 / 827	2040 / 427	NA	3360 / 701	NR	NR	NR	NR
Gamma Spec.	pCi/L	pCi/L	pCi/g	pCi/g	pCi/L	pCi/g				
Ag-108m			6.80E+03			2.48E+03	NR	NR	NR	NR
Co-60	1.87E+04	1.68E+04	1.84E+05	1.05E+05	1.67E+04	3.20E+05	NR	NR	NR	NR
Cs-134	2.04E+05	1.99E+05	3.06E+04	3.83E+04	2.13E+05	2.47E+04	NR	NR	NR	NR
Cs-137	5.85E+07	5.83E+07	1.13E+07	1.33E+07	6.09E+07	9.19E+06	NR	NR	NR	NR
Eu-152			2.49E+04	2.34E+04		1.61E+04	NR	NR	NR	NR
Eu-154			4.23E+03	9.08E+03		4.16E+03	NR	NR	NR	NR
Zn-65			4.91E+03	5.02E+03		6.56E+03	NR	NR	NR	NR
Alpha Isotopes	pCi/L	pCi/L	pCi/g	pCi/g	pCi/L	pCi/g	NR	NR	NR	NR
Pu-238	8.74E+02	1.29E+03	2.41E+04	1.48E+04	9.00E+02	2.87E+04	NR	NR	NR	NR
Pu-239/240	1.23E+03	2.15E+03	2.52E+04	1.59E+04	1.27E+03	2.80E+04	NR	NR	NR	NR
U-234	6.98E+02	7.95E+02	3.89E+04	3.14E+04	7.98E+02	3.60E+04	NR	NR	NR	NR
U-235	0.00E+00	4.68E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NR	NR	NR	NR
U-238	1.49E+01	1.59E+01	4.64E+02	0.00E+00	1.61E+01	0.00E+00	NR	NR	NR	NR
Am-241	1.45E+03	1.93E+03	3.64E+04	2.59E+04	1.90E+03	3.58E+04	NR	NR	NR	NR
Strontium-90	1.71E+05	1.62E+05	6.38E+05	4.55E+05	1.72E+05	5.85E+05	NR	NR	NR	NR
Tritium	2.90E+05	3.01E+05	NR	NR	2.91E+05	NR	NR	NR	NR	NR
TCLP Metals						ug/L				
Cadmium	NR	NR	NR	NR	NR	20.7	NR	NR	NR	NR
TCLP VOCs						ug/L				
1,1-Dichloroethene	NR	NR	NR	NR	NR	550	NR	NR	NR	NR
Trichloroethene	NR	NR	NR	NR	NR	40,000	NR	NR	NR	NR
VOCs	ug/L	ug/L	ug/kg	ug/kg	ug/L					
1,1-Dichloroethene	190		46,000			NR	NR	NR	NR	NR
trans-1,2-Dichloroethene	7					NR	NR	NR	NR	NR
1,1-Dichloroethane	360		8,300			NR	NR	NR	NR	NR

ARA-16 TANK

SAMPLE NUMBER:	51600101	51600102	51600201*	51600202	51600301	51600401	51603701	51603702	51603801	51603802
SAMPLE LOCATION:	LIQUID	LIQUID	SLUDGE	SLUDGE	LIQUID	SLUDGE	LIQUID	LIQUID	SLUDGE	SLUDGE
PLANNED DEPTH (ft):	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACTUAL DEPTH (ft):	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANALYSIS										
cis-1,2-Dichloroethene	53		1,300			NR	NR	NR	NR	NR
1,1,1-Trichloroethane	60000	62000	22,000,000	19,000,000	63000	NR	NR	NR	NR	NR
Trichloroethene	13000	13000	4,500,000	3,600,000	13000	NR	NR	NR	NR	NR
Toluene	28		210,000	160,000		NR	NR	NR	NR	NR
1,1,2-Trichloroethane	110		2,800			NR	NR	NR	NR	NR
Tetrachloroethene	5		7,800			NR	NR	NR	NR	NR
Ethylbenzene			4,600			NR	NR	NR	NR	NR
m and p-Xylenes			19,000			NR	NR	NR	NR	NR
o-Xylene			6,100			NR	NR	NR	NR	NR
1,1,2,2-Tetrachloroethane	43		3,900			NR	NR	NR	NR	NR
pH	NR	NR	NR	NR	NR	NR	7.70	7.59	7.11	7.01
Reactive Cyanide (mg/L or mg/kg)	NR	NR	NR	NR	NR	NR	0.009	0.011	0.990	0.8
Reactive Sulfide (mg/L or mg/kg)	NR	NR	NR	NR	NR	NR	1	1	25	25
Total Sulfate (mg/L or mg/kg)	NR	NR	NR	NR	NR	NR	149	147		
TSS (mg/L)	NR	NR	NR	NR	NR	NR	7.0	7.0	NR	NR
Density (g/mL)	NR	NR	NR	NR	NR	NR	0.998	0.990	NR	NR
Flash Point (deg F)	NR	NR	NR	NR	NR	NR	NR	NR	>150	>150
Moisture Content (%)	NR	NR	NR	NR	NR	NR	NR	NR	86.2	81.0
Bulk Density (g/mL)	NR	NR	NR	NR	NR	NR	NR	NR	1.21	1.160
Hardness (mg/L)	NR	NR	NR	NR	NR	NR	110	120	NR	NR
Oil and Grease (mg/L or mg/kg)	NR	NR	NR	NR	NR	NR	14.1	13.7		
TOX (ug/L)	NR	NR	NR	NR	NR	NR	13,900	15,800	3,229	3,344
TOC (mg/L or mg/kg)	NR	NR	NR	NR	NR	NR	49.5	47.9	43,150	45,500

For radionuclide, metals and VOC data, the result listed is the highest of at least two analyses.

SAMPLE NUMBER:	51600501	51600601	51600701	51600801	51600901	51601001	51601101	51601102	51601201	51601301	51601401	51601501	51601601	51601701	51601801	51601901
SAMPLE LOCATION:	V-BH1	V-BH1	V-BH2	V-BH2	V-BH3	V-BH3	V-BH4	V-BH4	V-BH4	E-BH1	E-BH1	E-BH2	E-BH2	E-BH3	E-BH3	E-BH4
PLANNED DEPTH (ft):	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface
ACTUAL DEPTH (ft):	0-0.5	~5'	0-0.5	~5'	0-0.5	8'8"	0-0.5	0-0.5	8'8"			0.5-2.5	9.5-10	0.5-2.5		0-0.5
ANALYSIS-																
SVOCs (ug/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND		
Di-n-Butylphthalate	185	180	190	185	175	175	185	185	175			190	200	185		
PCBs (ug/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND		
ANIONS (mg/kg)																
Fluoride	**4.77**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chloride	**1.28**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Bromide	1.00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Sulfate	**5.95**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Nitrite	0.20	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Nitrate	**11.0**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Phosphorous	**1.486**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CYANIDE (mg/kg)																
Total	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Amenable	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
GAMMA SPEC. (pCi/g)																
Ag-108m	4.23E-02	4.23E-02	4.23E-02	4.23E-02	**1.49E-01**	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.37E-02	4.37E-02	4.37E-02	4.23E-02	4.23E-02
Ag-110m	-5.83E+00	-5.10E-01	-8.41E-01	-2.44E-02	-2.92E-01	-9.12E-02	-1.63E+00	-4.94E+00	-4.84E-01			-8.85E-01	-1.01E-01	-1.01E-01		
Am-241	3.04E-01	3.74E-02	1.99E-01	8.12E-02	1.25E+00	1.02E-01	8.57E-01	2.58E-01	2.56E-02			2.73E-01	9.44E-02	9.44E-02		
Ce-144	-3.78E-01	9.37E-02	-1.93E-01	2.08E-01	1.21E-02	7.91E-02	4.73E-01	9.68E-02	3.33E-02			1.12E-01	-1.52E-02	-1.52E-02		
Co-58	-4.72E-02	-2.06E-02	-4.35E-02	3.98E-02	1.57E-02	-1.12E-02	-5.40E-03	-1.33E-02	-3.75E-02			2.45E-02	-5.30E-02	-5.30E-02		
Co-60	**6.46E-01**	**1.34E-01**	**5.22E-01**	4.90E-02	**7.94E-01**	4.90E-02	**1.15E+00**	**6.89E-02**	4.90E-02			**3.01E-01**	5.75E-02	5.75E-02		
Cs-134	7.14E-02	7.14E-02	**1.90E-01**	7.14E-02	7.14E-02	7.14E-02	7.14E-02	7.14E-02	7.14E-02	7.14E-02	7.14E-02	6.67E-02	6.67E-02	6.67E-02		
Cs-137	**1.27E+02**	**1.87E+01**	**1.03E+02**	**3.23E+00**	**1.07E+02**	**3.75E+00**	**1.85E+02**	**2.01E+02**	**1.12E+01**			**2.76E+01**	**2.73E-01**	**8.79E-01**		
Eu-152	3.19E-01	3.19E-01	**1.35E+00**	3.19E-01	**4.38E-01**	3.19E-01	3.19E-01	3.19E-01	3.19E-01	3.19E-01	3.19E-01	3.76E-01	3.76E-01	3.76E-01		
Eu-154	2.29E-01	2.29E-01	**2.86E-01**	2.29E-01	2.29E-01	2.29E-01	**4.84E-01**	**2.73E-01**	2.29E-01	2.29E-01	2.29E-01	3.05E-01	3.05E-01	3.05E-01	2.29E-01	2.29E-01
Eu-155	-9.14E-02	1.72E-01	2.75E-01	-1.89E-01	-1.02E-01	-7.49E-02	9.66E-02	1.21E-01	-2.43E-02			-7.18E-02	-7.18E-02	-7.18E-02		
Mn-54	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	8.58E-02	8.58E-02	8.58E-02		
Nb-95	-4.88E-02	1.68E-02	-2.27E-02	-6.05E-02	-1.02E-02	-1.84E-02	-1.06E-02	2.28E-02	3.33E-02			-7.07E-02	-4.10E-02	2.44E-02		
Ra-226	7.60E-01	7.60E-01	**5.27E+00**	**2.11E+00**	**3.31E+00**	**1.59E+00**	7.60E-01	7.60E-01	**2.30E+00**			**2.73E+00**	**1.36E+00**	**3.17E+00**		
Ru-103	-2.55E-01	-3.29E-02	-1.08E-01	1.69E-02	-1.87E-02	-5.30E-02	4.50E-02	4.39E-02	-2.91E-02			-3.00E-02	-1.68E-02	3.30E-02		
Ru-106	-5.41E-01	-1.03E-01	2.65E-01	-3.66E-01	-6.74E-01	5.29E-02	7.14E-02	2.41E-01	2.59E-02			-8.31E-01	-2.04E-01	-1.74E-01		
Sb-125	4.90E-01	-4.06E-02	-1.59E-01	-1.63E-02	2.83E-02	4.88E-02	7.17E-01	1.35E-01	-7.95E-02			1.39E-01	4.05E-02	1.28E-02		
U-235	2.78E-01	-3.01E-02	5.85E-01	2.07E-01	7.43E-02	-3.12E-02	3.02E-01	-4.92E-01	1.14E-01			3.75E-01	2.23E-01	2.20E-01		
Zn-65	-1.48E-01	3.21E-02	-1.64E-01	4.24E-02	3.30E-02	-4.80E-03	3.44E-02	-4.16E-02	-3.10E-03			9.67E-02	2.50E-02	-1.31E-01		
Zr-95	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	**1.42E-01**	1.27E-01	1.27E-01	1.27E-01	9.32E-02	9.32E-02	9.32E-02		
GROSS ALPHA (pCi/g)	**5.88E+00**	**2.63E+00**	**1.06E+00**	**2.83E+00**	**1.14E+01**	**3.38E+00**	**8.60E+00**	**3.78E+00**	**3.85E+00**			**9.54E+00**	**3.84E+00**	**4.22E+00**		
GROSS BETA (pCi/g)	**2.96E+02**	**3.85E+01**	**4.22E+01**	**5.97E+00**	**2.65E+02**	**1.36E+01**	**3.15E+01**	**1.23E+02**	**2.75E+01**			**9.93E+01**	**3.72E+00**	**2.69E+00**		
ALPHA SPEC.	NR	NR	NR	NR	NR	NR	NR	NR	NR			NR	NR	NR		
Pu-238																
Pu-239/240																
U-234																
U-235																
U-238																
Am-241																
STRONTIUM-90	**9.88E+01**	**2.60E+01**	**3.77E+01**	NR	**7.20E+01**	NR	**1.18E+02**	**1.48E+02**	NR			**4.43E+01**	NR	NR		

SAMPLE NUMBER:	51602001	51602101	51602201	51602301	51602302	51602401	51602501	51602601	51602701	51602801	51602901	51603001	51603901
SAMPLE LOCATION:	E-BH4	A-#1	A-#2	A-#3	A-#3	A-#4	A-#5	A-#6	A-#7	A-#8	A-#9	A-#10	V-MID
PLANNED DEPTH (ft):	Bottom	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	
ACTUAL DEPTH (ft):	9.5-10	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
ANALYSIS-													
SVOCs (ug/kg)	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND
Di-n-Butylphthalate	195	180	180	175	**160**	175	180	185	180	185	180	185	185
PCBs (ug/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ANIONS (mg/kg)													
Fluoride	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chloride	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Bromide	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Sulfate	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Nitrite	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Nitrate	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Phosphorous	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CYANIDE (mg/kg)													
Total	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Amenable	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
GAMMA SPEC. (pCi/g)													
Ag-108m	4.37E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02
Ag-110m	-1.77E+00	-1.25E+00	-2.46E+00	-1.98E+00	-1.96E+00	-1.29E+00	-2.56E+00	-1.80E+00	-2.06E-01	-6.85E-02	-9.86E-01	-3.98E-02	-3.36E+00
Am-241	1.06E+00	3.07E-01	2.53E-01	2.58E-01	3.17E-02	3.18E-01	3.92E-01	1.02E-01	1.18E-01	3.45E-01	2.58E-01	1.78E-01	-2.16E-02
Ce-144	-1.80E-01	-2.33E-01	-1.33E-01	-1.93E-01	-2.26E-01	-2.29E-01	4.26E-01	-7.52E-02	-5.24E-02	-1.74E-01	-1.23E-01	8.60E-03	-2.88E-01
Co-58	4.52E-02	-1.94E-02	3.80E-03	1.39E-02	3.50E-03	2.00E-02	-1.94E-02	5.62E-02	-4.21E-02	1.69E-02	4.02E-02	1.00E-03	1.50E-02
Co-60	**2.27E-01**	**3.18E-01**	**1.25E-01**	**3.51E-01**	**3.65E-01**	**1.82E-01**	**3.82E-01**	**3.07E-01**	**3.41E-01**	**1.80E-01**	**1.60E-01**	**2.63E-01**	**4.29E-01**
Cs-134	**3.21E-01**	7.14E-02	7.14E-02	7.14E-02	7.14E-02	7.14E-02	7.14E-02	7.14E-02	7.14E-02	7.14E-02	7.14E-02	7.14E-02	7.14E-02
Cs-137	**1.34E+02**	**3.85E+01**	**4.82E+01**	**7.01E+01**	**7.12E+01**	**2.88E+01**	**8.03E+01**	**4.21E+01**	**4.81E+01**	**2.16E+01**	**3.12E+01**	**1.03E+01**	**8.06E+01**
Eu-152	3.76E-01	3.19E-01	3.19E-01	**9.06E-01**	3.19E-01	3.19E-01	3.19E-01	3.19E-01	3.19E-01	3.19E-01	3.19E-01	3.19E-01	3.19E-01
Eu-154	3.05E-01	2.29E-01	2.29E-01	2.29E-01	**2.28E-01**	2.29E-01	2.29E-01	2.29E-01	2.29E-01	2.29E-01	2.29E-01	2.29E-01	2.29E-01
Eu-155	-7.18E-02	-9.90E-02	4.59E-02	1.21E-01	-2.54E-01	1.43E-02	8.45E-02	-9.23E-02	-5.83E-02	-1.82E-01	1.21E-01	-2.25E-02	-4.03E-02
Mn-54	8.58E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	6.36E-02	**5.49E-02**	6.36E-02
Nb-95	3.32E-02	1.00E-03	-2.71E-02	-1.36E-02	-2.07E-02	-2.01E-02	-3.04E-02	-3.50E-03	-4.45E-02	-3.13E-02	1.07E-02	-2.53E-02	-5.66E-02
Ra-226	**4.98E+00**	**4.22E+00**	**3.92E+00**	7.60E-01	**2.79E+00**	**3.21E+00**	7.60E-01	7.60E-01	**3.22E+00**	7.60E-01	**2.32E+00**	**3.17E+00**	**2.16E+00**
Ru-103	-7.90E-02	-1.64E-01	5.20E-03	-2.13E-02	4.18E-02	3.80E-03	-5.16E-02	7.27E-02	9.15E-02	-3.25E-02	-6.08E-02	1.74E-02	3.13E-02
Ru-106	-1.11E-01	-5.96E-01	-2.61E-01	-1.58E-01	-3.10E-02	-5.07E-01	-1.03E-01	6.21E-01	-8.76E-02	1.79E-02	-2.41E-01	-1.90E-01	9.81E-01
Sb-125	-3.46E-01	1.97E-01	-2.79E-01	1.35E-01	6.60E-03	1.03E-01	1.43E-01	-1.30E-03	2.58E-01	1.89E-01	1.35E-01	1.93E-02	-1.02E-01
U-235	-4.20E-01	-2.73E 01	1.79E-02	2.01E-01	-1.38E-01	-1.03E-01	1.66E-02	-2.15E-01	-9.33E-02	-1.02E-01	3.11E-02	8.75E-02	2.14E-01
Zn-65	1.22E-01	-8.19E-02	1.24E-01	-4.45E-02	-7.50E-02	0.00E+00	-5.54E-02	-2.05E-01	8.90E-03	-8.40E-03	4.04E-02	2.90E-03	-1.80E-02
Zr-95	**2.61E-01**	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01
GROSS ALPHA (pCi/g)	**6.30E+00**	**6.38E+00**	**5.54E+00**	**7.01E+00**	**7.17E+00**	**7.30E+00**	**6.82E+00**	**5.05E+00**	**4.64E+00**	**5.62E+00**	**4.94E+00**	**5.59E+00**	**8.91E+00**
GROSS BETA (pCi/g)	**1.57E+02**	**7.65E+01**	**9.18E+01**	**1.54E+02**	**1.75E+02**	**1.04E+02**	**2.70E+02**	**8.16E+01**	**9.80E+01**	**4.43E+01**	**6.92E+01**	**2.43E+01**	**1.49E+02**
ALPHA SPEC.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pu-238													
Pu-239/240													
U-234													
U-235													
U-238													
Am-241													
STRONTIUM-90	**6.18E+01**	**3.19E+01**	**3.64E+01**	**6.41E+01**	**6.50E+01**	**4.77E+01**	**1.01E+02**	**4.24E+01**	**3.71E+01**	**1.49E+01**	**3.24E+01**	NR	**4.99E+01**

SAMPLE NUMBER:	51600501	51600601	51600701	51600801	51600901	51601001	51601101	51601102	51601201	51601301	51601401	51601501	51601601	51601701	51601801	51601901
SAMPLE LOCATION:	V-BH1	V-BH1	V-BH2	V-BH2	V-BH3	V-BH3	V-BH4	V-BH4	V-BH4	E-BH1	E-BH1	E-BH2	E-BH2	E-BH3	E-BH3	E-BH4
PLANNED DEPTH (ft):	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface
ACTUAL DEPTH (ft):	0-0.5	~5'	0-0.5	~5'	0-0.5	8'8"	0-0.5	0-0.5	8'8"			0.5-2.5	9.5-10	0.5-2.5		0-0.5
ANALYSIS-																
METALS (mg/kg)																
Aluminum	8520	3820	9730	3130	7100	3130	8610	9210	3080			7740	5160	6840		
Antimony	4.5	5.5	5.2	5.2	4.6	3.8	4.7	5.0	4.0			5.5	4.8	5.0		
Arsenic	3.0	2.2	3.9	2.8	2.8	2.8	3.1	3.1	3.8			4.8	4.6	3.8		
Barium	189	81.7	200	59.8	161	99.3	185	198	63.3			193	102	175		
Beryllium	0.93	0.51	0.92	0.44	0.77	0.37	0.64	0.95	0.48			0.77	0.61	0.76		
Cadmium	0.52	0.55	0.52	0.52	0.46	0.38	0.56	0.50	0.40			0.55	0.48	0.50		
Calcium	57400	48100	75200	76000	46000	50900	58200	56500	19400			69500	38600	45400		
Chromium	18.4	11.2	16.1	11.3	14.0	10.8	15.3	15.7	13.0			13.7	11.4	14.0		
Cobalt	5.5	3.1	5.7	2.0	4.6	2.8	5.5	5.4	2.8			5.9	9.4	4.9		
Copper	13.9	9.0	14.9	13.0	12.6	10.1	13.8	13.6	10.4			14.7	15.0	13.6		
Iron	12300	7230	12500	6050	10900	7080	12100	12200	7320			11600	16300	11300		
Lead	10.6	5.6	10.9	5.1	12.7	5.2	9.8	10.7	3.4			9.4	6.1	6.9		
Magnesium	8570	4050	9930	3540	7050	3360	8540	8570	3080			8950	12000	7180		
Manganese	243	123	250	92.1	209	124	265	264	102			286	334	233		
Mercury	0.047	0.051	0.051	0.051	0.047	0.046	0.051	0.045	0.048			0.048	0.051	0.052		
Nickel	17.0	11.0	16.9	11.5	15.2	11.0	16.9	17.2	12.7			16.7	18.4	15.9		
Potassium	1490	701	1830	578	1470	623	1790	1880	615			1240	745	1130		
Selenium	0.22	0.26	0.24	0.22	0.24	0.18	0.25	0.24	0.26			0.27	0.26	0.23		
Silver	0.45	0.55	0.52	0.52	0.46	0.38	0.47	0.50	0.40			0.55	0.48	0.50		
Sodium	460	528	540	465	387	303	463	462	384			741	1080	544		
Thallium	0.22	0.21	0.19	0.18	0.2	0.14	0.20	0.26	0.2			0.22	0.21	0.18		
Vanadium	24.6	14.6	26.2	13.8	21.3	15.3	22.9	24.6	14.4			22.1	20.2	23.2		
Zinc	57.9	34.9	54.2	37.0	54.5	33.2	74.6	66.4	37.5			42.9	41.2	44.1		
Cyanide	NR	NR	NR	NR	NR	NR	NR	NR	NR			NR	NR	NR		
TCLP METALS (ug/L)		NR	NR	NR	NR	NR	NR	NR	NR			NR	NR	NR		
Arsenic	< 100															
Barium	1430															
Cadmium	< 5.0															
Chromium	< 10.0															
Lead	< 50.0															
Mercury	< 0.20															
Selenium	< 50.0															
Silver	< 5.0															
TCLP VOCs	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
VOCs (ug/kg)																
Chloroform	NR	3	3	3	3	3	3	3	2.5			3	3	3		
2-Butanone	NR	1	5.5	5.5	5.5	5.5	5.5	5.5	5			5.5	5.5	5.5		
1,1,1-Trichloroethane	NR	32	2.5	2.5	2.5	2.5	3	3	2.5			3	3	3		
Trichloroethene	NR	11	2.5	2.5	2.5	2.5	3	3	2.5			3	3	3		
Tetrachloroethene	NR	2.5	2.5	2.5	2.5	2.5	3	3	2.5			3	3	3		
Toluene	NR	2.5	2.5	2.5	2.5	2.5	3	3	2.5			3	3	1		
Isobutyl Alcohol	NR	55	55	12	55	50	55	55	50			55	55	55		

SAMPLE NUMBER:	51602001	51602101	51602201	51602301	51602302	51602401	51602501	51602601	51602701	51602801	51602901	51603001	51603901
SAMPLE LOCATION:	E-BH4	A-#1	A-#2	A-#3	A-#3	A-#4	A-#5	A-#6	A-#7	A-#8	A-#9	A-#10	V-MID
PLANNED DEPTH (ft):	Bottom	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	
ACTUAL DEPTH (ft):	9.5-10	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
ANALYSIS-													
METALS (mg/kg)													
Aluminum	5070	7990	7860	6840	5880	5220	7070	10100	7700	8320	7420	8930	8110
Antimony	4.2	3.8	5.3	5.2	4.8	5.1	3.9	4.9	5.1	4.4	4.7	5.2	5.4
Arsenic	3.1	3.1	5.3	3.0	2.8	1.9	2.5	4.7	3.0	5.2	3.6	3.3	3.1
Barium	163	249	162	201	184	274	146	184	187	233	197	194	182
Beryllium	0.56	1.1	0.87	0.88	0.76	0.65	0.76	0.86	1.0	0.75	0.76	0.83	0.84
Cadmium	0.42	0.38	0.53	0.56	0.48	0.63	0.42	0.49	0.51	0.44	0.47	0.52	0.54
Calcium	39400	68400	55600	33000	27200	29600	38000	67000	54000	44500	45300	60600	53900
Chromium	9.9	16.9	14.3	15.2	13.7	13.6	14.7	16.1	14.7	13.5	14.5	16.9	14.3
Cobalt	4.2	7.1	4.7	5.1	4.7	5.1	4.6	5.9	5.4	4.9	4.6	5.8	4.9
Copper	10.8	12.1	14.3	14.8	12.6	13.7	11.9	14.4	14.8	11.9	13.2	14.8	13.4
Iron	8330	13900	10900	12000	10600	11700	10900	12600	12000	11100	11200	12800	11400
Lead	8.4	9.9	10.6	10.7	13.9	7.9	10.9	11.3	10.3	11.5	10.6	9.0	10.4
Magnesium	5770	9480	7730	6200	5470	4720	6320	9410	7790	7120	7160	9130	8470
Manganese	183	297	214	230	216	214	212	254	242	228	259	244	252
Mercury	0.048	0.050	0.051	0.05	0.045	0.052	0.046	0.049	0.051	0.043	0.045	0.051	0.050
Nickel	13.1	16.1	14.6	17.6	17.4	16.7	16.7	16.6	17.1	14.6	17.5	19.3	16.5
Potassium	1010	1630	1520	1410	1130	1310	1350	1740	1680	2770	1530	1660	1450
Selenium	*0.22*	*0.24*	*0.27*	*0.25*	*0.25*	*0.24*	*0.26*	*0.24*	*0.25*	*0.26*	*0.24*	*0.25*	*0.26*
Silver	0.42	0.38	0.53	0.52	0.48	0.51	0.39	0.49	0.51	0.44	0.47	0.52	0.54
Sodium	649	430	459	428	360	343	351	717	530	515	433	513	517
Thallium	0.18	0.20	0.28	0.2	0.2	0.19	0.21	0.19	0.20	0.28	0.2	0.20	0.21
Vanadium	15.9	29.0	21.5	23.1	19.2	20.4	21.1	26.1	22.9	21.3	20	26.0	22.4
Zinc	35.4	52.8	64.4	65.8	57.9	55.6	80.2	52.4	83.5	49.2	70.2	76.2	51.8
Cyanide	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
TCLP METALS (ug/L)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Arsenic													
Barium													
Cadmium													
Chromium													
Lead													
Mercury													
Selenium													
Silver													
TCLP VOCs	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
VOCs (ug/kg)													
Chloroform	3	3	3	3	3	3	3	3	3	3	3	3	3
2-Butanone	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	2	5.5
1,1,1-Trichloroethane	3	2.5	2.5	3	3	2.5	2.5	3	2.5	2.5	2.5	3	3
Trichloroethene	3	2.5	2.5	3	3	2.5	2.5	3	2.5	2.5	2.5	3	3
Tetrachloroethene	3	2.5	2.5	3	2	2.5	2.5	3	2.5	2.5	2.5	3	3
Toluene	3	2.5	2.5	3	2	2.5	2.5	3	2.5	2.5	2.5	3	3
Isobutyl Alcohol	55	55	55	55	55	55	55	55	55	55	55	55	55

SAMPLE NUMBER:	52300101	52300201	52300301	52300401	52300501	52300601	52300701	52300801	52300901	52301001
SAMPLE LOCATION:	17	17	62	62	69	69	151	151	219	219
PLANNED DEPTH (ft):	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2
ACTUAL DEPTH (ft):	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2
ANALYSIS-										
GAMMA SPEC. (pCi/g)										
Cs-137	**8.99E-01**	**1.76E-01**	**6.17E+00**	**1.14E+00**	**6.44E+00**	**2.46E+00**	**7.34E+00**	**7.09E-01**	**1.14E+00**	**7.65E-01**
Ra-226	**1.82E+00**	**1.37E+00**	2.36E+00	**1.94E+00**	**1.65E+00**	**1.98E+00**	**2.04E+00**	**2.46E+00**	**1.53E+00**	**2.04E+00**
ALPHA SPEC. (pCi/g)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
U-234										
U-235										
U-238										
Pu-239/240										
Th-228										
Th-230										
Th-232										
Am-241										
STRONTIUM-90	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE NUMBER:	52301101	52301201	52301301	52301401	52301501	52301601	52301701	52301801	52301901	52302001
SAMPLE LOCATION:	237	237	795	795	799	799	1409	1409	1572	1572
PLANNED DEPTH (ft):	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2
ACTUAL DEPTH (ft):	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2
ANALYSIS-										
GAMMA SPEC. (pCi/g)										
Cs-137	**6.82E+00**	**8.58E-01**	**1.87E+01**	**2.83E+00**	**2.78E+00**	1.19E-01	**5.17E+00**	**1.08E+00**	**2.14E+03**	**9.93E+01**
Ra-226	**1.46E+00**	**2.59E+00**	**1.94E+00**	**1.92E+00**	**2.47E+00**	7.26E-01	**2.57E+00**	**1.20E+00**	**1.19E+01**	2.67E+00
ALPHA SPEC. (pCi/g)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
U-234										
U-235										
U-238										
Pu-239/240										
Th-228										
Th-230										
Th-232										
Am-241										
STRONTIUM-90	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE NUMBER:	52302101	52302201	52302301	52302401	52302501	52302601	52302701	52302801	52302901	52302902
SAMPLE LOCATION:	1820	1820	2003	2003	2155	2155	2290	2290	2294	2294
PLANNED DEPTH (ft):	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0-0.5
ACTUAL DEPTH (ft):	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-1	0-0.5	0.5-2	0-0.5	0-0.5
ANALYSIS-										
GAMMA SPEC. (pCi/g)										
Cs-137	**3.50E+00**	**2.02E+00**	**2.55E+00**	**6.77E-01**	**1.66E+01**	**4.35E+00**	**1.05E+00**	**1.96E-01**	**5.31E+00**	**4.87E+00**
Ra-226	**2.18E+00**	**2.66E+00**	**3.06E+00**	**1.89E+00**	**3.60E+00**	**1.78E+00**	**2.88E+00**	1.14E+00	**1.88E+00**	**3.03E+00**
ALPHA SPEC. (pCi/g)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
U-234										
U-235										
U-238										
Pu-239/240										
Th-228										
Th-230										
Th-232										
Am-241										
STRONTIUM-90	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE NUMBER:	52303001	52303101	52303201	52303301	52303401	52303501	52303601	52303701	52303801	52303901
SAMPLE LOCATION:	2294	2759	2759	2902	2902	3018	3018	3064	3064	748
PLANNED DEPTH (ft):	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5
ACTUAL DEPTH (ft):	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	
ANALYSIS-										
GAMMA SPEC. (pCi/g)										NR
Cs-137	**3.12E-01**	**1.38E+01**	**4.96E+00**	**5.67E+00**	**6.68E-01**	**2.19E+01**	**2.54E+00**	**7.72E+00**	**2.71E-01**	
Ra-226	9.69E-01	**2.38E+00**	**1.89E+00**	**2.93E+00**	**3.05E+00**	**3.45E+00**	**1.27E+00**	**2.73E+00**	**3.03E+00**	
ALPHA SPEC. (pCi/g)	NR	NR	NR	NR	NR	NR	NR	NR	NR	
U-234										**7.45E-01**
U-235										**3.89E-02**
U-238										**6.54E-01**
Pu-239/240										**4.86E-02**
Th-228										**1.46E+00**
Th-230										**1.53E+00**
Th-232										**1.38E+00**
Am-241										**2.73E-02**
STRONTIUM-90	NR	NR	NR	NR	NR	NR	NR	NR	NR	**1.33E+00**

SAMPLE NUMBER:	52304001	52304101	52304201	52304202	52304301	52304401	52304701	52304801
SAMPLE LOCATION:	748	1247	1247	1247	1520	1520	1409A	1409A
PLANNED DEPTH (ft):	0.5-2	0-0.5	0.5-2	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2
ACTUAL DEPTH (ft):							0-0.5	0.5-2
ANALYSIS-								
GAMMA SPEC. (pCi/g)	NR	NR	NR	NR	NR	NR		
Cs-137							**5.36E+00**	**2.63E+00**
Ra-226							1.12E+00	**1.10E+00**
ALPHA SPEC. (pCi/g)							NR	NR
U-234	**6.20E-01**	**6.83E-01**	**5.91E-01**	**6.97E-01**	**7.28E-01**	**7.34E-01**		
U-235	**2.53E-02**	1.25E-02	8.45E-04	1.90E-02	**4.69E-02**	**2.51E-02**		
U-238	**6.08E-01**	**7.78E-01**	**6.72E-01**	**6.71E-01**	**8.67E-01**	**7.03E-01**		
Pu-239/240	3.99E-03	1.31E-02	1.55E-02	-2.46E-03	**2.96E-02**	**1.72E-02**		
Th-228	**1.24E+00**	**1.41E+00**	**1.19E+00**	**1.14E+00**	**1.20E+00**	**1.32E+00**		
Th-230	**1.25E+00**	**1.41E+00**	**1.19E+00**	**1.27E+00**	**1.20E+00**	**1.25E+00**		
Th-232	**1.29E+00**	**1.38E+00**	**1.17E+00**	**1.09E+00**	**1.24E+00**	**1.22E+00**		
Am-241	1.16E-02	1.40E-02	**3.17E-02**	**2.53E-02**	**2.48E-02**	2.10E-02		
STRONTIUM-90	1.57E-01	**5.09E+00**	**1.28E+00**	**1.36E+00**	**2.10E+01**	**4.66E+00**		

SAMPLE NUMBER:	53100101	53100201	53100301	53100302	53101201	53101301	53101401
SAMPLE LOCATION:	Upper Port	Mid Port	Lower Port	Lower Port	Depth #9	Depth #10	Interbed
PLANNED DEPTH (ft):	15-25	65-75	115-120	115-120			
ACTUAL DEPTH (ft):	20-25	67-72	115-120	115-120	24'	23-23'9.5"	87'
ANALYSIS-							
VOCs (Mod. TO-14) (ppb v/v)	ND				NR	NR	NR
Toluene		**3**	**90**				
BTEX (ug/kg)	NR	NR	NR	NR	ND	ND	ND
PAH (ug/kg)	NR	NR	NR	NR	NS	NS	ND
SVOCs (ug/kg)	NR	NR	NR	NR	NR	NR	
Phenol							**330**
Diethylphthalate							**49**
Di-n-Butylphthalate							**370**
Butylbenzylphthalate							**460**
bis (2-Ethylhexyl) phthalate							**380**
Di-n-Octyl phthalate							**430**
TPH - DRO (mg/kg)	NR	NR	NR	NR			ND
TPH - GRO (mg/kg)	NR	NR	NR	NR			ND

SAMPLE NUMBER:	53200101	53200201	53200301	53200302	53201301	53201401
SAMPLE LOCATION:	Upper Port	Mid Port	Lower Port	Lower Port	Depth #10	Interbed
PLANNED DEPTH (ft):	15-25	65-75	115-120	115-120		
ACTUAL DEPTH (ft):	21-24	63-68	118-123	118-123	124-126	23-23'11"
ANALYSIS-						
VOCs (Mod. TO-14) (ppb v/v)				NS	NR	NR
Dichlorofluoromethane	**2**	**2**				
Toluene	**160**	**120**	**2**			
Styrene	**2**					
BTEX (ug/kg)	NR	NR	NR	NR	ND	ND
PAH (ug/kg)	NR	NR	NR	NR	NS	ND
SVOCs (ug/kg)	NR	NR	NR	NR		NS
Phenol					**110**	
Naphthalene					**170**	
Di-n-butylphthalate					**210**	
Butylbenzylphthalate					**260**	
bis (2-Ethylhexyl) phthalate					**890**	
TPH - DRO (mg/kg)	NR	NR	NR	NR	**130**	**18**
TPH - GRO (mg/kg)	NR	NR	NR	NR	**0.097**	ND

GROUNDWATER

SAMPLE NUMBER:	5GW10101	5GW10201	5GW10301	5GW10401	5GW10501
SAMPLE LOCATION:	ARA-MON-AQ-001	ARA-MON-AQ-002	ARA-MON-AQ-003A	ARA-MON-AQ-004	PBF-MON-AQ-001
PLANNED DEPTH (ft):	620	604	622	665	483
ACTUAL DEPTH (ft):					
ANALYSIS-HYDRAZINE	NR	NR	NR	NR	< 0.050
ANIONS (mg/L)					
Chloride	19.32	19.25	22.27	21.04	17.77
Sulfate	19.06	18.80	20.63	20.22	17.4
Bromide	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride	0.511	0.521	0.481	0.542	0.275
Nitrite	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nitrate	1.14	1.15	1.29	1.08	0.39
Phosphate	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
CLP METALS (ug/L)					
Arsenic	2.9	< 2.5	2.6	3.4	< 2.5
Barium	37.6	36.5	42.1	34.9	37.1
Calcium	35400	35600	37500	34400	33800
Chromium	< 10.0	< 10.0	< 10.0	37.0	< 10.0
Iron	95.5	61.2	109	16600	320
Lead	13.8	13.0	22.2	49.2	9.4
Magnesium	14500	14400	15600	14200	13800
Manganese	< 2.5	< 2.5	2.8	33.5	14.3
Nickel	< 15.0	< 15.0	< 15.0	22.0	< 15.0
Potassium	3430	3570	3490	3290	2390
Sodium	16600	16700	18300	16600	8680
Zinc	634	694	1110	4030	955
PCBs	NR	NR	NR	NR	NR
GROSS ALPHA (pCi/L)	1.09E+00	**2.42E+00**	1.20E+00	**1.68E+00**	6.39E-01
GROSS BETA (pCi/L)	**2.71E+00**	**3.86E+00**	2.30E+00	**3.25E+00**	8.03E-01
ALPHA SPEC. (pCi/L)	NR	NR	NR	NR	NR
Pu-238					
Pu-239/240					
U-234					

GROUNDWATER

SAMPLE NUMBER:	5GW10101	5GW10201	5GW10301	5GW10401	5GW10501
SAMPLE LOCATION:	ARA-MON-AQ-001	ARA-MON-AQ-002	ARA-MON-AQ-003A	ARA-MON-AQ-004	PBF-MON-AQ-001
PLANNED DEPTH (ft):	620	604	622	665	483
ACTUAL DEPTH (ft):					
ANALYSIS-					
U-235					
U-238					
Am-241					
STRONTIUM-90 (pCi/L)	NR	NR	NR	NR	NR
TECHNETIUM-99 (pCi/L)	NR	NR	NR	NR	NR
GAMMA SPEC. (pCi/L)					
Ag-108m	-2.56E+00	2.24E+00	1.82E+00	1.33E+00	2.03E-01
Ag-110m	8.63E-01	0.00E+00	1.91E+00	0.00E+00	-5.47E-01
Am-241	-9.89E-01	6.30E+00	1.19E+01	2.57E+01	2.28E+01
Ce-144	2.91E+01	-3.37E+01	4.67E+00	1.42E+01	-1.12E+01
Co-58	-4.25E+00	-5.44E+00	-8.73E-01	-1.34E+01	1.94E+00
Co-60	3.03E-01	3.83E+00	-2.20E+00	4.94E-01	-2.07E+00
Cs-134	-2.25E+00	-3.36E+00	-9.55E-01	-1.37E+01	-1.48E+00
Cs-137	-4.52E+00	1.77E+00	-2.57E+00	-9.04E-01	-2.86E+00
Eu-152	3.50E+00	3.33E+00	-3.96E+00	3.20E+00	-2.97E-01
Eu-154	-1.33E+01	-3.46E+01	-1.34E+01	1.55E+01	6.58E+00
Eu-155	3.98E+00	5.61E+00	-1.16E+01	2.21E+00	-2.22E+00
Mn 54	3.94E+00	-1.41E+00	2.45E+00	1.61E+00	-5.25E+00
Nb-95	-1.11E+00	0.00E+00	-1.88E+00	-2.17E+00	-2.02E+00
Ra-226	2.14E+01	-2.84E+02	5.95E+01	-3.05E+01	1.41E+01
Ru-103	3.10E+00	-4.48E+00	4.62E+00	3.33E-01	5.05E+00
Ru-106	-4.68E+01	-1.17E+01	4.54E+01	7.77E+01	0.00E+00
Sb-125	2.30E+01	-2.08E+00	2.50E+00	3.67E+00	7.96E+00
U-235	-3.47E+00	2.82E+01	-5.39E+00	-8.67E-01	-4.32E+00
Zn-65	8.92E+00	-3.30E+01	-9.31E+00	-8.47E+00	9.83E-01
Zr-95	-9.88E+00	-9.43E+00	2.45E+00	1.10E+01	-5.58E+00
TRITIUM (pCi/L)	-5.96E+01	-1.21E+02	-1.11E+02	3.67E+02	5.40E+01
IODINE-129 (pCi/L)	1.88E+00	1.68E+00	2.22E+00	2.27E+00	2.10E+00
VOCs (ug/L)					
Toluene	2.5	2.5	2.5	2.5	2.5

GROUNDWATER

SAMPLE NUMBER:	5GW10601	5GW10701	5GW10702	5GW10801	5GW10901
SAMPLE LOCATION:	PBF-MON-AQ-003	PBF-MON-AQ-004	PBF-MON-AQ-004	PBF-MON-AQ-005	SPERT-1
PLANNED DEPTH (ft):	572	525	525	525	554
ACTUAL DEPTH (ft):					
ANALYSIS- HYDRAZINE	NR	< 0.050	< 0.050	NR	< 0.050
ANIONS (mg/L)					
Chloride	14.24	13.35	13.54	15.08	22.1
Sulfate	22.51	16.18	16.22	21.08	22.34
Bromide	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride	0.319	< 0.2	< 0.2	0.25	0.287
Nitrite	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nitrate	0.66	0.51	0.51	0.69	1.02
Phosphate	< 0.2	< 0.5	< 0.5	< 0.2	< 0.2
CLP METALS (ug/L)					
Arsenic	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
Barium	51.8	25.2	25.1	43.0	50.6
Calcium	38200	31800	31700	40400	40500
Chromium	16.5	< 10.0	< 10.0	< 10.0	< 10.0
Iron	62.0	< 10.0	< 10.0	171	60.7
Lead	< 2.0	11.2	11.2	12.7	30.0
Magnesium	14100	13300	13200	14900	14500
Manganese	< 2.5	< 2.5	< 2.5	5.2	< 2.5
Nickel	< 15.0	< 15.0	< 15.0	< 15.0	< 15.0
Potassium	3080	1930	1890	2430	1920
Sodium	12100	9310	9230	8290	12400
Zinc	38.9	609	605	998	7.8
PCBs	ND	ND	ND	NR	ND
GROSS ALPHA (pCi/L)	1.94E+00	3.33E-01	5.70E-01	5.24E-01	9.64E-01
GROSS BETA (pCi/L)	2.25E+00	1.94E+00	3.60E-01	1.95E+00	**3.33E+00**
ALPHA SPEC. (pCi/L)	NR	NR	NR	NR	NR
Pu-238					
Pu-239/240					
U-234					

GROUNDWATER

SAMPLE NUMBER:	5GW10601	5GW10701	5GW10702	5GW10801	5GW10901
SAMPLE LOCATION:	PBF-MON-AQ-003	PBF-MON-AQ-004	PBF-MON-AQ-004	PBF-MON-AQ-005	SPERT-1
PLANNED DEPTH (ft):	572	525	525	525	554
ACTUAL DEPTH (ft):					
ANALYSIS-					
U-235					
U-238					
Am-241					
STRONTIUM-90 (pCi/L)	NR	NR	NR	NR	NR
TECHNETIUM-99 (pCi/L)	NR	NR	NR	NR	NR
GAMMA SPEC. (pCi/L)					
Ag-108m	-6.35E-01	8.13E+00	1.21E+00	-2.05E+00	-3.20E+00
Ag-110m	6.15E+00	8.22E-01	0.00E+00	5.46E+00	-7.09E+00
Am-241	1.98E+00	-7.02E+00	-3.35E+01	1.60E+01	3.29E+01
Ce-144	-2.65E+01	-2.58E+01	7.32E+00	2.09E+01	3.34E+01
Co-58	8.76E+00	0.00E+00	7.33E+00	0.00E+00	-5.72E+00
Co-60	2.83E+00	7.41E+00	-5.16E+00	3.93E-01	2.89E+00
Cs-134	4.54E-01	-1.95E+00	9.77E+00	-2.53E+00	2.96E+00
Cs-137	-8.43E+00	3.60E-01	-3.54E+00	-2.76E+00	4.04E+00
Eu-152	2.18E+01	-1.24E+01	-4.43E+00	9.41E+00	-7.91E+00
Eu-154	-6.46E+00	-2.93E+00	8.70E+00	-3.94E+00	-1.36E+01
Eu-155	-2.21E+00	6.57E+00	-1.67E+01	1.44E+01	-2.58E+00
Mn-54	9.64E-01	1.18E+00	-1.51E+00	-1.24E+00	-2.98E+00
Nb-95	2.15E+00	-4.20E+00	-2.05E+00	4.85E+00	-3.35E+00
Ra-226	4.80E+01	1.35E+02	8.34E+01	-3.72E+00	-4.76E+01
Ru-103	4.75E+00	0.00E+00	-1.46E+00	-9.66E+00	-6.92E-01
Ru-106	-4.02E+01	2.54E+01	-7.16E+01	4.60E+01	-3.08E+01
Sb-125	6.93E+00	-1.58E+01	-8.09E-01	-1.03E+01	-7.82E+00
U-235	1.99E+01	-3.02E+00	4.52E+01	-1.10E+01	1.27E+01
Zn-65	-1.37E+01	-5.45E+00	1.70E+01	-1.20E+01	5.18E+00
Zr-95	-5.75E+00	-1.50E+01	6.59E+00	-4.54E+00	-2.58E+00
TRITIUM (pCi/L)	-1.92E+02	**5.01E+03**	-2.48E+02	-6.53E+01	6.00E+00
IODINE-129 (pCi/L)	**1.83E+00**	-1.51E-02	-3.96E-01	**1.84E+00**	**1.98E+00**
VOCs (ug/L)					
Toluene	2.5	3	3	2.5	2.5

Table E-1. ARA-01 duplicate relative percent differences.

Analyte	Sample Concentration (pCi/g)	Duplicate Concentration (pCi/g)	Relative Percent Difference
Plutonium-239/-240	1.18E-01	1.38E-01	15.6
	1.33E-02	1.872E-02	33.8
Uranium-234	7.94E-01	7.80E-01	1.8
	7.16E-01	6.95E-01	3.0
Uranium-235	3.54E-02	2.63E-02	29.5
	2.21E-02	2.69E-02	19.6
Uranium-238	7.48E-01	6.52E-01	13.7
	5.99E-01	6.22E-01	3.8
Americium-241	3.68E-02	8.90E-03 U	122.1
	2.37E-02	1.35E-02 U	54.8

U = nondetect.

Table E-2. ARA-02 duplicate relative percent differences.

Analyte	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	Relative Percent Difference
Chloride	2.78	1.09 U	87.3
Fluoride	9.12	2.18	122.8
Nitrate	13.7	15	9.1
Sulfate	182	167	8.6
Aluminum	7610	8200	7.5
Arsenic	1.6	2.6	47.6
Barium	136	109	22.0
Beryllium	0.66	0.71	7.3
Calcium	2080	2280	9.2
Chromium	19.8	21.1	6.4
Cobalt	6.2	8.1	26.6
Copper	20.5	20.8	1.5
Iron	11900	13100	9.6
Lead	12.1	13.2	8.7
Magnesium	4340	4670	7.3
Nickel	20.9	23.8	13.0
Potassium	1130	1260	10.9
Silver	1.4	1	33.3
Sodium	350	357	2.0
Vanadium	26	25.9	0.4
Zinc	59.6	60.2	1.0
Cesium-137	1.02	4	118.7
Radium-226	1.68	2.22	27.7
Uranium-234	1.3	1.2	8.0
Uranium-235	0.0768	0.0997	25.9
Uranium-238	0.843	0.887	5.1
bis (2-Ethylhexyl) phthalate	97 U	78	21.7
TCLP Barium	1140	937	19.5
TCLP Cadmium	2.5 U	5.3	71.8
Toluene	2.5 U	2	22.2

U = nondetect.

Table E-3. ARA-16 soils relative percent differences.

Analyte	Sample Concentration	Duplicate Concentration	Units	Relative Percent Difference
Di-n-butylphthalate	175 U	160	µg/kg	9.0
Cobalt-60	1.15	0.689	pCi/g	50.1
	0.351	0.365	pCi/g	3.9
Cesium-137	185	201	pCi/g	8.3
	70.1	71.2	pCi/g	1.6
Europium-152	0.906	0.16[a]	pCi/g	140.0
Europium-154	0.484 U	0.273	pCi/g	55.7
	0.115 U	0.228	pCi/g	65.9
Radium-226	0.38 U	2.79	pCi/g	152.1
Zirconium-95	0.064 U	0.142	pCi/g	75.7
Gross Alpha	8.6	3.78	pCi/g	77.9
	7.01	7.17	pCi/g	2.3
Gross Beta	315	123	pCi/g	87.7
	154	175	pCi/g	12.8
Strontium-90	118	148	pCi/g	22.6
	64.1	65	pCi/g	1.4
Aluminum	8610	9210	mg/kg	6.7
	6840	5880	mg/kg	15.1
Arsenic	3.1	3.1	mg/kg	0.0
	3	2.8	mg/kg	6.9
Barium	185	198	mg/kg	6.8
	201	184	mg/kg	8.8
Beryllium	0.64	0.95	mg/kg	39.0
	0.88	0.76	mg/kg	14.6
Cadmium	0.56	0.25 U	mg/kg	76.5
	0.56	0.24 U	mg/kg	80.0
Calcium	58200	56500	mg/kg	3.0
	33000	27200	mg/kg	19.3
Chromium	15.3	15.7	mg/kg	2.6
	15.2	13.7	mg/kg	10.4
Cobalt-60	5.5	5.4	mg/kg	1.8

Table E-3. (continued).

Analyte	Sample Concentration	Duplicate Concentration	Units	Relative Percent Difference
	5.1	4.7	mg/kg	8.2
Copper	13.8	13.6	mg/kg	1.5
	14.8	12.6	mg/kg	16.1
Iron	12100	12200	mg/kg	0.8
	12000	10600	mg/kg	12.4
Lead	9.8	10.7	mg/kg	8.8
	10.7	13.9	mg/kg	26.0
Magnesium	8540	8570	mg/kg	0.4
	6200	5470	mg/kg	12.5
Manganese	265	264	mg/kg	0.4
	230	216	mg/kg	6.3
Nickel	16.9	17.2	mg/kg	1.8
	17.6	17.4	mg/kg	1.1
Potassium	1790	1880	mg/kg	4.9
	1410	1130	mg/kg	22.0
Sodium	463	462	mg/kg	0.2
	428	360	mg/kg	17.3
Vanadium	22.9	24.6	mg/kg	7.2
	23.1	19.2	mg/kg	18.4
Zinc	74.6	66.4	mg/kg	11.6
	65.8	57.9	mg/kg	12.8
Tetrachloroethene	3 U	2	µg/kg	40.0
Toluene	3 U	2	µg/kg	40.0

U = nondetect.

Table E-4. ARA-16 tank content relative percent differences.

Analyte	Phase	Sample Concentration	Duplicate Concentration	Units	Relative Percent Difference
Phenol	Sludge	1,200	520	µg/kg	79.1
2-Methylphenol	Sludge	3,950 U	500	µg/kg	155.1
N-Nitroso-di-n-propylamine	Sludge	3,950 U	425	µg/kg	161.1
Benzoic acid	Liquid	1	25 U	µg/L	184.6
Naphthalene	Sludge	1,800	2,400	µg/kg	28.6
4-Chloro-3-methylphenol	Sludge	710	450	µg/kg	44.8
2-Methylnaphthalene	Sludge	2,200	3,100	µg/kg	34.0
Phenanthrene	Sludge	1,800	2,600	µg/kg	36.4
Di-n-butylphthalate	Sludge	300,000	180,000	µg/kg	50.0
bis (2-Ethylhexyl) phthalate	Liquid	25	25	µg/L	0.0
	Sludge	1,500,000	1,400,000	µg/kg	6.9
Benzo[b]fluoranthene	Sludge	480	3,950 U	µg/kg	156.7
Dibenz[a,h]anthracene	Sludge	600	3,950 U	µg/kg	147.3
Aroclor-1260	Sludge	81,000	52,000	µg/kg	43.6
Fluoride	Liquid	0.826	1.91	mg/L	79.2
Chloride	Liquid	200	236	mg/L	16.5
Bromide	Liquid	0.348	0.385	mg/L	10.1
Phosphate	Liquid	112	110	mg/L	1.8
Sulfate	Liquid	105	93.9	mg/L	11.2
Cyanide	Liquid	0.011	0.012	mg/L	8.7
Aluminum	Liquid	340.1	316	µg/L	7.3
	Sludge-Dry	17,100	11,300	mg/kg	40.8
	Sludge-Wet	3,570	2,360	mg/kg	40.8
Antimony	Sludge-Dry	11.8	12.1	mg/kg	2.5
	Sludge-Wet	2.48	2.52	mg/kg	1.6
Arsenic	Liquid	13.4	14.1	µg/L	5.1
	Sludge-Dry	2.65	1.85	mg/kg	35.6
Barium	Liquid	1.6	4.6	µg/L	96.8
	Sludge-dry	329	215	mg/kg	41.9
	Sludge-wet	68.8	44.9	mg/kg	42.0

Table E-4. (continued).

Analyte	Phase	Sample Concentration	Duplicate Concentration	Units	Relative Percent Difference
Beryllium	Liquid	0.3	0.1 U	µg/L	100.0
	Sludge-dry	9.58	6.28	mg/kg	41.6
	Sludge-wet	2	1.31	mg/kg	41.7
Cadmium	Sludge-dry	28.5	16.7	mg/kg	52.2
	Sludge-wet	5.97	3.5	mg/kg	52.2
Calcium	Liquid	9,760	9,750	µg/L	0.1
	Sludge-dry	11,500	7,800	mg/kg	38.3
	Sludge-wet	2,390	1,630	mg/kg	37.8
Chromium	Liquid	22.6	17.3	µg/L	26.6
	Sludge-dry	1,370	1,030	mg/kg	28.3
	Sludge-wet	287	216	mg/kg	28.2
Cobalt	Sludge-dry	17.9	10.4	mg/kg	53.0
	Sludge-wet	3.74	2.18	mg/kg	52.7
Copper	Liquid	171	179.8	µg/L	5.0
	Sludge-dry	660	400	mg/kg	49.1
	Sludge-wet	138	83.7	mg/kg	49.0
Iron	Liquid	193	170.1	µg/L	12.6
	Sludge-dry	47,000	28,800	mg/kg	48.0
	Sludge-wet	9,820	6,020	mg/kg	48.0
Lead	Liquid	15.8	14.9	µg/L	5.9
	Sludge-dry	3,970	2,980	mg/kg	28.5
	Sludge-wet	830	623	mg/kg	28.5
Magnesium	Liquid	26,800	27,300	µg/L	1.8
	Sludge-dry	5,560	4,010	mg/kg	32.4
	Sludge-wet	1,160	837	mg/kg	32.3
Manganese	Liquid	7.4	7.4	µg/L	0.0
	Sludge-dry	216	140	mg/kg	42.7
	Sludge-wet	45.1	29.3	mg/kg	42.5
Mercury	Liquid	0.51	0.42	µg/L	19.4
	Sludge-dry	3.35	2.08	mg/kg	46.8
	Sludge-wet	0.7	0.435	mg/kg	46.7

Table E-4. (continued).

Analyte	Phase	Sample Concentration	Duplicate Concentration	Units	Relative Percent Difference
Nickel	Liquid	140	147	µg/L	4.9
	Sludge-dry	407	315	mg/kg	25.5
	Sludge-wet	85	65.9	mg/kg	25.3
Potassium	Liquid	14,300	14,800	µg/L	3.4
	Sludge-dry	2,280	1,680	mg/kg	30.3
	Sludge-wet	477	350	mg/kg	30.7
Selenium	Sludge-dry	5,270	1.5 U	mg/kg	199.9
	Sludge-wet	1.1	0.31 U	mg/kg	112.1
Silver	Liquid	31.1	27.2	µg/L	13.4
	Sludge-dry	624	720	mg/kg	14.3
	Sludge-wet	130	151	mg/kg	14.9
Sodium	Liquid	244,500	253,000	µg/L	3.4
	Sludge-dry	4,390	3,240	mg/kg	30.1
	Sludge-wet	917	678	mg/kg	30.0
Thallium	Sludge-dry	308	0.091 U	mg/kg	199.9
	Sludge-wet	0.064	0.005 U	mg/kg	171.0
Vanadium	Liquid	11.2	9.9	µg/L	12.3
	Sludge-dry	159	119	mg/kg	28.8
	Sludge-wet	33.3	24.8	mg/kg	29.3
Zinc	Liquid	56.9	46.9	µg/L	19.3
	Sludge-dry	890	586	mg/kg	41.2
	Sludge-wet	186	123	mg/kg	40.8
Sulfur	Sludge-dry	3,960	2,040	mg/kg	64.0
	Sludge-wet	827	427	mg/kg	63.8
Silver-108m	Sludge	6,800	2,020 U	pCi/g	108.4
Cobalt-60	Liquid	18,700	16,800	pCi/L	10.7
	Sludge	184,000	105,000	pCi/g	54.7
Cesium-134	Liquid	204,000	199,000	pCi/L	2.5
	Sludge	30,600	38,300	pCi/g	22.4
Cesium-137	Liquid	58,500,000	58,300,000	pCi/L	0.3
	Sludge	11,300,000	13,300,000	pCi/g	16.3

Table E-4. (continued).

Analyte	Phase	Sample Concentration	Duplicate Concentration	Units	Relative Percent Difference
Europium-152	Sludge	24,900	23,400	pCi/g	6.2
Europium-154	Sludge	4,230	9,080	pCi/g	72.9
Zinc-65	Sludge	4,910	5,020	pCi/g	2.2
Plutonium-238	Liquid	874	1,290	pCi/L	38.4
	Sludge	24,100	14,800	pCi/g	47.8
Plutonium-239/-240	Liquid	1,230	2,150	pCi/L	54.4
	Sludge	25,200	15,900	pCi/g	45.3
Uranium-234	Liquid	698	795	pCi/L	13.0
	Sludge	38,900	31,400	pCi/g	21.3
Uranium-235	Liquid	1.14 U	4.68	pCi/L	121.6
Uranium-238	Liquid	14.9	15.9	pCi/L	6.5
	Sludge	464	124 U	pCi/g	115.6
Americium-241	Liquid	1,450	1,930	pCi/L	28.4
	Sludge	36,400	25,900	pCi/g	33.7
Strontium-90	Liquid	171,000	162,000	pCi/L	5.4
	Sludge	638,000	455,000	pCi/g	33.5
Tritium	Liquid	290,000	301,000	pCi/L	3.7
1,1-Dichloroethene	Liquid	190	2,500 U	µg/L	171.7
	Sludge	46,000	600,000 U	µg/kg	171.5
trans-1.2-Dichloroethene	Liquid	7	2,500 U	µg/L	198.9
1,1-Dichloroethane	Liquid	360	2,500 U	µg/L	149.7
	Sludge	8,300	600,000 U	µg/kg	194.5
cis-1,2-Dichloroethene	Liquid	53	2,500 U	µg/L	191.7
	Sludge	1,300	600,000 U	µg/kg	199.1
1,1,1-Trichloroethane	Liquid	60,000	62,000	µg/L	3.3
	Sludge	22,000,000	19,000,000	µg/kg	14.6
Trichloroethene	Liquid	13,000	13,000	µg/L	0.0
	Sludge	4,500,000	3,600,000	µg/kg	22.2
Toluene	Liquid	28	2,500 U	µg/L	195.6
	Sludge	210,000	160,000	g/kg	27.0
1,1,2-Trichloroethane	Liquid	110	2,500 U	µg/L	183.1

Table E-4. (continued).

Analyte	Phase	Sample Concentration	Duplicate Concentration	Units	Relative Percent Difference
	Sludge	2,800	600,000 U	µg/kg	198.1
Tetrachloroethene	Liquid	5	2,500 U	µg/L	199.2
	Sludge	7,800	600,000 U	µg/kg	194.9
Ethylbenzene	Sludge	4,600	600,000 U	µg/kg	197.0
m and p-Xylenes	Sludge	19,000	600,000 U	µg/kg	187.7
o-Xylene	Sludge	6,100	600,000 U	µg/kg	196.0
1,1,2,2-Tetrachloroethane	Liquid	43	2,500 U	µg/L	193.2
	Sludge	3,900	600,000 U	µg/kg	197.4
pH	Liquid	7.7	7.59	N/A	1.4
	Sludge	7.11	7.01	N/A	1.4
Reactive Cyanide	Liquid	0.009	0.011	mg/L	20.0
	Sludge	0.99	0.8	mg/kg	21.2
Total Sulfate	Liquid	149	147	mg/L	1.4
Total Suspended Solids	Liquid	7	7	mg/L	0.0
Density	Liquid	0.998	0.99	g/mL	0.8
Moisture Content	Sludge	86.2	81	%	6.2
Bulk Density	Sludge	1.21	1.16	g/mL	4.2
Hardness	Liquid	110	120	mg/L	8.7
Oil and Grease	Liquid	14.1	13.7	mg/L	2.9
Total Organic Halides	Liquid	13,900	15,800	µg/L	12.8
	Sludge	3,229	3,344	µg/kg	3.5
Total Organic Carbon	Liquid	49.5	47.9	mg/L	3.3
	Sludge	43,150	45,500	mg/kg	5.3

U = nondetect.

Table E-5. ARA-23 duplicate relative percent differences.

Analyte	Sample Concentration (pCi/g)	Duplicate Concentration (pCi/g)	Relative Percent Difference
Cesium-137	5.31E+00	4.87E+00	8.6
Radium-226	1.88E+00	3.03E+00	46.8
Uranium-234	5.91E-01	6.97E-01	16.5
Uranium-238	6.72E-01	6.71E-01	0.1
Thorium-228	1.19E+00	1.14E+00	4.3
Thorium-230	1.19E+00	1.27E+00	6.5
Thorium-232	1.17E+00	1.09E+00	7.1
Americium-241	3.17E-02	2.53E-02	22.5
Strontium-90	1.28E+00	1.36E+00	6.1

Table E-6. WAG 5 groundwater relative percent differences.

Analyte	Sample Concentration (μg/L)	Duplicate Concentration (μg/L)	Relative Percent Difference
Chloride	13,350	13,540	1.4
Sulfate	16,180	16,220	0.2
Nitrate	510	510	0.0
Barium	25.2	25.1	0.4
Calcium	31,800	31,700	0.3
Lead	11.2	11.2	0.0
Magnesium	13,300	13,200	0.8
Potassium	1,930	1,890	2.1
Sodium	9,310	9,230	0.9
Zinc	609	605	0.7
Toluene	3	3	0.0