Appendix C

Analytical Data Summaries

ARA-02 Summary Data (FY 2000)

SAMPLE NUMBER LOCATION MEDIA	5RA00101 TANK #1 CONCRETE		5RA00201 TANK #2 CONCRETE		5RA00202 TANK #2 CONCRETE		5RA00301 TANK #3 CONCRETE		5RA00401 SEEPAGE PIT PUMICE		5RA00501 MANHOLE #1 CONCRETE		5RA00601 MANHOLE #2 CONCRETE		5RA00701 MANHOLE #3 CONCRETE		5RA00801 CONTAINER COMP PIPING		5RA00901 CONTAINER #2 PIPING		5RA03801 CONTAINER #1 PIPING		5RA0591 RINSATE WATER	
ANALYSIS																								
Gross Alpha (pCi/g)	10.8 +/- 2.9		15.7 +/- 4.7		25.9 +/- 6.2		29.2 +/- 7.9		34.0 +/- 9.1		9.89 +/- 2.75		22.1 +/- 5.7		26.1 +/- 6.3		9.66 +/- 2.40		NA		NA		< 1.58	U
Gross Beta (pCi/g)	16.8 +/- 2.8		27.4 +/- 3.7		27.4 +/- 3.4		27.7 +/- 3.4		42.9 +/- 4.2		17.8 +/- 2.7		30.7 +/- 3.9		30.4 +/- 3.6		22.4 +/- 2.9		NA		NA		< 2.61	U
Gamma Spec. (pCi/g or pCi/L)																			NA		NA			
Co-60	< 0.0348	U	0.0222 +/- 0.0088	J	0.214 +/- 0.022		0.404 +/- 0.035		0.256 +/- 0.027		< 0.0348	U	0.217 +/- 0.022		0.209 +/- 0.020		< 0.0333	U					< 2.94	U
Cs-137	0.766 +/- 0.052		1.41 +/- 0.08		1.57 +/- 0.10		4.01 +/- 0.28		11.4 +/- 0.6		< 0.0347	U	6.31 +/- 0.34		2.14 +/- 0.12		0.320 +/- 0.025						< 2.74	U
Eu-152	< 0.0759	U	< 0.0581	UJ	< 0.0880	U	< 0.180	U	0.214 +/- 0.058		< 0.0799	U	< 0.0959	U	< 0.0722	U	< 0.0817	U					< 8.16	U
K-40	11.6 +/- 0.6		19.9 +/- 1.1		19.0 +/- 1.0		15.4 +/- 0.9		29.1 +/- 1.5		16.0 +/- 0.9		19.1 +- 1.1		17.4 +/- 0.9		18.2 +/- 1.1						N/A	
Ra-226	0.495 +/- 0.048		0.856 +/- 0.058		1.02 +/- 0.08		0.920 +/- 0.105		1.52 +/- 0.11		0.786 +/- 0.063		0.907 +/- 0.065		0.979 +/- 0.069		0.901 +/- 0.064						< 5.63	U
Ra-226 (via daughter)	0.568 +/- 0.074		1.00 +/- 0.10		0.879 +/- 0.098		0.912 +/- 0.100		1.64 +/- 0.16		0.944 +/- 0.100		0.798 +/- 0.086		1.02 +/- 0.09		0.831 +/- 0.088						< 0.863	U
U-235	< 0.157	U	< 0.141	U	< 0.183	U	0.370 +/- 0.139	J	0.497 +/- 0.122		< 0.172	U	0.437 +/- 0.090		0.163 +/- 0.066	J	< 0.170	U					< 17.7	UJ
SVOCs (ug/kg or ug/L)																			NA		NA			
Diethylphthalate	94.15	J	< 337.1	U	< 337.2	U	< 345.7	U	< 356.4	U	< 353.6	U	< 342.0	U	< 338.9	U	< 341.9						< 10	U
Di-n-Butylphthalate	737.8		387.9		257.5	J	604.7		681.6		< 353.6	U	266.6	J	658.0		219.2	J					1.023	J
VOCs (ug/kg or ug/L)	NA								NA															
4-Methyl-2-pentanone			< 20.28	U	< 20.28	U	< 21.39	U			< 20.77	UJ	< 20.41	R	< 20.45	UJ	33.11	J	26.20	J	8.925	J	< 20	U
Toluene			< 5.071	U	1.169	J	< 5.348	U			< 5.192	UJ	< 5.102	R	< 5.112	UJ	< 5.128	UJ	< 5.107	UJ	< 5.149	UJ	< 5	U
Dioxins (pg/g or pg/L)	NA		NA		NA		NA				NA		NA		NA		NA		NA		NA			
1,2,3,6,7,8-HxCDD									1.2	J													< 0.73	U
1,2,3,4,6,7,8-HpCDD									15	J													< 0.73	U
Total HpCDD									26	J													< 0.73	U
OCDD									150	J													< 2.2	U
Furans (pg/g or pg/L)	NA		NA		NA		NA				NA		NA		NA		NA		NA		NA			
OCDF									6.5	J													< 0.80	U
PCBs (ug/kg or ug/L)																			NA		NA			
Aroclor-1016	< 34	U	130	J	75	J	490	J	< 35	U	< 35	U	< 34	U	< 34	U	< 34	U					< 1.0	U
Aroclor-1260	< 34	U	< 33	U	230		< 35	U	< 35	U	120	J	< 34	U	46	J	< 34	U					1.0	
TCLP Metals (ug/L)																			NA		NA		NA	
Arsenic	< 5.0	U	8.0	B	8.8	B	< 5.0	U	5.7	B	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U						
Barium	187	B	645	B	612	B	777	B	332	B	629	B	629	B	962	B	703	B						
Cadmium	< 5.0	U	5.0	B	< 5.0	U	13.3	B	6.5	B	81.3		< 5.0	U	6.9	B	< 5.0	U						
Chromium	< 5.0	U	< 5.0	U	< 5.0	U	7.5	B	< 5.0	U	18.0	B	< 5.0	U	14.0	B	< 5.0	U						
Lead	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U						
Mercury	< 0.20	U	< 0.20	U	< 0.20	U	< 0.20	U	< 0.20	U	< 0.20	U	< 0.20	U	< 0.20	U	< 0.20	U						
Selenium	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	6.9	B	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U						
Silver	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U						
Metals	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA			
Arsenic																							< 5.0	U
Barium																							< 5.0	U
Cadmium																							< 5.0	U
Chromium																							< 5.0	U
Lead																							< 3.0	U
Mercury																							< 0.20	U
Selenium																							< 5.0	U
Silver																							< 10.0	U

ARA-13 Summary Data

SAMPLE NUMBER LOCATION MEDIA	5RA10101 TANK #1 SLUDGE		5RA10201 TANK #2 SLUDGE		5RA10301 TANK #3 SLUDGE		5RA10401 TANK #4 LIQUID		5RA10501 BOX #1 SLUDGE		5RA10502 BOX #1 SLUDGE		5RA10601 BOX #2 SLUDGE		5RA10701 BOX #3 LIQUID		5RA10801 MANHOLE #1 SLUDGE	
ANALYSIS																		
SVOCs (ug/kg) or (ug/L)																		
1,4-Dichlorobenzene	< 10410	U	1583	J	382.9	J	< 10.0	U	< 600.7	U	< 578.5	U	< 604.2	U	< 10.0	U	< 384.6	U
Naphthalene	7487	J	6686	J	3258		1.901	J	91.1	J	< 578.5	U	79.74	J	< 10.0	U	< 384.6	U
4-Chloroaniline	4640	J	6075	J	2954		< 10.0	U	386.9	J	164.7	J	279	J	< 10.0	U	< 384.6	U
2-Methylnaphthalene	2121	J	5083	J	2933		< 10.0	U	66.73	J	< 578.5	U	69.23	J	< 10.0	U	< 384.6	U
Acenaphthene	1834	J	7507	J	15380		< 10.0	U	1449		636.1		1196		< 10.0	U	< 384.6	U
Dibenzofuran	1506	J	4577	J	11230		< 10.0	U	871.7		365.6	J	831.4		< 10.0	U	< 384.6	U
Fluorene	2955	J	8975	J	20760		< 10.0	U	2340		1080		2053		< 10.0	U	< 384.6	U
Diethylphthalate	< 10410	U	< 13540	U	< 2898	U	< 10.0	U	< 600.7	U	< 578.5	U	< 604.2	U	< 10.0	U	45.76	J
Phenanthrene	37240		94080	J	279000	J	4.681	J	33510		13390		31230		< 10.0	U	< 384.6	U
Anthracene	12680		27040	J	83230	J	1.142	J	16350		7053		14680	J	< 10.0	U	< 384.6	U
Fluoranthene	36920		93280	J	235500	J	2.182	J	60910		25510		49280		< 10.0	U	< 384.6	U
Pyrene	20480		54640		185600		1.676	J	60600		25870		52200		< 10.0	U	< 384.6	U
Benzo(a)Anthracene	9975	J	26320		68560	J	< 10.0	U	33540		15690		29040		< 10.0	U	< 384.6	U
Chrysene	9614	J	20460		60860		< 10.0	U	31740		15530		27060	J	< 10.0	U	< 384.6	U
bis(2-ethylhexyl) Phthalate	3422	J	< 13540	U	1456	J	4.023	J	368.4	J	323.7	J	287	J	14.75		50.76	J
Benzo(b)fluoranthene	4105	J	10360	J	31440	J	< 10.0	U	17540		10660		15770		< 10.0	U	< 384.6	U
Benzo(k)fluoranthene	4233	J	11290	J	22090		< 10.0	U	4732		4486		17770		< 10.0	U	< 384.6	U
Benzo(a)pyrene	4558	J	12810	J	35320	J	< 10.0	U	20200		11250		18340		< 10.0	U	< 384.6	U
Indeno(1,2,3-cd)pyrene	1893	J	5892	J	5082		< 10.0	U	8138	J	4486		7919	J	< 10.0	U	< 384.6	U
Dibenzo(a,h)anthracene	< 10410	U	1574	J	3300		< 10.0	U	4186		1975		2882		< 10.0	U	< 384.6	U
Benzo(g,h,I)perylene	< 10410	U	< 13540	U	7022		< 10.0	U	6648	J	3217		6283	J	< 10.0	U	< 384.6	U
Carbazole	3853	J	7651	J	13680	J	< 10.0	U	1838		713.9		1352		< 10.0	U	< 384.6	U
Pesticides (ug/kg) or (ug/L)																		
alpha-BHC	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
beta-BHC	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
delta-BHC	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
gamma-BHC (Lindane)	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
Heptachlor	< 210	U	< 280	U	< 300	U	< 0.050	UJ	< 310	U	< 59	U	< 62	U	< 0.050	UJ	< 2.0	U
Aldrin	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
Heptachlor epoxide	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
Endosulfan I	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
Dieldrin	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
4,4'-DDE	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
Endrin	< 210	UJ	< 280	UJ	< 300	UJ	< 0.050	U	< 310	UJ	< 59	UJ	< 62	UJ	< 0.050	U	< 2.0	U
Endosulfan II	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U

ARA-13 Summary Data (continued)

SAMPLE NUMBER LOCATION MEDIA	5RA10101 TANK #1 SLUDGE		5RA10201 TANK #2 SLUDGE		5RA10301 TANK #3 SLUDGE		5RA10401 TANK #4 LIQUID		5RA10501 BOX #1 SLUDGE		5RA10502 BOX #1 SLUDGE		5RA10601 BOX #2 SLUDGE		5RA10701 BOX #3 LIQUID		5RA10801 MANHOLE #1 SLUDGE	
4,4'-DDD	< 210	UJ	< 280	UJ	< 300	UJ	< 0.050	UJ	< 310	UJ	< 59	UJ	< 62	UJ	< 0.050	UJ	< 2.0	U
Endosulfan sulfate	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
4,4'-DDT	< 210	UJ	< 280	UJ	< 300	UJ	< 0.050	UJ	< 310	UJ	< 59	UJ	< 62	UJ	< 0.050	UJ	< 2.0	UJ
Methoxychlor	< 410	U	< 540	U	< 570	U	< 0.10	UJ	< 590	U	< 110	U	< 120	U	< 0.10	UJ	< 3.8	UJ
Endrin ketone	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
Endrin aldehyde	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
alpha-Chlordane	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
gamma-Chlordane	< 210	U	< 280	U	< 300	U	< 0.050	U	< 310	U	< 59	U	< 62	U	< 0.050	U	< 2.0	U
Technical Chlordane	< 2100	U	< 2800	U	< 3000	U	< 0.50	U	< 3100	U	< 590	U	< 620	U	< 0.50	U	< 20	U
Toxaphene	< 210	U	< 280	U	< 300	U	< 1.0	U	< 310	U	< 59	U	< 62	U	< 1.0	U	< 2.0	U
Herbicides (ug/L or ug/kg)																		
Dalapon	< 250	U	< 320	U	< 350	U	< 2.0	U	< 72	U	< 69	U	< 72	U	< 2.0	U	< 46	R
Dicamba	< 250	U	< 320	U	< 350	U	< 2.0	U	< 72	U	< 69	U	< 72	U	< 2.0	U	< 46	R
MCPP	< 50000	U	< 65000	U	< 70000	U	< 400	U	< 14000	U	< 14000	U	< 14000	U	< 400	U	< 9200	R
MCPA	< 50000	U	< 65000	U	< 70000	U	< 400	U	< 14000	U	< 14000	U	24000	J	< 400	U	< 9200	R
Dichloroprop	< 500	U	< 650	U	< 700	U	< 4.0	U	< 140	U	< 140	U	< 140	U	< 4.0	U	< 92	R
2,4-D	< 500	U	< 650	U	< 700	U	< 4.0	U	< 140	U	< 140	U	< 140	U	< 4.0	U	< 92	R
2,4,5-TP	< 120	U	< 160	U	< 170	U	< 1.0	U	< 36	U	< 35	U	< 36	U	< 1.0	U	< 23	R
2,4,5-T	< 120	U	< 160	U	< 170	U	< 1.0	U	< 36	U	< 35	U	< 36	U	< 1.0	U	< 23	R
2,4-DB	< 500	U	< 650	U	1000		< 4.0	U	< 140	U	< 140	U	< 140	U	< 4.0	U	< 92	R
Dinoseb	< 75	U	110	J	310	J	< 0.60	U	< 22	U	75	J	< 22	U	< 0.60	U	< 14	R
Gross Alpha/Beta (pCi/g or pCi/L)																		
Gross Alpha	18.0 +/- 4.7		16.1 +/- 3.3		24.7 +/- 16.9	U	3.11 +/- 0.86		14.3 +/- 7.9	U	17.9 +/- 3.4		21.8 +/- 4.1		10.1 +/- 2.6		16.8 +/- 3.0	
Gross Beta	24.2 +/- 2.2		12.5 +/- 1.3		26.2 +/- 3.6		14.5 +/- 1.6		23.3 +/- 3.3		29.0 +/- 2.3		28.1 +/- 2.2		31.9 +/- 2.6		27.6 +/- 2.4	
TCLP VOCs																		
Vinyl Chloride	< 100	U	< 100	U	< 100	U	< 100	U	< 100	U	< 100	U	< 100	U	< 100	U	< 100	U
1,1-Dichloroethene	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
Chloroform	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
1,2-Dichloroethane	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
2-Butanone	< 200	U	< 200	U	< 200	U	133.8	J	< 200	U	< 200	U	< 200	U	200	UJ	< 200	U
Carbon Tetrachloride	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
Trichloroethene	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
Benzene	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
Tetrachloroethene	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
Chlorobenzene	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
TCLP Metals (ug/L)							N/A								N/A			
Arsenic	12.4		7.7		< 5.0	U			< 5.0	U	< 5.0	U	< 5.0	U			9.0	
Barium	2,570		854		984				1,640		1,770		1,760				1,230	

ARA-13 Summary Data (continued)

SAMPLE NUMBER LOCATION MEDIA	5RA10101 TANK #1 SLUDGE		5RA10201 TANK #2 SLUDGE		5RA10301 TANK #3 SLUDGE		5RA10401 TANK #4 LIQUID		5RA10501 BOX #1 SLUDGE		5RA10502 BOX #1 SLUDGE		5RA10601 BOX #2 SLUDGE		5RA10701 BOX #3 LIQUID		5RA10801 MANHOLE #1 SLUDGE	
Cadmium	< 5.0	U	< 5.0	U	< 5.0	U			< 5.0	U	< 5.0	U	< 5.0	U			< 5.0	U
Chromium	< 5.0	U	< 5.0	U	< 5.0	U			< 5.0	U	< 5.0	U	< 5.0	U			< 5.0	U
Lead	< 5.0	U	< 5.0	U	< 5.0	U			< 5.0	U	< 5.0	U	< 5.0	U			< 5.0	U
Mercury	< 0.20	U	< 0.20	U	< 0.20	U			< 0.20	U	< 0.20	U	< 0.20	U			< 0.20	U
Selenium	5.1	U	< 5.0	U	6.2	U			< 5.0	U	7.5	U	5.8	U			< 5.0	U
Silver	< 5.0	U	< 5.0	U	< 5.0	U			< 5.0	U	< 5.0	U	< 5.0	U			< 5.0	U
TCLP SVOCs (ug/L)																		
Pyridine	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
1,4-Dichlorobenzene	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
2-Methylphenol	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
3 and 4-Methylphenol	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
Hexachloroethane	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
Nitrobenzene	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
Hexachlorobutadiene	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
2,4,6-Trichlorophenol	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
2,4,5-Trichlorophenol	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
2,4-Dinitrotoluene	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
Hexachlorobenzene	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U	< 50	U
Pentachlorophenol	< 250	U	< 250	U	< 250	U	< 250	U	< 250	U	< 250	U	< 250	U	< 250	U	< 250	U
TCLP Pesticides																		
gamma-BHC (Lindane)	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U
Heptachlor	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U
Heptachlor epoxide	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	U
Endrin	< 0.50	UJ	< 0.50	UJ	< 0.50	UJ	< 0.50	UJ	< 0.50	U	< 0.50	U	< 0.50	U	< 0.50	UJ	< 0.50	UJ
Methoxychlor	< 1.0	UJ	< 1.0	UJ	< 1.0	UJ	< 1.0	UJ	< 1.0	UJ	< 1.0	UJ	< 1.0	UJ	< 1.0	UJ	< 1.0	UJ
Technical Chlordane	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U	< 5.0	U
Toxaphene	< 20	U	< 20	U	< 20	U	< 20	U	< 20	U	< 20	U	< 20	U	< 20	U	< 20	U
TCLP Herbicides (ug/L)																		
2,4-D	< 40	U	< 40	U	< 40	U	< 40	U	< 40	U	< 40	U	< 40	U	< 40	U	< 40	U
2,4,5-TP	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U
Metals (mg/kg or ug/L))																		
Aluminum	4,990		630		1,690		< 50.0	U	8,610		8,210		9,810		5,830		8,230	
Antimony	< 0.94	R	1.0	R	< 0.87	R	< 10.0	U	< 0.92	R	< 0.92	R	< 0.74	R	< 10.0	U	< 0.90	R
Arsenic	2.6		1.4		1.4		< 5.0	U	4.1		3.8		3.5		< 5.0	U	5.7	
Barium	178		60.4		62.6		38.8		138		142		151		137		152	
Beryllium	< 0.47	U	< 0.45	U	< 0.43	U	< 5.0	U	0.60		0.58		0.65		< 5.0	U	0.63	
Cadmium	1.1		1.5		0.95		< 5.0	U	0.87		1.1		1.6		< 5.0	U	0.46	
Calcium	22,100		2,930		6,140		68,700		14,100		10,900		11,500		160,000		29,000	

ARA-13 Summary Data (continued)

SAMPLE NUMBER LOCATION MEDIA	5RA10101 TANK #1 SLUDGE		5RA10201 TANK #2 SLUDGE		5RA10301 TANK #3 SLUDGE		5RA10401 TANK #4 LIQUID		5RA10501 BOX #1 SLUDGE		5RA10502 BOX #1 SLUDGE		5RA10601 BOX #2 SLUDGE		5RA10701 BOX #3 LIQUID		5RA10801 MANHOLE #1 SLUDGE	
Chromium	11.6		13.2		6.0		< 5.0	U	16.5		19.1		20.2		8.5		16.9	
Cobalt	3.3		2.4		1.1		< 5.0	U	5.2		4.5		5.2		< 5.0	U	5.7	
Copper	32.4		30.5		19.3		< 5.0	U	27.9		32.1		34.2		13.2		17.7	
Iron	6,720		1,310		2,770		< 50.0	U	20,000		22,500		18,500		7,800		13,300	
Lead	11.8		11.2		6.6		< 3.0	U	13.9		14.2		16.5		6.8		11.5	
Magnesium	3,090	J	395	J	913	J	14,000		5,180	J	4,660	J	5,220	J	10,100		6,260	J
Manganese	152		21.2		44.1		66.1		186		164		156		226		272	
Mercury	0.30		0.77		0.59		< 0.20	U	0.53		0.52		0.33		< 0.20	U	< 0.09	U
Nickel	48.5		9.6		10.3		10.9		31.3		34.2		38.7		15.1		19.8	
Potassium	1,120		118		382		13,300		2,440		2,380		2,830		23,200		1,880	
Selenium	< 0.47	U	0.84		0.52		< 5.0	U	0.51		0.83		0.74		< 5.0	U	< 0.45	U
Silver	0.87		1.9		0.93		< 5.0	U	< 0.46	U	0.85		0.71		< 5.0	U	< 0.45	U
Sodium	74.4		53.1		44.2		22,500		105		93.3		106		16,800		152	
Thallium	< 0.94	U	< 0.89	U	< 0.87	U	< 10.0	U	< 0.92	U	< 0.92	U	< 0.74	U	< 10.0	U	< 0.90	U
Vanadium	9.9		9.1		5.7		< 5.0	U	19.4		18.0		20.5		8.5		24.2	
Zinc	133		228		188		12.7		136		179		176		35.2		63.3	
PCBs (ug/L or ug/kg)																		
Aroclor-1016	< 220	UJ	< 300	UJ	< 270	U	< 1.0	U	< 2800	U	< 2900	U	< 2900	U	< 1.0	U	< 38	U
Aroclor-1221	< 220	UJ	< 300	UJ	< 270	U	< 1.0	U	< 2800	U	< 2900	U	< 2900	U	< 1.0	U	< 38	U
Aroclor-1232	< 220	UJ	< 300	UJ	< 270	U	< 1.0	U	< 2800	U	< 2900	U	< 2900	U	< 1.0	U	< 38	U
Aroclor-1242	< 220	UJ	< 300	UJ	< 270	U	< 1.0	U	< 2800	U	< 2900	U	< 2900	U	< 1.0	U	< 38	U
Aroclor-1248	< 220	UJ	< 300	UJ	< 270	U	< 1.0	U	< 2800	U	< 2900	U	< 2900	U	< 1.0	U	< 38	U
Aroclor-1254	< 220	R	< 300	R	1,200		< 1.0	U	27,000		17,000		60,000		< 1.0	U	< 38	U
Aroclor-1260	430	JN	830	JN	< 270	U	< 1.0	U	< 2800	U	< 2900	U	< 2900	U	< 1.0	U	< 38	U
Aroclor-1262	< 220	UJ	< 300	UJ	< 270	U	< 1.0	U	< 2800	U	< 2900	U	< 2900	U	< 1.0	U	< 38	U
Aroclor-1268	< 220	UJ	< 300	UJ	< 270	U	< 1.0	U	< 2800	U	< 2900	U	< 2900	U	< 1.0	U	< 38	U
Gamma Spec. (pCi/g or pCi/L)																		
Ag-108m	< 0.0252	U	< 0.0391	U	< 0.0265	U	< 2.89	U	< 0.02467	U	< 0.0270	U	< 0.0328	U	< 2.50	U	< 0.0211	U
Ag-110m	< 0.0287	U	< 0.0459	U	< 0.0264	U	< 3.03	U	< 0.0242	U	< 0.0274	U	< 0.0349	U	< 2.68	U	< 0.0230	U
Am-241	< 0.0911	U	< 0.0533	U	< 0.114	U	< 15.3	U	< 0.152	U	< 0.178	U	< 0.0584	U	< 12.6	U	< 0.101	U
Ce-144	< 0.17	U	< 0.189	U	< 0.147	U	< 19.1	U	< 0.141	U	< 0.163	U	< 0.173	U	< 17.1	U	< 0.143	U
Co-58	< 0.0286	U	< 0.0547	U	< 0.0284	U	< 3.68	U	< 0.0274	U	< 0.0348	U	< 0.0386	U	< 3.27	U	< 0.0272	U
Co-60	< 0.0298	U	0.219 +/- 0.038		0.031 +/- 0.015	J	< 3.23	U	< 0.0312	U	< 0.0362	U	< 0.0431	U	< 3.28	U	< 0.0265	U
Cs-134	< 0.030	UJ	< 0.0451	U	< 0.0275	U	< 3.06	U	< 0.0238	U	< 0.0280	U	< 0.0345	U	< 2.68	U	< 0.0223	U
Cs-137	0.182 +/- 0.022		0.135 +/- 0.026		0.064 +/- 0.016		< 3.13	U	0.236 +/- 0.019		0.258 +/- 0.022		0.256 +/- 0.026		< 2.78	U	0.032 +/- 0.011	
Eu-152	< 0.0741	U	< 0.109	U	< 0.0748	U	< 9.05	U	< 0.0695	U	< 0.0808	U	< 0.0865	U	< 7.57	U	< 0.0640	U
Eu-154	< 0.0944	U	< 0.151	U	< 0.100	U	< 8.56	U	< 0.0965	U	< 0.102	U	< 0.109	U	< 8.78	U	< 0.0858	U

ARA-13 Summary Data (continued)

SAMPLE NUMBER LOCATION MEDIA	5RA10101 TANK #1 SLUDGE		5RA10201 TANK #2 SLUDGE		5RA10301 TANK #3 SLUDGE		5RA10401 TANK #4 LIQUID		5RA10501 BOX #1 SLUDGE		5RA10502 BOX #1 SLUDGE		5RA10601 BOX #2 SLUDGE		5RA10701 BOX #3 LIQUID		5RA10801 MANHOLE #1 SLUDGE	
Eu-155	< 0.0834	U	< 0.0902	U	< 0.0711	U	< 10.0	UJ	< 0.0738	U	< 0.0893	UJ	< 0.0819	U	< 8.62	U	< 0.0727	U
K-40	18.0 +/- 1.0		6.65 +/- 0.53		14.1 +/- 0.8		< 36.2	U	21.0 +/- 1.2		21.0 +/- 1.2		19.1 +/- 1.0		< 26.8	U	18.6 +/- 0.9	
Mn-54	< 0.0299	U	< 0.0511	U	< 0.032	U	< 3.19	U	< 0.0269	U	< 0.0294	U	0.037 +/- 0.011		< 2.65	U	< 0.0220	U
Nb-95	< 0.0438	U	< 0.0700	U	< 0.0417	U	< 4.06	U	< 0.0378	U	< 0.0458	U	< 0.0530	U	< 3.77	U	< 0.0376	U
Ra-226	0.913 +/- 0.076		0.447 +/- 0.076		0.718 +/- 0.058		< 6.29	U	0.859 +/- 0.062		0.973 +/- 0.071		0.876 +/- 0.080		< 6.46	U	0.858 +/- 0.059	
Ru-103	< 0.0326	U	< 0.0561	U	< 0.0319	U	< 3.98	U	< 0.0289	U	< 0.0346	U	< 0.0402	U	< 3.74	U	< 0.0262	U
Ru-106	< 0.249	U	< 0.427	U	< 0.266	U	< 29.2	U	< 0.226	U	< 0.291	U	< 0.309	U	< 25.8	U	< 0.214	U
Sb-125	< 0.0670	U	< 0.110	U	< 0.0730	U	< 7.95	U	< 0.0685	UJ	< 0.0752	U	< 0.0864	U	< 7.21	U	< 0.0615	U
U-235	< 0.179	U	0.267 +/- 0.104	J	0.214 +/- 0.085	J	< 19.9	U	< 0.152	UJ	< 0.182	UJ	< 0.819	U	< 17.1	U	< 0.148	UJ
Zn-65	< 0.0734	U	< 0.120	U	< 0.0706	U	< 7.15	U	< 0.0637	U	< 0.074	U	< 0.0915	U	< 6.59	U	< 0.0619	U
Zr-95	< 0.0564	UJ	< 0.100	U	< 0.0538	U	< 7.10	U	< 0.0537	U	< 0.0622	U	< 0.0792	U	< 5.19	U	< 0.0518	UJ
VOCs (ug/kg) or (ug/L)																		
Acetone	792.7	J	535.8	J	244.6	J	33.33	J	63.77	J	36.23	J	57.83	J	21.62	J	< 22.99	U
Carbon Disulfide	118.1	J	94.8	J	77.76	J	< 5.00	U	< 9.259	UJ	< 9.091	U	< 9.615	U	< 5.0	U	< 5.747	U
1,1-Dichloroethane	24.28	J	< 35.71	UJ	< 23.81	UJ	< 5.00	U	< 9.259	UJ	< 9.091	U	< 9.615	U	< 5.0	U	< 5.747	U
1,2-Dichloroethene (total)	< 31.25	UJ	10.62	J	< 23.81	UJ	< 5.00	U	< 9.259	UJ	< 9.091	U	< 9.615	U	< 5.0	U	< 5.747	U
2-Butanone	173.6	J	< 142.8	R	72.00	J	< 20.0	U	< 37.04	R	< 36.36	R	24.42	J	< 20.0	U	< 22.99	U
Benzene	18.62	J	17.2	J	< 23.81	UJ	< 5.00	U	< 9.259	UJ	< 9.091	U	< 9.615	U	< 5.0	U	< 5.747	U
2-Hexanone	1886	J	< 142.8	UJ	< 95.24	UJ	< 20.0	U	< 37.04	UJ	< 36.36	U	< 38.46	U	< 20.0	U	< 22.99	U
Toluene	14660	J	2606	J	30.97	U	1.18	J	< 9.259	UJ	< 9.091	U	< 9.615	U	< 5.0	U	< 5.747	U
Chlorobenzene	< 31.25	UJ	58.15	J	< 23.81	UJ	< 5.0	U	< 9.259	UJ	< 9.091	U	< 9.615	UJ	< 5.0	U	< 5.747	U
Ethylbenzene	466.7	J	495.2	J	53.5	J	< 5.0	U	< 9.259	UJ	< 9.091	U	< 9.615	UJ	< 5.0	U	< 5.747	U
Xylenes (total)	7413	J	5866	J	890.0	J	< 5.0	U	< 9.259	UJ	< 9.091	U	< 9.615	UJ	< 5.0	U	< 5.747	U
VOC Tentatively Identified Compounds																		
Butanal							12.29	JN										
1,3,5-Trimethyl Benzene	22950	JN	1912	JN	8927	JN												
1,2,4-Trimethyl Benzene	41275	JN	14057	JN	10576	JN												
1-Methyl-4-(1-methylethyl) Benzene	9956	JN			3677	JN												
N-Butylbenzene	5134	JN			2068	JN												
Undecane			126.3	JN														
Naphthalene																	4.368	JN
Methyl Naphthalene																	3.693	JN
Reactive Cyanide (mg/kg)	< 0.05	R	< 0.05	R	< 0.05	R	< 0.05	R	< 0.05	R	< 0.05	R	< 0.05	R	< 0.05	R	< 0.05	R
Reactive Sulfide (mg/kg)	< 30	R	50	R	< 29	R	< 30	UJ	< 29	R	< 29	R	< 29	R	< 30	UJ	< 30	R
Total Strontium (pCi/L)	N/A		N/A		N/A		< 4.17	U	N/A		N/A		N/A		N/A		N/A	

ARA-16 Analytical Summary (FY 1997)

	Liquid Phase		Sludge Phase	
Analyte	Minimum Concentration	Maximum Concentration	Minimum Concentration	Maximum Concentration
Anions	mg/L	mg/L	mg/kg	mg/kg
Fluoride	0.826	1.91		34.3
Chloride	200	236		1660
Bromide	0.348	0.385		
Nitrate				11.7
Phosphate	110	112		1050
Sulfate	93.9	105		581
Total Cyanide	0.011	0.012		15.8
			Dry/Wet	Dry/Wet
Metals	ug/L	ug/L	mg/kg	mg/kg
Aluminum	275	340.1	11,300/2,360	17,100/3,570
Antimony			11.8/2.48	12.1/2.52
Arsenic	13.4	14.1	1.18/<0.716	2.65/<0.766
Barium	1.6	4.6	215/44.9	329/68.8
Beryllium	0.3	0.3	5.58/1.17	9.58/2.00
Cadmium			28.5/5.97	16.7/3.50
Calcium	9100	9760	7,800/1,630	11,500/2,390
Chromium	5.9	22.6	878/184	1,370/287
Cobalt			6.66/1.39	17.9/3.74
Copper	169	179.8	393/82.1	660/138
Iron	152	193	22,500/4,700	47,000/9,820
Lead	14.9	36.2	2,600/543	3,970/830
Magnesium	25700	27300	3,650/762	5,560/1,160
Manganese	7.4	7.4	103/21.4	216/45.1
Mercury	0.42	0.6	2.07/0.434	3.35/0.700
Nickel	139	147	1990/39.8	407/85.0
Potassium	13800	14800	1,450/304	2,280/477
Selenium			4.40/0.91	5,270/1.10
Silver	18.3	31.1	527/110	720/151
Sodium	243000	253000	3,000/628	4,390/917
Sulfur			2,040/427	3,960/827
Thallium			279/0.058	308/0.064
Vanadium	9.9	11.2	84.4/17.6	159/33.3
Zinc	46.9	56.9	586/123	890/186
PCBs	ug/L	ug/L	ug/kg	ug/kg
Aroclor-1260			52000	98000
Radionuclides	pCi/L	pCi/L	pCi/g	pCi/g
Ag-108m			2,480	6,800
Co-60	16,700	18,700	105,000	320,000
Cs-134	199,000	213,000	24,700	38,300
Cs-137	58,500,000	60,900,000	9,190,000	13,300,000
Eu-152			16,100	24,900
Eu-154			4,160	9,080
Zn-65			4,910	6,560
Pu-238	874	1,290	14,800	28,700
Pu-239/240	1,230	2,150	15,900	28,000
U-234	698	798	31,400	38,900
U-235		5		
U-238	15	16		464
Am-241	1,450	1,900	25,900	36,400
Sr-90	162,000	172,000	455,000	638,000
H-3	290,000	301,000		
TCLP VOCs (ug/L)				
1,1-Dichloroethene				550
Trichloroethene				40,000
VOCs	ug/L	ug/L	ug/kg	ug/kg
1,1-Dichloroethene		190		46,000
trans-1,2-Dichloroethene		7		
1,1-Dichloroethane		360		8,300
cis-1,2-Dichloroethene		53		1,300
1,1,1-Trichloroethane	60,000	63,000	19,000,000	22,000,000
Trichloroethene	13,000	13,000	3,600,000	4,500,000
Toluene		28	160,000	210,000
1,1,2-Trichloroethane		110		2,800
Tetrachloroethene		5		7,800
Ethylbenzene				4,600
m- and p-Xylenes				19,000
o-Xylene				6,100
1,1,2,2-Tetrachloroethane		43		3,900

ARA-16 FY 2001 Liquid Data

SAMPLE NUMBER	5RA22301
LOCATION	ARA-16 TANK
MEDIA	LIQUID
ANALYSIS	
VOCs (ug/L)	
Acetone	6300
1,1,1-Trichloroethane	2200
PCB Congeners (ug/L)	
3,3',4,4'-TeCB	0.14254
2',3,4,4',5-PeCB	0.01645
2,3',4,4',5-PeCB	0.47552
2,3,4,5',5-PeCB	0.00586
2,3,3',4,4'-PeCB	0.13340
3,3',4,4',5-PeCB	0.04262
2,3',4,4',5,5'-HxCB	0.14719
2,3,3',4,4',5-HxCB	0.09931
2,3,3',4,4',5'-HxCB	0.03222
3,3',4,4',5,5'-HxCB	0.00726
2,2',3,4,4',5,5'-HpCB	1.52400
2,2',3,3',4,4',5'-HpCB	0.45276
2,3,3',4,4',5,5'-HpCB	0.04337
PCB Totals Class (ug/L)	
Total Mono-CB	0.03976
Total Di-CB	0.19384
Total Tri-CB	0.90182
Total Tetra-CB	2.91724
Total Penta-CB	3.77485
Total Hexa-CB	5.85922
Total Hepta-CB	4.34381
Total Octa-CB	1.31978
Total Nona-CB	0.14282
Deca-CB	0.00493
Gamma Spec. (pCi/L)	
Ag-108m	< 38,600
Ag-110m	< 30,100
Am-241	< 132,000
Ce-144	< 144,000
Co-58	< 5,040
Co-60	50,300 +/- 3,630
Cs-134	164,000 +/- 12,300
Cs-137	158,000,000 +/- 7,910,000
Eu-152	< 88,300
Eu-154	< 8,090
Eu-155	< 71,200
K-40	26,100 +/- 11,800
Mn-54	< 4,070
Nb-95	< 6,810
Ra-226	< 3,939
Ru-103	< 49,500
Ru-106	< 194,000
Sb-125	< 107,000
U-235	< 139,000
Zn-65	< 6,530
Zr-95	< 9,250
Alpha Emitters (pCi/L)	
Am-241	636 +/- 64
U-233/234	2360 +/- 389
U-235/236	14.8 +/- 3.0
U-238	54.9 +/- 9.6
Pu-238	158 +/- 21
Pu-239/240	394 +/- 43
Beta Emitters (pCi/L)	
Sr-90	830,000 +/- 106,000
Tc-99	392 +/- 88
H-3	15,100,000 +/- 828,000

ARA-16 Drum VOC Data (August 2001)

Sample Number	5RA22401VA	5RA22501VE	5RA22601VA	5RA22701VA	5RA22801VA	5RA22901VA	5RA22902VA
Sample Date	8/15/01	8/15/01	8/16/01	8/16/01	8/21/01	8/21/01	8/21/01
VOCs (ug/L)							
Acetone	4	< 10	3	3	20	< 10	< 10
2-Butanone	< 10	< 10	10	< 10	710	< 10	< 10
1,1,1-Trichloroethene	< 10	< 10	< 10	< 10	10	< 10	< 10
Toluene	1	< 10	2	< 10	11	2	1

ARA-16 Contaminated Soil (July 2001)

Sample Number	5RA20901
Sample Date	7/30/01
Analyte	
Radionuclides (pCi/g)	
Gross Alpha	6.39 +/- 1.04
Gross Beta	3.45 +/- 0.66
Cs-137	1.17 +/- 0.11
Metals (mg/kg)	
Aluminum	6,920
Antimony	0.53
Arsenic	< 7.1
Barium	137
Beryllium	< 0.63
Cadmium	0.32
Calcium	47,600
Chromium	16.4
Cobalt	4.5
Copper	12.8
Iron	11,100
Lead	9.3
Magnesium	6,610
Manganese	216
Mercury	0.02
Nickel	16.7
Potassium	1,200
Selenium	0.62
Silver	< 0.09
Sodium	680
Thallium	0.65
Vanadium	24.2
Zinc	55.9
VOCs (ug/kg)	
Xylenes (total)	1.7
Toluene	16
Methylene Chloride	3.3
Acetone	16
Carbon Disulfide	2.5
Chloroform	3.6
PCBs (ug/kg)	ND
SVOCs (ug/kg)	ND

ARA-16 Activated Carbon Data Summary

SAMPLE NUMBER	5RA20801
LOCATION	CARBON FILTER
MEDIA	ACTIVATED CARBON
ANALYSIS	
VOCs (ug/L)	ND
PCBs (ug/L)	ND
METALS (mg/kg)	
Aluminum	2,440
Antimony	0.88
Arsenic	0.69
Barium	73.9
Beryllium	0.15
Cadmium	0.13
Calcium	1,500
Chromium	5.1
Cobalt	2.5
Copper	7.7
Iron	2,980
Lead	7.3
Magnesium	419
Manganese	26.4
Mercury	0.43
Nickel	6.4
Potassium	186
Selenium	1.0
Silver	8.6
Sodium	663
Thallium	< 0.48
Vanadium	4.0
Zinc	41.6
Gamma Spec. (pCi/g)	
Co-60	1,260 +/- 100
Cs-134	2,450 +/- 180
Cs-137	2,615,000 +/- 10,000
Gross Alpha/Beta (pCi/g)	
Gross Alpha	1,060 +/- 121
Gross Beta	2,560,000 +/- 102,000

ARA-21 Data Summary (FY 2000)

SAMPLE NUMBER LOCATION MEDIA	5RA30101 SEPTIC TANK WASTE		5RA30102 SEPTIC TANK WASTE		5RA30201 CHLORINE WASTE	
ANALYSIS						
SVOCs (ug/L)						
Acenaphthene	< 10.0	U	1.564	J	< 10.0	U
Fluorene	< 10.0	U	1.042	J	< 10.0	U
Phenanthrene	< 10.0	U	5.958	J	3.773	J
Anthracene	< 10.0	U	< 10.0	U	1.300	J
Fluoranthene	< 10.0	U	2.121	J	12.61	
Pyrene	< 10.0	U	2.005	J	12.69	
Benzo (a) anthracene	< 10.0	U	< 10.0	U	6.362	J
Chrysene	< 10.0	U	< 10.0	U	7.656	J
bis (2-ethylhexyl) phthalate	4.692	J	3.152	J	38.20	
Benzo (b) fluoranthene	< 10.0	U	< 10.0	U	3.212	J
Benzo (k) fluoranthene	< 10.0	U	< 10.0	U	5.936	J
Benzo (a) pyrene	< 10.0	U	< 10.0	U	4.508	J
Indeno (1,2,3-cd) pyrene	< 10.0	U	< 10.0	U	2.429	J
Benzo (g,h,i) perylene	< 10.0	U	< 10.0	U	1.673	J
TCLP SVOCs (ug/L)						
Pyridine	< 100	U	< 100	U	< 100	U
1,4-Dichlorobenzene	< 50	U	< 50	U	< 50	U
2-Methylphenol	< 50	U	< 50	U	< 50	U
3 and 4-Methylphenol	< 50	U	< 50	U	< 50	U
Hexachloroethane	< 50	U	< 50	U	< 50	U
Nitrobenzene	< 50	U	< 50	U	< 50	U
Hexachlorobutadiene	< 50	U	< 50	U	< 50	U
2,4,6-Trichlorophenol	< 50	U	< 50	U	< 50	U
2,4,5-Trichlorophenol	< 50	U	< 50	U	< 50	U
2,4-Dinitrotoluene	< 50	U	< 50	U	< 50	U
Hexachlorobenzene	< 50	U	< 50	U	< 50	U
Pentachlorophenol	< 250	U	< 250	U	< 250	U
VOCs (ug/L)	ND	U	ND	U	ND	U
TCLP VOCs (ug/L)						
Vinyl Chloride	< 100	U	< 100	U	< 100	U
1,1-Dichloroethene	< 50	U	< 50	U	< 50	U
Chloroform	< 50	U	< 50	U	< 50	U

ARA-21 Data Summary (continued)

SAMPLE NUMBER LOCATION MEDIA	5RA30101 SEPTIC TANK WASTE		5RA30102 SEPTIC TANK WASTE		5RA30201 CHLORINE WASTE	
1,2-Dichloroethane	< 50	U	< 50	U	< 50	U
2-Butanone	< 200	UJ	< 200	UJ	206	UJ
Carbon Tetrachloride	< 50	U	< 50	U	< 50	U
Trichloroethene	< 50	U	< 50	U	< 50	U
Benzene	< 50	U	< 50	U	< 50	U
Tetrachloroethene	< 50	U	< 50	U	< 50	U
Chlorobenzene	< 50	U	< 50	U	< 50	U
Reactive Cyanide (mg/kg)	< 0.05	R	< 0.05	R	< 0.05	R
Reactive Sulfide (mg/kg)	< 30	U	< 30	U	< 30	U
Pesticides (ug/L)						
alpha-BHC	< 0.050	R	< 0.050	UJ	< 0.050	UJ
beta-BHC	< 0.050	R	< 0.050	U	< 0.050	U
delta-BHC	< 0.050	R	< 0.050	UJ	< 0.050	UJ
gamma-BHC (Lindane)	< 0.050	R	< 0.050	U	< 0.050	U
Heptachlor	< 0.050	R	< 0.050	U	< 0.050	U
Aldrin	< 0.050	R	< 0.050	U	< 0.050	U
Heptachlor epoxide	< 0.050	R	< 0.050	U	< 0.050	U
Endosulfan I	< 0.050	R	< 0.050	U	< 0.050	U
Dieldrin	< 0.050	R	< 0.050	U	< 0.050	U
4,4'-DDE	< 0.050	R	< 0.050	U	< 0.050	U
Endrin	< 0.050	R	< 0.050	U	< 0.050	U
Endosulfan II	< 0.050	R	< 0.050	U	< 0.050	U
4,4'-DDD	< 0.050	R	< 0.050	UJ	< 0.050	UJ
Endosulfan sulfate	< 0.050	R	< 0.050	U	< 0.050	U
4,4'-DDT	< 0.050	R	< 0.050	UJ	< 0.050	UJ
Methoxychlor	< 0.10	R	< 0.10	UJ	< 0.10	UJ
Endrin ketone	< 0.050	R	< 0.050	UJ	< 0.050	UJ
Endrin aldehyde	< 0.050	R	< 0.050	U	< 0.050	U
alpha-Chlordane	< 0.050	R	< 0.050	U	< 0.050	U
gamma-Chlordane	< 0.050	R	< 0.050	U	< 0.050	U
Technical Chlordane	< 0.00	R	< 0.00	U	< 0.00	U
Toxaphene	< 0.050	R	< 0.050	U	< 0.050	U
TCLP Pesticides (ug/L)						
gamma-BHC (Lindane)	< 0.50	U	< 0.50	U	< 0.50	U
Heptachlor	< 0.50	U	< 0.50	U	< 0.50	U

ARA-21 Data Summary (continued)

SAMPLE NUMBER LOCATION MEDIA	5RA30101 SEPTIC TANK WASTE		5RA30102 SEPTIC TANK WASTE		5RA30201 CHLORINE WASTE	
Heptachlor epoxide	< 0.50	U	< 0.50	U	< 0.50	U
Endrin	< 0.50	U	< 0.50	U	< 0.50	U
Methoxychlor	< 1.0	U	< 1.0	U	< 1.0	U
Technical Chlordane	< 5.0	U	< 5.0	U	< 5.0	U
Toxaphene	< 20	U	< 20	U	< 20	U
Herbicides (ug/L)						
Dalapon	< 2.0	U	< 2.0	U	3.0	
Dicamba	< 2.0	U	< 2.0	U	< 2.0	U
MCPP	< 400	U	< 400	U	< 400	U
MCPA	< 400	U	< 400	U	< 400	U
Dichloroprop	< 4.0	U	< 4.0	U	< 4.0	U
2,4-D	< 4.0	U	< 4.0	U	< 4.0	U
2,4,5-TP	< 1.0	U	< 1.0	U	< 1.0	U
2,4,5-T	< 1.0	U	< 1.0	U	< 1.0	U
2,4-DB	< 4.0	U	< 4.0	U	< 4.0	U
Dinoseb	2.0		< 0.60	U	< 0.60	U
TCLP Herbicides (ug/L)						
2,4-D	< 40	U	< 40	U	< 40	U
2,4,5-TP	< 10	U	< 10	U	< 10	U
Gross Alpha/Beta (pCi/L)						
Gross Alpha	< 1.61	U	3.22 +/- 0.80		2.33 +/- 0.89	J
Gross Beta	42.4 +/- 3.14		51.4 +/- 3.67		62.8 +/- 4.4	
Gamma Spec. (pCi/L)						
Ag-108m	< 2.82	U	< 2.65	U	< 2.83	U
Ag-110m	< 2.67	U	< 2.83	U	< 2.84	U
Am-241	< 15.9	U	< 13.3	U	< 14.4	U
Ce-144	< 19.4	U	< 18.1	U	< 18.0	U
Co-58	< 3.34	U	< 3.47	U	< 3.03	UJ
Co-60	< 3.36	U	< 3.18	U	< 3.33	U
Cs-134	< 2.69	U	< 2.75	U	< 2.72	U
Cs-137	< 2.94	U	< 3.06	U	< 2.83	U
Eu-152	< 8.10	U	< 8.25	UJ	< 8.08	U
Eu-154	< 8.99	U	< 8.80	U	< 8.69	U
Eu-155	< 9.78	U	< 9.20	U	< 9.37	UJ
K-40	89.6 +/- 21.1		85.8 +/- 22.1		97.0 +/- 26.0	

ARA-21 Data Summary (continued)

SAMPLE NUMBER LOCATION MEDIA	5RA30101 SEPTIC TANK WASTE		5RA30102 SEPTIC TANK WASTE		5RA30201 CHLORINE WASTE	
Mn-54	< 2.82	U	< 2.77	U	< 2.35	U
Nb-95	< 4.21	U	< 4.33	U	< 4.34	U
Ra-226	< 7.14	U	10.6 +/- 3.1		< 5.45	U
Ru-103	< 4.08	U	< 3.91	U	< 4.15	U
Ru-106	< 27.3	U	< 25.6	U	< 25.1	U
Sb-125	< 7.96	U	< 7.45	U	< 7.61	U
U-235	< 20.3	U	< 18.6	U	< 18.6	U
Zn-65	< 7.73	U	< 6.72	U	< 6.27	U
Zr-95	< 5.12	U	< 6.01	U	< 5.95	U
Metals (ug/L)						
Aluminum	16,400		2,530		259	
Antimony	17.7		< 10.0	U	< 10.0	U
Arsenic	51.6	J	10.7	J	19.3	J
Barium	1,230	J	292	J	57.3	J
Beryllium	< 5.0	U	< 5.0	U	< 5.0	U
Cadmium	130	J	11.8	J	9.8	J
Calcium	288,000		113,000		33,400	
Chromium	379	J	102	J	< 5.0	U
Cobalt	19.5	J	14	J	< 5.0	U
Copper	1220	J	224	J	14.4	J
Iron	44,500		17,200		459	
Lead	3,330		190		< 3.0	U
Magnesium	22,200		14,900		10,700	
Manganese	853	J	286	J	24.4	J
Mercury	7.3		2.2		< 0.20	U
Nickel	104	J	116	J	< 5.0	U
Potassium	73,100		66,400		101,000	
Selenium	10.5		< 5.0	U	< 5.0	U
Silver	20.2		< 5.0	U	< 5.0	U
Sodium	85,500		79,300		141,000	
Thallium	< 10.0	U	< 10.0	U	< 10.0	U
Vanadium	92.4	J	41.3	J	14.9	J
Zinc	14,300		1,650		43.8	
TCLP Metals (ug/L)						
Arsenic	< 5.0	U	< 5.0	U	19.2	

ARA-21 Data Summary (continued)

SAMPLE NUMBER LOCATION MEDIA	5RA30101 SEPTIC TANK WASTE		5RA30102 SEPTIC TANK WASTE		5RA30201 CHLORINE WASTE	
Barium	179		251		102	
Cadmium	< 5.0	U	< 5.0	U	< 5.0	U
Chromium	< 5.0	U	< 5.0	U	< 5.0	U
Lead	< 5.0	U	< 5.0	U	< 5.0	U
Mercury	< 0.20	U	< 0.20	U	< 0.20	U
Selenium	< 5.0	U	< 5.0	U	< 5.0	U
Silver	< 5.0	UJ	< 5.0	UJ	< 5.0	UJ
PCBs (ug/L)						
Aroclor-1016	< 1.0	U	2.2	J	< 1.0	U
Aroclor-1221	< 1.0	U	< 1.0	UJ	< 1.0	U
Aroclor-1232	< 1.0	U	< 1.0	UJ	< 1.0	U
Aroclor-1242	< 1.0	U	< 1.0	UJ	< 1.0	U
Aroclor-1248	< 1.0	U	< 1.0	UJ	< 1.0	U
Aroclor-1254	< 1.0	U	< 1.0	UJ	< 1.0	U
Aroclor-1260	1.7		< 1.0	UJ	< 1.0	U
Aroclor-1262	< 1.0	U	< 1.0	UJ	< 1.0	U
Aroclor-1268	< 1.0	U	< 1.0	UJ	< 1.0	U

ARA-25 Analytical Data (FY 1998)

SAMPLE NUMBER LOCATION MEDIA	ARA50001 HOT CELL #1 SOIL	ARA50101 HOT CELL #1 SOIL	ARA50201 HOT CELL #2 SOIL
ANALYSIS			
SVOCs (ug/kg)			
Phenol		120	20
Nitrobenzene		24	< 340
Diethylphthalate	32	31	17
Phenanthrene	100	100	64
Carbazol		63	< 340
Di-n-butylphthalate	3400	4500	1800
Fluoranthene		130	59
Benzidine	1700	1700	1700
Pyrene	69	110	36
Butylbenzylphthalate	270	280	49
Benzo [a] anthracene		32	< 340
Chrysene		44	< 340
bis (2-Ethylhexyl) phthalate	190	1000	250
Di-n-octylphthalate	27	44	< 340
PCBs (ug/kg)			
Aroclor-1254	35	44	13
TCLP VOCs (ug/L)	ND	ND	ND
TCLP Metals (ug/L)			
Arsenic	< 12.0	< 12.0	< 12.0
Barium	827	892	706
Cadmium	6.3	5	9.8
Chromium	< 6.6	< 6.6	< 6.6
Lead	< 41.6	< 41.6	< 41.6
Mercury	< 0.20	< 0.20	0.26
Selenium	< 17.7	< 17.7	< 17.7
Silver	< 5.3	< 5.3	< 5.3
TCLP SVOCs (ug/L)	ND	ND	ND
Metals (mg/kg)			
Aluminum	3310	2900	2410
Antimony	< 5.3	< 5.3	< 5.0
Arsenic	10.9	40.6	9.0
Barium	51.1	42	42.9
Beryllium	< 0.15	< 0.19	< 0.11
Cadmium	< 0.71	< 0.70	< 0.67

ARA-25 Analytical Data (FY 1998) (cont'd)

SAMPLE NUMBER LOCATION MEDIA	ARA50001 HOT CELL #1 SOIL	ARA50101 HOT CELL #1 SOIL	ARA50201 HOT CELL #2 SOIL
Calcium	30200	30000	65300
Chromium	71.7	98.4	69.3
Cobalt	44.7	104	45.6
Copper	156	227	115
Iron	16200	33700	11000
Lead	36.5	1430	3.5
Magnesium	5510	30400	4820
Manganese	300	1400	231
Mercury	< 0.09	< 0.06	< 0.05
Nickel	25.4	38.8	22.2
Potassium	904	724	657
Selenium	< 0.32	< 0.65	< 0.51
Silver	4.2	7.2	1.9
Sodium	180	191	174
Thallium	< 0.79	< 0.78	< 0.74
Vanadium	79.8	104	77.1
Zinc	584	855	404
Radionuclides (pCi/g)			
Gross Alpha	11.1 +/- 2.4	12.6 +/- 2.7	11.8 +/- 2.9
Sr-90	72.8 +/- 25.4	71.0 +/- 29.4	9.6 +/- 6.5
Gamma Spec. (pCi/g)			
Cs-134	1.04 +/- 0.79	0.96 +/- 0.07	0.58 +/- 0.06
Cs-137	449 +/- 31	435 +/- 33	226 +/- 16
Co-60	1.95 +/- 0.11	0.659 +/- 0.004	0.31 +/- 0.04
Eu-152		1.31 +/- 0.21	4.9 +/- 0.5
Eu-154			0.29 +/- 0.10
Nb-95	0.090 +/- 0.039	0.047 +/- 0.003	0.086 +/- 0.005
Ra-226		29.7 +/- 3.7	14.3 +/- 2.2
VOCs (ug/kg)			
4-Methyl-2-pentanone	14	< 11	< 10
Toluene	22	5	6
Ethylbenzene	4	< 5	< 5
m- and p-Xylenes	7	< 5	< 5
o-Xylene	5	< 5	< 5