

APPENDIX D
FIELD SAMPLING PARAMETERS

Appendix D (Continued)
2005 Field Sampling Parameters

Notes:

% –percent

ft – feet

GW – groundwater

NA – not applicable

°C – degrees Celsius

mg/L – milligram per liter

mS/cm – millisiemen per centimeter

mV – millivolt

MW – monitoring well

NTU – nephelometric turbidity unit

PPM – part per million

SW – surface water

APPENDIX E
HISTORICAL ANALYTICAL DATA SUMMARY

Table E-1
Summary of Chemicals Detected in Sediment at Palisades Landfill

Site	Location Cross Reference	Matrix	Method Class	Analyte	Units	Concentration										Adak Background Concentration	Endpoint Criteria			
						5/1996	8/1996	11/1996	2/1997	5/1997	6/1998	9/1999	11/2000	10/2001	10/2002		10/2003	9/2004	9/2005	Human Health RBSC
11	101	Sediment	P/A	4,4-DDD	ug/Kg	3.6 U	2.6 U	0.26 U	0.26 U	0.29 U	10000 U	6.3 U	0.81 U	2 U	5.9 U				266	8
11	101	Sediment	P/A	4,4-DDE	ug/Kg	3.6 U	2.6 U	0.26 U	0.13 U	0.15 U	10000 U	6.3 U	0.81 U	2 U	3.5 U				188	5
11	101	Sediment	P/A	4,4-DDT	ug/Kg	3.6 U	0.99 J	0.11 NJ	0.25 J	0.29 U	10000 U	6.3 U	0.81 U	2 U	4.2 U				188	8
11	101	Sediment	P/A	Aldrin	ug/Kg	1.8 U	1.3 U	0.13 U	0.13 U	0.15 U	10000 U	3.3 U	0.42 U	2 U	5.2 U				3.76	2
11	101	Sediment	P/A	alpha-BHC	ug/Kg	1.8 U	1.3 U	0.13 U	0.13 U	0.15 U	10000 U	3.3 U	0.42 U	2 U	3.9 U				10.1	6
11	101	Sediment	P/A	alpha-Chlordane	ug/Kg	1.8 U	1.3 U	0.13 U	0.13 U	0.03 J	10000 U	3.3 U	0.42 U	2 U	4.2 U				49.1	7
11	101	Sediment	P/A	Aroclor 1016	ug/Kg	36 U	5.2 U	2.6 U	2.6 U	2.9 U	100 U	63 U	8.1 U	39.5 U	10 U	15 U	16.6 U		8.3	7
11	101	Sediment	P/A	Aroclor 1221	ug/Kg	73 U	5.2 U	5.3 U	5.2 U	5.9 U	100 U	130 U	16 U	39.5 U	10 U	15 U	33.5 U			
11	101	Sediment	P/A	Aroclor 1232	ug/Kg	36 U	26 U	2.6 U	2.6 U	2.9 U	100 U	63 U	8.1 U	39.5 U	10 U	15 U	16.6 U		8.3	
11	101	Sediment	P/A	Aroclor 1242	ug/Kg	36 U	26 U	2.6 U	2.6 U	2.9 U	100 U	63 U	8.1 U	39.5 U	10 U	15 U	16.6 U			
11	101	Sediment	P/A	Aroclor 1248	ug/Kg	36 U	26 U	2.6 U	2.6 U	2.9 U	100 U	63 U	8.1 U	39.5 U	10 U	15 U	16.6 U		8.3	30
11	101	Sediment	P/A	Aroclor 1254	ug/Kg	36 U	26 U	2.6 U	2.6 U	2.9 U	100 U	63 U	8.1 U	39.5 U	10 U	15 U	16.6 U		8.3	60
11	101	Sediment	P/A	Aroclor 1260	ug/Kg	36 U	16 NJ	2.6 U	4.8	8.2	100 U	63 U	12	39.5 U	10 U	15 U	16.6 U		8.3	5
11	101	Sediment	P/A	beta-BHC	ug/Kg	1.8 U	1.3 U	0.13 U	0.13 U	0.15 U	10000 U	3.3 U	0.42 U	2 U	1.2 J				35.5	5
11	101	Sediment	P/A	Chlordane	ug/Kg									4.2 U					49.1	7
11	101	Sediment	P/A	Chlordane (total)	ug/Kg	1.8 U	1.3 U	0.13 U	0.13 U	0.03	10000 U									
11	101	Sediment	P/A	DDT (total)	ug/Kg	3.6 U	0.99	0.11	0.25	0.29 U	10000 U									
11	101	Sediment	P/A	delta-BHC	ug/Kg	1.8 U	1.3 U	0.13 U	0.064 J	0.059 NJ	10000 U	3.3 U	0.42 U	2 U	4.2 J					3
11	101	Sediment	P/A	Dieldrin	ug/Kg	3.6 U	2.6 U	0.26 U	0.26 U	0.29 U	10000 U	6.3 U	0.81 U	2 U	3.9 U				3.99	20
11	101	Sediment	P/A	Endosulfan (total)	ug/Kg	3.6 U	2.6 U	0.039	0.12	0.26	10000 U									
11	101	Sediment	P/A	Endosulfan I	ug/Kg	1.8 U	1.3 U	0.13 U	0.13 U	0.15 U	10000 U	3.3 U	0.42 U	2 U	3.2 U				164000	
11	101	Sediment	P/A	Endosulfan II	ug/Kg	3.6 U	2.6 U	0.039 NJ	0.12 NJ	0.26 J	10000 U	6.3 U	0.81 U	2 U	5.1 U				164000	
11	101	Sediment	P/A	Endosulfan sulfate	ug/Kg	3.6 U	2.6 U	0.26 U	0.26 U	0.29 U	10000 U	6.3 U	0.81 U	2 U	2.8 U				164000	
11	101	Sediment	P/A	Endrin	ug/Kg	3.6 U	0.48 J	0.094 J	0.13 NJ	0.16 NJ	10000 U	6.3 U	0.81 U	2 U	8.5 U				8210	3
11	101	Sediment	P/A	Endrin Aldehyde	ug/Kg	3.6 U	0.98 J	0.26 U	0.31 NJ	0.61 NJ	10000 U	6.3 U	0.81 U	2 U	13 U					
11	101	Sediment	P/A	Endrin ketone	ug/Kg	3.6 U	2.6 U	0.13 NJ	0.26 U	0.29 U	10000 U	6.3 U	0.81 U	2 U	2.3 U				8210	
11	101	Sediment	P/A	gamma-Chlordane	ug/Kg	1.8 U	1.3 U	0.13 U	0.13 U	0.15 U	10000 U	3.3 U	0.42 U	2 U	6.5 U				49.1	7
11	101	Sediment	P/A	Heptachlor	ug/Kg	1.8 U	1.3 U	0.13 U	0.13 U	0.15 U	10000 U	3.3 U	0.42 U	2 U	15 U				14.2	0.3
11	101	Sediment	P/A	Heptachlor epoxide	ug/Kg	1.8 U	1.3 U	0.13 U	0.055 J	0.15 U	10000 U	3.3 U	0.42 U	2 U	8.5 U				7.02	5
11	101	Sediment	P/A	Lindane	ug/Kg	1.8 U	1.3 U	0.13 U	0.13 U	0.15 U	10000 U	3.3 U	0.42 U	2 U	10 U				49.1	3
11	101	Sediment	P/A	Methoxychlor	ug/Kg	18 U	13 U	0.26 U	0.16 NJ	0.29 U	20000 U	33 U	4.2 U	2 U	19 U				137000	
11	101	Sediment	P/A	PCB (Sum Detect + .5 NonDetect)	ug/Kg	73 U	16	5.3 U	4.8	8.2	100 U									
11	101	Sediment	P/A	Technical Chlordane	ug/Kg					5.9 U										
11	101	Sediment	P/A	Toxaphene	ug/Kg	180 U	130 U	13 U	13 U	15 U	300000 U	330 U	42 U	130 U	31 U				58.1	
11	101	Sediment	SVOA	1,2,4-Trichlorobenzene	ug/Kg	66 U	23 U	6 U	7 U	6 U	300 U	640 U	410 U	1300 U		220 U			274000	8.1
11	101	Sediment	SVOA	1,2-Dichlorobenzene	ug/Kg	77 U	27 U	6 U	8 U	8 U	300 U	640 U	410 U	1300 U		240 U			2460000	23
11	101	Sediment	SVOA	1,2-Diphenylhydrazine	ug/Kg							640 U								
11	101	Sediment	SVOA	1,3-Dichlorobenzene	ug/Kg	77 U	27 U	6 U	8 U	8 U	300 U	640 U	410 U	1300 U		240 U				
11	101	Sediment	SVOA	1,4-Dichlorobenzene	ug/Kg	66 U	23 U	6 U	7 U	6 U	300 U	640 U	410 U	1300 U					913	31
11	101	Sediment	SVOA	2,2-oxybis(1-Chloropropane)	ug/Kg	190 U	65 U	16 U	20 U	18 U	300 U	640 U	410 U	1300 U		260 U			913	
11	101	Sediment	SVOA	2,4,5-Trichlorophenol	ug/Kg	110 U	38 U	9 U	12 U	11 U	300 U	640 U	410 U	650 U		200 U			2740000	
11	101	Sediment	SVOA	2,4,6-Trichlorophenol	ug/Kg	120 U	42 U	10 U	13 U	12 U	300 U	640 U	410 U	650 U		200 U			5810	
11	101	Sediment	SVOA	2,4-Dichlorophenol	ug/Kg	110 U	38 U	9 U	12 U	11 U	300 U	640 U	410 U	1300 U		200 U			82100	
11	101	Sediment	SVOA	2,4-Dimethylphenol	ug/Kg	150 U	53 U	13 U	17 U	15 U	300 U	640 U	410 U	1300 U		200 U			548000	29
11	101	Sediment	SVOA	2,4-Dinitrophenol	ug/Kg	190 U	65 U	16 U	20 U	18 U	2000 U	1300 U	820 U	7790 U		1300 U			54800	
11	101	Sediment	SVOA	2,4-Dinitrotoluene	ug/Kg	190 U	65 U	16 U	20 U	18 U	300 U	640 U	410 U	650 U		200 U			93.9	
11	101	Sediment	SVOA	2,6-Dinitrotoluene	ug/Kg	170 U	57 U	14 U	18 U	16 U	300 U	640 U	410 U	650 U		200 U			93	
11	101	Sediment	SVOA	2-Chloronaphthalene	ug/Kg	88 U	30 U	7 U	10 U	9 U	300 U	640 U	410 U	650 U		200 U				
11	101	Sediment	SVOA	2-Chlorophenol	ug/Kg	88 U	30 U	7 U	10 U	9 U	300 U	640 U	410 U	1300 U		200 U			137000	
11	101	Sediment	SVOA	2-Methylnaphthalene	ug/Kg	180 U	61 U	15 U	19 U	17 U	300 U	640 U	8 U	909 U	96	20	15.7 U		1100000	65
11	101	Sediment	SVOA	2-Methylphenol	ug/Kg	180 U	61 U	15 U	19 U	17 U	300 U	640 U	410 U	1300 U		200 U	134 U	387 U	1370000	63
11	101	Sediment	SVOA	2-Nitroaniline	ug/Kg	150 U	53 U	13 U	17 U	15 U	2000 U	640 U	410 U	650 U		200 U			1640	
11	101	Sediment	SVOA	2-Nitrophenol	ug/Kg	110 U	38 U	9 U	12 U	11 U	300 U	640 U	410 U	1300 U		200 U				
11	101	Sediment	SVOA	3,3-Dichlorobenzidine	ug/Kg	88 U	30 U	7 U	10 U	9 U	2000 U	1300 U	410 U	1300 U		200 U			142	
11	101	Sediment	SVOA	3-Nitroaniline	ug/Kg	130 U	46 U	11 U	14 U	13 U	2000 U	640 U	410 U	650 U		200 U			82100	
11	101	Sediment	SVOA	4,6-Dinitro-2-methylphenol	ug/Kg	170 U	57 U	14 U	18 U	16 U	2000 U	1300 U	410 U	7790 U		200 U				
11	101	Sediment	SVOA	4-Bromophenyl-phenylether	ug/Kg	110 U	38 U	9 U	12 U	11 U	300 U	640 U	410 U	650 U		200 U				
11	101	Sediment	SVOA	4-Chloro-3-methylphenol	ug/Kg	280 U	95 U	23 U	30 U	27 U	300 U	640 U	410 U	1300 U		200 U				
11	101	Sediment	SVOA	4-Chloroaniline	ug/Kg	200 U	68 U	17 U	21 U	19 U	300 U	640 U	410 U	1300 U		320 U			110000	
11	101	Sediment	SVOA	4-Chlorophenyl methylsulfone	ug/Kg											200 U				
11	101	Sediment	SVOA	4-Chlorophenyl-phenylether	ug/Kg	120 U	42 U	10 U	13 U	12 U	300 U	640 U	410 U	650 U		200 U				
11	101	Sediment	SVOA	4-Methylphenol	ug/Kg	220 U	76 U	19 U	24 U	22 U	300 U	640 U	410 U	650 U		200 U			137000	50
11	101	Sediment	SVOA	4-Nitroaniline	ug/Kg	140 U	49 U	12 U	15 U	14 U	2000 U	640 U	410 U	650 U		200 U			82100	
11	101	Sediment	SVOA	4-Nitrophenol	ug/Kg	180 U	61 U	15 U	19 U	17 U	2000 U	1300 U	410 U	6500 U		200 U				
11	101	Sediment	SVOA	Acenaphthene	ug/Kg	77 U	27 U	6 U	8 U	4 U	300 U	640 U	8 U	650 U	48	2 U	660 U	15.7 U	1640000	150
11	101	Sediment	SVOA	Acenaphthylene	ug/Kg	88 U	30 U	7 U	10 U	9 U	300 U	640 U	8 U	650 U	37	2.3 U	660 U	15.7 U	1100000	660

Table E-1
Summary of Chemicals Detected in Sediment at Palisades Landfill

Site	Location Cross Reference	Matrix	Method Class	Analyte	Units	Concentration													Adak Background Concentration	Endpoint Criteria	
						5/1996	8/1996	11/1996	2/1997	5/1997	6/1998	9/1999	11/2000	10/2001	10/2002	10/2003	9/2004	9/2005		Human Health RBSC	Ecological RBSC
11	101	Sediment	TIN	Thallium	mg/kg	0.2 U	0.13 J	0.19 U	0.14 U	0.22 U	1 U	0.49 U	0.66 J	0.102		0.715 U	0.5 U	0.565 U	0.33	2.19	
11	101	Sediment	TIN	Vanadium	mg/kg	64.1	76.3 J	77.5	65.1	63.3	56	147	81.8	90.7		74.5			163.75	192	
11	101	Sediment	TIN	Zinc	mg/kg	88.4 J	87.5	73.3	79.7	59.7 J	120	151	59.5	93.3		71.3	76.6	64.6	44.82	8210	120
11	102	Sediment	P/A	4,4-DDD	ug/Kg	4.6 U	0.28 U	0.63	1.7 J	0.72 NJ		4.5 U	15 J	24 U	3.5 U					266	8
11	102	Sediment	P/A	4,4-DDE	ug/Kg	4.6 U	0.28 U	0.092 J	0.27 NJ	0.18 NJ		4.5 U	1 U	24 U	2.1 U					188	5
11	102	Sediment	P/A	4,4-DDT	ug/Kg	4.6 U	1.5 J	0.79 NJ	2.1 J	0.93 NJ		4.5 U	1 U	24 U	2.5 U					188	8
11	102	Sediment	P/A	Aldrin	ug/Kg	2.3 U	0.14 U	0.16 U	0.13 U	0.17 U		2.3 U	0.52 U	24 U	3.1 U					3.76	2
11	102	Sediment	P/A	alpha-BHC	ug/Kg	2.3 U	0.14 NJ	0.031 J	0.13 U	0.17 U		2.3 U	0.52 U	24 U	2.3 U					10.1	6
11	102	Sediment	P/A	alpha-Chlordane	ug/Kg	2.3 U	0.14 U	0.16 U	0.16 NJ	0.17 U		2.3 U	0.52 U	24 U	2.5 U					49.1	7
11	102	Sediment	P/A	Aroclor 1016	ug/Kg	46 U	0.55 U	3.2 U	2.6 U	3.4 U		45 U	10 U	47.9 U	10 U	14 U	40.8 U			8.3	7
11	102	Sediment	P/A	Aroclor 1221	ug/Kg	93 U	5.5 U	6.4 U	5.3 U	6.8 U		90 U	20 U	47.9 U	10 U	14 U	82.1 U				
11	102	Sediment	P/A	Aroclor 1232	ug/Kg	46 U	2.8 U	3.2 U	2.6 U	3.4 U		45 U	10 U	47.9 U	10 U	14 U	40.8 U			8.3	
11	102	Sediment	P/A	Aroclor 1242	ug/Kg	46 U	2.8 U	3.2 U	2.6 U	3.4 U		45 U	10 U	47.9 U	10 U	14 U	40.8 U				
11	102	Sediment	P/A	Aroclor 1248	ug/Kg	46 U	2.8 U	3.2 U	2.6 U	3.4 U		45 U	10 U	47.9 U	10 U	14 U	40.8 U			8.3	30
11	102	Sediment	P/A	Aroclor 1254	ug/Kg	46 U	2.8 U	3.2 U	2.6 U	3.4 U		45 U	10 U	78.7	10 U	14 U	40.8 U			8.3	60
11	102	Sediment	P/A	Aroclor 1260	ug/Kg	46 U	31 NJ	110	20 NJ	17 J		45 U	41	98.6	10 U	14 U	33.6 J			8.3	5
11	102	Sediment	P/A	beta-BHC	ug/Kg	2.3 U	0.14 U	0.16 U	0.13 U	0.17 U		2.3 U	0.52 U	24 U	0.75 J					35.5	5
11	102	Sediment	P/A	Chlordane	ug/Kg										2.5 U					49.1	7
11	102	Sediment	P/A	Chlordane (total)	ug/Kg	2.3 U	0.14 U	0.16 U	0.236	0.084											
11	102	Sediment	P/A	DDT (total)	ug/Kg	4.6 U	1.5	1.512	4.07	1.83											
11	102	Sediment	P/A	delta-BHC	ug/Kg	2.3 U	0.14 U	0.16 U	0.07 NJ	0.045 NJ		2.3 U	0.52 U	24 U	3.6 U						3
11	102	Sediment	P/A	Dieldrin	ug/Kg	4.6 U	0.28 U	0.48 NJ	0.26 U	0.46 NJ		4.5 U	1 U	24 U	2.3 U					3.99	20
11	102	Sediment	P/A	Endosulfan (total)	ug/Kg	4.6 U	0.14	3.6	0.47	0.34											
11	102	Sediment	P/A	Endosulfan I	ug/Kg	2.3 U	0.14 U	0.16 U	0.13 U	0.17 U		2.3 U	0.52 U	24 U	1.9 U					164000	
11	102	Sediment	P/A	Endosulfan II	ug/Kg	4.6 U	0.14 J	3.6 NJ	0.47 NJ	0.34 NJ		4.5 U	1 U	24 U	3 U					164000	
11	102	Sediment	P/A	Endosulfan sulfate	ug/Kg	4.6 U	0.28 U	0.32 U	0.26 U	0.34 U		4.5 U	1 U	24 U	0.33 J					164000	
11	102	Sediment	P/A	Endrin	ug/Kg	4.6 U	0.53 J	1.8 NJ		0.43 NJ		4.5 U	1 U	24 U	5 U					8210	3
11	102	Sediment	P/A	Endrin Aldehyde	ug/Kg	4.6 U	1.5 J	0.5 NJ	1.1 NJ	1 NJ		4.5 U	1 U	24 U	7.8 U						
11	102	Sediment	P/A	Endrin ketone	ug/Kg	4.6 U	0.28 U	0.32 U	0.26 U	0.36 NJ		4.5 U	2.1 J	24 U	1.4 U					8210	
11	102	Sediment	P/A	gamma-Chlordane	ug/Kg	2.3 U	0.14 U	0.16 U	0.076 J	0.084 NJ		2.3 U	0.52 U	24 U	3.8 U					49.1	7
11	102	Sediment	P/A	Heptachlor	ug/Kg	2.3 U	0.29 J	0.069 J	0.13 U	0.17 U		2.3 U	0.52 U	24 U	8.9 U					14.2	0.3
11	102	Sediment	P/A	Heptachlor epoxide	ug/Kg	2.3 U	0.14 U	0.039 J	0.13 U	0.082 J		2.3 U	0.52 U	24 U	5 U					7.02	5
11	102	Sediment	P/A	Lindane	ug/Kg	2.3 U	0.14 U	0.16 U	0.13 U	0.17 U		2.3 U	0.52 U	24 U	5.9 U					49.1	3
11	102	Sediment	P/A	Methoxychlor	ug/Kg	23 U	1.4 U	0.32 U	0.26 U	0.34 U		23 U	5.2 U	24 U	11 U					137000	
11	102	Sediment	P/A	PCB (Sum Detect + .5 NonDetect)	ug/Kg	93 U	31	110	20	17											
11	102	Sediment	P/A	Technical Chlordane	ug/Kg					6.8 U											
11	102	Sediment	P/A	Toxaphene	ug/Kg	230 U	14 U	16 U	13 U	17 U		230 U	52 U	1600 U	18 U					58.1	
11	102	Sediment	SVOA	1,2,4-Trichlorobenzene	ug/Kg	78 U	24 U	6 U	44 U	57 U		460 U	510 U	1590 U		190 U				274000	8.1
11	102	Sediment	SVOA	1,2-Dichlorobenzene	ug/Kg	91 U	28 U	8 U	52 U	66 U		460 U	510 U	1590 U		220 U				2460000	23
11	102	Sediment	SVOA	1,2-Diphenylhydrazine	ug/Kg							460 U									
11	102	Sediment	SVOA	1,3-Dichlorobenzene	ug/Kg	91 U	28 U	8 U	52 U	66 U		460 U	510 U	1590 U		220 U					
11	102	Sediment	SVOA	1,4-Dichlorobenzene	ug/Kg	78 U	24 U	6 U	44 U	57 U		460 U	510 U	1590 U						913	31
11	102	Sediment	SVOA	2,2-oxybis(1-Chloropropane)	ug/Kg	220 U	69 U	18 U	120 U	160 U		460 U	510 U	1590 U		240 U				913	
11	102	Sediment	SVOA	2,4,5-Trichlorophenol	ug/Kg	130 U	40 U	11 U	74 U	95 U		460 U	510 U	797 U		180 U				2740000	
11	102	Sediment	SVOA	2,4,6-Trichlorophenol	ug/Kg	140 U	44 U	12 U	81 U	100 U		460 U	510 U	797 U		180 U				5810	
11	102	Sediment	SVOA	2,4-Dichlorophenol	ug/Kg	130 U	40 U	11 U	74 U	95 U		460 U	510 U	1590 U		180 U				8210	
11	102	Sediment	SVOA	2,4-Dimethylphenol	ug/Kg	180 U	57 U	15 U	100 U	130 U		460 U	510 U	1590 U		180 U				548000	29
11	102	Sediment	SVOA	2,4-Dinitrophenol	ug/Kg	220 U	69 U	18 U	120 U	160 U		910 U	1000 U	9570 U		1200 U				54800	
11	102	Sediment	SVOA	2,4-Dinitrotoluene	ug/Kg	220 U	69 U	18 U	120 U	160 U		460 U	510 U	797 U		180 U				93.9	
11	102	Sediment	SVOA	2,6-Dinitrotoluene	ug/Kg	190 U	61 U	16 U	110 U	140 U		460 U	510 U	797 U		180 U				93	
11	102	Sediment	SVOA	2-Chloronaphthalene	ug/Kg	100 U	32 U	9 U	59 U	76 U		460 U	510 U	797 U		180 U					
11	102	Sediment	SVOA	2-Chlorophenol	ug/Kg	100 U	32 U	9 U	59 U	76 U		460 U	510 U	1590 U		180 U				137000	
11	102	Sediment	SVOA	2-Methylnaphthalene	ug/Kg	210 U	65 U	17 U	120 U	150 U		460 U	14	1120 U	18 U	17 U		6.64 J		1100000	65
11	102	Sediment	SVOA	2-Methylphenol	ug/Kg	210 U	65 U	17 U	120 U	150 U		460 U	510 U	1590 U		180 U	328 U	720 U		1370000	63
11	102	Sediment	SVOA	2-Nitroaniline	ug/Kg	180 U	57 U	15 U	100 U	130 U		460 U	510 U	797 U		180 U				1640	
11	102	Sediment	SVOA	2-Nitrophenol	ug/Kg	130 U	40 U	11 U	74 U	95 U		460 U	510 U	1590 U		180 U				180 U	
11	102	Sediment	SVOA	3,3-Dichlorobenzidine	ug/Kg	100 U	32 U	9 U	59 U	76 U		910 U	510 U	1590 U		180 U				142	
11	102	Sediment	SVOA	3-Nitroaniline	ug/Kg	160 U	48 U	13 U	88 U	110 U		460 U	510 U	797 U		180 U				82100	
11	102	Sediment	SVOA	4,6-Dinitro-2-methylphenol	ug/Kg	190 U	61 U	16 U	110 U	140 U		910 U	510 U	9570 U		180 U					
11	102	Sediment	SVOA	4-Bromophenyl-phenylether	ug/Kg	130 U	40 U	11 U	74 U	95 U		460 U	510 U	797 U		180 U					
11	102	Sediment	SVOA	4-Chloro-3-methylphenol	ug/Kg	320 U	100 U	27 U	180 U	240 U		460 U	510 U	1590 U		180 U					
11	102	Sediment	SVOA	4-Chloroaniline	ug/Kg	230 U	73 U	20 U	130 U	170 U		460 U	510 U	1590 U		290 U				110000	
11	102	Sediment	SVOA	4-Chlorophenyl methylsulfone	ug/Kg											180 U					
11	102	Sediment	SVOA	4-Chlorophenyl-phenylether	ug/Kg	140 U	44 U	12 U	81 U	100 U		460 U	510 U	797 U		180 U					
11	102	Sediment	SVOA	4-Methylphenol	ug/Kg	260 U	81 U	22 U	150 U	190 U		460 U	510 U			180 U				137000	50
11	102	Sediment	SVOA	4-Nitroaniline	ug/Kg	170 U	52 U	14 U	96 U	120 U		460 U	510 U	797 U		180 U				82100	

Table E-1
Summary of Chemicals Detected in Sediment at Palisades Landfill

Site	Location Cross Reference	Matrix	Method Class	Analyte	Units	Concentration													Adak Background Concentration	Endpoint Criteria	
						5/1996	8/1996	11/1996	2/1997	5/1997	6/1998	9/1999	11/2000	10/2001	10/2002	10/2003	9/2004	9/2005		Human Health RBSC	Ecological RBSC
11	102	Sediment	SVOA	4-Nitrophenol	ug/Kg	210 U	65 U	17 U	120 U	150 U		910 U	510 U	7970 U		180 U					
11	102	Sediment	SVOA	Acenaphthene	ug/Kg	91 U	22 J	8 U	52 U	66 U		460 U	10 U	797 U	1.9 U	1.8 U	1620 U	15.3 J		1640000	
11	102	Sediment	SVOA	Acenaphthylene	ug/Kg	100 U	32 U	9 U	59 U	76 U		460 U	10 U	797 U	2.2 U	2.1 U		10.7 J		1100000	
11	102	Sediment	SVOA	Aniline	ug/Kg							460 U		3190 U		180 U					
11	102	Sediment	SVOA	Anthracene	ug/Kg	91 U	24 J	8 U	30 J	66 U		460 U	120 J	797 U	1.9 U	1.8 U	1620 U	38.4 J		8210000	
11	102	Sediment	SVOA	Azobenzene	ug/Kg									797 U							
11	102	Sediment	SVOA	Benzidine	ug/Kg							2300 U									
11	102	Sediment	SVOA	Benzo(a)anthracene	ug/Kg	200	58	8 U	240	66 U		460 U	260 J	797 U	1.9 J	1.8 U	1620 U	115 J		1100	
11	102	Sediment	SVOA	Benzo(a)pyrene	ug/Kg	110	23 J	8 U	250	33 J		460 U	190 J	797 U	3.2 U	3 U	638	105 J		8.75 400	
11	102	Sediment	SVOA	Benzo(b)fluoranthene	ug/Kg	280	57	10 U	180	50 J		460 U	240 J	1120 U	1.9 J	1.8 U	1620 U	121 J		87.5 2300	
11	102	Sediment	SVOA	Benzo(g,h,i)perylene	ug/Kg	62 J	16 J	15 U	62 J	130 U		460 U	120 J	1120 U	2.7	1.8 U	1620 U	50.6 J		821000	
11	102	Sediment	SVOA	Benzo(k)fluoranthene	ug/Kg	96 J	16 J	9 U	200	76 U		460 U	10 U	797 U	1.9 U	1.8 U	1620 U	87.5 J		875 2300	
11	102	Sediment	SVOA	Benzo(a)fluoranthenes (total)	ug/Kg	376	73	10 U	380	50											
11	102	Sediment	SVOA	Benzoic acid	ug/Kg							36 J		7970 U		1400 U	4900 U	2180 U		1.1E+08 650	
11	102	Sediment	SVOA	Benzyl alcohol	ug/Kg							460 U		1120 U		180 U				8210000 57	
11	102	Sediment	SVOA	bis(2-Chloroethoxy)methane	ug/Kg	180 U	57 U	15 U	100 U	130 U		460 U	510 U	1120 U		210 U					
11	102	Sediment	SVOA	bis(2-Chloroethyl)ether	ug/Kg	140 U	44 U	12 U	81 U	100 U		460 U	510 U	1590 U		220 U				58.1	
11	102	Sediment	SVOA	bis(2-Ethylhexyl)phthalate	ug/Kg	270 J	130 U	36 U	28 J	320 U		37 J	150 J	797 U		180 U	9800 U	33.5 U		4560 470	
11	102	Sediment	SVOA	Butylbenzylphthalate	ug/Kg	220 U	69 U	18 U	120 U	160 U		460 U	510 U	797 U		180 U				5480000 49	
11	102	Sediment	SVOA	Carbazole	ug/Kg	100 U	52 J	9 U	31 J	76 U		460 U	510 U			1620 U	720 U			3190	
11	102	Sediment	SVOA	Chrysene	ug/Kg	240	100	10 U	260	34 J		27 J	270 J	797 U	2.3	1.8 U	1620 U	137 J		8750 40	
11	102	Sediment	SVOA	CPAH (total)	ug/Kg	997	269	22 U	1240	117											
11	102	Sediment	SVOA	Dibenz(a,h)anthracene	ug/Kg	260 U	81 U	22 U	150 U	190 U		460 U	10 U	1120 U	1.9 U	1.8 U		146 U		8.75 60	
11	102	Sediment	SVOA	Dibenzofuran	ug/Kg	100 U	17 J	9 U	59 U	76 U		460 U	510 U	797 U		180 U				110000 150	
11	102	Sediment	SVOA	Diethylphthalate	ug/Kg	190 U	61 U	16 U	110 U	140 U		460 U	510 U	797 U		180 U				21900000	
11	102	Sediment	SVOA	Dimethylphthalate	ug/Kg	65 U	20 U	5 U	37 U	48 U		460 U	510 U	797 U		180 U				2.74E+08 530	
11	102	Sediment	SVOA	Di-n-butylphthalate	ug/Kg	76 J	57 U	15 U	100 U	46 J		460 U	510 U	797 U		310	4900 U	14.6 U		2740000 2200	
11	102	Sediment	SVOA	Di-n-octylphthalate	ug/Kg	430	61 U	16 UJ	110 UJ	140 U		460 U	510 U	797 U		180 U	1620 U	146 U		548000 580	
11	102	Sediment	SVOA	Fluoranthene	ug/Kg	630	480	10	340	58 J		460 U	590	797 U	2.7	2.1 U	1620 U	193 J		11000000 600	
11	102	Sediment	SVOA	Fluorene	ug/Kg	120 U	39	10 U	66 U	86 U		460 U	10 U	797 U	1.9 U	1.8 U	1620 U	19.1 J		1100000 35	
11	102	Sediment	SVOA	Hexachlorobenzene	ug/Kg	260 U	81 U	22 U	150 U	190 U		460 U	510 U	797 U		180 U				39.9 3.8	
11	102	Sediment	SVOA	Hexachlorobutadiene	ug/Kg	310 U	97 U	26 U	180 U	230 U		460 U	510 U	3190 U		220 U				819 39	
11	102	Sediment	SVOA	Hexachlorocyclopentadiene	ug/Kg	65 U	20 U	5 U	37 U	48 U		460 U	510 U	1590 U		180 U				192000	
11	102	Sediment	SVOA	Hexachloroethane	ug/Kg	91 U	28 U	8 U	52 U	66 U		460 U	510 U	1590 U		190 U				4560	
11	102	Sediment	SVOA	HPAH (total)	ug/Kg	2269	1055	10	1982	228											
11	102	Sediment	SVOA	Indeno(1,2,3-cd)pyrene	ug/Kg	71 J	15 J	12 U	110	100 U		460 U	16	797 U	1.9 U	1.8 U	30.9	40.9 J		87.5 340	
11	102	Sediment	SVOA	Isophorone	ug/Kg	260 U	81 U	22 U	150 U	190 U		460 U	510 U	797 U		180 U				67200	
11	102	Sediment	SVOA	LPAH (total)	ug/Kg	140	585	10 U	140	57											
11	102	Sediment	SVOA	m,p-Cresols	ug/Kg									7970 U						137000 50	
11	102	Sediment	SVOA	Naphthalene	ug/Kg	100 U	32 U	9 U	59 U	76 U		460 U	110 J	1590 U	2.3	1.8 U		4.25 J		1100000 340	
11	102	Sediment	SVOA	NCPAH (total)	ug/Kg	1412	1371	10	882	168											
11	102	Sediment	SVOA	Nitrobenzene	ug/Kg	160 U	48 U	13 U	88 U	110 U		460 U	510 U	1590 U		180 U				13700	
11	102	Sediment	SVOA	N-Nitrosodimethylamine	ug/Kg									1120 U							
11	102	Sediment	SVOA	N-Nitrosodipropylamine	ug/Kg	390 U	120 U	32 U	220 U	280 U		460 U	510 U	1120 U		180 U				9.13	
11	102	Sediment	SVOA	N-Nitrosodiphenylamine	ug/Kg	120 U	36 U	10 U	66 U	86 U		460 U	510 U	797 U		280 U				13000 110	
11	102	Sediment	SVOA	Pentachlorophenol	ug/Kg	180 U	57 U	15 U	100 U	130 U		910 U	510 U	7970 U		180 U	328 UJ	73.1 U		532 360	
11	102	Sediment	SVOA	Phenanthrene	ug/Kg	140	500	8 U	110	57 J		460 U	790	797 U	3	1.8 U	1620 U	147 J		1100000 225	
11	102	Sediment	SVOA	Phenol	ug/Kg	160 U	48 U	13 U	88 U	110 U		460 U	510 U	1590 U		180 U	1620 U	720 U		1640000 420	
11	102	Sediment	SVOA	Pyrene	ug/Kg	580	290	17 U	340	53 J		460 U	560	797 U	2.3 U	2.2 U	1620 U	206 J		821000 350	
11	102	Sediment	TIN	Aluminum	mg/kg	12700	16100	17900	15300	20800		10400	15800	15700		16900			38438.59		
11	102	Sediment	TIN	Antimony	mg/kg	3.1 UJ	5.7 J	4.6 UJ	5.5 J	5.8 UJ		2.7 J	0.17 U	6.1	1.58	1.03 J	1.31 J		10		11 2
11	102	Sediment	TIN	Arsenic	mg/kg	12.4	20.2 J	9.5 J	9.5	15.5 J		11.4 J	19.4	25.5		32.8	10.4	6.94 J		5.46	0.0365 33
11	102	Sediment	TIN	Barium	mg/kg	76.5	73.8	30.5 J	104	102		64.3	77.2	88.6		75.6			41.4		1920
11	102	Sediment	TIN	Beryllium	mg/kg	0.23 J	0.22 J	0.14 J	0.19 U	0.26 U		0.09 J	0.06 U	0.144 U		0.799 U	0.27 J	0.532 U		0.51	0.0149
11	102	Sediment	TIN	Cadmium	mg/kg	1.4 J	2 J	0.72 J	1.8	3.3		0.26 J	5	0.646		2.21	2.59	1.99		0.66	27 5
11	102	Sediment	TIN	Calcium	mg/kg	4120	6220 J	7770	887 J	163 J		4050	5910	7510		3600			8802.44		
11	102	Sediment	TIN	Chromium	mg/kg	30 J	26.6 J	16.2	40.7 J	29.2		16	42.8	66.7		95.2	25	14.1 J		12.91	27400 80
11	102	Sediment	TIN	Cobalt	mg/kg	15.3	18.6	14.1	17.5	22		13.8	19.8	20.3		30.9			16.24		1640 50
11	102	Sediment	TIN	Copper	mg/kg	134 J	135 J	52.4 J	119	164 J		111	157	247		415	121	59.1		149.51	1010 70
11	102	Sediment	TIN	Iron	mg/kg	94400	92800	57700	100000	133000		105000	160000	193000		92000			63800		
11	102	Sediment	TIN	Lead	mg/kg	121 J	87.5 J	139 J	200	275 J		60.9	287	377		132	208	136		8.32	400 35
11	102	Sediment	TIN	Magnesium	mg/kg	9170	8680	7710	9260	12900		7180	5880	4560					4058		
11	102	Sediment	TIN	Manganese	mg/kg	2350	2230	800	1610	2010		2430	2020	2880		2520			776		3830 460
11	102	Sediment	TIN	Mercury	mg/kg	0.06 U	0.04 UJ	0.06 UJ	0.06 U	0.06 UJ		0.05 U	0.05		0.044 U	0.295	0.108*		0.25		8.21 0.15
11	102	Sediment	TIN	Nickel	mg/kg	33.3	45.8 J	18.2	36.3	49.2		32.4	53.2	92.7		125	39	16.6		10.05	203 30
11	102	Sediment	TIN	Potassium	mg/kg	431 U	358 U	344 U	314 U	1060 U		365 J	676	286		580					

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						5/1996	8/1996	11/1996	2/1997	5/1997	6/1998	9/1999	11/2000	10/2001	10/2002	10/2003	9/2004	9/2005	Human Health RBSC		Ecological RBSC	
11	102	Sediment	TIN	Selenium	mg/kg	0.22 J	0.17 J	0.18 U	0.3 U	0.18 U		6.9 J	2.5	1.44 U		2.66 U	1.51	0.989 J	6.2	137		
11	102	Sediment	TIN	Silver	mg/kg	1.5 J	1.2 U	0.44 U	0.91 U	1.1 U		0.04 U	0.08 U	0.336		0.429 J	0.319 J	0.532 U	6.2	137		
11	102	Sediment	TIN	Sodium	mg/kg	393 J	759 J	1140 J	721 J	776 J		312 J	1060			510				1576.61		
11	102	Sediment	TIN	Thallium	mg/kg	0.24 UJ	0.14 U	0.21 UJ	0.18 U	0.23 UJ		2.7 U	3.8 U	0.0616		0.666 U	1.23 U	0.532 U	0.33	2.19		
11	102	Sediment	TIN	Vanadium	mg/kg	33.1	60.2 J	98.1	48.7	59.9		36.6	50.9	67.9		41.8			163.75	192		
11	102	Sediment	TIN	Zinc	mg/kg	492 J	619	261	536	1280 J		506	1430	820		752	920	554	44.82	8210		
11	103	arine Sedim	P/A	4,4-DDD	ug/Kg	4.6 U		0.28 U	0.22 U	0.33 U	10000 U	4 U	0.78 U	19 U	3.9 U					266		
11	103	arine Sedim	P/A	4,4-DDE	ug/Kg	4.6 U		0.28 U	0.11 U	0.16 U	10000 U	4 U	0.78 U	19 U	2.3 U						188	
11	103	arine Sedim	P/A	4,4-DDT	ug/Kg	4.6 U		0.14 NJ	0.22 U	0.33 U	10000 U	4 U	0.78 U	19 U	1.4 J						188	
11	103	arine Sedim	P/A	Aldrin	ug/Kg	2.3 U		0.14 U	0.11 U	0.16 U	10000 U	2 U	0.4 U	19 U	3.5 U						3.76	
11	103	arine Sedim	P/A	alpha-BHC	ug/Kg	2.3 U		0.14 U	0.11 U	0.16 U	10000 U	2 U	0.4 U	19 U	2.5 U						10.1	
11	103	arine Sedim	P/A	alpha-Chlordane	ug/Kg	2.3 U		0.14 U	0.11 U	0.16 U	10000 U	2 U	0.4 U	19 U	2.7 U						49.1	
11	103	arine Sedim	P/A	Aroclor 1016	ug/Kg	46 U		2.8 U	2.2 U	3.3 U	100 U	40 U	7.8 U	38.4 U	13 U	32 U					8.3	
11	103	arine Sedim	P/A	Aroclor 1221	ug/Kg	92 U		5.7 U	4.5 U	6.5 U	100 U	80 U	16 U	38.4 U	13 U	32 U					33.5 U	
11	103	arine Sedim	P/A	Aroclor 1232	ug/Kg	46 U		2.8 U	2.2 U	3.3 U	100 U	40 U	7.8 U	38.4 U	13 U	32 U					8.3	
11	103	arine Sedim	P/A	Aroclor 1242	ug/Kg	46 U		2.2 U	2.2 U	3.3 U	100 U	40 U	7.8 U	38.4 U	13 U	32 U					16.6 U	
11	103	arine Sedim	P/A	Aroclor 1248	ug/Kg	46 U		2.8 U	2.2 U	3.3 U	100 U	40 U	7.8 U	38.4 U	13 U	32 U					8.3	
11	103	arine Sedim	P/A	Aroclor 1254	ug/Kg	46 U		2.8 U	2.2 U	3.3 U	100 U	40 U	7.8 U	38.4 U	13 U	32 U					16.6 U	
11	103	arine Sedim	P/A	Aroclor 1260	ug/Kg	46 U		2.8 U	2.2 U	3.3 U	100 U	40 U	32	38.4 U	13 U	32 U					16.6 U	
11	103	arine Sedim	P/A	beta-BHC	ug/Kg	2.3 U		0.14 U	0.11 U	0.16 U	10000 U	2 U	0.4 U	19 U	0.97 J						35.5	
11	103	arine Sedim	P/A	Chlordane	ug/Kg											2.7 U					49.1	
11	103	arine Sedim	P/A	Chlordane (total)	ug/Kg	2.3 U		0.14 U	0.11 U	0.16 U	10000 U	2										
11	103	arine Sedim	P/A	DDT (total)	ug/Kg	4.6 U		0.14	0.22 U	0.33 U	10000 U	4										
11	103	arine Sedim	P/A	delta-BHC	ug/Kg	2.3 U		0.14 U	0.038 NJ	0.041 NJ	10000 U	2 U	0.4 U	19 U	8.2							
11	103	arine Sedim	P/A	Dieldrin	ug/Kg	4.6 U		0.28 U	0.22 U	0.33 U	10000 U	4 U	0.78 U	19 U	2.5 U							3.99
11	103	arine Sedim	P/A	Endosulfan (total)	ug/Kg	4.6 U		0.28 U	0.22 U	0.33 U	10000 U	2										
11	103	arine Sedim	P/A	Endosulfan I	ug/Kg	2.3 U		0.14 U	0.11 U	0.16 U	10000 U	2 U	0.4 U	19 U	2.1 U							164000
11	103	arine Sedim	P/A	Endosulfan II	ug/Kg	4.6 U		0.28 U	0.22 U	0.33 U	10000 U	4 U	0.78 U	19 U	3.4 U							164000
11	103	arine Sedim	P/A	Endosulfan sulfate	ug/Kg	4.6 U		0.28 U	0.22 U	0.33 U	10000 U	4 U	0.78 U	19 U	1.8 U							164000
11	103	arine Sedim	P/A	Endrin	ug/Kg	4.6 UJ		0.29 U	0.22 U	0.33 U	10000 U	4 U	0.78 U	19 U	5.6 U							8210
11	103	arine Sedim	P/A	Endrin Aldehyde	ug/Kg	4.6 U		0.28 U	0.22 U	0.33 U	10000 U	4 U	0.78 U	19 U	8.7 U							0.02
11	103	arine Sedim	P/A	Endrin ketone	ug/Kg	4.6 U		0.096 NJ	0.22 U	0.33 U	10000 U	4 U	1.5 J	19 U	1.5 U							8210
11	103	arine Sedim	P/A	gamma-Chlordane	ug/Kg	2.3 U		0.14 U	0.11 U	0.16 U	10000 U	2 U	0.4 U	19 U	4.3 U							49.1
11	103	arine Sedim	P/A	Heptachlor	ug/Kg	2.3 U		0.031 J	0.11 U	0.16 U	10000 U	2 U	0.4 U	19 U	10 U							14.2
11	103	arine Sedim	P/A	Heptachlor epoxide	ug/Kg	2.3 U		0.14 U	0.11 U	0.16 U	10000 U	2 U	0.4 U	19 U	5.6 U							7.02
11	103	arine Sedim	P/A	Lindane	ug/Kg	2.3 U		0.14 U	0.11 U	0.16 U	10000 U	2 U	0.4 U	19 U	6.6 U							49.1
11	103	arine Sedim	P/A	Methoxychlor	ug/Kg	23 U		0.17 NJ	0.22 U	0.33 U	20000 U	20 U	4 U	19 U	12 U							137000
11	103	arine Sedim	P/A	PCB (Sum Detect + .5 NonDetect)	ug/Kg	92 U		5.7 U	4.5 U	6.5 U	100 U	40										
11	103	arine Sedim	P/A	Technical Chlordane	ug/Kg					6.5 U												
11	103	arine Sedim	P/A	Toxaphene	ug/Kg	230 U		14 U	11 U	16 U	300000 U	200 U	40 U	1300 U	20 U							58.1
11	103	arine Sedim	SVOA	1,2,4-Trichlorobenzene	ug/Kg	84 U		6 U	7 U	7 U	300 U	400 U	390 U	1310 U		230 U						274000
11	103	arine Sedim	SVOA	1,2-Dichlorobenzene	ug/Kg	98 U		7 U	8 U	8 U	300 U	400 U	390 U	1310 U		260 U						2460000
11	103	arine Sedim	SVOA	1,2-Diphenylhydrazine	ug/Kg							400 U										
11	103	arine Sedim	SVOA	1,3-Dichlorobenzene	ug/Kg	98 U		7 U	8 U	8 U	300 U	400 U	390 U	1310 U		260 U						
11	103	arine Sedim	SVOA	1,4-Dichlorobenzene	ug/Kg	84 U		6 U	7 U	7 U	300 U	400 U	390 U	1310 U								913
11	103	arine Sedim	SVOA	2,2-oxybis(1-Chloropropane)	ug/Kg	240 U		16 U	18 U	19 U	300 U	400 U	390 U	1310 U		280 U						913
11	103	arine Sedim	SVOA	2,4,5-Trichlorophenol	ug/Kg	140 U		9 U	11 U	11 U	300 U	400 U	390 U	653 U		210 U						2740000
11	103	arine Sedim	SVOA	2,4,6-Trichlorophenol	ug/Kg	150 U		10 U	12 U	12 U	300 U	400 U	390 U	653 U		210 U						5810
11	103	arine Sedim	SVOA	2,4-Dichlorophenol	ug/Kg	140 U		9 U	11 U	11 U	300 U	400 U	390 U	1310 U		210 U						82100
11	103	arine Sedim	SVOA	2,4-Dimethylphenol	ug/Kg	200 U		13 U	15 U	16 U	300 U	400 U	390 U	1310 U		210 U						548000
11	103	arine Sedim	SVOA	2,4-Dinitrophenol	ug/Kg	240 UJ		16 U	18 UJ	19 U	2000 U	800 U	780 U	7840 U		1400 U						54800
11	103	arine Sedim	SVOA	2,4-Dinitrotoluene	ug/Kg	240 U		16 U	18 U	19 U	300 U	400 U	390 U	653 U		210 U						93.9
11	103	arine Sedim	SVOA	2,6-Dinitrotoluene	ug/Kg	210 U		14 U	16 U	17 U	300 U	400 U	390 U	653 U		210 U						93
11	103	arine Sedim	SVOA	2-Chloronaphthalene	ug/Kg	110 U		8 U	9 U	9 U	300 U	400 U	390 U	653 U		210 U						210 U
11	103	arine Sedim	SVOA	2-Chlorophenol	ug/Kg	110 U		8 U	9 U	9 U	300 U	400 U	390 U	1310 U		210 U						137000
11	103	arine Sedim	SVOA	2-Methylnaphthalene	ug/Kg	220 U		15 U	17 U	18 U	300 U	400 U	8 U	915 U	20 U	21 U		15.7 U				1100000
11	103	arine Sedim	SVOA	2-Methylphenol	ug/Kg	220 U		15 U	6 J	18 U	300 U	400 U	390 U	1310 U		210 U		134 U				1370000
11	103	arine Sedim	SVOA	2-Nitroaniline	ug/Kg	200 U		13 U	15 UJ	16 U	2000 U	400 U	390 U	653 U		210 U						1640
11	103	arine Sedim	SVOA	2-Nitrophenol	ug/Kg	140 U		9 U	11 U	11 U	300 U	400 U	390 U	1310 U		210 U						
11	103	arine Sedim	SVOA	3,3-Dichlorobenzidine	ug/Kg	110 U		8 U	9 UJ	9 U	2000 U	800 U	390 U	1310 U		210 U						142
11	103	arine Sedim																				

**Table E-1
Summary of Chemicals Detected in Sediment at Palisades Landfill**

Site	Location Cross Reference	Matrix	Method Class	Analyte	Units	Concentration													Adak Background Concentration	Endpoint Criteria	
						5/1996	8/1996	11/1996	2/1997	5/1997	6/1998	9/1999	11/2000	10/2001	10/2002	10/2003	9/2004	9/2005		Human Health RBSC	Ecological RBSC
11	103	arine Sedim	TIN	Mercury	mg/kg	0.05 U		0.06 UJ	0.04 U	0.05 UJ	0.2 U	0.05 U	0.04 U		0.0249	0.056 U	0.00738 J	0.0031 J ^a	0.14	8.21	
11	103	arine Sedim	TIN	Nickel	mg/kg	3.4 J		4.5 J	9.3	2.5 J	10 U	4.5	3.67	35.7	6.36	15.5	20.4 J		5.01	203	30
11	103	arine Sedim	TIN	Potassium	mg/kg	466 U		498 U	493 U	391 U	470	535	611	408	1070	610					
11	103	arine Sedim	TIN	Selenium	mg/kg	0.16 U		0.16 U	0.08 UJ	0.16 U	1 U	1.3 J	0.72 J	1.2 U	0.454 J	3.03 U	0.5 U	0.595 U		1.4	137
11	103	arine Sedim	TIN	Silver	mg/kg	0.5 U		0.31 U	0.68 U	0.84 U	2 U	0.03 U	0.06 U	0.12 U	1.38	0.349 J	0.5 U	0.595 U		0.59	137
11	103	arine Sedim	TIN	Sodium	mg/kg	2780		4090	2240	2400	2600	2870	930		693	2700			11346.84		
11	103	arine Sedim	TIN	Thallium	mg/kg	0.2 UJ		0.18 UJ	0.11 U	0.2 UJ	1 U	1 J	2.9 U	0.024 U	0.084 J	0.757 U	0.5 U	0.595 U		0.5	2.19
11	103	arine Sedim	TIN	Vanadium	mg/kg	39.2		70.1	58.3	46.2	31	81.1	40.1	63.4	38.6	71			97.04	192	
11	103	arine Sedim	TIN	Zinc	mg/kg	30.2 J		28.6	57	24 J	19	28	307	25.7	583	57.8 J	92.8	49	31.9	8210	410

Notes:

^a - value is from the January 2006 resampling event

Bolded values exceed endpoint criteria.

Blank cells in the concentration columns indicate that a sample was not collected from that location or the sample was not analyzed for that chemical.

Blank cells in the Adak background concentration column or the endpoint criteria column indicate that there is no established background concentration or endpoint criteria for that chemical.

J - estimated value

mg/kg - milligram/kilogram

RBSC - risk-based screening criteria

U - not detected, value shown is the reporting limit

UJ - Estimated reporting limit

ug/kg - microgram/kilogram