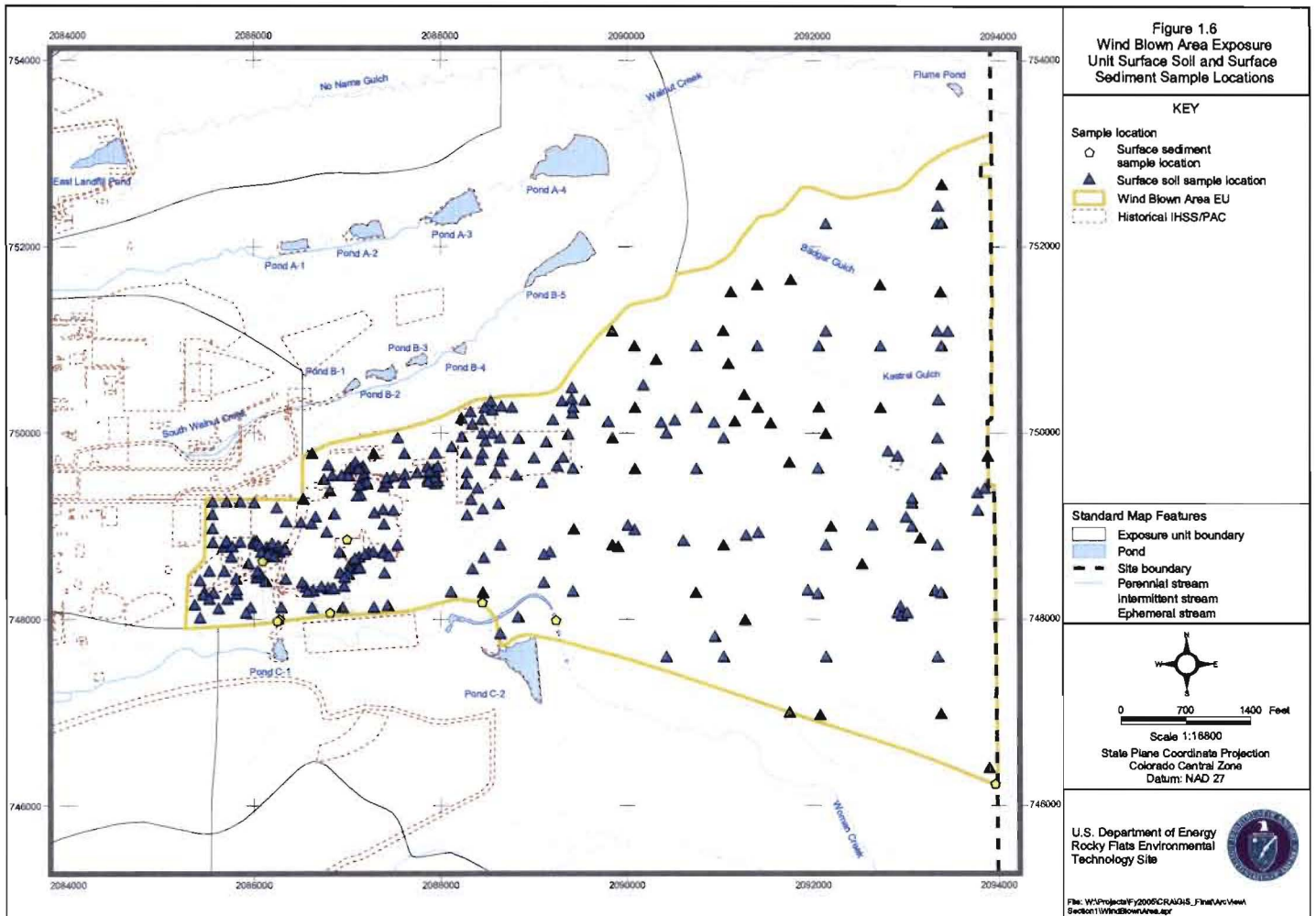


# Windblown Area Exposure Unit

Figure 1.6  
Wind Blown Area Exposure  
Unit Surface Soil and Surface  
Sediment Sample Locations



**Table 1.2  
Number of Samples Collected in Each Medium by Analyte Suite**

<b>Analyte Suite</b>	<b>Surface Soil/Surface Sediment<sup>a</sup></b>	<b>Subsurface Soil/Subsurface Sediment<sup>a</sup></b>	<b>Surface Soil<sup>b</sup></b>	<b>Subsurface Soil<sup>b</sup></b>
Inorganic	160	314	151	313
Organic	107	580	98	579
Radionuclide	347	417	335	414

<sup>a</sup> Used in the HHRA.

<sup>b</sup> Used in the ERA.

Note: The total number of results (samples) in Tables 1.3 through 1.6 may differ from the total number of samples presented in Table 1.2 because not all analyses are necessarily performed for each sample.

**Table 1.3**  
**Summary of Detected Analytes in Surface Soil/Surface Sediment**

Analyte	Range of Reported Detection Limits	Total Number of Results	Detection Frequency (%)	Minimum Reported Non-Detect Concentration <sup>a</sup>	Maximum Reported Non-Detect Concentration <sup>a</sup>	Minimum Detected Concentration	Maximum Detected Concentration	Arithmetic Mean Concentration <sup>b</sup>	Standard Deviation <sup>b</sup>
<b>Inorganics (mg/kg)</b>									
Aluminum	0.24 - 200	160	100			4,570	33,000	14,370	6,852
Ammonia	0.300	9	100			1.09	3.33	2.07	0.845
Antimony <sup>c</sup>	0.27 - 60	138	17.4	0.270	19.3	0.300	0.880	2.72	2.72
Arsenic	0.16 - 10	160	100			1	11	5.20	2.12
Barium	0.039 - 200	160	100			34.9	280	134	47.2
Beryllium	0.031 - 5	160	68.8	0.280	1.30	0.230	1.40	0.684	0.285
Boron	0.35 - 1.2	76	93.4	0.350	2.70	0.670	15	6.82	3.63
Cadmium	0.03 - 5	159	42.8	0.0300	1.30	0.0650	2.60	0.497	0.350
Calcium	1 - 5,000	160	100			1,740	185,000	21,387	38,037
Cesium	86.4 - 1,000	66	19.7	6.80	211	0.680	7.40	34.4	29.8
Chromium	0.053 - 10	160	100			2.20	80.5	16.1	10.2
Cobalt	0.079 - 50	160	100			2.20	21.6	6.61	2.41
Copper	0.045 - 25	159	100			2.20	49.8	14.8	6.09
Iron	0.68 - 100	160	100			3,680	27,000	14,299	5,207
Lead	0.12 - 3	160	100			3	120	33.6	20.2
Lithium	0.17 - 100	140	92.1	2	14.1	4.40	33	12.2	6.20
Magnesium	1.6 - 5,000	160	100			1,100	8,270	3,142	1,297
Manganese	0.033 - 15	160	100			54	1,200	283	144
Mercury	0.0012 - 0.2	141	48.9	0.0120	0.200	0.00560	0.250	0.0456	0.0350
Molybdenum	0.13 - 200	146	29.5	0.130	5.20	0.150	6.10	1.19	1.17
Nickel	0.19 - 40	160	96.9	8.80	9.60	4.40	101	14.6	10.0
Nitrate / Nitrite	0.2 - 1.8	18	88.9	1.60	1.80	0.738	3.83	2.14	0.944
Potassium	36 - 5,000	160	99.4	954	954	690	6,200	3,006	1,264
Selenium	0.24 - 5	158	21.5	0.200	4.50	0.260	0.880	0.415	0.386
Silica	2.7 - 5.3	76	100			175	1,100	596	202
Silicon <sup>c</sup>	0 - 100	46	100			81	2,160	1,076	694
Silver	0.055 - 10	151	23.8	0.0550	5.70	0.0810	42.8	1.27	4.09
Sodium	5.7 - 5,000	160	31.3	46.3	594	46	492	101	71.0
Strontium	0.0061 - 200	146	100			8.90	362	47.3	46.0
Thallium	0.32 - 10	160	20	0.200	2.20	0.210	3.30	0.409	0.404
Tin	0.24 - 200	146	17.8	0.860	52.3	1.30	77.2	8.41	12.4
Titanium	0.077 - 0.2	76	100			33	603	275	129
Uranium	1.4 - 7.2	76	5.26	1.40	7.20	1.90	8	1.89	1.41
Vanadium	0.25 - 50	160	100			12.1	72	32.0	12.0
Zinc	0.2 - 20	160	100			15	216	52.8	23.7
<b>Organics (µg/kg)</b>									
1,1,2,2-Tetrachloroethane <sup>c</sup>	4.86 - 12	21	4.76	0.899	12	1.39	1.39	1.74	1.70
1,2,3-Trichloropropane <sup>c</sup>	4.86 - 5.5	13	7.69	0.965	1.09	1.47	1.47	0.583	0.267
1,2,4-Trimethylbenzene	4.86 - 5.5	13	7.69	0.949	1.07	1.44	1.44	0.574	0.261
2-Butanone	10 - 110	21	4.76	9.29	24	19	19	6.42	3.36
4,4'-DDE	1.7 - 38	49	6.12	9.50	38	4	5.80	9.41	2.20
4,6-Dinitro-2-methylphenol	130 - 3,900	88	1.14	1,600	4,100	390	390	1,002	318
Acenaphthene	33 - 780	94	6.38	340	780	45	240	186	38.5
Acetone <sup>c</sup>	10 - 110	21	9.52	11	130	35	71	13.8	19.1
Aldrin	2.1 - 19	49	2.04	8.10	19	0	0	4.80	1.12
alpha-Chlordane	80 - 190	45	2.22	80	190	0	0	47.4	11.3
Anthracene	25 - 780	94	8.51	340	780	47	330	189	40.1
Aroclor-1248	6.2 - 240	90	1.11	0.759	12	840	840	47.8	93.2
Aroclor-1254	4.4 - 380	90	28.9	340	820	6.80	3,000	116	321
Aroclor-1260	4.9 - 380	90	15.6	340	820	6.20	240	70.8	57.5
Benzene <sup>c</sup>	4.86 - 12	21	4.76	340	820	1.44	1.44	1.70	1.73
Benzo(a)anthracene	26 - 780	94	24.5	340	820	39	830	198	111
Benzo(a)pyrene	43 - 780	94	14.9	340	820	48	750	211	90.4
Benzo(b)fluoranthene	31 - 780	94	14.9	1,600	4,100	40	810	215	95.2
Benzo(g,h,i)perylene	29 - 780	94	8.51	8.10	19	82	240	203	59.5
Benzo(k)fluoranthene	34 - 780	94	10.6	340	820	69	740	216	91.9
Benzoic Acid	300 - 3,900	88	30.7	0.918	12	77	1,100	810	468
beta-BHC	1.8 - 19	49	2.04	340	820	0	0	4.76	1.08
bis(2-ethylhexyl)phthalate	71 - 780	94	14.9	8.10	19	49	1,400	223	153
Chlorobenzene <sup>c</sup>	4.86 - 12	21	4.76	340	820	2.03	2.03	1.78	1.69

**Table 1.3**  
**Summary of Detected Analytes in Surface Soil/Surface Sediment**

Analyte	Range of Reported Detection Limits	Total Number of Results	Detection Frequency (%)	Minimum Reported Non-Detect Concentration <sup>a</sup>	Maximum Reported Non-Detect Concentration <sup>a</sup>	Minimum Detected Concentration	Maximum Detected Concentration	Arithmetic Mean Concentration <sup>b</sup>	Standard Deviation <sup>b</sup>
Chrysene	30 - 780	94	28.7	340	820	39	790	196	109
delta-BHC	0.59 - 19	49	2.04	340	820	0	0	4.76	1.08
Dibenz(a,h)anthracene	26 - 780	94	4.26	340	820	43	92	203	68.2
Dibenzofuran	38 - 780	94	2.13	9.10	47	37	86	205	65.3
Dieldrin	2.9 - 38	49	4.08	8.10	19	4.30	5.80	10.2	3.41
Di-n-butylphthalate	22 - 780	94	6.38	9.50	38	39	1,000	206	106
Di-n-octylphthalate	37 - 780	94	1.06	0.987	12	210	210	207	61.5
Endosulfan I	2 - 19	49	2.04	340	790	0	0	4.76	1.08
Endrin	2 - 38	49	6.12	340	820	4.50	5.10	9.39	2.18
Ethylbenzene <sup>c</sup>	4.86 - 12	21	4.76	85	130	1.29	1.29	1.76	1.68
Fluoranthene	24 - 780	93	44.1	8.10	19	45	1,900	237	240
Fluorene	36 - 780	94	4.26	8.10	38	54	230	205	65.7
gamma-Chlordane	85 - 130	6	16.7	340	820	0	0	45.3	24.2
Heptachlor	2.5 - 19	49	2.04	18	190	0	0	4.76	1.08
Heptachlor epoxide	1.9 - 19	49	2.04	1.04	57	0	0	5.88	3.92
Indeno(1,2,3-cd)pyrene	24 - 780	94	9.57	340	820	72	220	203	67.2
Methoxychlor	0.91 - 190	49	6.12	0.765	820	3	9.40	45.5	14.5
Methylene Chloride	4.86 - 12	21	9.52	34	730	11	14	4.27	6.88
Naphthalene <sup>c</sup>	4.86 - 780	107	0.935	34	260	0.890	0.890	182	89.3
N-Nitroso-di-n-propylamine	24 - 780	94	1.06	34	730	400	400	210	64.8
Phenanthrene	37 - 780	94	35.1	340	820	40	1,600	216	193
Pyrene	41 - 780	94	56.4	340	820	43	1,800	221	239
Tetrachloroethene	4.86 - 12	21	4.76	1.18	12	1.73	1.73	1.84	1.63
Toluene <sup>b</sup>	4.86 - 12	21	4.76	1.22	12	2.26	2.26	1.88	1.62
<b>Radionuclides (pCi/g)<sup>d</sup></b>									
Americium-241	0 - 0.261	290	N/A			0	15.6	1.81	2.42
Cesium-134	0.0271 - 0.2	35	N/A			-0.0101	0.200	0.0363	0.0537
Cesium-137	0.03 - 0.21	37	N/A			0.0500	2.01	0.781	0.565
Gross Alpha	2.2 - 56	49	N/A			-9.70	320	36.0	53.6
Gross Beta	1 - 21	56	N/A			4.95	64	33.2	8.88
Plutonium-238	0.0284 - 0.211	9	N/A			0.102	1.53	0.447	0.454
Plutonium-239/240	0 - 0.288	319	N/A			-0.00292	49	9.19	12.0
Radium-226	0.15 - 0.5	36	N/A			0.590	2.19	1.10	0.281
Radium-228	0.06 - 0.69	17	N/A			0.940	3.50	2.09	0.693
Strontium-89/90	0.04 - 0.99	17	N/A			-0.300	1.46	0.387	0.480
Uranium-233/234	0 - 0.674	204	N/A			0.119	7.96	1.11	0.792
Uranium-235	0 - 0.448	203	N/A			-0.0431	0.680	0.0802	0.0905
Uranium-238	0 - 0.438	204	N/A			0.300	3.78	1.11	0.463

<sup>a</sup> Values in this column are reported results for nondetects (i.e., U-qualified results).

<sup>b</sup> For inorganics and organics, statistics are computed using one-half the reported value for nondetects.

<sup>c</sup> All detections are "J" qualified, signifying that the reported result is below the detection limit, but above the instrument detection limit.

<sup>d</sup> All radionuclide values are considered detects.

N/A = Not applicable.